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Mold and Workpiece Clamping Systems

Bağlama ekipmanlarında kalite üretiyoruz..

"We produce quality in clamping equipment"



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2024 KATALOG CATALOGUE



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ER-EL MAKİNA YEDEK PARÇA İMALATI SAN. VE TİC. LTD ŞTİ. olarak 1989 'dan beri kalıp bağlama ve işleme ekipmanlarında bizi güven ve kalitenin simgesi haline getiren ürünler üretmekteyiz. Geçen yıllar içinde mevcut kapasite ve toplam istihdam alanında sürekli artan bir çizgiyle her geçen gün daha sağlam ve emin adımlarla ilerleyen ER-EL; bugün başta Avrupa ülkeleri olmak üzere 45'i aşkın ülkeye ihracat yapmaktadır.

Her biri ayrı değer ve öneme sahip olan müşterilerimizin ihtiyaç ve taleplerine uygun çözümler sunmak amacıyla faaliyet gösteren ARGE bölümümüz ürün çeşitliliğini arttırmaya yönelik çalışmalarını büyük bir özveriyle sürdürmektedir. Katma değerli, kaliteli ve güvenli ürünler üretmek adına yatırımlarını arttırarak verimli, sürdürülebilir bir yol izleyen firmamız; 2004 yılında ISO 9001:2015 Kalite Yönetim Sistemini kurarak var olan kalitesini belgelendirmiştir. Akabinde ISO14001:2015 Çevre Yönetim Sistemi, ISO 45001:2018 İş Sağlığı ve Güvenliği Yönetim Sistemi ve CE sertifikalarına sahip olarak buna uygun üretim yapmaktadır.

Bugün itibari ile Kalıp & İş parçası Bağlama Ekipmanları, İşleme Sistemlerinde 4500'ü aşan hemen teslim stok ürünü çeşitleriyle konusunda lider ve üretici firma olmanın gururunu yaşamaktayız.

Standart üretimlerimiz dışında proje bazlı fikstür imalatımız da mevcuttur. Başta Savunma & Havacılık Sanayi olmak üzere, Otomotiv, Beyaz Eşya, Ağır Makine ve Silah Sanayi sektörleri gibi Sanayinin güzide firmalarında; iş parçasına özel tasarım yapıp ürettiğimiz mekanik, pnömatik ve hidrolik fikstür ürünleri kullanılmaktadır. Sistem verimini optimize eden ürün grubumuzla; dünyaca kabul görmüş, alanında geçerliliğe sahip standartlarda üretmeye devam etmekteyiz.

Firmamız 2017 yılında taşındığı yeni fabrikasında; üretim tesisi ve yönetim binası alanında dinamik ve uzman kadrosu ile gerek standart, gerek proje bazlı fikstür çözümleri ile müşteri memnuniyeti için üstün performans ile çalışmaktadır.

Uzun yıllardır ülkemizde ve Yurtdışında kalıp bağlama elemanları üreticisi olarak sektöre hizmet veren MİKSAN Hızlı Bağlama Sistemleri firması satın alınarak ER-EL Kalıp Bağlama ve İşleme Sistemleri firmamız bünyesine katılmıştır.
Bir ER-EL markası olan MIKSAN ürünleri; firmamız kalite ve güvencesiyle hizmet vermeye devam edecektir.

Siz değerli müşterilerimize ER-EL'e olan güveninizden dolayı teşekkür eder, aynı istikrar ve güvenle uzun yıllar çalışmayı temenni ederiz.

Saygılarımızla;
ER-EL Yönetimi

OUR ESTEEMED CUSTOMER;

ER-EL MACHINE SPARE PARTS MANUFACTURING INDUSTRY CO.LTD. Since 1989, we have been producing products that make us a symbol of trust and quality in mold clamping and processing equipment. Over the years, ER-EL has progressed more and more confidently with its increasing capacity and total employment. Today, it export to more than 45 countries, mainly European countries.

Our R & D department, which operates to provide solutions that meet the needs and demands of our customers, each of which has a distinct value and importance, continues its efforts to increase the product variety with great devotion. Our company follows an efficient, sustainable way by increasing its investments in order to produce value added, quality and safe products; In 2004, it established ISO 9001:2015 Quality Management System and documented its existing quality. The company has ISO14001:2015 Environmental Management System, ISO 45001:2018 Occupational Health and Safety Management System.

As of today, we are proud to be the leader and manufacturer company in the field of mold & workpiece clamping equipment and processing systems, over 4500 fast immediate delivery stock products.

In addition to our standard production, we also produce project-based special fixture apparatus. Especially in Defense & Aviation Industry, Automotive, White Goods, Heavy Machinery and Weapon Industry sectors such as industry-renowned companies; mechanical, pneumatic and hydraulic fixture products that we design and produce for the workpiece are used. With our product group optimizing system efficiency; we continue to produce world-accepted standards that are valid in the field.

Our company moved to the new factory in 2017; with its dynamic and expert staff in the field of production facility and management building, it works with superior performance for customer satisfaction with both standard and project based fixture solutions.

MIKSAN Fast Coupling Systems company which has been serving to the sector as a manufacturer of mold fasteners in our country and abroad for many years has been purchased as of and ER-EL Mold Clamping and Processing Systems has joined our company. MIKSAN products which are an ER-EL brand; Our company will continue to serve with quality and assurance.

We would like to thank you, our esteemed customers for your trust in ER-EL and hope to work for many years with the same stability and confidence.

Kind regards;
ER-EL Directors

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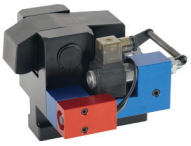

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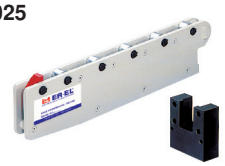

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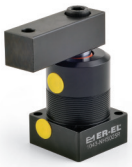

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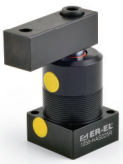

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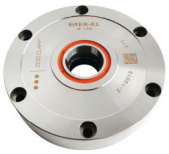

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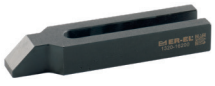

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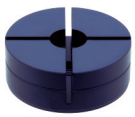

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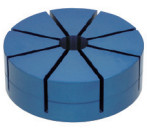

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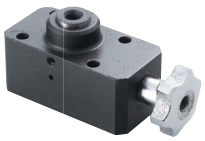

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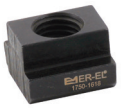

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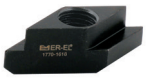

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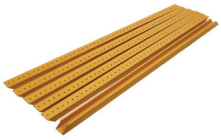

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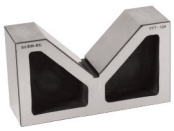

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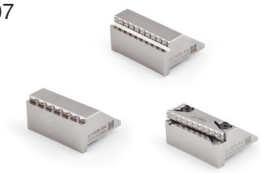

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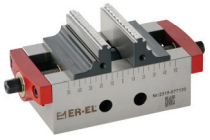

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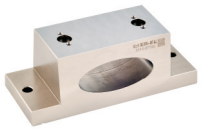

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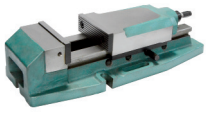

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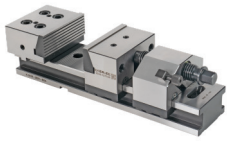

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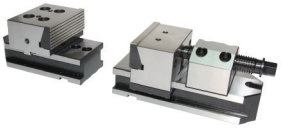

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Nr. 2333
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Nr. 2335
Nr. 2336
Nr. 2340
S. 221



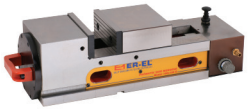
Nr. 2330
S. 222



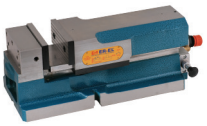
Nr. 2345
S. 223



Nr. 2350
S. 224



Nr. 2370
S. 224



Nr. 2377
S. 225



Nr. 2385
S. 227



Nr. 2390
S. 228



Nr. 2410
S. 229



Nr. 2415
S. 229



Nr. 2420
S. 229



Nr. 2430
S. 231



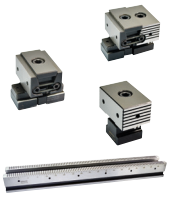
Nr. 2435
S. 232



Nr. 2430
S. 233



Nr. 2430
S. 234



Nr. 2443
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Nr. 2445
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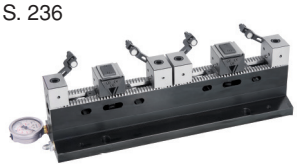

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Nr. 2443
S. 237



Nr. 2443
S. 238



Nr. 2443
S. 238



Nr. 2445
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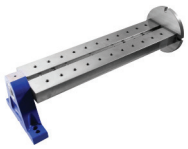
Nr. 2450
S. 242



Nr. 2470
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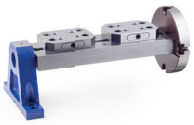
Nr. 2471
S. 243

NEW



Nr. 2472
S. 243

NEW

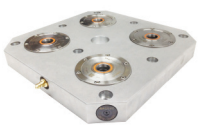


Nr. 2472
S. 244

NEW



Nr. 2475
S. 245



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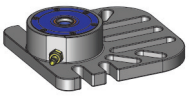

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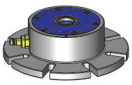
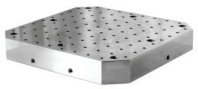


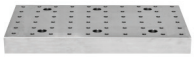
Nr. 2490
S. 250



Nr. 2510
S. 250



Nr. 2530
S. 251



Nr. 2550
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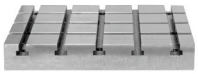

Nr. 2557
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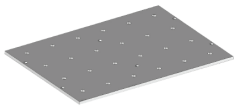
Nr. 2560
S. 253



Nr. 2563
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Nr. 2565
S. 254



Nr. 2567
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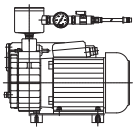

Nr. 2570
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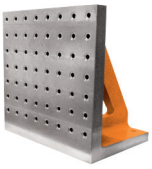

Nr. 2590
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Nr. 2600
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Nr. 2600
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Nr. 2610
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Nr. 2630
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Nr. 2650
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Nr. 2670
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Nr. 2690
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Nr. 2710
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Nr. 2730
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5-EKSEN BLOK BAĞLAMA

5-AXIS CLAMPING BLOCK



Kombinasyon

• Modüler montaj özelliği ve 5 kenar işlem yapabilme kabiliyetiyle CNC Yatay işleme,CNC Dik işleme, CNC 5 eksen T-Kanallı ve Delikli tezgah tablalarında kullanılır.

Combination

• Its modular assembly and 5 edge ability, it can be used on CNC Horizontal, CNC Vertical CNC 5 Axis machines with T-Slots and rasterized plates.

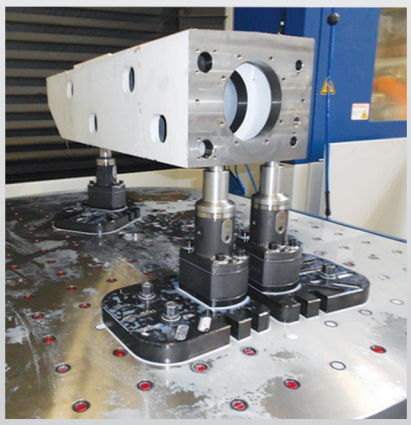
Özellikler

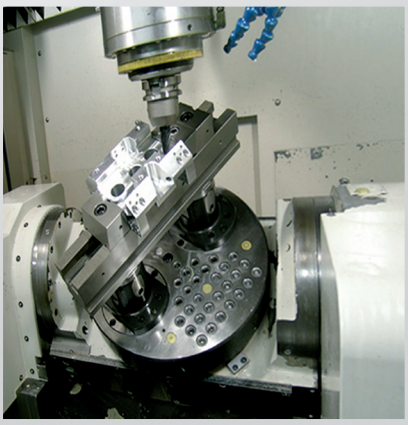
• 5 kenara operasyon kolaylığı
• Yükseltilebilir özellik
• Değişken sabitleme olanakları
• Adetli işlerde tekrarlanabilir hassasiyet
• Yüksek sıkma kuvveti

Features

• Ease at 5 axis operations
• Height adjusting feature
• Variable fixing possibility
• Repeating precision at mass production
• High clamping force



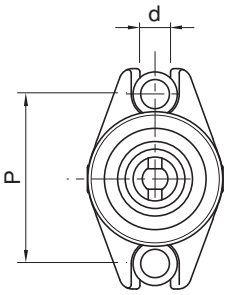


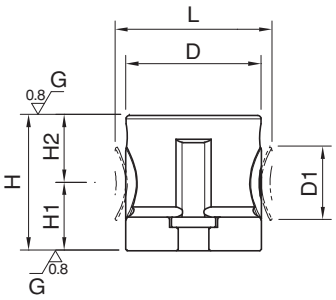


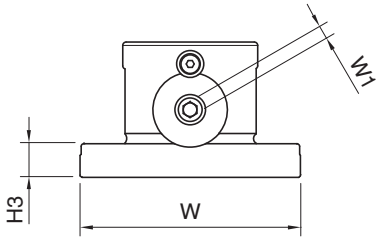
Referans Nr.	D	H (±0.01)	D1	L	H1	H2	W	H3	d	P	W1	Sıkma Kuvveti Calmping Force Kgf	İzin Verilen Tork Allowable Screw Torque (N-m)	(g)
0950-06025	30	25	15	34.5	12.5	12.5	54	7	6.6	42	3	500	4	100
0950-08040	40	40	22	46	20	20	65	10	9	50	4	800	8	300
0950-12063	60	63	32	69	33	30	95	15	13	75	6	1500	22	1400
0950-16080	80	80	44	91	40	40	130	20	17	130	8	2500	50	3300

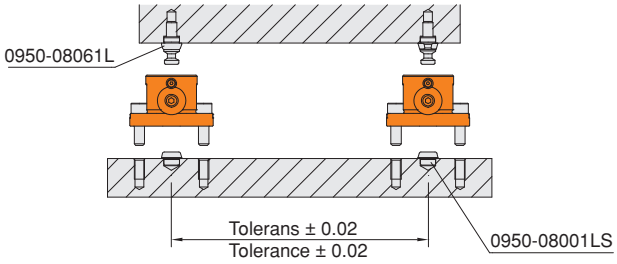


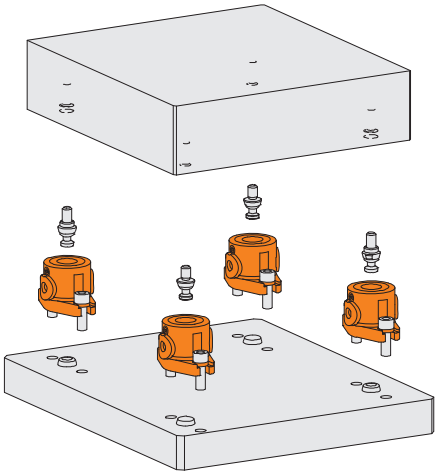
Ürün Nr. 0950 5-Eksen Blok Bağlama **Product Nr. 0950 5-Axis Clamping Block**



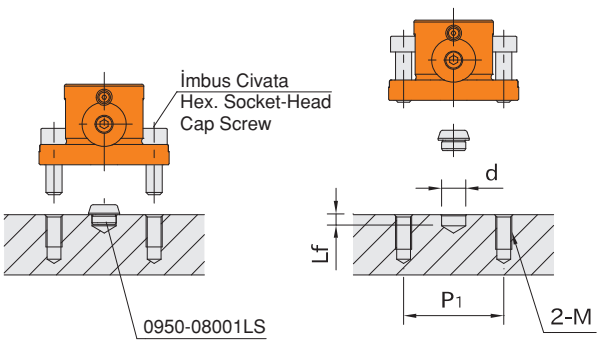








Uygulama Örneği / Application Example

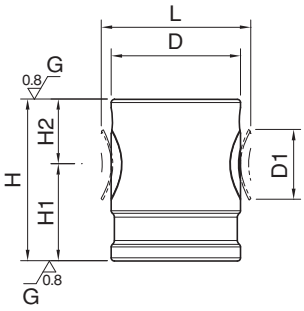


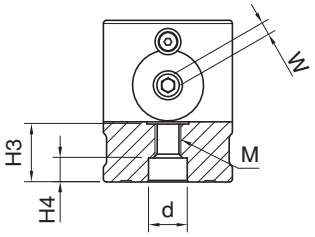
Referans Nr.	d (H7)	Lf	M	P1
0950-06025	8	5.5	M6	42
0950-08040	12	5.5	M8	50
0950-12063	18	6.5	M12	75
0950-16080	22	8	M16	100

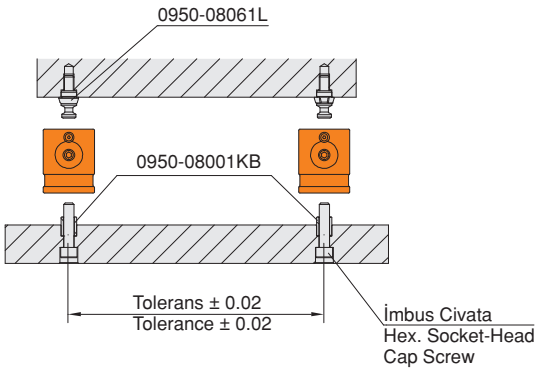
Referans Nr.	D	H (±0.01)	D1	L	H1	H2	H3	d (H7)	H4	M	W	Sıkma Kuvveti Calmping Force Kgf	İzin Verilen Tork Allowable Screw Torque (N-m)	(g)
0950-06032	30	32	15	34.5	19.5	12.5	11.5	8	5	M6	3	500	4	200
0950-08050	40	50	22	46	30	20	18	12	7.5	M8	4	800	8	500
0950-12080	60	80	32	69	50	30	25	18	10.5	M12	6	1500	22	1600
0950-16100	80	100	44	91	60	40	31	22	12.5	M16	8	2500	50	3800

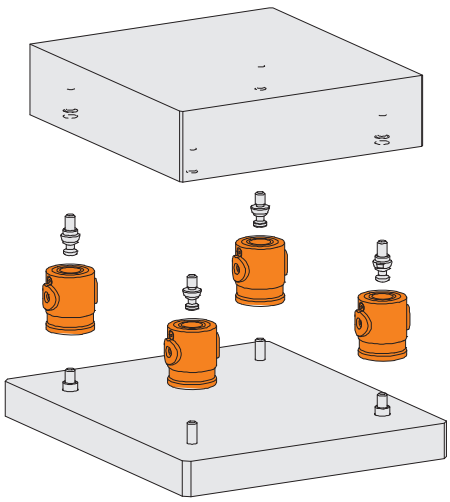


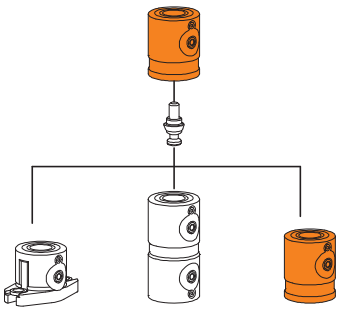
Ürün Nr. 0950 5-Eksen Blok Bağlama Yükseltme **Product Nr. 0950 5-Axis Clamping Block Extension**



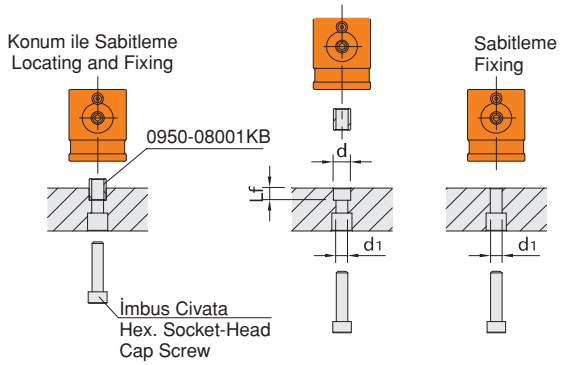








Uygulama Örneği / Application Example

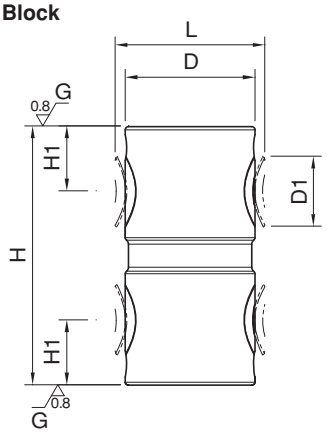


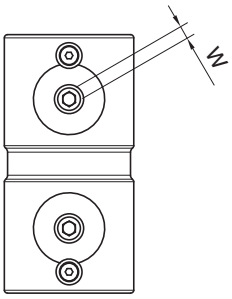
Referans Nr.	d (H7)	Lf	d1 (+0.2) 0
0950-06032	8	6.5	6
0950-08050	12	8.5	8
0950-12080	18	12.5	12
0950-16100	22	16.5	16

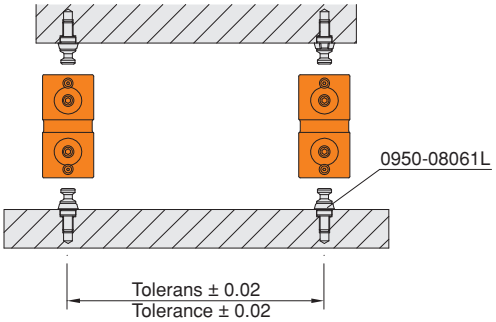
Referans Nr.	D	H (±0.01)	D1	L	H1	W	Sıkma Kuvveti Calmping Force Kgf	İzin Verilen Tork Allowable Screw Torque (N-m)	(g)
0950-06050	30	50	15	34.5	12.5	3	500	4	200
0950-08080	40	80	22	46	20	4	800	8	700
0950-12125	60	125	32	69	30	6	1500	22	2600
0950-16160	80	160	44	91	40	8	2500	50	5800

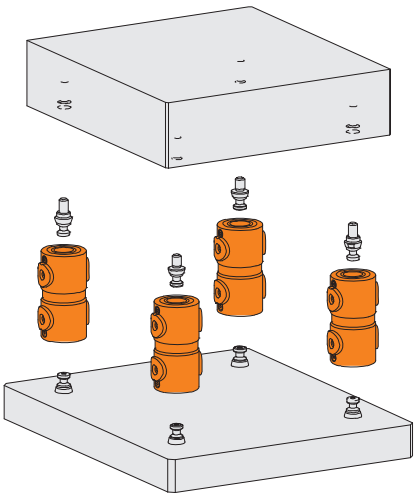


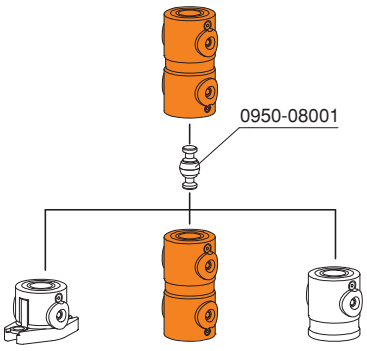
Ürün Nr. 0950 5-Eksen Blok Bağlama
Product Nr. 0950 5-Axis Clamping Block



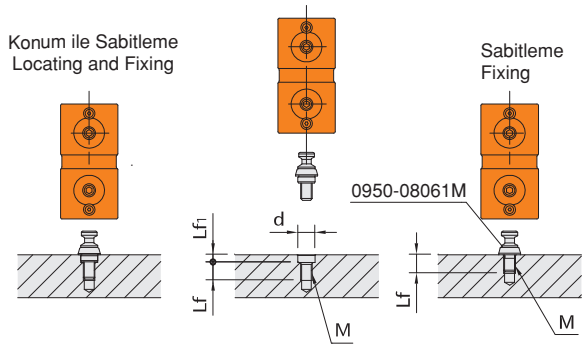








Uygulama Örneği / Application Example

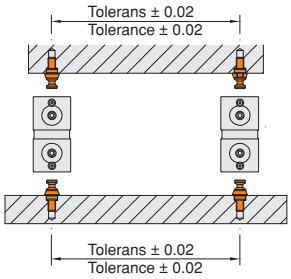


Referans Nr.	d (H7)	Lf	Lf1	M
0950-06050	8	9	5.5	M6
0950-08080	12	13	5.5	M8
0950-12125	18	19	6.5	M12
0950-16160	22	23	8	M16

5-Eksen Blok Bağlama Çektirme Civatası

5-Axis Clamping Block Puller Bolt

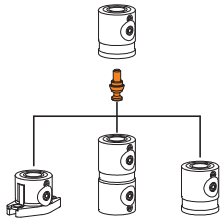
Referans Nr.	M	D1 (g6)	L2	L1	D	L	D2	D3	W	(g)
0950-06001L	M6	8	5	13	11.5	10	8	4.8	2.5	6
0950-08061L	M6	10	5	17	15.5	16.5	11	6.5	3	17
0950-08001L	M8	12	5	17	15.5	16.5	11	6.5	3	20
0950-12081L	M8	12	5	17	24.5	25	16	9.5	5	52
0950-12001L	M12	18	6	24	24.5	25	16	9.5	5	70
0950-16121L	M12	18	6	24	31.5	33	21	13	6	125
0950-16001L	M16	22	7.5	30	31.5	33	21	13	6	150

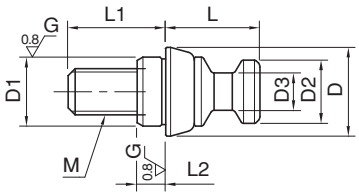




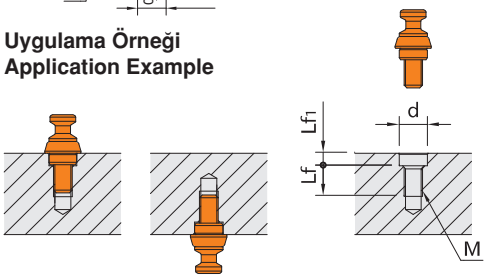
Ürün Nr. 0950 5-Eksen Blok Bağlama Çektirme Civatası
• Tolerans ±0.02

Product Nr. 0950 5-Axis Clamping Block Puller Bolt
• Tolerance ± 0.02

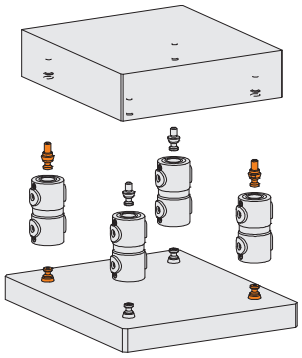




Uygulama Örneği
Application Example



Referans Nr.	d (H7)	Lf	Lf1	M
0950-06001L	8	9	5.5	M6
0950-08061L	10	13	5.5	M6
0950-08001L	12	13	5.5	M8
0950-12081L	12	13	5.5	M8
0950-12001L	18	19	6.5	M12
0950-16121L	18	23	6.5	M12
0950-16001L	22	23	8	M16

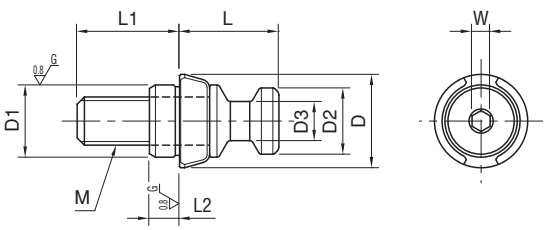


5-Eksen Blok Bağlama Çektirme Civatası

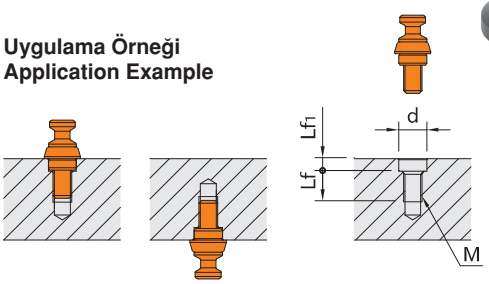
5-Axis Clamping Block Puller Bolt

Referans Nr.	M	D1 (g6)	L2	L1	D	L	D2	D3	W	(g)
0950-08061D	M6	10	5	17	15.5	16.5	11	6.5	3	17
0950-08001D	M8	12	5	17	15.5	16.5	11	6.5	3	20
0950-12081D	M8	12	5	17	24.5	25	16	9.5	5	51
0950-12001D	M12	18	6	24	24.5	25	16	9.5	5	70
0950-16121D	M12	18	6	24	31.5	33	21	13	6	123
0950-16001D	M16	22	7.5	30	31.5	33	21	13	6	150





Uygulama Örneği
Application Example



Referans Nr.	d (H7)	Lf	Lf1	M
0950-08061D	10	13	5.5	M6
0950-08001D	12	13	5.5	M8
0950-12081D	12	13	5.5	M8
0950-12001D	18	19	6.5	M12
0950-16121D	18	23	6.5	M12
0950-16001D	22	23	8	M16

5-Eksen Blok Bağlama Çektirme Civatası

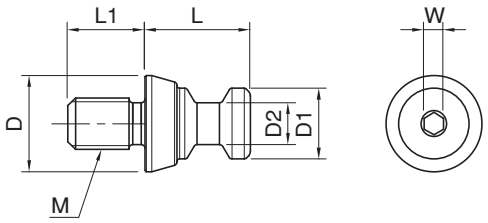
5-Axis Clamping Block Puller Bolt

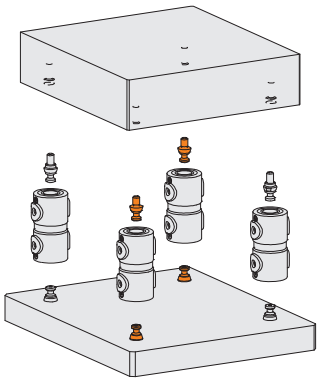
Referans Nr.	M	L1	D	L	D1	D2	W	(g)
0950-06001M	M6	8	11	10	8	4.8	2.5	5
0950-08061M	M6	9	15	16.5	11	6.5	3	13
0950-08001M	M8	12	15	16.5	11	6.5	3	16
0950-12081M	M8	12	24	25	16	9.5	5	46
0950-12001M	M12	18	24	25	16	9.5	5	57
0950-16121M	M12	18	31	33	21	13	6	108
0950-16001M	M16	22	31	33	21	13	6	125



Ürün Nr. 0950 5-Eksen Blok Bağlama Çektirme Civatası
• Tolerans ±0.2

Product Nr. 0950 5-Axis Clamping Block Puller Bolt
• Tolerance ±0.2





5-Eksen Blok Bağlama Çektirme Civatası

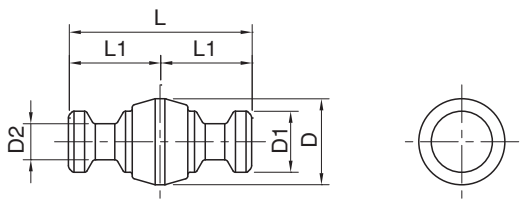
5-Axis Clamping Block Puller Bolt

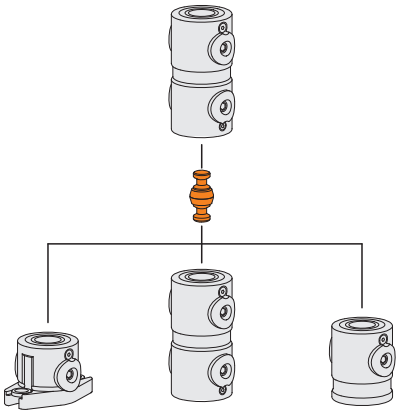
Referans Nr.	D	L	D1	D2	L1	(g)
0950-08001	15.5	33	11	6.5	16.5	24
0950-12001	24.5	50	16	9.5	25	85
0950-16001	31.5	66	21	13	33	190



Ürün Nr. 0950 5-Eksen Blok Bağlama Çektirme Civatası
• Tekrarlama Konumlaması 0.2

Product Nr. 0950 5-Axis Clamping Block Puller Bolt
• Locating Repeatability is 0.2

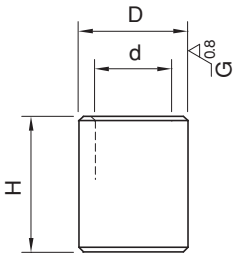




5-Eksen Blok Bağlama Konumlama Burcu

5-Axis Clamping Block Locating Bushings

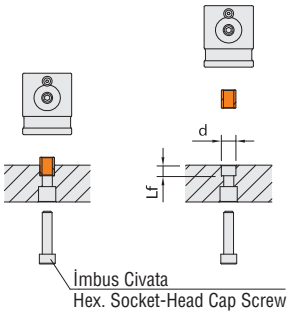
Referans Nr.	d	D (h6)	H	(g)
0950-06001KB	6	8	11	2
0950-08001KB	8.5	12	15	7
0950-12001KB	12.5	18	22	22
0950-16001KB	16.5	22	28	35



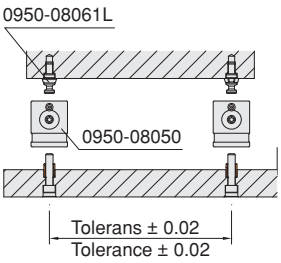


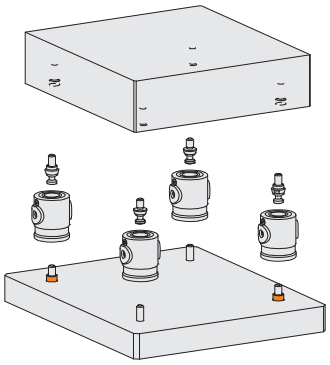
Ürün Nr. 0950 5-Eksen Blok Bağlama Konumlama Burcu
• Tolerans ±0.02

Product Nr. 0950 5-Axis Clamping Block Locating Bushings
• Tolerance ± 0.02



Referans Nr.	d (H7)	Lf
0950-06001KB	8	6.5
0950-08001KB	12	8.5
0950-12001KB	18	12.5
0950-16001KB	22	16.5





5-Eksen Blok Bağlama Konumlama Burcu

5-Axis Clamping Block Locating Bushings

Referans Nr.	D1 -0.02 -0.05	D	H	H1	M	(g)
0950-06001LS	8	11.5	4	5	M6	4
0950-08001LS	12	15.5	5	5	M8	8
0950-12001LS	18	24.5	8	6	M12	27
0950-16001LS	22	31.5	10	7.5	M16	51
0950-06001SM	8	11.5	4	5	M6	4
0950-08001SM	12	15.5	5	5	M8	8
0950-12001SM	18	24.5	8	6	M12	27
0950-16001SM	22	31.5	10	7.5	M16	51



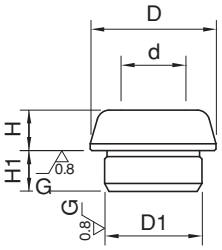
LS
Taşlanmış
Stoning



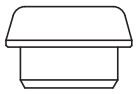
SM
Standart
Standard

Ürün Nr. 0950 5-Eksen Blok Bağlama Konumlama Burcu
• Taşlanmış Tolerans ±0.02
• Standart Tolerans $^{+0.1}_{0}$

Product Nr. 0950 5-Axis Clamping Block Locating Bushings
• Stoning Tolerans ±0.02
• Standerd Tolerance $^{+0.1}_{0}$

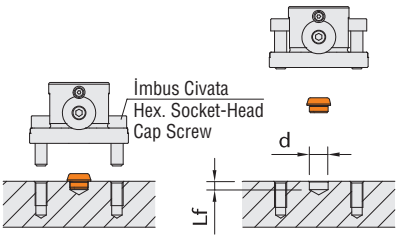


L
Taşlanmış
Stoning

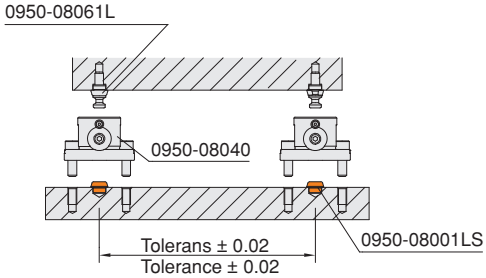


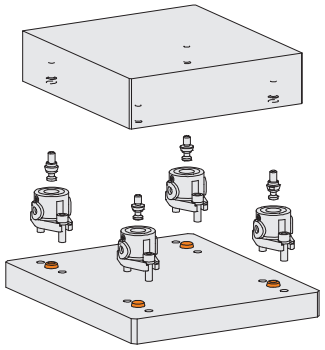
S
Standart
Standard

Uygulama Örneği / Application Example



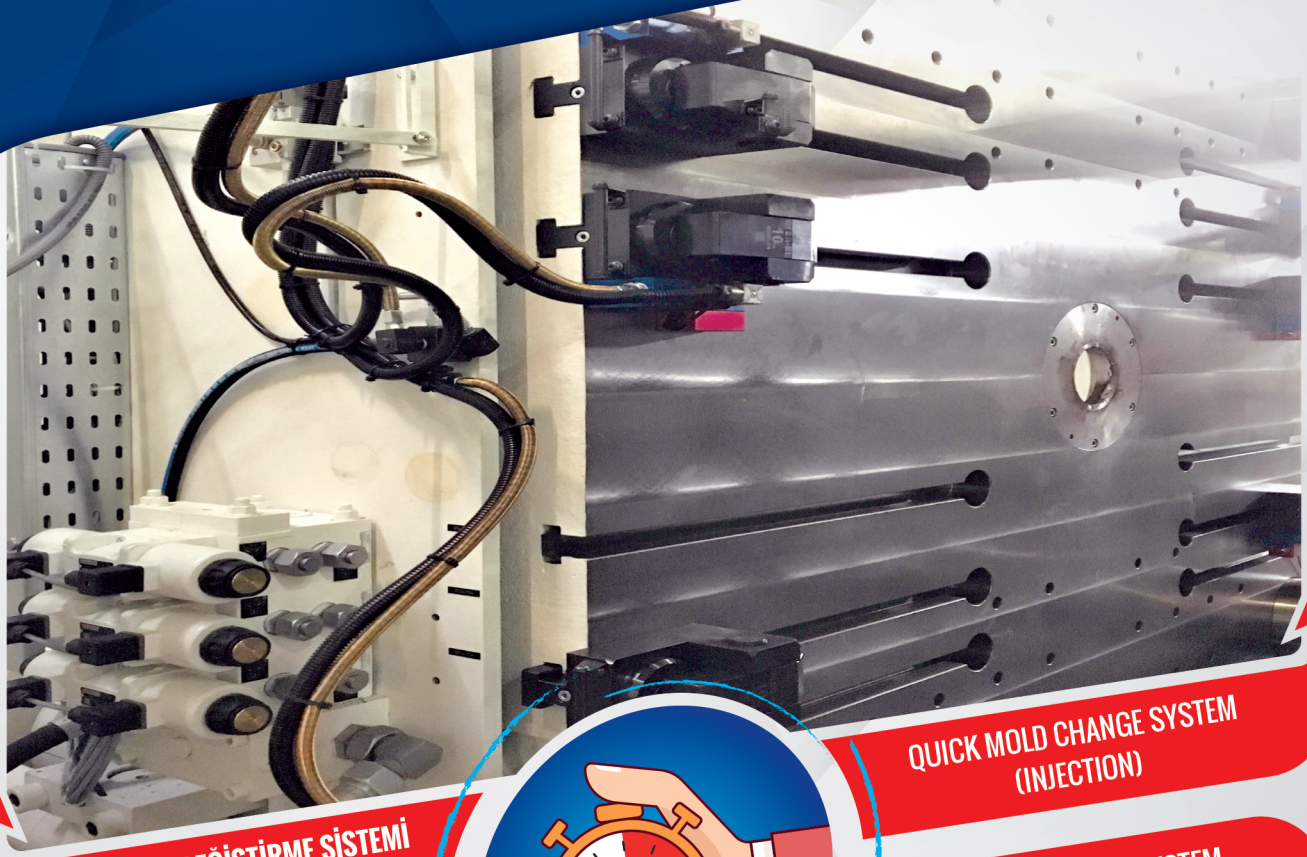
Referans Nr.	d (H7)	Lf
0950-06001LS	8	5.5
0950-08001LS	12	5.5
0950-12001LS	18	6.5
0950-16001LS	22	8





HIZLI KALIP DEĞİŞTİRME SİSTEMİ

QUICK MOLD CHANGE SYSTEM



HIZLI KALIP DEĞİŞTİRME SİSTEMİ (ENJEKSİYON)

QUICK MOLD CHANGE SYSTEM (INJECTION)



HIZLI KALIP DEĞİŞTİRME SİSTEMİ (PRES)

QUICK DIE CHANGE SYSTEM (PRESS)



Hızlı Kalıp Değiştirme Sistemi

Kalıpların hızlı değiştiği, modellerin çeşitli ve üretim adetlerinin (talep miktarlarının) az olduğu zamanlarda kalıp değiştirme süresini azaltıp iş güvenliğini sağlamaktır. Bu durumda **hızlı kalıp değiştirme sistemine geçmenin tam vaktidir.**

Quick Die Change System

It's an era for making high frequence of die changing with multiple patterns and small quantity. In order to save die changing time and ensure operational safety, it is just in time to apply Quick Die Change System.

Uygulama

- Pres - hidrolik pres - enjeksiyon
- Değişik otomatik makina bağlama sistemi

Application

- Press - hydraulic press - injection
- Different automatic machine clamp system

Elektronik Operasyon Kontrol Paneli
Electronic Control Operation Panel

- Makineye bağlanmak için interlock control switch donanımlıdır.
- It is equipped with interlock control switch for connecting to the machine.
- Oluşabilecek herhangi bir operasyon hatasını engelemek için güvenlik kontrol aygıtı ile birlikte tasarlanmıştır.
- It is designed with safety control device which prevents any operation error.
- PLC Uygulama mevcuttur.
- PLC Application available.

Kalıp Kaldırma / Die Lifter

Model: DL - DB - DLS - DBS - DLP - DBP

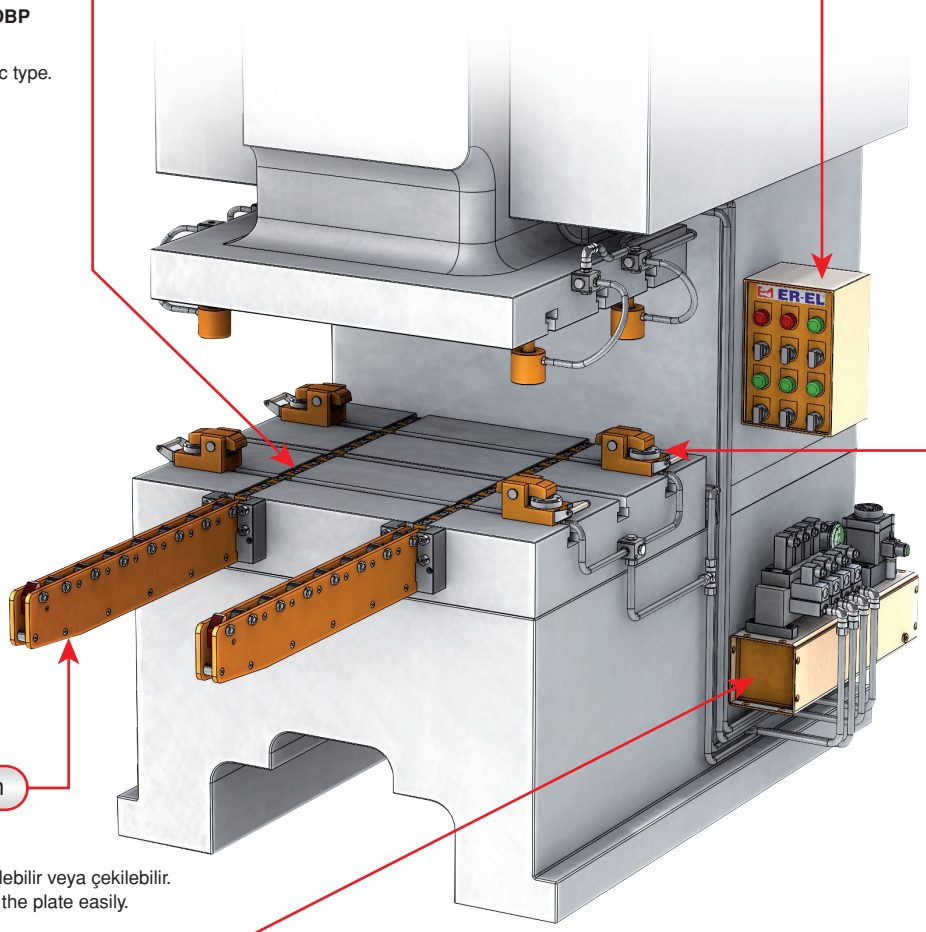
- Hidrolik tipi, yaylı tipi, pnömatik tipi.
- Hydraulic type, spring type, pneumatic type.

- T veya U kanala kurulur.
- Install in the T-slot or U-slot.









Kalıp Kaydırma Kolu / Die Arm

Model: RC - RD - RE/RF - RS - RSM

- Tezgah pleyti üzerine kalıp kolayca itilebilir veya çekilebilir.
- Can pull out and push in the die from the plate easily.

- Kaydırma kolunun 4 ayrı modeli vardır.
- There are 4 different models of die arm.

Kalıp Pabucu / Die Clamp

Model : CA - CAS - CV - CC - CB - CBS - CD

- Kalıbı bağlamak için civata kullanılan geleneksel metodların yerini alır.
- Replacing the traditional method which uses screws to fix dies.

- Ürün T-Kanal pleytli tezgahlarda kullanılır.
- Using T-Slots to lock or fix directly on the plate.



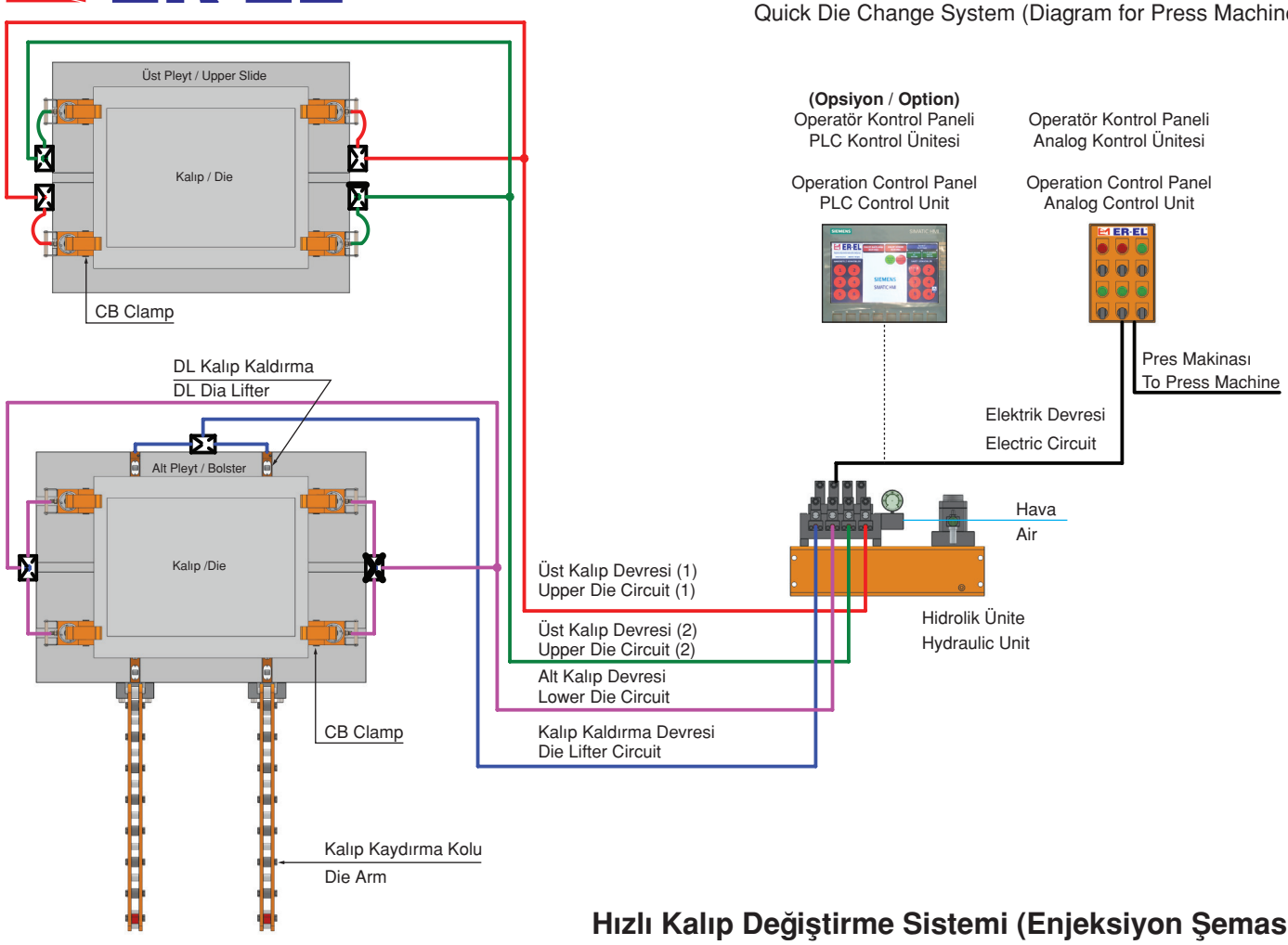
Hava Tahrikli Hidrolik Pompa Ünitesi
Air Driven Hydraulic Pump Unit

- Makinelerde basınç denetleme ve interlock özelliği.
- Capable of pressure inspection and interlocking with machines.

- Aygıtlar arası eşit seviyede hareket operasyon güvenliğini sağlar.
- The movements between each devices will be pined down mutually in order to ensure operational safety.

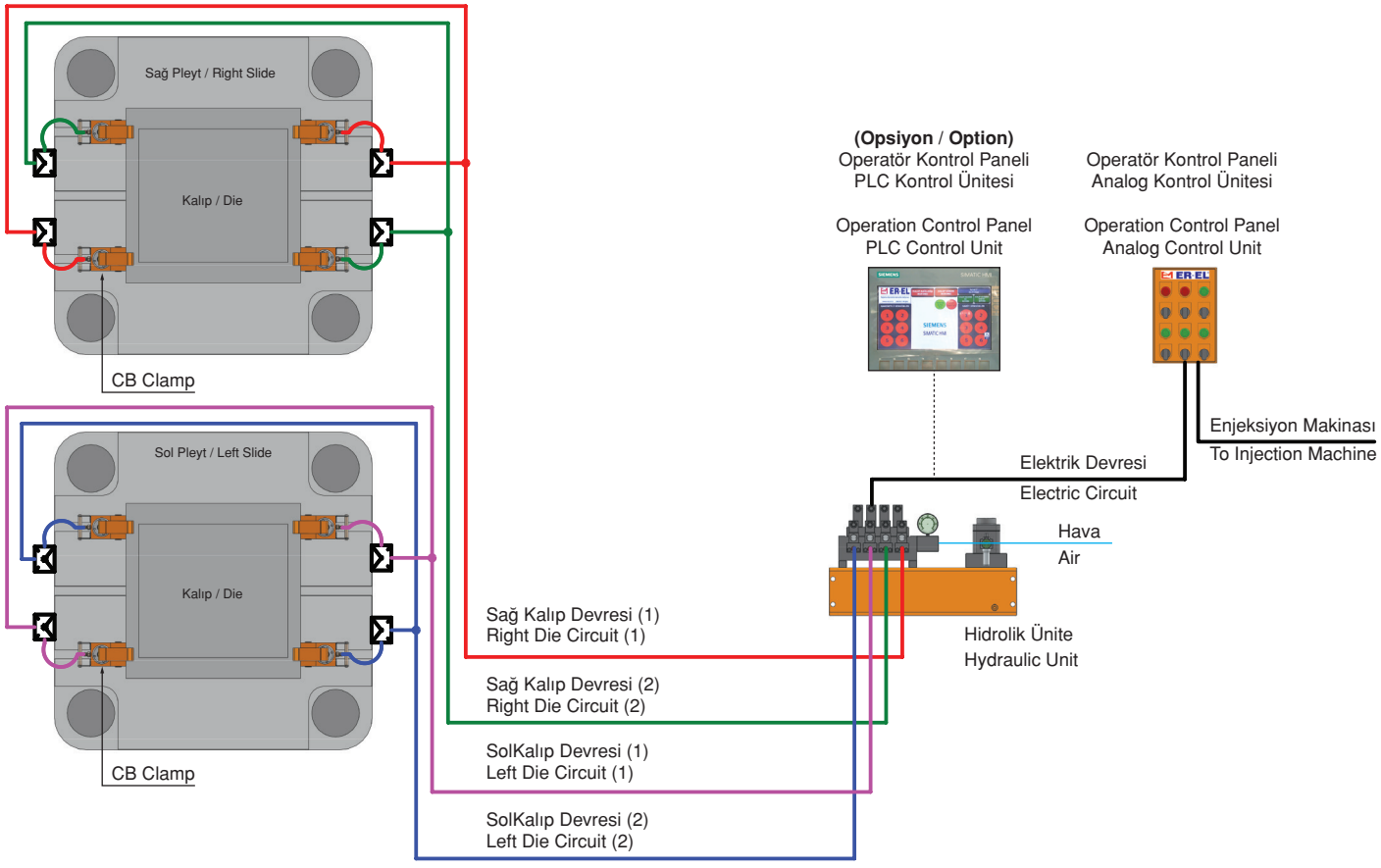
Hızlı Kalıp Değiştirme Sistemi (Pres Şeması)

Quick Die Change System (Diagram for Press Machine)



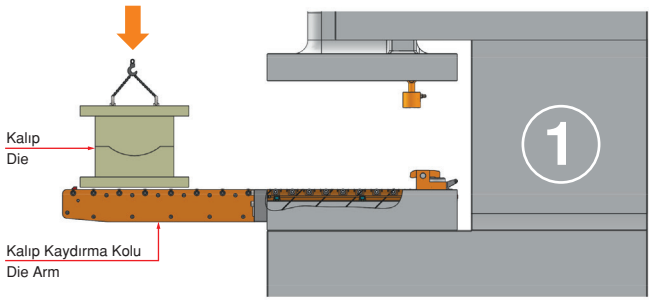
Hızlı Kalıp Değiştirme Sistemi (Enjeksiyon Şeması)

Quick Mold Change System (Diagram for Injection Machine)



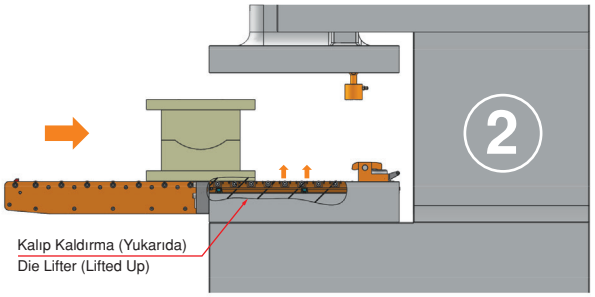
Kalıbı yükleyin.
Bir vinç veya forklift kullanarak kalıbı yükleyin.
Kalıp kaydırma kolu ile kolay yükleme imkanı sağlar.

Load the die
Load the die using a crane or forklift.
The pre-rollers enable easy loading.



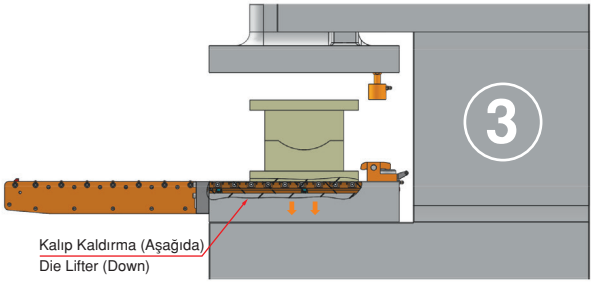
Kalıbı pleyte aktarın.
Kalıp kaydırma kolu kalıp kaldırıcılarla kalıbı hareket ettirmek için çok az kuvvet gerekir. Kalıp kaldırıcıları T - / U - kanallarına yerleştirilmiştir.
Kalıp kaldırma: Hidrolik basınç ON

Transfer the die to the bolster.
With the pre-rollers and die lifters,minimal force is required to move the die.
Die lifters are set in the T - / U- slots.
Die Lifter：Hydraulic pressure ON



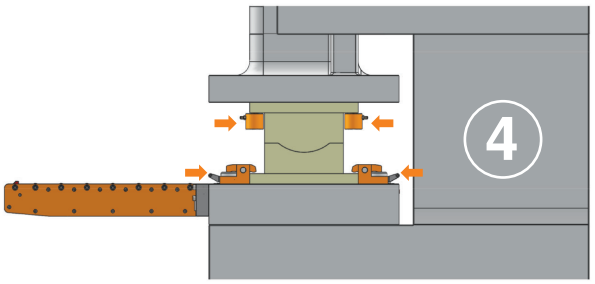
Pleytin üzerinde kalıbı ayarlayın.
Kontrol panelinden butona basarak kalıp kaldırıcı indirilir ve kalıp pleyte temas eder.
Kalıp Kaldırma : Hidrolik Basınç OFF

Set the die on the bolster.
With push-button operation, the die lifter releases and the die makes contact with the bolster.
Die Lifter：Hydraulic Pressure OFF



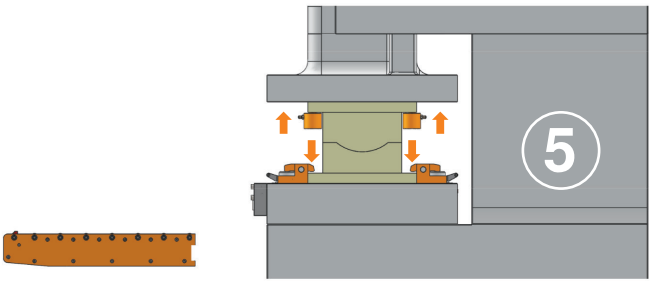
Hidrolik pabucları ayarlayın.
Hidrolik pabuçları kalıba göre ayarlayın.
Hidrolik pabuçları T kanalları üzerine kaydırarak kalıba yaklaştırın.
Hidrolik Pabuç : Hidrolik Basınç OFF

Set the automatic clamps.
Set the slide to the bottom dead center .
Slide automatic clamps on the T -slot and bring them near the die.
Hydraulic Clamp：Hydraulic Pressure OFF



Kalıbı kilitle.
Kontrol panelinden butona basarak hidrolik pabuçlarla kalıbı kilitleyin.
Güvenlik onayından sonra kalıp kaydırma kolu çıkarılabilir.
Hidrolik Pabuç: Hidrolik Basıncı ON

Lock the die.
With push-button operation, automatic clamps lock the die.
After safety confirmation, the pre-roller can be removed.
Hydraulic Clamp：Hydraulic Pressure ON



Hidrolik Pabuç Model CA

Hydraulic Clamp Model CA

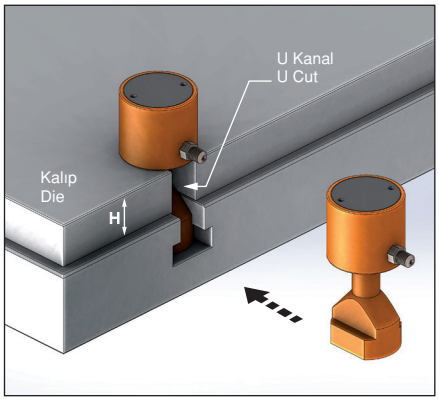
Model		CA-1	CA-2	CA-4	CA-6	CA-10	CA-16	CA-25
Bağlama kapasitesi Capacity of clamp	Ton	1	2	4	6	10	16	25
Toplam strok (X) Total stroke (X)	mm	6	8	8	8	8	8	8
Pabuç strok (Y) Stroke of clamp (Y)	mm	3	4	4	4	4	4	4
Muhafaza edilen strok (Z) Preserved stroke (Z)	mm	3	4	4	4	4	4	4
Silindirin toplam hacmi Total volumn of cylinder	cc	3	7	13	21	32	54	76
Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H)	mm	±1.5	±2	±2	±2	±2	±2	±2

Hidrolik basınç / Hydraulic pressure : 250kgf/cm2



- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.

Referans Nr.	ØF	E	ØG	ØJ	H+d max.	L max.	a min.	K	P
1010-CA01	44	48	12	30	60	12	8	9.5	PT1/8
1010-CA02	53	52	16	48	80	17	12	12	PT1/8
1010-CA04	65	58	23	58	90	20	16	15	PT1/4
1010-CA06	82	65	30	64	100	25	18	15	PT1/4
1010-CA10	99	71	38	78	110	30	22	15	PT1/4
1010-CA16	126	82	45	88	120	38	28	17	PT1/4
1010-CA25	150	100	55	98	140	45	36	23	PT1/4

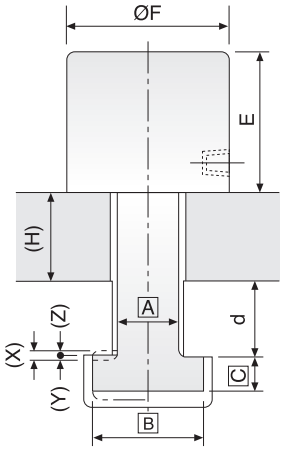


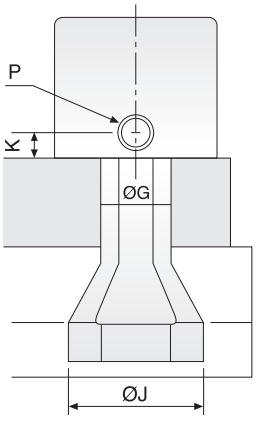
Ürün Nr. 1010 Hidrolik Pabuç Model CA

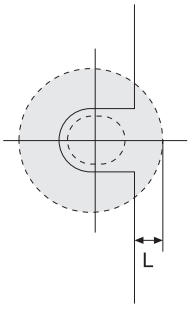
- Pabuç ölçüleri (A), (B) ve (C) T-Kanala bağlı olarak belirlenir.
- Eğer pabuç ölçüsü (H+d) yukarıdaki maksimum değerlerden fazla ise, özel tasarım olarak kabul edilir.
- Standart Sıcaklık : 60°

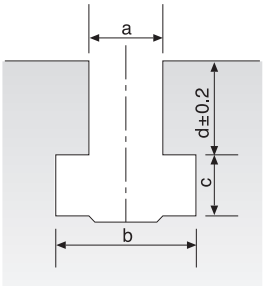
Product Nr. 1010 Hydraulic Clamp Model CA

- The sizes of clamps (A),(B) and (C) are made based on the size of T slot.
- If the thickness of clamp (H+d) is more than the max. value listed on the left, it will be regarded as special pattern.
- Standard Temperature : 60°









L: Pabuç için şablonun uzunluğu

L: Template's length for clamp

Pnömatik Slayt Konsol Model CAS

Pneumatic Slide Console Model CAS

Referans Nr.	a min - max	Bağlanma Kapasitesi Capacity of Clamp	Strok Mesafesi Traveling Stroke (S)	Sürme Hızı Traveling Speed m/sec.	X	Z	ØF	E
1010-CAS04	28 - 32	27	-	1	8	4	65	62
1010-CAS06	28 - 32	36	-	1	8	4	82	69
1010-CAS10	28 - 32	42	-	1	8	4	99	75
1010-CAS16	28 - 32	51	-	1	8	4	126	86

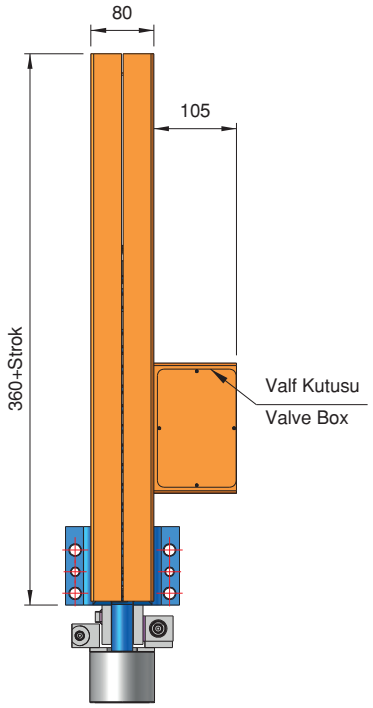


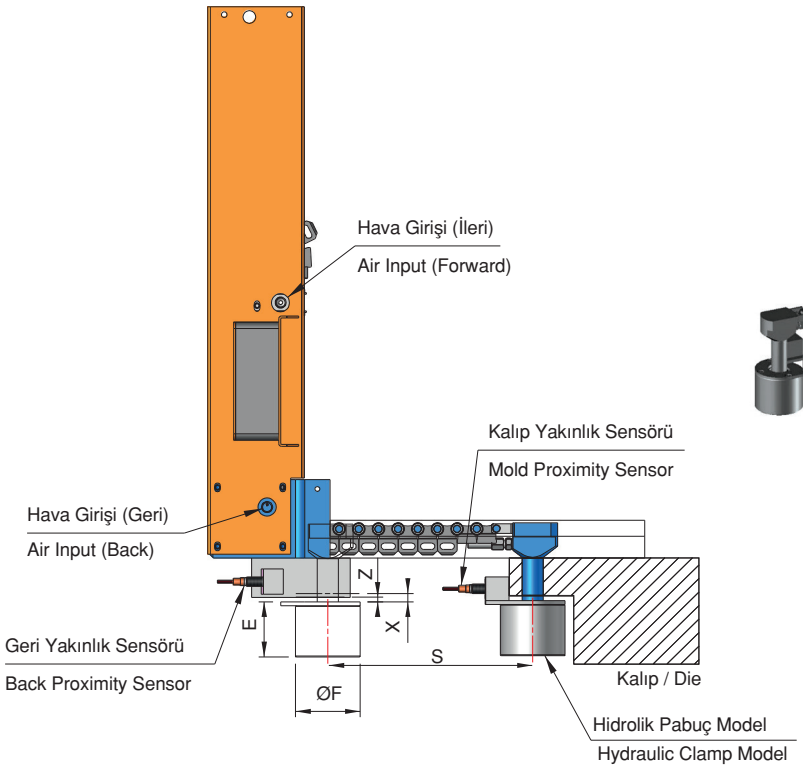
Ürün Nr. 1010 Pnömatik Slayt Konsol Model CAS

- Satın almadan önce strok mesafesini bildiriniz.
- Hidrolik Pabuç Basınç 250kgf/cm²
- Pnömatik Slayt Konsol Hava Barı Max. 10 bar

Product Nr. 1010 Pneumatic Slide Console Model CAS

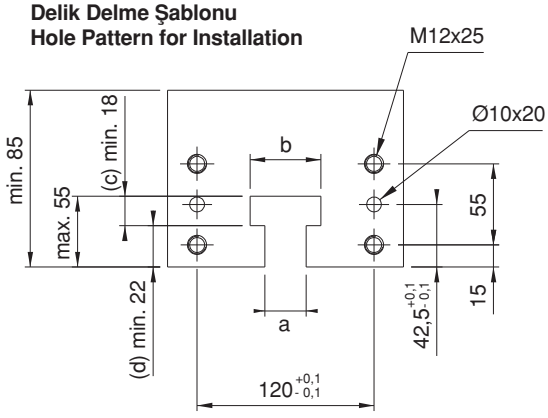
- Please inform the stroke distance before purchase
- Hydraulic clamp pressure 250kgf/cm
- Pneumatic Slide Console Air Bar Max.

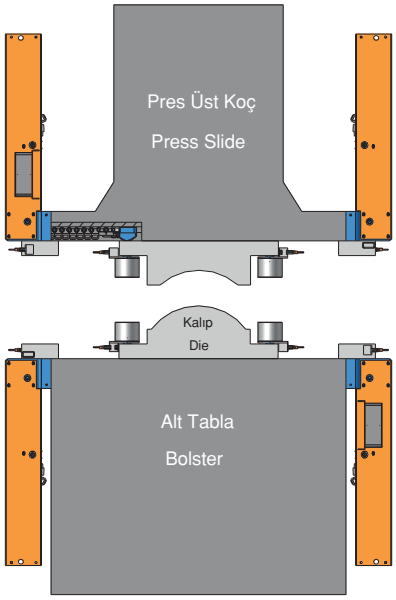




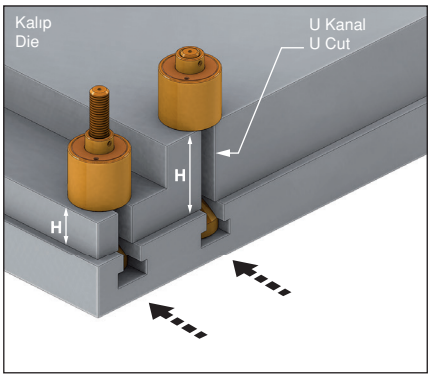


Delik Delme Şablonu
Hole Pattern for Installation





Model		CV-4	CV-6	CV-10
Bağlama kapasitesi Capacity of clamp	Ton	4	6	10
Toplam strok (X) Total stroke (X)	mm	8	8	8
Pabuç strok (Y) Stroke of clamp (Y)	mm	4	4	4
Muhafaza edilen strok (Z) Preserved stroke (Z)	mm	4	4	4
Silindirin toplam hacmi Total volumn of cylinder	cc	13	21	32
Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H)	mm	±2	±2	±2





Hidrolik basınç / Hydraulic pressure : 250kgf/cm^2

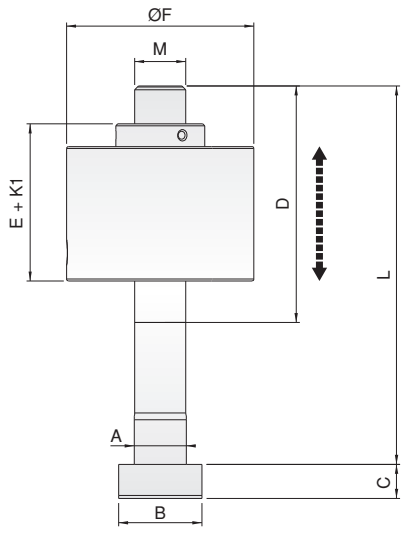
Referans Nr.	a	A	B	C	D	E + K1	Ayar Mesafesi	F	Max. L	M	Max. L1	ØG	ØJ	K	P
1010-CV042020125	20	19.6	32	12	85	70	15	65	20	M20	125	20	58	15	PT 1/4
1010-CV042020160	20	19.6	32	12	110	70	40	65	20	M20	160	20	58	15	PT 1/4
1010-CV042022125	22	21.6	35	14	85	70	15	65	20	M20	125	20	58	15	PT 1/4
1010-CV042022160	22	21.6	35	14	110	70	40	65	20	M20	160	20	58	15	PT 1/4
1010-CV062424125	24	23.6	40	16	85	77	8	82	25	M24	125	24	64	15	PT 1/4
1010-CV062424160	24	23.6	40	16	110	77	33	82	25	M24	160	24	64	15	PT 1/4
1010-CV062428125	28	27.6	44	18	85	77	8	82	25	M24	125	24	64	15	PT 1/4
1010-CV062428160	28	27.6	44	18	110	77	33	82	25	M24	160	24	64	15	PT 1/4
1010-CV102727160	27	26.6	46	18	110	83	27	99	30	M27	160	27	78	15	PT 1/4
1010-CV102727200	27	26.6	46	18	125	83	42	99	30	M27	200	27	78	15	PT 1/4
1010-CV102732160	32	31.6	50	20	110	83	27	99	30	M27	160	27	78	15	PT 1/4
1010-CV102732200	32	31.6	50	20	125	83	42	99	30	M27	200	27	78	15	PT 1/4
1010-CV103036160	36	35.6	56	23	110	83	27	99	30	M30	160	30	88	15	PT 1/4
1010-CV103036200	36	35.6	56	23	135	83	52	99	30	M30	200	30	88	15	PT 1/4
1010-CV103036250	36	35.6	56	23	150	83	67	99	30	M30	250	30	88	15	PT 1/4

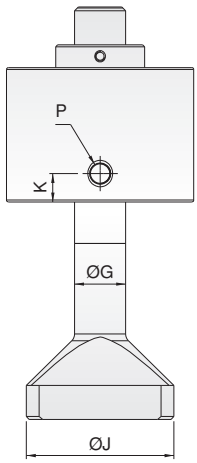
Ürün Nr. 1010 Hidrolik Pabuç Model CV
- Vidalanarak mesafe ayarı yapılabilir.
- Standart Sıcaklık : 60°

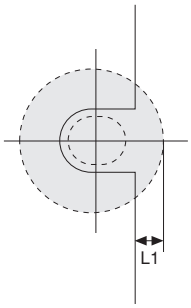
Product Nr. 1010 Hydraulic Clamp Model CV
- Screw-distance adjustment can be made.
- Standard Temperature : 60°

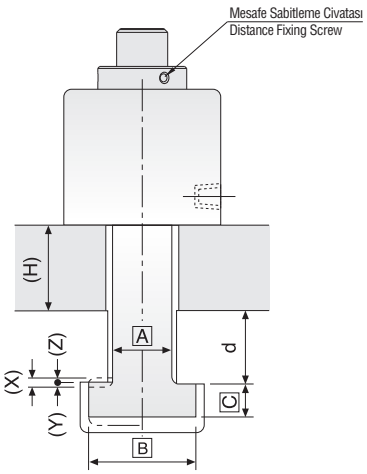
Önemli Not
(Z) Muhafaza edilen strok ayar değişiminde kontrol edilmeli

Notes
The set stroke (Z) must be checked when changing the settings.









Model		CC-1	CC-2	CC-4	CC-6	CC-10
Bağlama kapasitesi Capacity of clamp	Ton	1	2	4	6	10
Toplam strok (X) Total stroke (X)	mm	9	9	9	12	12
Pabuç strok (Y) Stroke of clamp (Y)	mm	4	4	4	4	4
Muhafaza edilen strok (Z) Preserved stroke (Z)	mm	5	5	5	8	8
Silindirin toplam hacmi Total volumn of cylinder	cc	3	7.5	13	21	38
Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H)	mm	±1.5	±2	±2	±2	±2

Hidrolik basınç / Hydraulic pressure : 250kgf/cm²

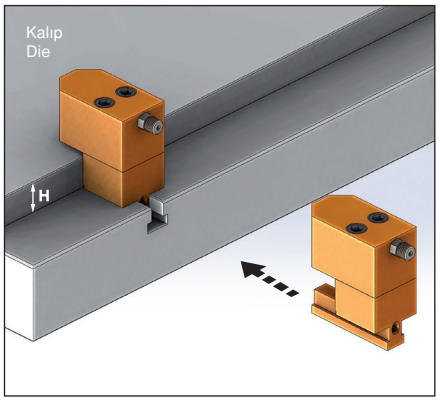


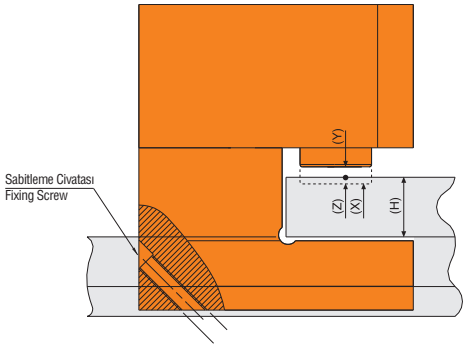
- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.

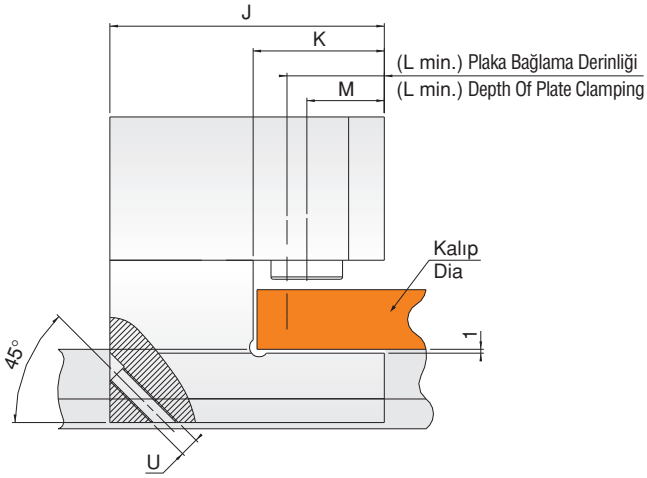
Referans Nr.	H min. - max	A min.	C min.	E	F	G	I	J	K	L min.	M	T	U
1015-CC01	20-35	10	6.5	43	G+43	H+9	Ø16	75	33	27	21.5	1/8	M5
1015-CC02	25-40	14	10	50	G+50	H+9	Ø18	91	43	30	25	1/8	M5
1015-CC04	25-40	18	12	65	G+60	H+9	Ø30	115	55	40	32.5	1/8	M8
1015-CC06	35-55	22	14	80	G+65	H+12	Ø37.5	130	65	48	40	1/4	M10
1015-CC10	40-60	24	16	100	G+82	H+12	Ø50	160	85	60	49	1/4	M12

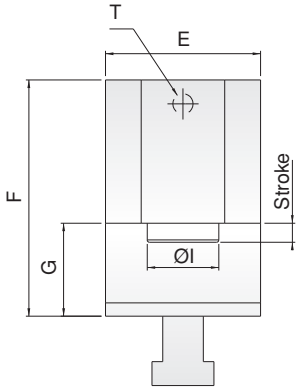
Ürün Nr. 1015 Hidrolik Pabuç Model CC
- Pabuç ölçüleri (A),(B),(C) ve (D) T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°

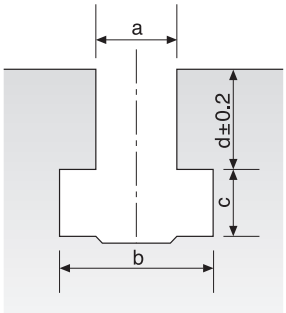
Product Nr. 1015 Hydraulic Clamp Model CC
- The sizes of clamps(A),(B),(C) and (D) are made based on the size of T-slot.
- Standard Temperature : 60°











Hidrolik Pabuç Model CCM

Hydraulic Clamp Model CCM

Model		CCM-1	CCM-2	CCM-4	CCM-6	CCM-10
Bağlama kapasitesi Capacity of clamp	Ton	1	2	4	6	10
Toplam strok (X) Total stroke (X)	mm	9	9	9	12	12
Pabuç strok (Y) Stroke of clamp (Y)	mm	4	4	4	4	4
Muhafaza edilen strok (Z) Preserved stroke (Z)	mm	5	5	5	8	8
Silindirin toplam hacmi Total volumn of cylinder	cc	3	7.5	13	21	38
Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H)	mm	±1.5	±2	±2	±2	±2

Hidrolik basınç / Hydraulic pressure : 250kgf/cm²

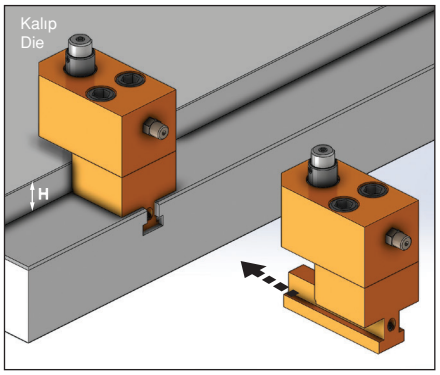


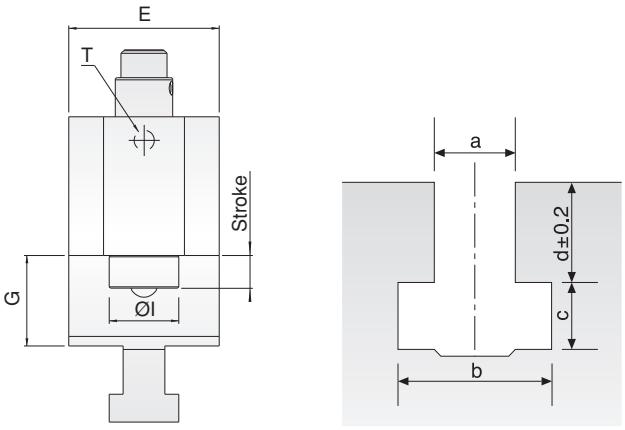
- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.

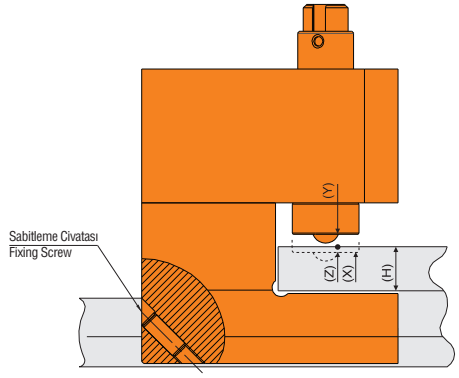
Referans Nr.	H min. - max Mesafe Ayarlı Distance Adjustable	A min.	C min.	E	G	I	J	K	L min.	M	T	U
1015-CCM01	20-35	10	6.5	43	H+9	Ø16	75	33	27	21.5	1/8	M5
1015-CCM02	25-40	14	10	50	H+9	Ø18	91	43	30	25	1/8	M5
1015-CCM04	25-40	18	12	65	H+9	Ø30	115	55	40	32.5	1/8	M8
1015-CCM06	35-55	22	14	80	H+12	Ø37.5	130	65	48	40	1/4	M10
1015-CCM10	40-60	24	16	100	H+12	Ø50	160	85	60	49	1/4	M12

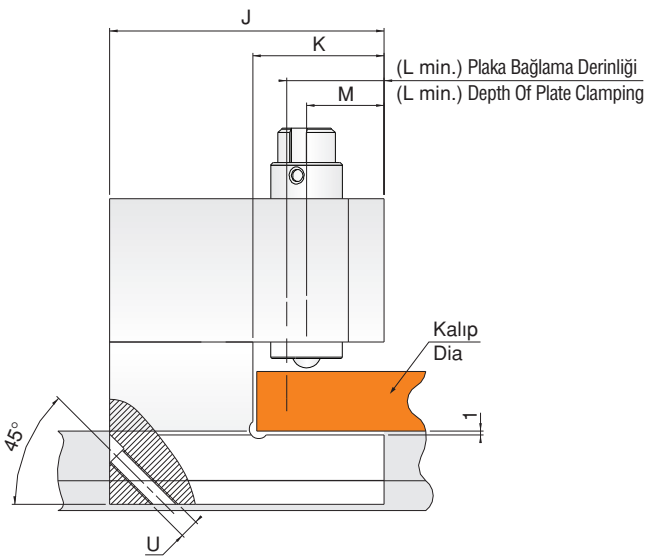
Ürün Nr. 1015 Hidrolik Pabuç Model CCM
- Pabuç ölçüleri (A),(B),(C) ve (D) T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°

Product Nr. 1015 Hydraulic Clamp Model CCM
- The sizes of clamps(A),(B),(C) and (D) are made based on the size of T-slot.
- Standard Temperature : 60°









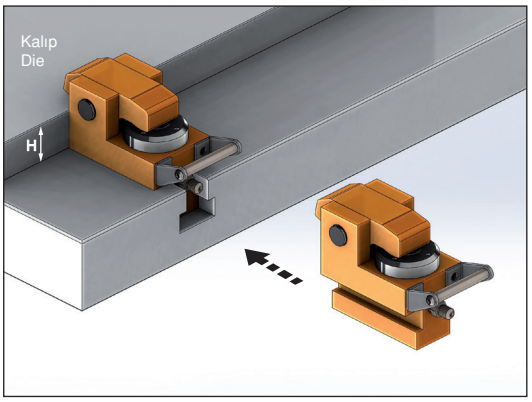
Hidrolik Pabuç Model CB

Hydraulic Clamp Model CB

Referans Nr.	L	K	J	H min.	H+d min. max	E min.	F	G	a min.	C min.	P
1015-CB01	74.5	60	14.5	25	100	42	44	20	10	6.5	PT1/8
1015-CB02	110	90	20	25	100	73	68	32	14	10	PT1/4
1015-CB04	134	110	24	25	130	77	79	40	18	12	PT1/4
1015-CB06	159	130	29	30	150	92	96	46	22	14	PT1/4
1015-CB10	189	159	30	40	140	114	117	54	24	16	PT1/4
1015-CB16	230	200	30	40	130	126	129	58	28	20	PT1/4
1015-CB25	265	235	30	45	120	148	156	70	36	23	PT1/4



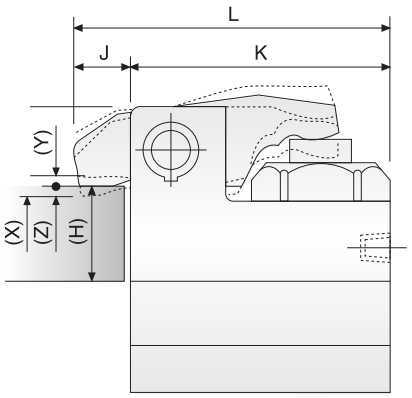
Model	CB-1 / CBL-1	CB-2 / CBL-2	CB-4 / CBL-4	CB-6 / CBL-6	CB-10 / CBL-10	CB-16 / CBL-16	CB-25 / CBL-25
Bağlama kapasitesi Capacity of clamp Ton	1	2	4	6	10	16	25
Toplam strok (X) Total stroke (X) mm	6	8	8	8	8	8	8
Pabuç strok (Y) Stroke of clamp (Y) mm	2.5	3	3	3	3	3	3
Muhafaza edilen strok (Z) Preserved stroke (Z) mm	3.5	5	5	5	5	5	5
Silindirin toplam hacmi Total volumn of cylinder cc	3	7.5	13	21	38	55	98
Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H) mm	±1.5	±2	±2	±2	±2	±2	±2

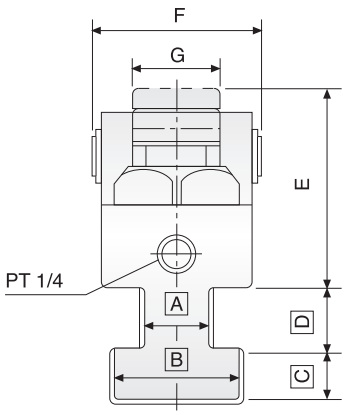


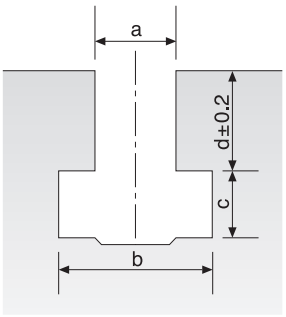
Ürün Nr. 1015 Hidrolik Pabuç Model CB
- Pabuç ölçüleri (A),(B),(C) ve (D) T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°
- Hidrolik basınç 250kgf/cm²

Product Nr. 1015 Hydraulic Clamp Model CB
- The sizes of clamps(A),(B),(C) and (D) are made based on the size of T-slot.
- Standard Temperature : 60°
- Hydraulic pressure : 250kgf/cm²

- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.



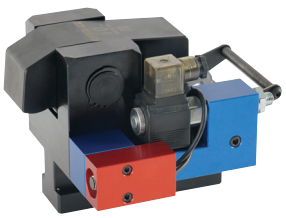




Hidrolik Pabuç Model CBL

Hydraulic Clamp Model CBL

Referans Nr.	L	K	J	H min.	H+d min. max	E min.	F	G	a min.	C min.	P
1015-CBL04	134	110	24	25	130	77	79	40	18	12	PT1/4
1015-CBL06	159	130	29	30	150	92	96	46	22	14	PT1/4
1015-CBL10	189	159	30	40	140	114	117	54	24	16	PT1/4
1015-CBL16	230	200	30	40	130	126	129	58	28	20	PT1/4
1015-CBL25	265	235	30	45	120	148	156	70	36	23	PT1/4



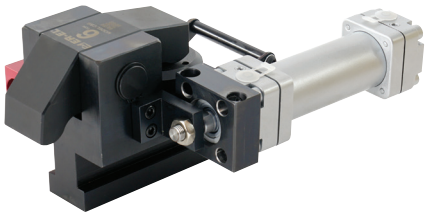
Ürün Nr. 1015 Hidrolik Pabuç Model CBL
- Pabuç ölçüleri (A),(B),(C) ve (D) T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°
- Hidrolik basınç 250kgf/cm²

Product Nr. 1015 Hydraulic Clamp Model CBL
- The sizes of clamps(A),(B),(C) and (D) are made based on the size of T-slot.
- Standard Temperature : 60°
- Hydraulic pressure : 250kgf/cm²

Not
Kilitleme seçenekli

Note
With locking option

Model		CBS-1	CBS-2	CBS-4	CBS-6	CBS-10	CBS-16	CBS-25
Bağlama kapasitesi Capacity of clamp	Ton	1	2	4	6	10	16	25
Toplam strok (X) Total stroke (X)	mm	6	8	8	8	8	8	8
Pabuç strok (Y) Stroke of clamp (Y)	mm	2.5	3	3	3	3	3	3
Muhafaza edilen strok (Z) Preserved stroke (Z)	mm	3.5	5	5	5	5	5	5
Silindirin toplam hacmi Total volumn of cylinder	cc	3	7.5	13	21	38	55	98
Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H)	mm	±1.5	±2	±2	±2	±2	±2	±2
Strok Mesafesi (S) Traveling Stroke (S)								

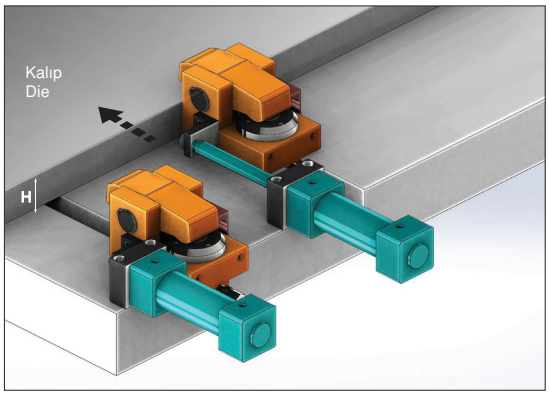


- Satın almadan önce T-Kanal (a,b,c,d) ölçüsü ve kalıp tabanı kalınlığını (H) bildiriniz.
- Please indicate the size of T-slot (a,b,c,d) and the thickness (H) of the template for the die when purchasing.

Satın almadan önce strok mesafesini bildiriniz.
Hidrolik Basınç : 250kgf/cm²

Please inform the stroke distance before purchase.
Hydraulic pressure : 250kgf/cm²

Referans Nr.	L	K	J	H min.	H+d min. max	E min.	F	G	a min.	C min.	P
1015-CBS01	74.5	60	14.5	25	100	42	44	20	10	6.5	PT1/8
1015-CBS02	110	90	20	25	100	73	68	32	14	10	PT1/4
1015-CBS04	134	110	24	25	130	77	79	40	18	12	PT1/4
1015-CBS06	159	130	29	30	150	92	96	46	22	14	PT1/4
1015-CBS10	189	159	30	40	140	114	117	54	24	16	PT1/4
1015-CBS16	230	200	30	40	130	126	129	58	28	20	PT1/4
1015-CBS25	265	235	30	45	120	148	156	70	36	23	PT1/4



Ürün Nr. 1015 Hidrolik Pabuç Model CBS

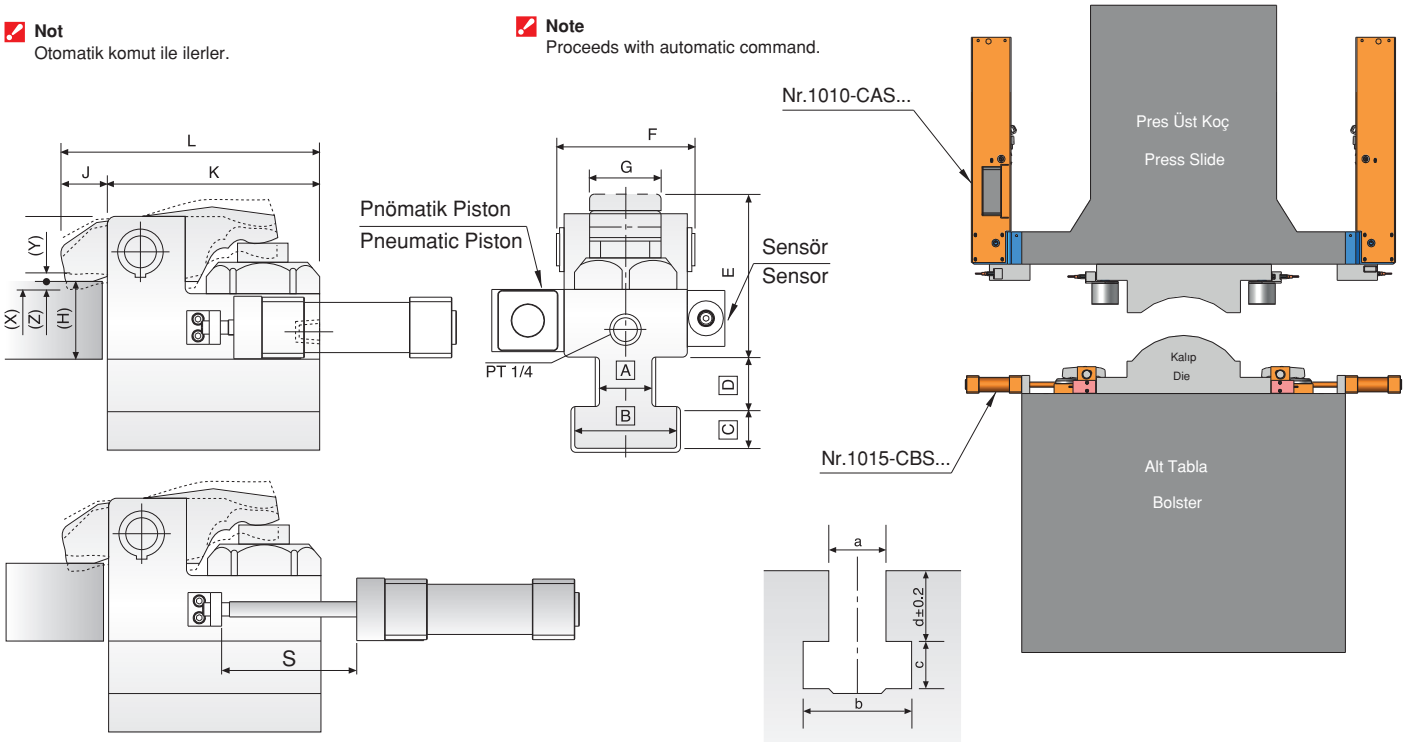
- Pabuç ölçüleri (A),(B),(C) ve (D) T-Kanala bağlı olarak belirlenir.
- Standart Sıcaklık : 60°

Not
Otomatik komut ile ilerler.

Product Nr. 1015 Hydraulic Clamp Model CBS

- The sizes of clamps(A),(B),(C) and (D) are made based on the size of T-slot.
- Standard Temperature : 60°

Note
Proceeds with automatic command.



Model		CD-2	CD-4	CD-6	CD-10	CD-16	CD-25
Bağlama kapasitesi Capacity of clamp	Ton	2	4	6	10	16	25
Toplam strok (X) Total stroke (X)	mm	8	8	8	8	8	8
Pabuç strok (Y) Stroke of clamp (Y)	mm	3	3	3	3	3	3
Muhafaza edilen strok (Z) Preserved stroke (Z)	mm	5	5	5	5	5	5
Silindirin toplam hacmi Total volumn of cylinder	cc	7.5	13	21	38	55	98
Kalıp taban kalınlığı toleransı (H) The tolerance of the template thickness (H)	mm	±2	±2	±2	±2	±2	±2



Hidrolik basınç / Hydraulic pressure : 250kgf/cm²

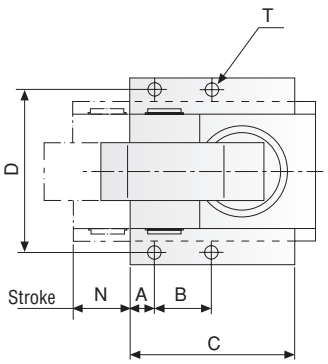
Referans Nr.	A	B	C	D	E min.	F	G	W	N max.	T
1015-CD02	12	20	80	98	90	76	30	124	25	M10x20D
1015-CD04	12	25	100	109	93	87	30	135	30	M12x24D
1015-CD06	15	30	120	126	109	104	30	152	35	M12x24D
1015-CD10	15	35	150	148	131	124	36	174	40	M14x28D
1015-CD16	20	40	200	166	142	138	44	200	50	M18x36D
1015-CD25	20	45	235	200	163	168	48	240	60	M22x45D

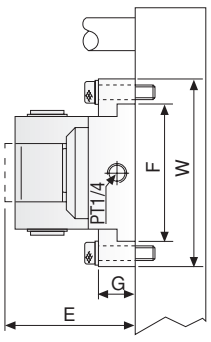
Ürün Nr. 1015 Hidrolik Pabuç Model CD
• Standart Sıcaklık : 60°

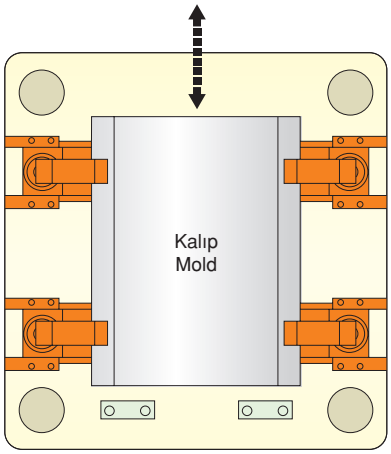
Not
Pleyti dişli tezgahlarda kullanım olanağı sağlar.

Product Nr. 1015 Hydraulic Clamp Model CD
• Standard Temperature : 60°

Note
It can be used in machines with holes on the plate.







Hidrolik Pabuç Model CG

Hydraulic Clamp Model CG

Model		CG-4	CG-6	CG-10	CG-16	CG-25	CG-50
Bağlama kapasitesi Capacity of clamp	Ton	4	6	10	16	25	50
Yay kuvveti Retaining force	Ton	0.80	1.2	2	3.2	5	10
Muhafaza edilen strok (Z) Preserved stroke (Z)	mm	1.5	1.5	2	2	2	2



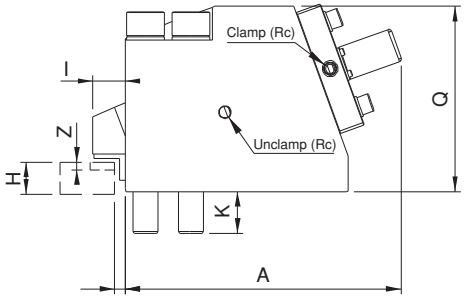
Hidrolik basınç / Hydraulic pressure : 250kgf/cm^2

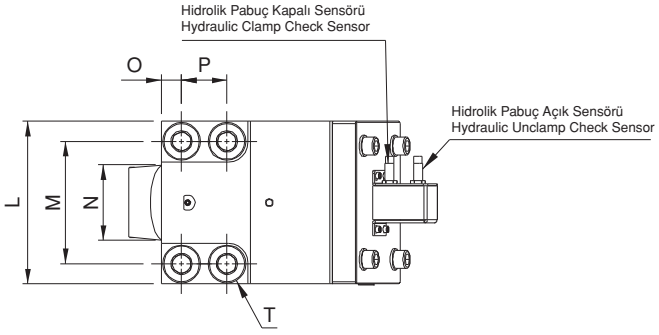
- Satın almadan önce kalıp tabanı kalınlığını (H) bildiriniz.
- Please thickness (H) of the template for the die when purchasing.

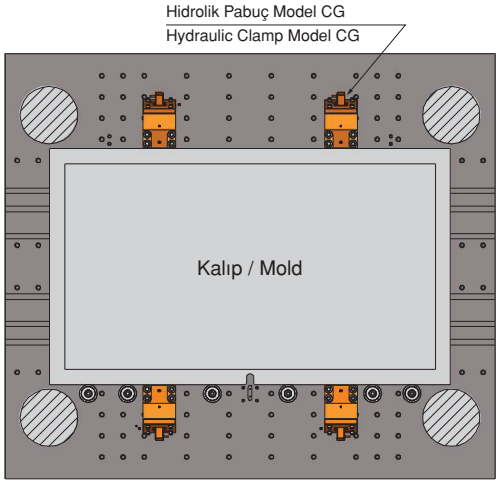
Referans Nr.	I	J	K	L	M	N	O	P	Rc	H	T
1015-CG04	17	2	27	90	62	35	14	-	1/4	25	M16
1015-CG06	19	3	33	110	76	45	17	-	1/4	30	M20
1015-CG10	23	3	36	135	95	50	20	-	1/4	30	M24
1015-CG16	28	5	33	138	104	60	17	40	1/4	30	M20
1015-CG25	33	5	40	170	130	75	20	50	1/4	40	M24
1015-CG50	35	5	50	215	162	100	27	60	3/8	50	M33

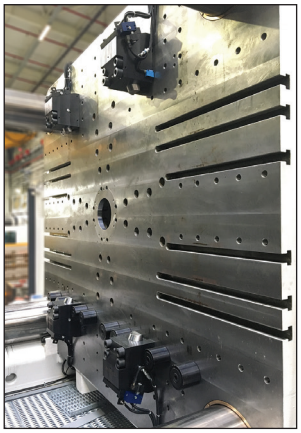
Ürün Nr. 1015 Hidrolik Pabuç Model CG
- Standart Sıcaklık : 60°

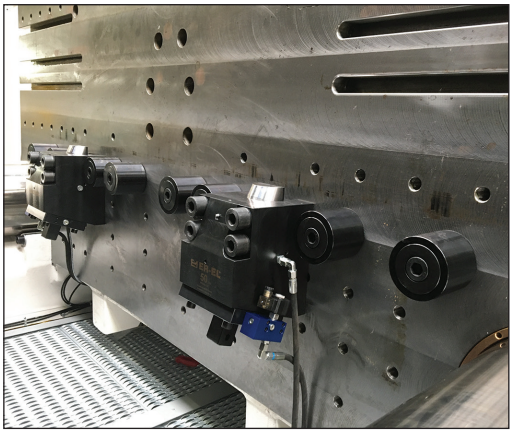
Product Nr. 1015 Hydraulic Clamp Model CG
- Standard Temperature : 60°







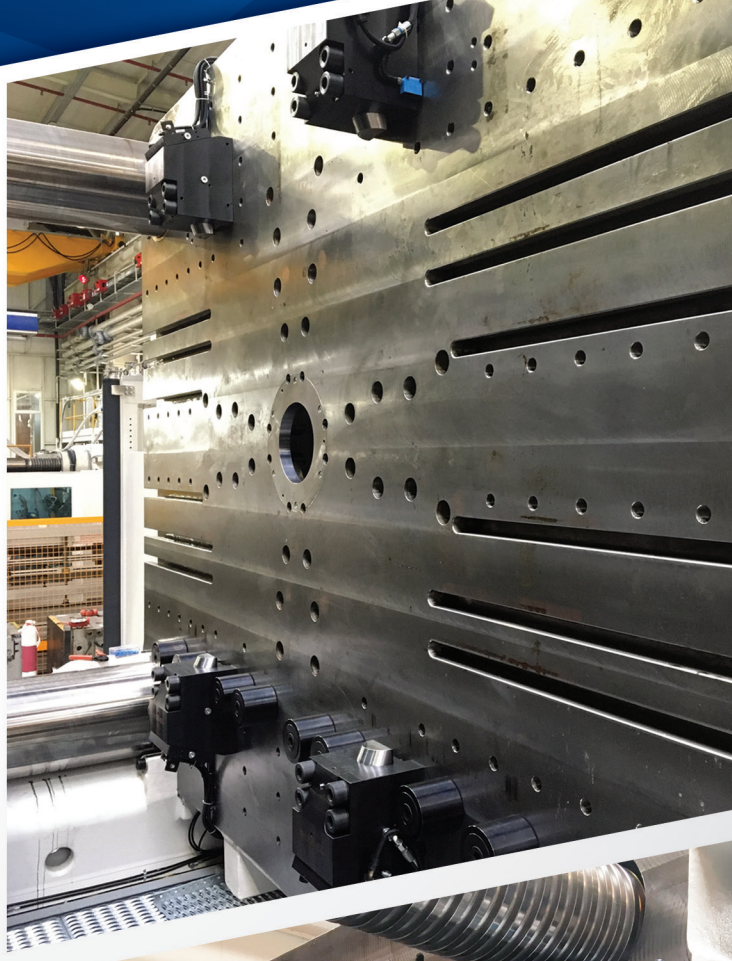


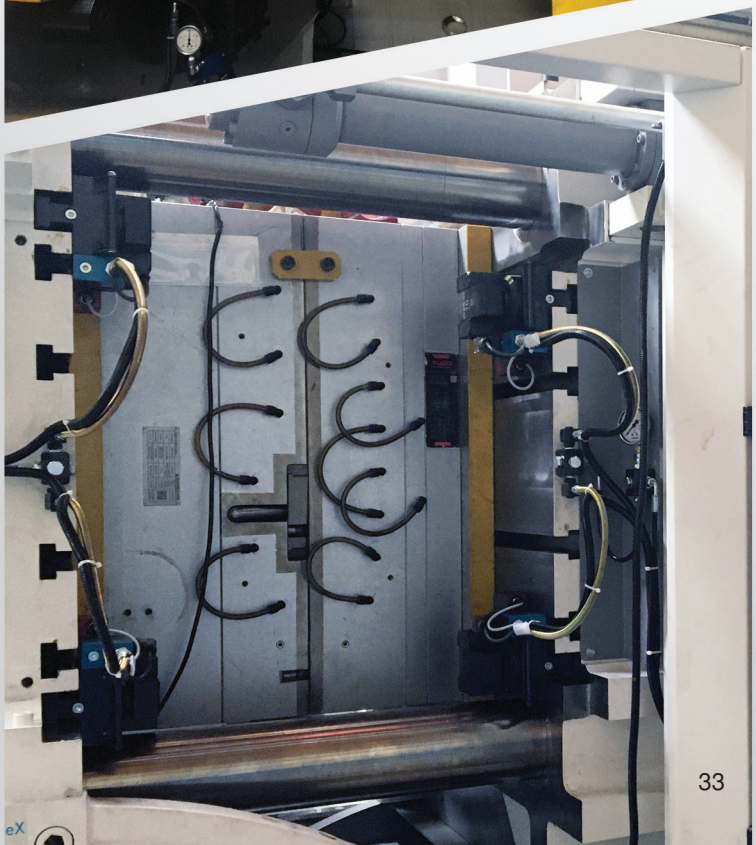


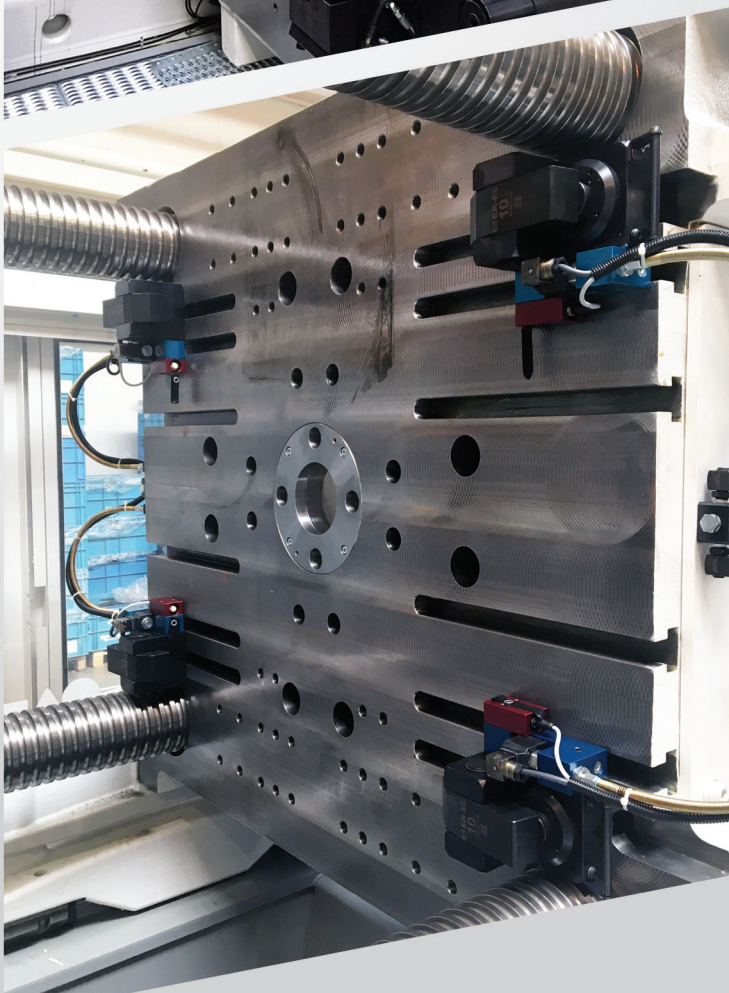
HIZLI KALIP DEĞİŞTİRME SİSTEMİ

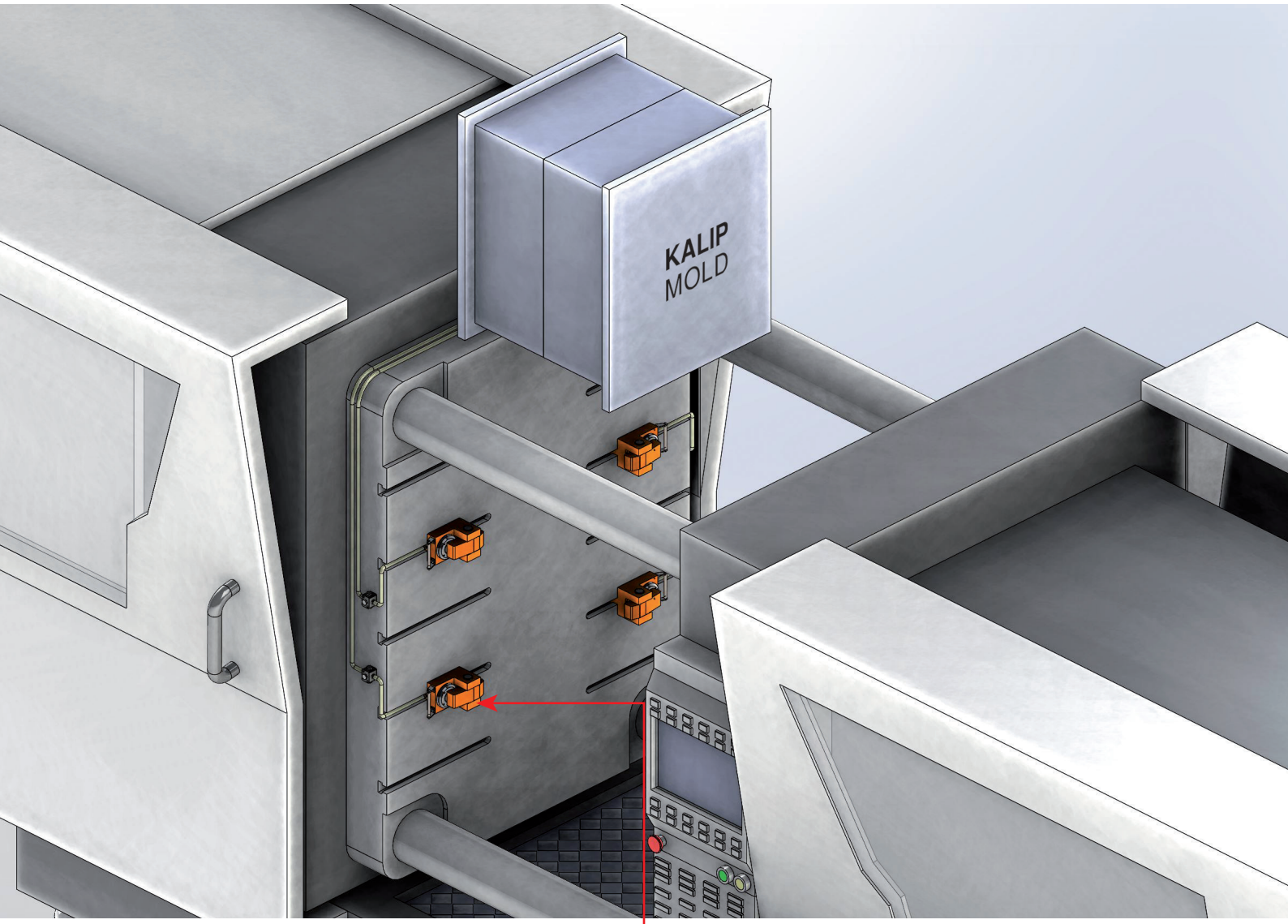
QUICK MOLD CHANGE SYSTEM











Hidrolik Pabuç Modelleri / Hydraulic Clamp Models


Model CA


Model CV

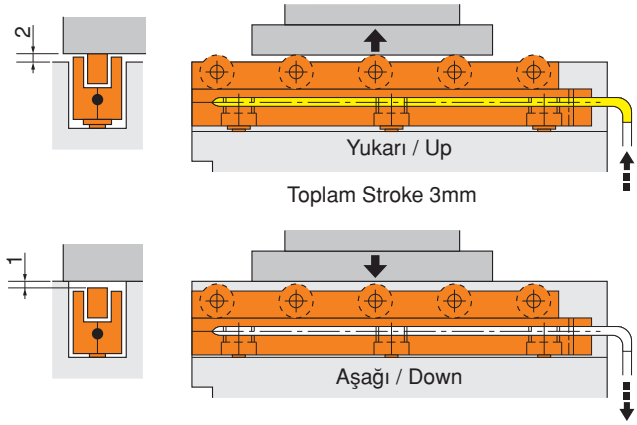

Model CB


Model CBS

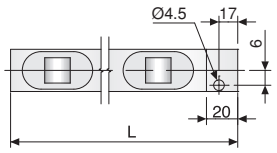
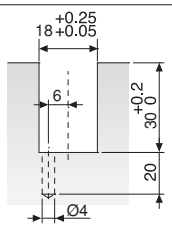

Model CC


Model CD


Model CG



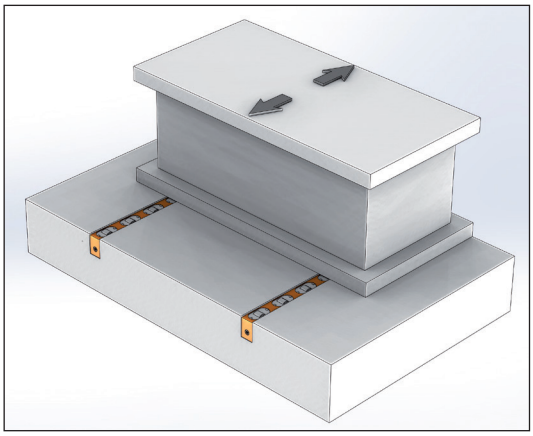


Dış Ölçüler Outline Dimensions	D□18 Serisi / Serial 
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	

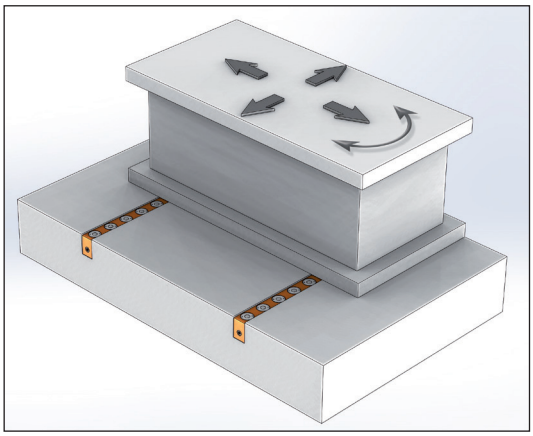
Referans Nr.	L	D□18					
		DL18		DB18		Hid. Silindir Hyd. cylinder	
		Rulo Roller (DL)	Kapasite Capacity kg	Misket Ball (DB)	Kapasite Capacity kg	Piston	Kapasite Capacity kg
1020-0200	200	3	300	5	250	2	560
1020-0300	300	5	500	7	350		
1020-0400	400	6	560	10	500		
1020-0500	500	8	800	12	600	3	840
1020-0600	600	9	840	15	750		
1020-0700	700	11	840	17	840		
1020-0800	800	12	1120	20	1000	4	1120
1020-0900	900	14	1120	22	1100		
1020-1000	1000	15	1250	25	1250	5	1400

Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm²

Product Nr. 1020 Die Lifter Hydraulic Model DL-DB
- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm²



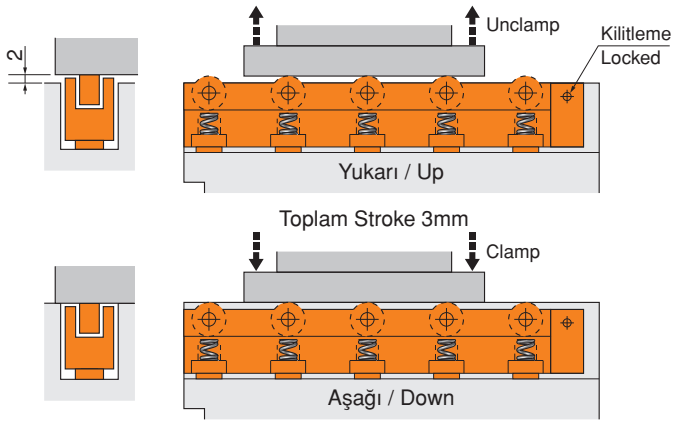
Model DL Hareket Yönü
Model DL Movement Direction



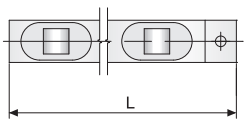
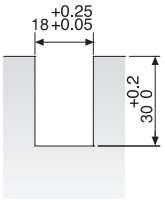
Model DB Hareket Yönü
Model DB Movement Direction

Yaylı Kalıp Kaldırma Model DLS-DBS

Die Lifter Spring Model DLS-DBS



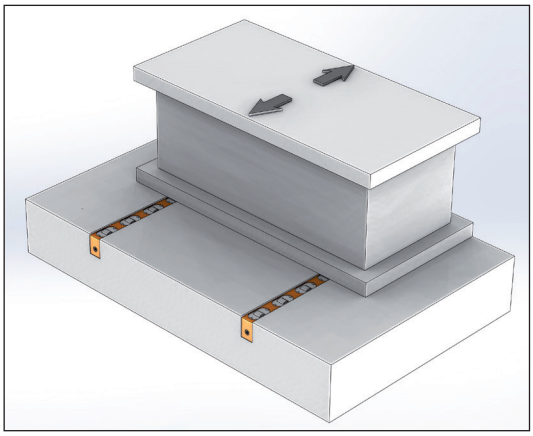


Dış Ölçüler Outline Dimensions	D□18 Serisi / Serial 
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	

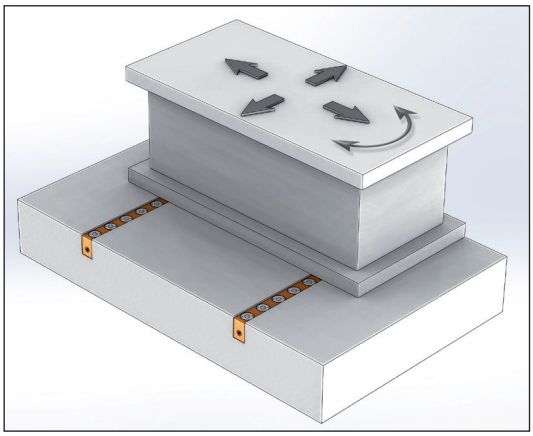
Referans Nr.	L	D□18					
		DLS18			DBS18		
		Rulo Roller (DLS)		Kapasite Capacity kg	Misket Ball (DBS)		Kapasite Capacity kg
1022-0200	200	3	4	200	5	6	150
1022-0300	300	5	6	300	7	8	200
1022-0400	400	6	7	350	10	11	275
1022-0500	500	8	9	450	12	13	325
1022-0600	600	9	10	500	15	16	400
1022-0700	700	11	12	600	17	18	450
1022-0800	800	12	13	650	20	21	525
1022-0900	900	14	15	750	22	23	575
1022-1000	1000	15	16	800	25	26	650

Ürün Nr. 1022 Yaylı Kalıp Kaldırma Model DLS-DBS
• Standart Sıcaklık : 60°

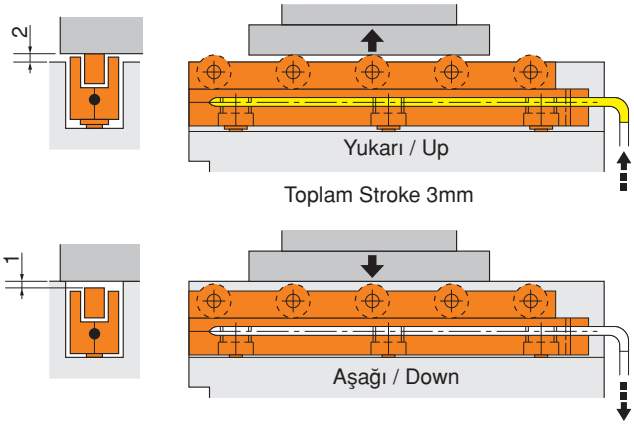
Product Nr. 1022 Die Lifter Spring Model DLS-DBS
• Standard Temperature : 60°



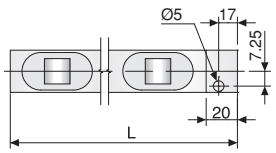
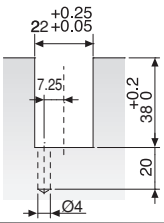
Model DLS Hareket Yönü
Model DLS Movement Direction



Model DBS Hareket Yönü
Model DBS Movement Direction



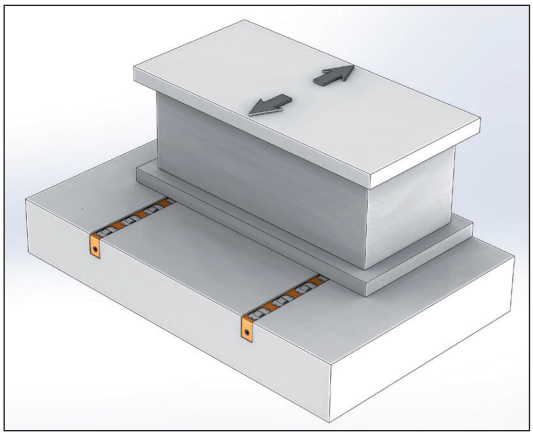


Dış Ölçüler Outline Dimensions	D□22 Serisi / Serial 
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	

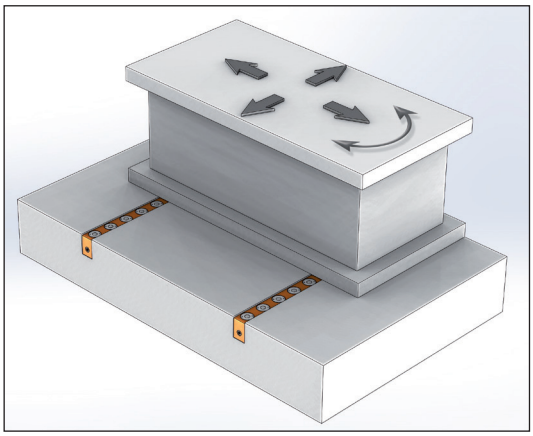
Referans Nr.	L	D□22					
		DL22		DB22		Hid. Silindir Hyd. cylinder	
		Rulo Roller (DL)	Kapasite Capacity kg	Misket Ball (DB)	Kapasite Capacity kg	Piston	Kapasite Capacity kg
1020-0200	200	3	480	5	370	2	1000
1020-0300	300	5	800	7	518		
1020-0400	400	6	960	10	740		
1020-0500	500	8	1280	12	888	3	1500
1020-0600	600	9	1400	15	1110		
1020-0700	700	11	1500	17	1250		
1020-0800	800	12	1920	20	1480		
1020-0900	900	14	2000	22	1628	4	2000
1020-1000	1000	15	2000	25	1850		

Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm²

Product Nr. 1020 Die Lifter Hydraulic Model DL-DB
- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm²



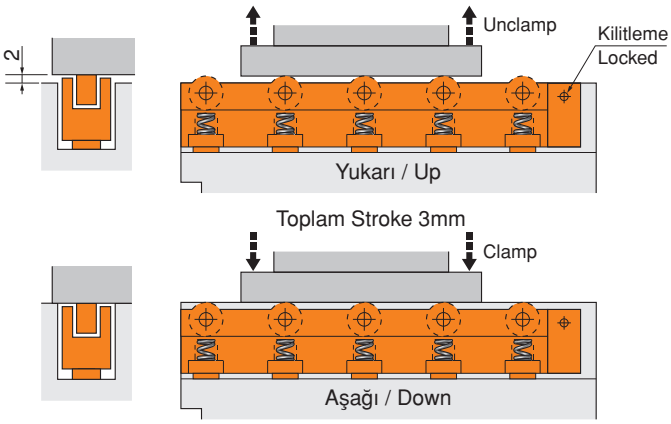
Model DL Hareket Yönü
Model DL Movement Direction



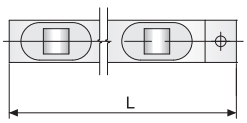
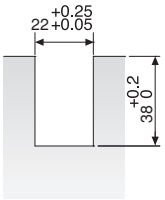
Model DB Hareket Yönü
Model DB Movement Direction

Yaylı Kalıp Kaldırma Model DLS-DBS

Die Lifter Spring Model DLS-DBS



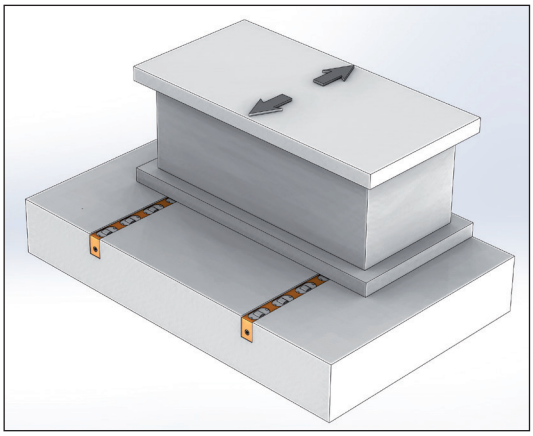


Dış Ölçüler Outline Dimensions	D□22 Serisi / Serial 
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	

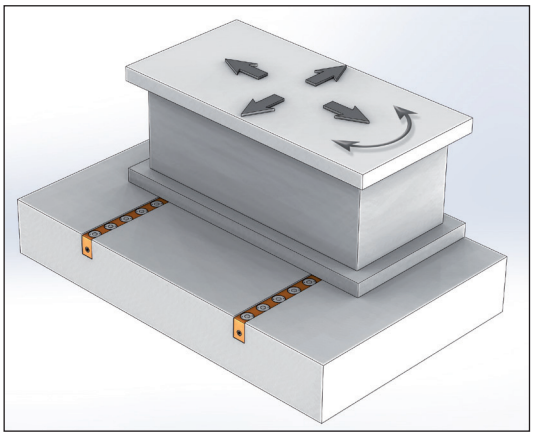
Referans Nr.	L	D□22					
		DLS22			DBS22		
		Rulo Roller (DLS)		Kapasite Capacity kg	Misket Ball (DBS)		Kapasite Capacity kg
1022-0200	200	3	4	320	5	6	240
1022-0300	300	5	6	480	7	8	320
1022-0400	400	6	7	560	10	11	440
1022-0500	500	8	9	720	12	13	520
1022-0600	600	9	10	800	15	16	640
1022-0700	700	11	12	960	17	18	720
1022-0800	800	12	13	1040	20	21	840
1022-0900	900	14	15	1200	22	23	920
1022-1000	1000	15	16	1280	25	26	1040

Ürün Nr. 1022 Yaylı Kalıp Kaldırma Model DLS-DBS
• Standart Sıcaklık : 60°

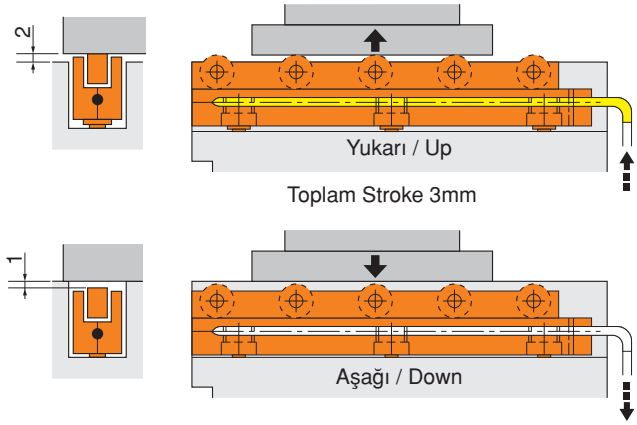
Product Nr. 1022 Die Lifter Spring Model DLS-DBS
• Standard Temperature : 60°



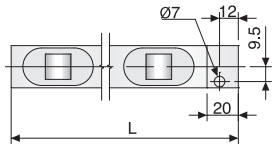
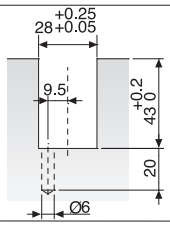
Model DLS Hareket Yönü
Model DLS Movement Direction



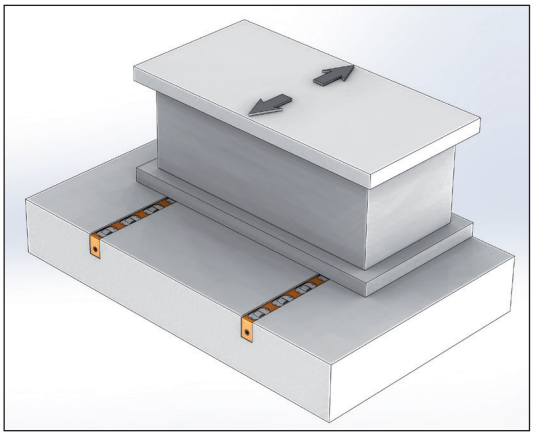
Model DBS Hareket Yönü
Model DBS Movement Direction



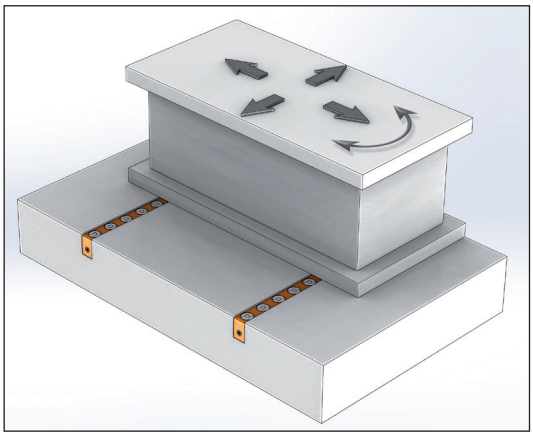


	D□28 Serisi / Serial
Dış Ölçüler Outline Dimensions	
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	

Referans Nr.	L	D□28					
		DL28		DB28		Hid. Silindir Hyd. cylinder	
		Rulo Roller (DL)	Kapasite Capacity kg	Misket Ball (DB)	Kapasite Capacity kg	Piston	Kapasite Capacity kg
1020-0200	200	3	750	5	475	2	1260
1020-0300	300	5	1250	7	665		
1020-0400	400	6	1260	10	950		
1020-0500	500	8	1890	12	1140	3	1890
1020-0600	600	9	1890	15	1425		
1020-0700	700	11	1890	17	1615		
1020-0800	800	12	2520	20	1900	4	2520
1020-0900	900	14	2520	22	2090		
1020-1000	1000	15	3150	25	2375	5	3150
1020-1100	1100	16	3150	27	2565		
1020-1200	1200	17	3150	30	2850		
1020-1300	1300	18	3780	32	3040	6	3780
1020-1400	1400	19	3780	35	3325		
1020-1500	1500	20	3780	37	3515		
1020-1600	1600	22	4410	40	3800	7	4410
1020-1700	1700	24	4410	42	3990		
1020-1800	1800	25	4410	45	4275		
1020-1900	1900	27	5040	47	4465	8	5040



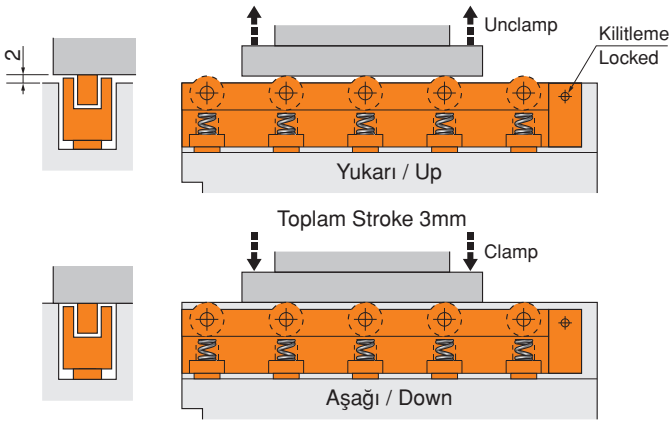
Model DL Hareket Yönü
Model DL Movement Direction



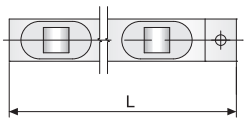
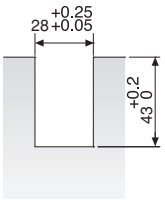
Model DB Hareket Yönü
Model DB Movement Direction

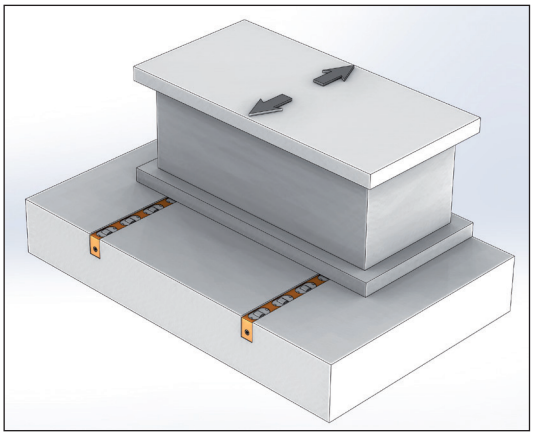
Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm^2

Product Nr. 1020 Die Lifter Hydraulic Model DL-DB
- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm^2



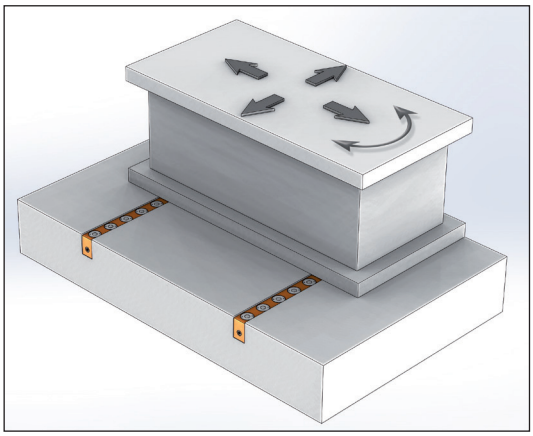


Dış Ölçüler Outline Dimensions	D□28 Serisi / Serial 
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	



Model DLS Hareket Yönü
Model DLS Movement Direction

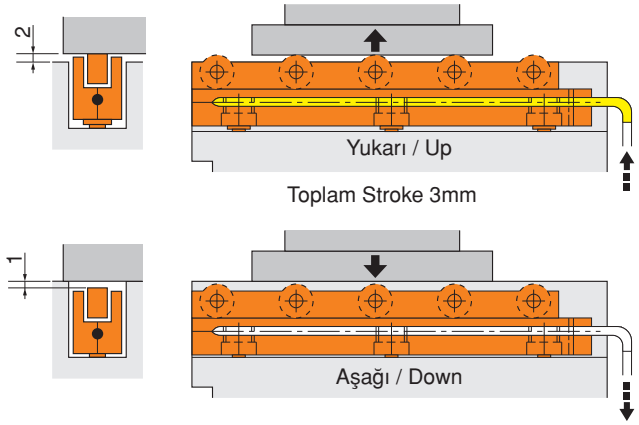
Referans Nr.	L	D□28					
		DLS28			DBS28		
		Rulo Roller (DLS)		Kapasite Capacity kg	Misket Ball (DBS)		Kapasite Capacity kg
1022-0200	200	3	4	500	5	5	315
1022-0300	300	5	6	750	7	7	441
1022-0400	400	6	7	875	10	10	630
1022-0500	500	8	9	1125	12	12	756
1022-0600	600	9	10	1250	15	15	945
1022-0700	700	11	12	1500	17	17	1071
1022-0800	800	12	13	1625	20	20	1260
1022-0900	900	14	15	1875	22	22	1386
1022-1000	1000	15	16	2000	25	25	1575
1022-1100	1100	16	17	2125	27	27	1701
1022-1200	1200	17	18	2250	30	30	1890
1022-1300	1300	18	19	2375	32	32	2016
1022-1400	1400	19	20	2500	35	35	2205
1022-1500	1500	20	21	2625	37	37	2331
1022-1600	1600	22	23	2875	40	40	2520
1022-1700	1700	24	25	3125	42	42	2646
1022-1800	1800	25	26	3250	45	45	2835
1022-1900	1900	27	28	3500	47	47	2961



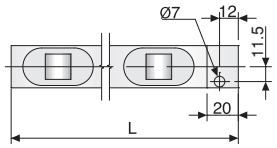
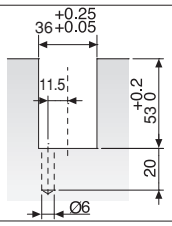
Model DBS Hareket Yönü
Model DBS Movement Direction

Ürün Nr. 1022 Yaylı Kalıp Kaldırma Model DLS-DBS
• Standart Sıcaklık : 60°

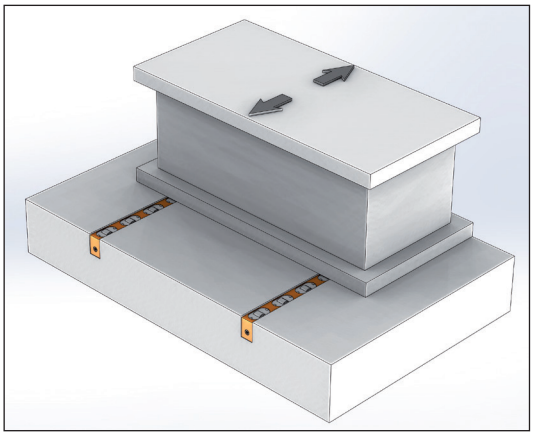
Product Nr. 1022 Die Lifter Spring Model DLS-DBS
• Standard Temperature : 60°



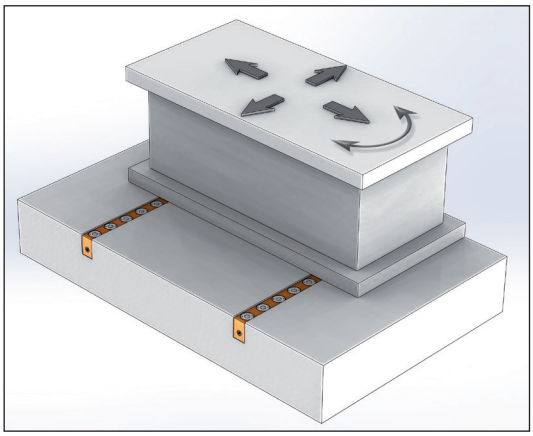


	D□36 Serisi / Serial
Dış Ölçüler Outline Dimensions	
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	

Referans Nr.	L	D□36					
		DL36		DB36		Hid. Silindir Hyd. cylinder	
		Rulo Roller (DL)	Kapasite Capacity kg	Misket Ball (DB)	Kapasite Capacity kg	Piston	Kapasite Capacity kg
1020-0200	200	3	1050	5	600	2	1700
1020-0300	300	5	1750	7	840		
1020-0400	400	6	1700	10	1200		
1020-0500	500	8	2600	12	1440	3	2600
1020-0600	600	9	2600	15	1800		
1020-0700	700	11	2600	17	2040		
1020-0800	800	12	2600	20	2400		
1020-0900	900	14	3500	22	2640	4	3500
1020-1000	1000	15	3500	25	3000		
1020-1100	1100	16	3500	27	3240		
1020-1200	1200	17	4400	30	3600	5	4400
1020-1300	1300	18	4400	32	3840		
1020-1400	1400	19	4400	35	4200		
1020-1500	1500	20	4400	37	4400		
1020-1600	1600	22	5300	40	4800	6	5300
1020-1700	1700	24	5300	42	5040		
1020-1800	1800	25	5300	45	5300		
1020-1900	1900	27	5300	47	5300		



Model DL Hareket Yönü
Model DL Movement Direction



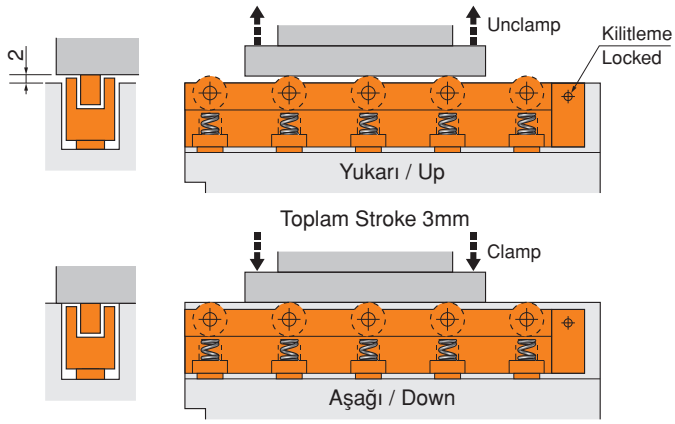
Model DB Hareket Yönü
Model DB Movement Direction

Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm²

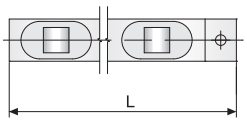
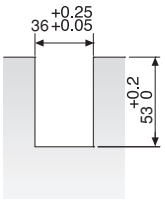
Product Nr. 1020 Die Lifter Hydraulic Model DL-DB
- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm²

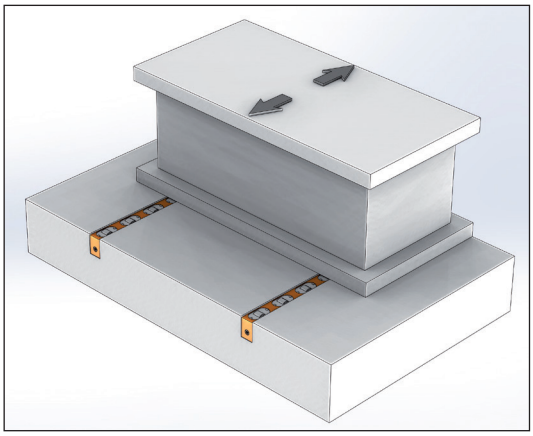
Yaylı Kalıp Kaldırma Model DLS-DBS

Die Lifter Spring Model DLS-DBS



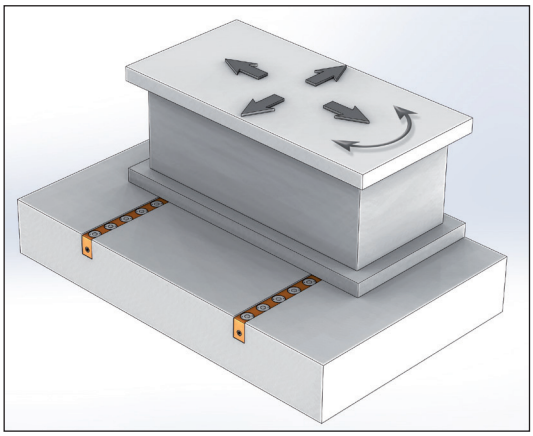


Dış Ölçüler Outline Dimensions	D□36 Serisi / Serial 
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	



Model DLS Hareket Yönü
Model DLS Movement Direction

Referans Nr.	L	D□36					
		DLS36			DBS36		
		Rulo Roller (DLS)		Kapasite Capacity kg	Misket Ball (DBS)		Kapasite Capacity kg
1022-0200	200	3	3	600	5	5	500
1022-0300	300	5	5	1000	7	7	700
1022-0400	400	6	6	1200	10	10	1000
1022-0500	500	8	8	1600	12	12	1200
1022-0600	600	9	9	1800	15	15	1500
1022-0700	700	11	11	2200	17	17	1700
1022-0800	800	12	12	2400	20	20	2000
1022-0900	900	14	14	2800	22	22	2200
1022-1000	1000	15	15	3000	25	25	2500
1022-1100	1100	16	16	3200	27	27	2700
1022-1200	1200	17	17	3400	30	30	3000
1022-1300	1300	18	18	3600	32	32	3200
1022-1400	1400	19	19	3800	35	35	3500
1022-1500	1500	20	20	4000	37	37	3700
1022-1600	1600	22	22	4400	40	40	4000
1022-1700	1700	24	24	4800	42	42	4200
1022-1800	1800	25	25	5000	45	45	4500
1022-1900	1900	27	27	5400	47	47	4700



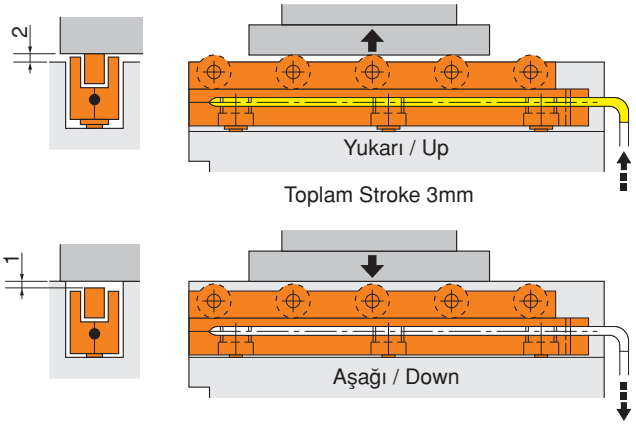
Model DBS Hareket Yönü
Model DBS Movement Direction

Ürün Nr. 1022 Yaylı Kalıp Kaldırma Model DLS-DBS
• Standart Sıcaklık : 60°

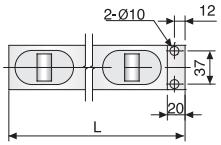
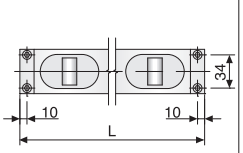
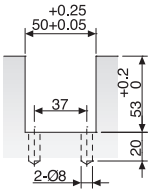
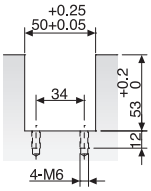
Product Nr. 1022 Die Lifter Spring Model DLS-DBS
• Standard Temperature : 60°

Hidrolik Kalıp Kaldırma Model DL-DB

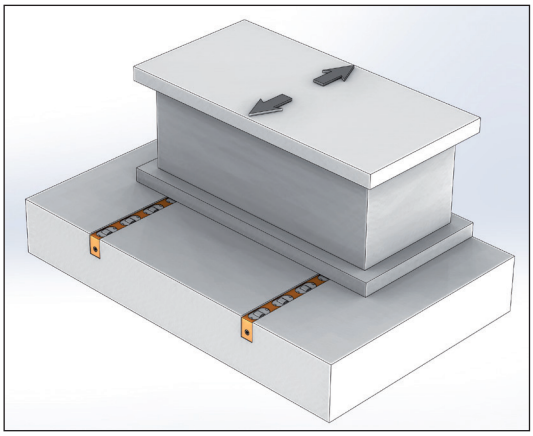
Die Lifter Hydraulic Model DL-DB



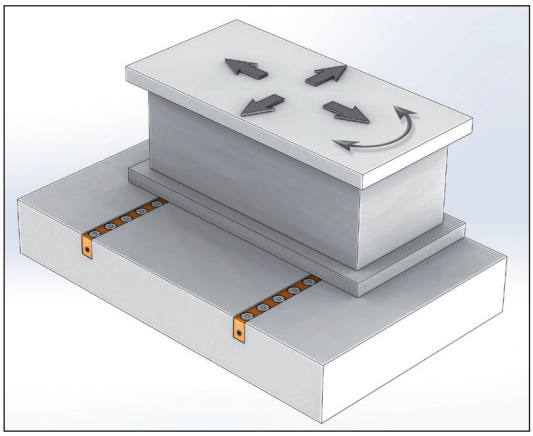


	D□50 Serisi / Serial DL50-2100'den önce	D□50 Serisi / Serial DL50-2100'den sonra
Dış Ölçüler Outline Dimensions		
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)		

Referans Nr.	L	D□50					
		DL50		DB50		Hid. Silindir Hyd. cylinder	
		Rulo Roller (DL)	Kapasite Capacity kg	Misket Ball (DB)	Kapasite Capacity kg	Piston	Kapasite Capacity kg
1020-0200	200	2	1000	4	640	2	2200
1020-0300	300	3	1500	6	960		
1020-0400	400	4	2000	9	1440		
1020-0500	500	5	2500	11	1760	3	3300
1020-0600	600	6	3000	13	2080		
1020-0700	700	7	3300	16	2560		
1020-0800	800	8	3300	18	2880		
1020-0900	900	9	4400	20	3200	4	4400
1020-1000	1000	10	4400	23	3680		
1020-1100	1100	11	4400	25	4000		
1020-1200	1200	12	5500	27	4320	5	5500
1020-1300	1300	13	5500	29	4640		
1020-1400	1400	14	5500	31	4960		
1020-1500	1500	15	5500	33	5280		
1020-1600	1600	16	6500	35	5600	6	6600
1020-1700	1700	17	6500	38	6080		
1020-1800	1800	18	6500	40	6400		
1020-1900	1900	19	6500	42	6720		
1020-2000	2000	20	7700	44	7040	7	7700
1020-2100	2100	21	7700	46	7360		
1020-2200	2200	22	7700	48	7680		
1020-2300	2300	23	7700	50	7700		
1020-2400	2400	24	8800	52	8320	8	8800
1020-2500	2500	25	8800	54	8640	8	8800



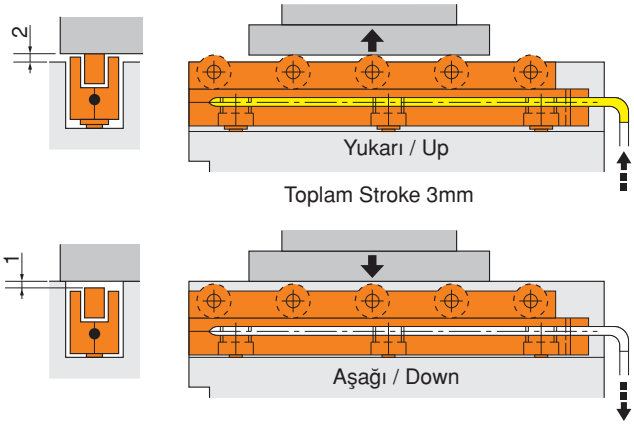
Model DL Hareket Yönü
Model DL Movement Direction



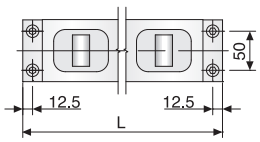
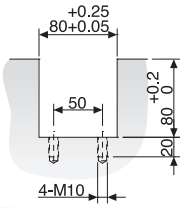
Model DB Hareket Yönü
Model DB Movement Direction

Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL-DB
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm^2

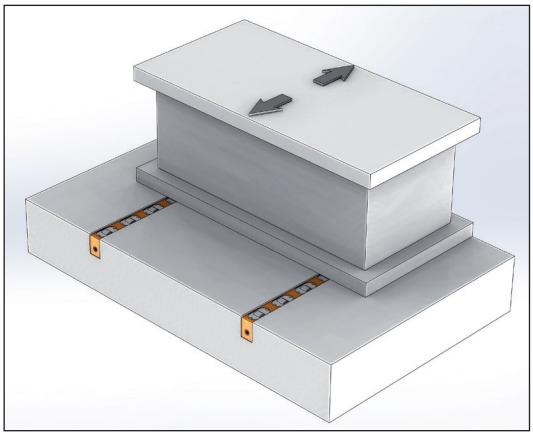
Product Nr. 1020 Die Lifter Hydraulic Model DL-DB
- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm^2





Dış Ölçüler Outline Dimensions	DL80 Serisi / Serial 
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	

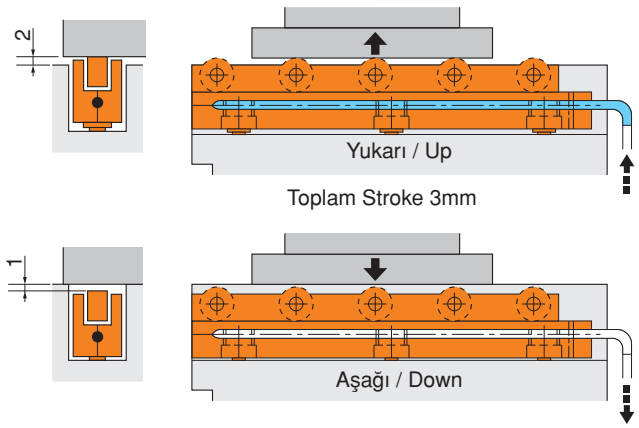
Referans Nr.	L	DL80			
		DL80		Hid. Silindir Hyd. cylinder	
		Rulo Roller (DL)	Kapasite Capacity kg	Piston	Kapasite Capacity kg
1020-0200	200	-	-	-	-
1020-0300	300	-	-	-	-
1020-0400	400	-	-	-	-
1020-0500	500	5	3250	2	5600
1020-0600	600	6	3900		
1020-0700	700	7	4550	3	8400
1020-0800	800	8	5200		
1020-0900	900	9	5850		
1020-1000	1000	10	6500	4	11200
1020-1100	1100	11	7150		
1020-1200	1200	12	7800		
1020-1300	1300	13	8450		
1020-1400	1400	14	9100	5	14000
1020-1500	1500	15	9750		
1020-1600	1600	16	10400		
1020-1700	1700	17	11050	6	16800
1020-1800	1800	18	11700		
1020-1900	1900	19	12350		
1020-2000	2000	20	13000		
1020-2100	2100	21	13650	7	19600
1020-2200	2200	22	14300		
1020-2300	2300	23	14950		
1020-2400	2400	24	15600		
1020-2500	2500	25	16250	8	22400



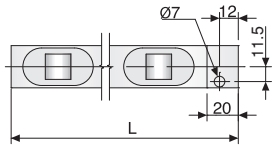
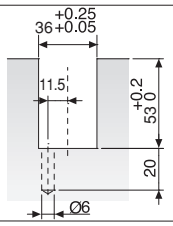
Model DL Hareket Yönü
Model DL Movement Direction

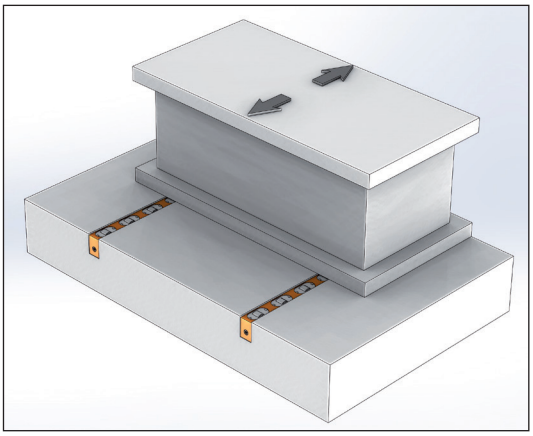
Ürün Nr. 1020 Hidrolik Kalıp Kaldırma Model DL
- Standart Sıcaklık : 60°
- Hidrolik Basınç : 250kgf/cm^2

Product Nr. 1020 Die Lifter Hydraulic Model DL
- Standard Temperature : 60°
- Hydraulic Pressure : 250kgf/cm^2



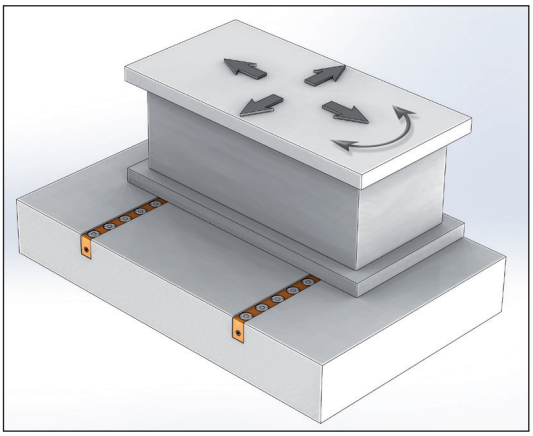


Dış Ölçüler Outline Dimensions	D□□36 Serisi / Serial 
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)	



Model DLP Hareket Yönü
Model DLP Movement Direction

Referans Nr.	L	D□□36						
		DLP36	DBP36	Pnömatik Silindir Pneumatic cylinder				
		Rulo Roller (DLP)	Misket Ball (DBP)	6 Bar Kapasite	8 Bar Kapasite	10 Bar Kapasite	12 Bar Kapasite	Piston
1023-0200	200	3	5	200	260	320	400	4
1023-0300	300	5	7	300	390	480	600	6
1023-0400	400	6	10	400	520	640	800	8
1023-0500	500	8	12	550	715	880	1100	11
1023-0600	600	9	15	650	845	1040	1300	13
1023-0700	700	11	17	750	975	1200	1500	15
1023-0800	800	12	20	900	1170	1440	1800	18
1023-0900	900	14	22	1000	1300	1600	2000	20
1023-1000	1000	15	25	1100	1430	1760	2200	22
1023-1100	1100	16	27	1250	1625	2000	2500	25
1023-1200	1200	17	30	1350	1755	2160	2700	27
1023-1300	1300	18	32	1450	1885	2320	2900	29
1023-1400	1400	19	35	1550	2015	2480	3100	31
1023-1500	1500	20	37	1700	2210	2720	3400	34
1023-1600	1600	22	40	1800	2340	2880	3600	36
1023-1700	1700	24	42	1900	2470	3040	3800	38
1023-1800	1800	25	45	2050	2665	3280	4100	41
1023-1900	1900	27	47	2150	2795	3440	4300	43



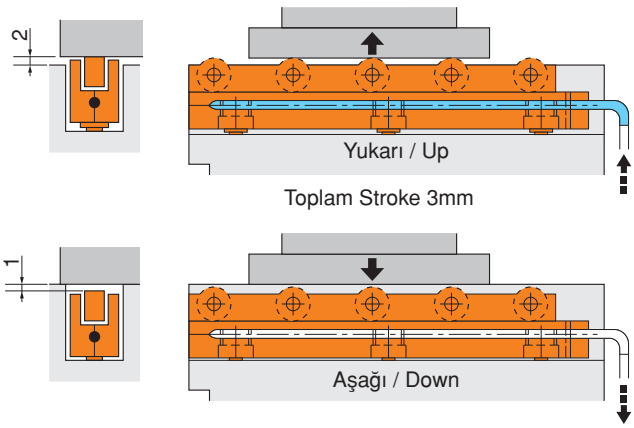
Model DBP Hareket Yönü
Model DBP Movement Direction

Ürün Nr. 1023 Hidrolik Kalıp Kaldırma Model DLP-DBP
• Standart Sıcaklık : 60°

Product Nr. 1023 Die Lifter Hydraulic Model DLP-DBP
• Standard Temperature : 60°

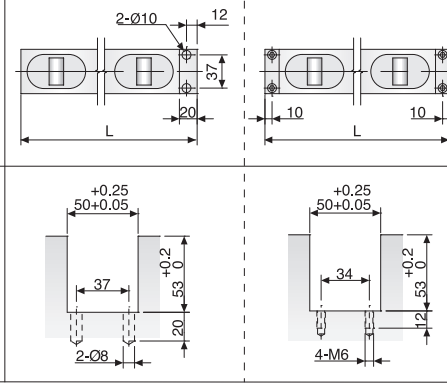
Pnömatik Kalıp Kaldırma Model DLP-DBP

Die Lifter Pneumatic Model DLP-DBP

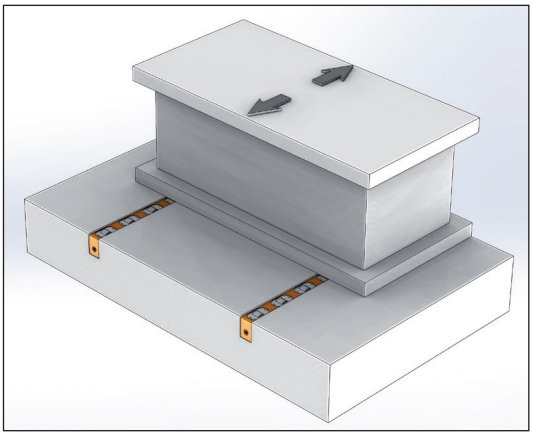




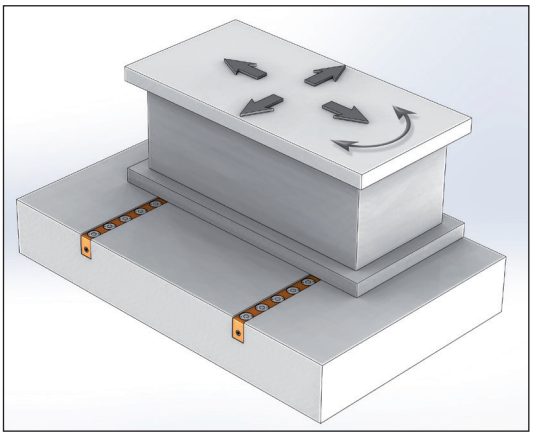
Dış Ölçüler Outline Dimensions	D□□50 Serisi / Serial DL50-2100'den önce	D□□50 Serisi / Serial DL50-2100'den sonra
Pleyt için işlem ölçüsü (U-Kanal) Processing Size for Plate (U-slot)		



Referans Nr.	L	D□□50						
		DLP50	DBP50	Pnömatik Silindir Pneumatic cylinder				
		Rulo Roller (DLP)	Misket Ball (DBP)	6 Bar Kapasite	8 Bar Kapasite	10 Bar Kapasite	12 Bar Kapasite	Piston
1023-0200	200	2	4	285	375	480	570	3
1023-0300	300	3	6	380	500	640	760	4
1023-0400	400	4	9	570	750	960	1140	6
1023-0500	500	5	11	665	875	1120	1330	7
1023-0600	600	6	13	855	1125	1440	1710	9
1023-0700	700	7	16	1045	1375	1760	2090	11
1023-0800	800	8	18	1140	1500	1920	2280	12
1023-0900	900	9	20	1330	1750	2240	2660	14
1023-1000	1000	10	23	1520	2000	2560	3040	16
1023-1100	1100	11	25	1710	2250	2880	3420	18
1023-1200	1200	12	27	1805	2375	3040	3610	19
1023-1300	1300	13	29	1995	2625	3360	3990	21
1023-1400	1400	14	31	2090	2750	3520	4180	22
1023-1500	1500	15	33	2280	3000	3840	4560	24
1023-1600	1600	16	35	2470	3250	4160	4940	26
1023-1700	1700	17	38	2565	3375	4320	5130	27
1023-1800	1800	18	40	2755	3625	4640	5510	29
1023-1900	1900	19	42	2945	3875	4960	5890	31
1023-2000	2000	20	44	3135	4125	5280	6270	33
1023-2100	2100	21	46	3230	4250	5440	6460	34
1023-2200	2200	22	48	3420	4500	5760	6840	36
1023-2300	2300	23	50	3610	4750	6080	7220	38
1023-2400	2400	24	52	3705	4875	6240	7410	39
1023-2500	2500	25	54	3895	5125	6560	7790	41



Model DLP Hareket Yönü
Model DLP Movement Direction



Model DBP Hareket Yönü
Model DBP Movement Direction

Ürün Nr. 1023 Hidrolik Kalıp Kaldırma Model DLP-DBP
• Standart Sıcaklık : 60°

Product Nr. 1023 Die Lifter Hydraulic Model DLP-DBP
• Standard Temperature : 60°

Yaylı Silindir Kalıp Kaldırma Model DLS

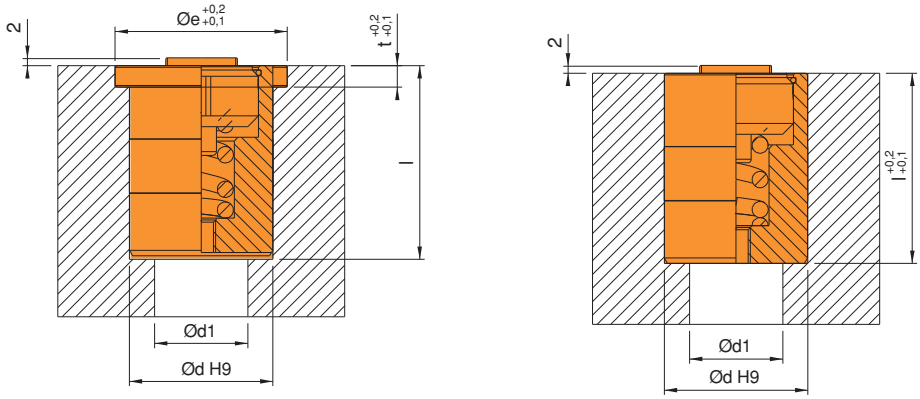
Die Lifter Spring Cylinder Model DLS

Referans Nr.	d	Kapasite kg	e	t	l	d1	(g)
1022-DLSD0050	20	50	25	3.5	31	10	45
1022-DLSD0080	24	80	30	4	39	14	75
1022-DLSD0125	30	125	35	5	45	20	140
1022-DLSD0200	40	200	50	6	54	30	375
1022-DLSDD050	20	50	-	-	30	10	35
1022-DLSDD080	24	80	-	-	38	14	70
1022-DLSDD125	30	125	-	-	44	20	130
1022-DLSDD200	40	200	-	-	53	30	240



DLSD DLSDD

Ürün Nr. 1022 Yaylı Silindir Kalıp Kaldırma Model DLS
Product Nr. 1022 Die Lifter Spring Cylinder Model DLS



Yaylı Silindir Kalıp Kaldırma Model DBS

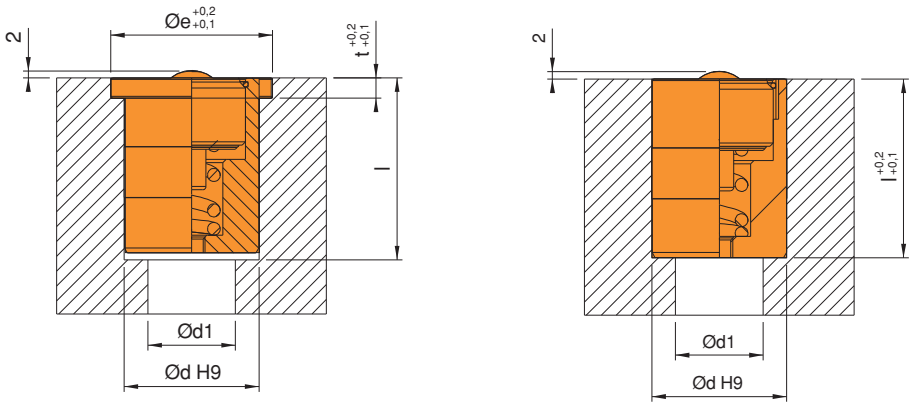
Die Lifter Spring Cylinder Model DBS

Referans Nr.	d	Kapasite kg	e	t	l	d1	(g)
1022-DBSD0025	20	25	25	3.5	31	10	45
1022-DBSD0040	24	40	30	4	39	14	85
1022-DBSD0063	30	63	35	5	45	20	150
1022-DBSD0100	40	100	50	6	54	30	350
1022-DBSDD025	20	25	-	-	30	10	40
1022-DBSDD040	24	40	-	-	38	14	80
1022-DBSDD063	30	63	-	-	44	20	140
1022-DBSDD100	40	100	-	-	53	30	325



DBSD DBSDD

Ürün Nr. 1022 Yaylı Silindir Kalıp Kaldırma Model DBS
Product Nr. 1022 Die Lifter Spring Cylinder Model DBS

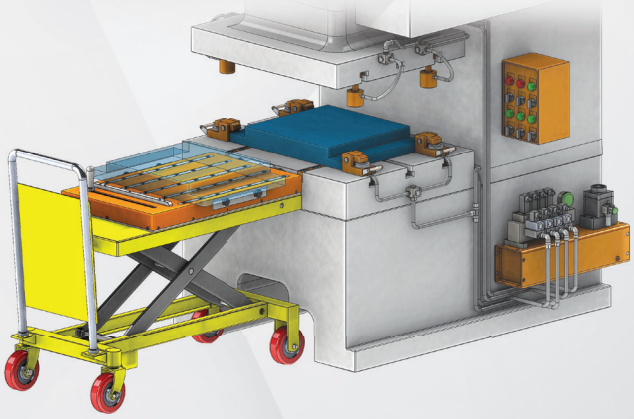


KALIP YÜKLEME TABLASI

MOLD TRANSPORT TRAY







Kalıp Yükleme Tablası Uygulamaları / Mold Transport Tray Applications



Kalıp Yükleme Tablası
Mold Transport Tray



Kalıp Yükleme Tablası (Arabalı)
Mold Transport Tray (Trolley)



Kalıp Yükleme Tablası (Elektrikli Forklift)
Mold Transport Tray (Electric Forklift)



Kalıp Yükleme Tablası (Forklift)
Mold Transport Tray (Forklift)

1



2



3



4



Kalıp Yükleme Tablası

Mold Transport Tray

Referans Nr.	A	L2	H	L	Kapasite Capacity
1024-500670	500	670	71	818	1 Ton / Tone

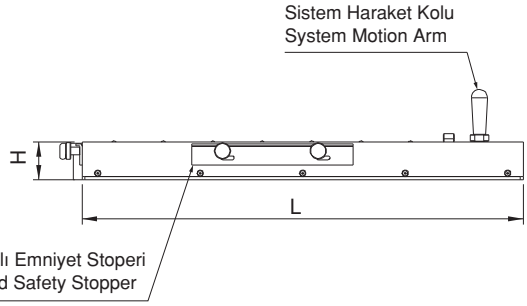
Ürün Nr. 1024 Kalıp Yükleme Tablası

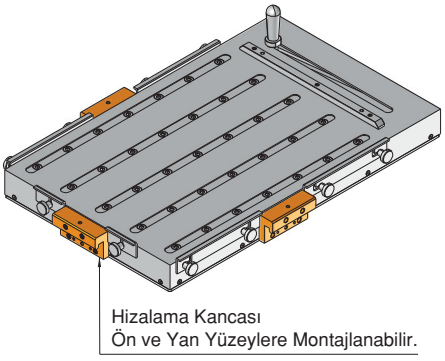
- Ağırlığı 1 tona kadar olan kalıpları, pres tablasına veya raflara yerleştirmek için yükleme esnasında hareket ettirilmek istendiğinde, yüzey temasını azaltır. Böylece rahatlıkla, çok fazla güce ihtiyaç duymadan hızlı ve pratik şekilde kalıbı yükleme olanağı sağlamaktadır.
- Kalıp arabasına veya forklift araçlarına montaj özelliği ile birlikte kolaylıkla sabitlenip kullanılabilir.

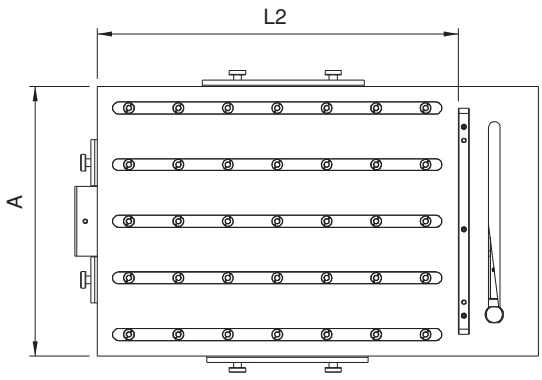
Product Nr. 1024 Mold Transport Tray

- Molds up to 1 ton weight, it reduces surface contact when it is desired to be moved during loading to be placed on the press table or shelves. Thus, it provides the possibility of loading the mold easily and quickly without the need for much power.
- It can be mounted on mold cart or forklifts and can be easily used.

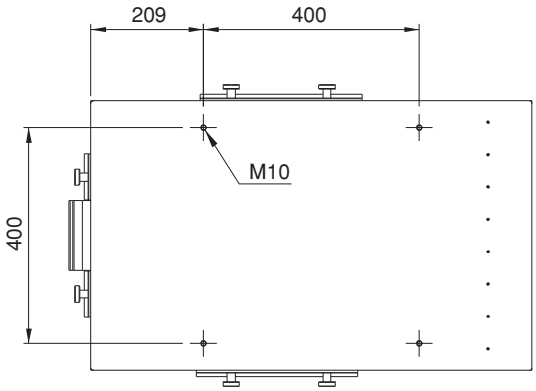








Taşıma Arabası ve Benzer Ekipmanlar İçin Montaj Delikleri
Mounting Holes For Transport Tray and Similar Equipment



Kalıp Yükleme Tablası Uygulamaları / Mold Transport Tray Applications



Kalıp Yükleme Tablası
Mold Transport Tray



Kalıp Yükleme Tablası (Arabalı)
Mold Transport Tray (Trolley)



Kalıp Yükleme Tablası (Elektrikli Forklift)
Mold Transport Tray (Electric Forklift)



Kalıp Yükleme Tablası (Forklift)
Mold Transport Tray (Forklift)

Kalıp Yükleme Tablası (Arabalı)

Mold Transport Tray (Trolley)

Referans Nr.	A	L2	H (min. - max.)	L	L1	Kapasite Capacity
1024-500671	500	670	480 - 1050	818	1015	1 Ton / Tone

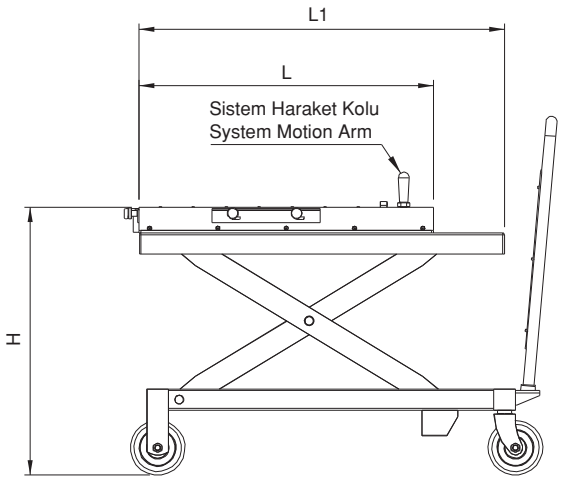
Ürün Nr. 1024 Kalıp Yükleme Tablası (Arabalı)

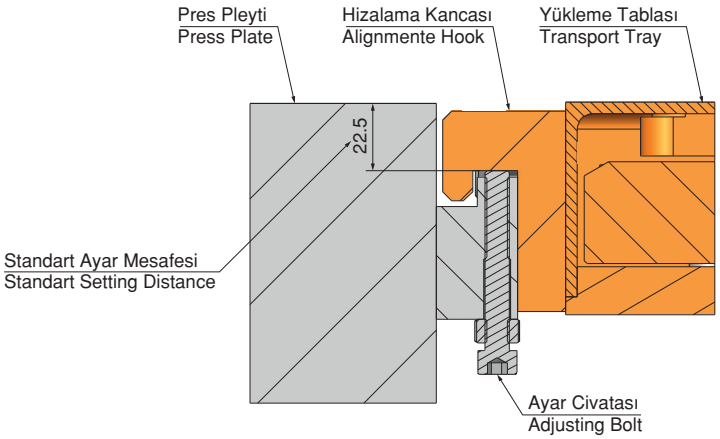
- Ağırlığı 1 tona kadar olan kalıpları, pres tablasına veya raflara yerleştirmek için yükleme esnasında hareket ettirilmek istendiğinde, yüzey temasını azaltır. Böylece rahatlıkla, çok fazla güce ihtiyaç duymadan hızlı ve pratik şekilde kalıbı yükleme olanağı sağlamaktadır.

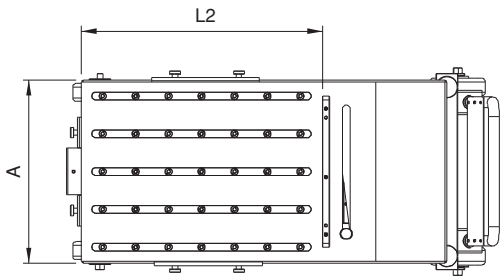
Product Nr. 1024 Mold Transport Tray (Trolley)

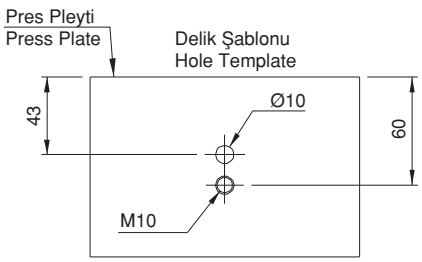
- Molds up to 1 ton weight, it reduces surface contact when it is desired to be moved during loading to be placed on the press table or shelves. Thus, it provides the possibility of loading the mold easily and quickly without the need for much power.

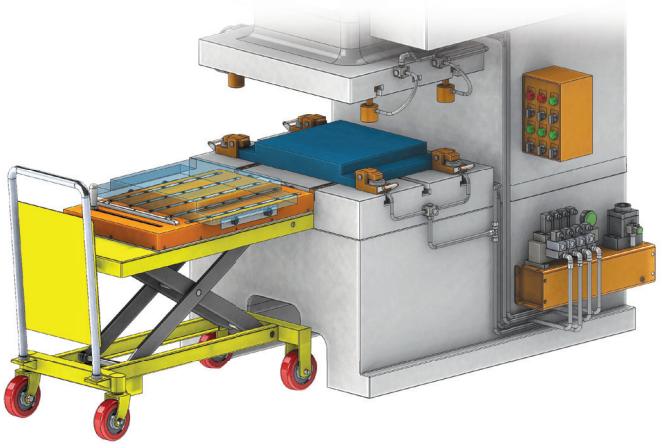












1



2



3



4

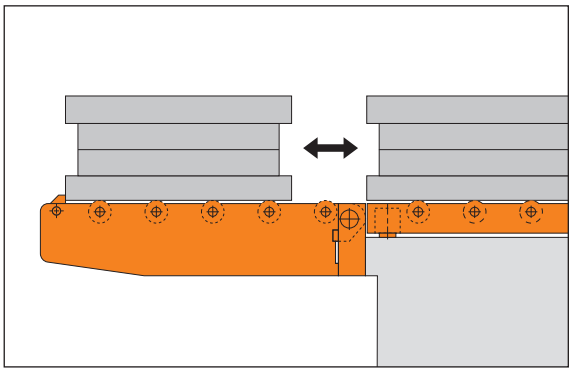


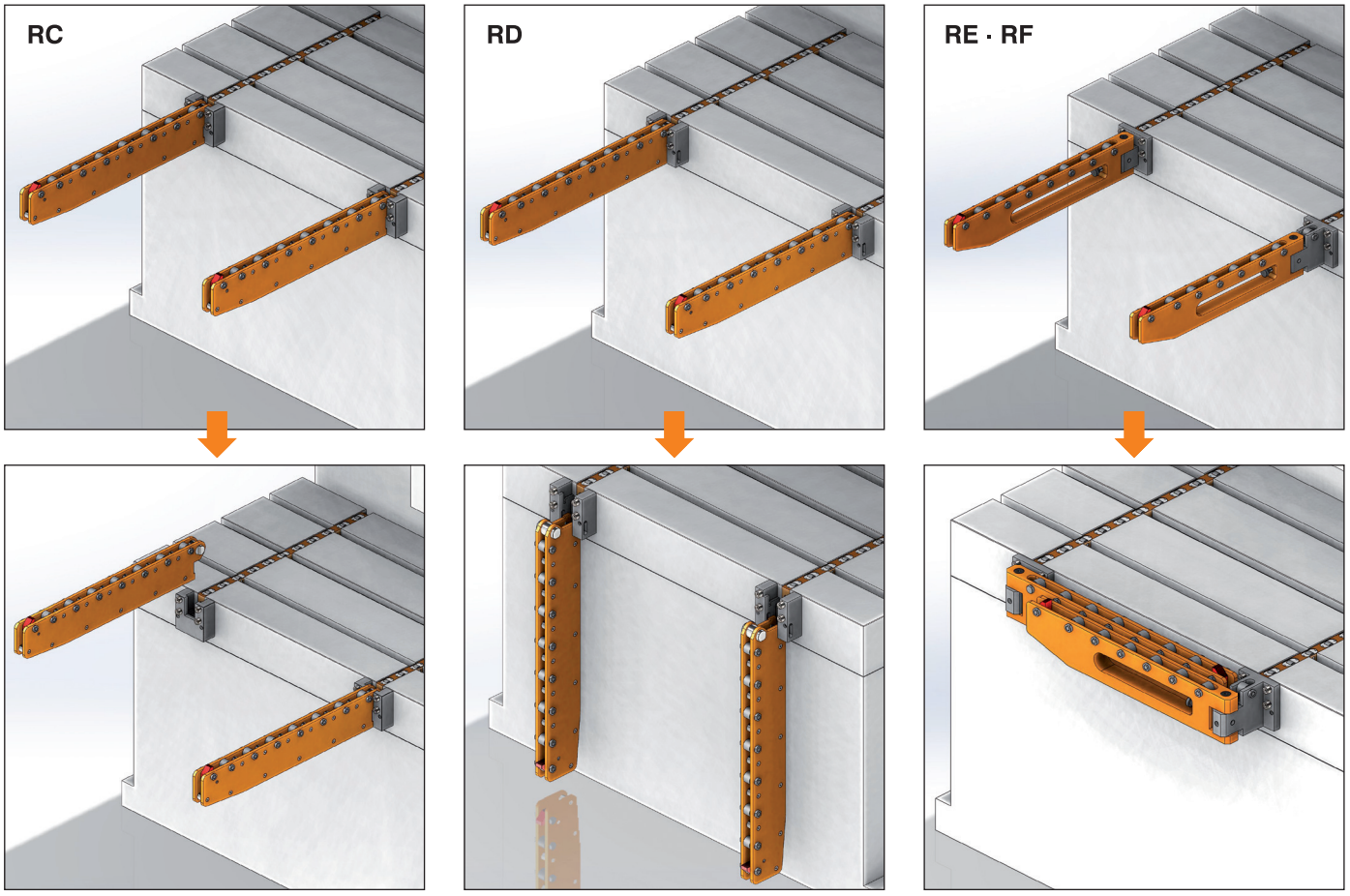
Model RC - RD - RE/RF

Model Seçimi / Model Selection

R ① – ②

Model	Saklama Metodu / Storage Method	Tanımlama / Specification
C	Demonte / Dismantling	580 mm
D	Asmalı / Hanging	760 mm
E	Katlamalı (kısa) / Folding (short)	880 mm
F	Katlamalı (uzun) / Folding (long)	990 mm



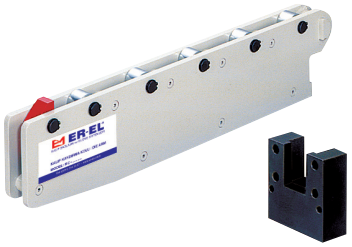


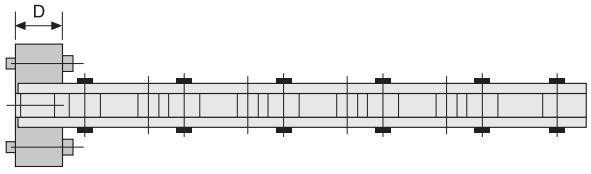
Referans Nr.	Destek Modeli Model of Support	İhtiyaç Duyulan Kalıp uzunluğu Length Needed of the Die L(mm)	Max. Kapasite Max. Capacity (kgf)	Top. Uzunluk Total Length A (mm)	Destek ölçüleri Size of Support			Kurulum İçin Delik Şekilleri Hole Pattern For Installation	Silindir sayısı Number of Roller
					D	B	H		
1025-RC580	RC-12	500	800	550	48	115	118	A Tipi / A Type	5
1025-RC760	RC-12	700	600	750	48	115	118	A Tipi / A Type	7
1025-RC880	RC-16	800	800	850	48	115	158	B Tipi / B Type	8
1025-RC990	RC-20	900	900	950	48	115	188	B Tipi / B Type	9
1027-RC05125	RC-14H	500	1250	550	55	130	138	C Tipi / C Type	7
1027-RC05160	RC-16H	500	1600	550	55	130	158	C Tipi / C Type	7
1027-RC05200	RC-18H	500	2000	550	55	130	178	C Tipi / C Type	7
1027-RC07125	RC-14H	700	1250	750	55	130	138	C Tipi / C Type	9
1027-RC07160	RC-16H	700	1600	750	55	130	158	C Tipi / C Type	9
1027-RC07200	RC-18H	700	2000	750	55	130	178	C Tipi / C Type	9
1027-RC08125	RC-16H	800	1250	850	55	130	158	C Tipi / C Type	10
1027-RC08160	RC-18H	800	1600	850	55	130	178	C Tipi / C Type	10
1027-RC08200	RC-20H	800	2000	850	55	130	188	C Tipi / C Type	10
1027-RC09160	RC-22H	900	1600	950	55	130	218	C Tipi / C Type	11

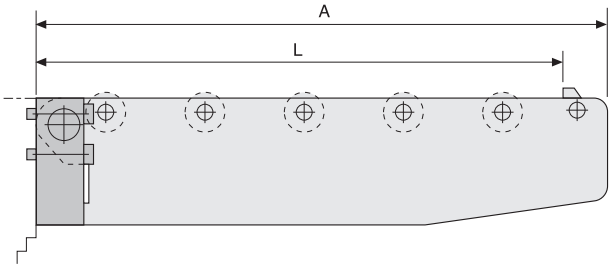
Ürün Nr. 1027 Kalıp Kaydırma Kolu Model RC **Product Nr. 1027 Die Arm Model RC**

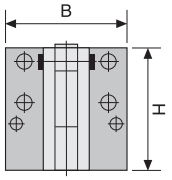
Model RC (Demonte / Dismantling)

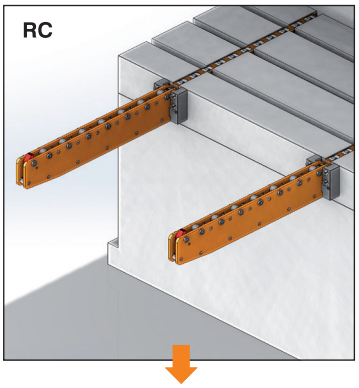
- RC modelinde, kol ve destek ayrı olarak kullanılabilir.
- The arm itself and the support in Model RC can be used separately.

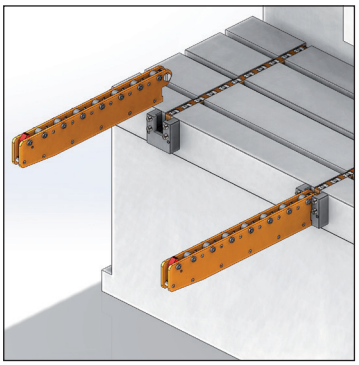


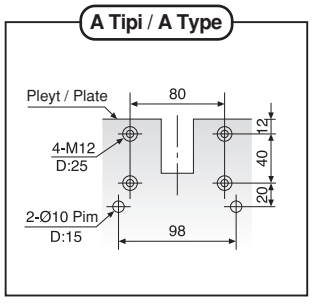


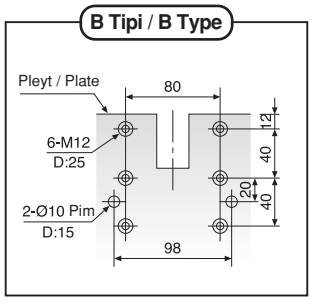


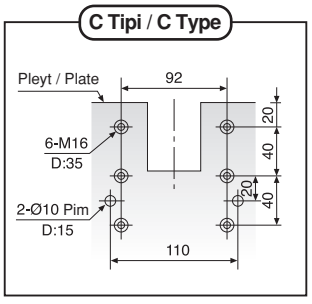












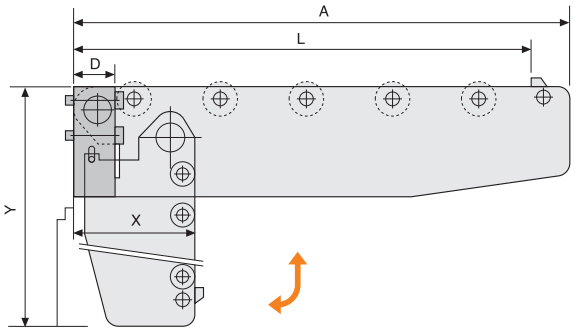
Referans Nr.	İhtiyaç Duyulan Kalıp uzunluğu Length Needed of the Die L(mm)	Max. Kapasite Max. Capacity (kgf)	Top. Uzunluk Total Length A (mm)	Asma Ölçüleri Size of Hanging		Destek Ölçüleri Size of Support			Kurulum İçin Delik Şekilleri Hole Pattern For Installation	Silindir sayısı Number of Roller
				X	Y	D	B	H		
1030-RD580	500	800	550	140	620	52	115	118	A Tipi / A Type	5
1030-RD760	700	600	750	140	820	52	115	118	A Tipi / A Type	7
1030-RD880	800	800	850	180	960	52	115	158	B Tipi / B Type	8
1030-RD990	900	900	950	220	1100	52	115	188	B Tipi / B Type	9
1030-RD05125	500	1250	550	170	645	62	130	138	C Tipi / C Type	7
1030-RD05160	500	1600	550	190	670	62	130	158	C Tipi / C Type	7
1030-RD05200	500	2000	550	210	675	62	130	178	C Tipi / C Type	7
1030-RD07125	700	1250	750	170	840	62	130	138	C Tipi / C Type	9
1030-RD07160	700	1600	750	190	865	62	130	158	C Tipi / C Type	9
1030-RD07200	700	2000	750	210	890	62	130	178	C Tipi / C Type	9
1030-RD08125	800	1250	850	190	960	62	130	158	C Tipi / C Type	10
1030-RD08160	800	1600	850	210	985	62	130	178	C Tipi / C Type	10
1030-RD08200	800	2000	850	220	995	62	130	188	C Tipi / C Type	10
1030-RD09160	900	1600	950	250	1130	62	130	218	C Tipi / C Type	11

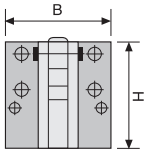
Ürün Nr. 1030 Kalıp Kaydırma Kolu Model RD **Product Nr. 1030 Die Arm Model RD**

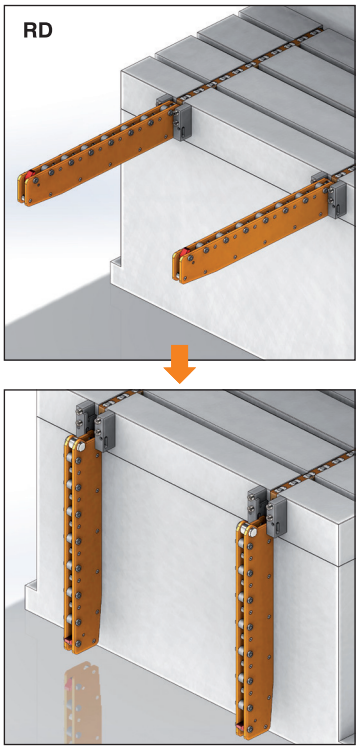
Model RD (Asmalı / Hanging)

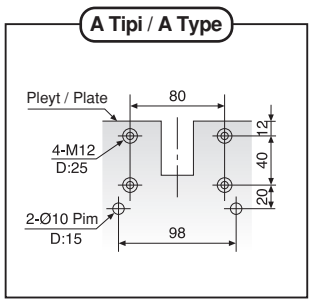
- RD modelinin asma uzunluğu (Y) zemin ve plaka arasındaki yükseklik farkından daha düşük olmalıdır.
- The hanging length (Y) of Model RD should be less than the height between the plate and the ground

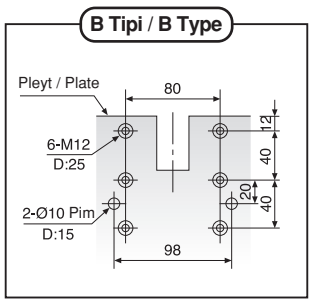


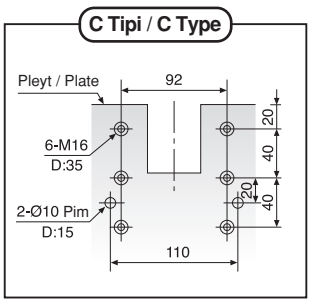












Referans Nr.	İhtiyaç Duyulan Kalıp uzunluğu Length Needed of the Die L (mm)	Max. Kapasite Max. Capacity (kgf)	Top. Uzunluk Total Length A (mm)	Kurulum İçin Gerekli Minimum Mesafe Min. Distance for Installation C (mm)	Katlı Haliyle Ölçüler Size of Fold Down		Destek ölçüleri Size of Support		Silindir Sayısı Number of Roller	M	N	Kurulum İçin Delik Şekilleri Hole Pattern For Installation
					X	Y	B	H				
1033-RERF580	500	800	550	525	90	150	115	118	5	57	120	A Tipi / A Type
1033-RERF760	700	600	750	725	90	150	115	118	7	57	120	A Tipi / A Type
1033-RERF880	800	800	850	825	90	150	115	158	8	57	120	B Tipi / B Type
1033-RERF990	900	900	950	925	90	150	115	188	9	57	120	B Tipi / B Type

Ürün Nr. 1033 Kalıp Kaydırma Kolu Model RE-RF

- İş bittiğinde sağa veya sola katlanabilir.

Product Nr. 1033 Die Arm Model RE-RF

- Itself can be turned left or right for storage.

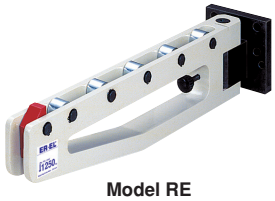
Referans Nr.	İhtiyaç Duyulan Kalıp uzunluğu Length Needed of the Die L (mm)	Max. Kapasite Max. Capacity (kgf)	Top. Uzunluk Total Length A (mm)	Kurulum İçin Gerekli Minimum Mesafe Min. Distance for Installation C (mm)	Katlı Haliyle Ölçüler Size of Fold Down		Destek ölçüleri Size of Support		Silindir Sayısı Number of Roller	M	N	Kurulum İçin Delik Şekilleri Hole Pattern For Installation
					X	Y	B	H				
1035-RERF05160	500	1600	550	525	105	170	130	158	7	74	140	C Tipi / C Type
1035-RERF05200	500	2000	550	525	105	170	130	178	7	74	140	C Tipi / C Type
1035-RERF07160	700	1600	750	725	105	170	130	158	9	74	140	C Tipi / C Type
1035-RERF07200	700	2000	750	725	105	170	130	178	9	74	140	C Tipi / C Type
1035-RERF08160	800	1600	850	825	105	170	130	178	10	74	140	C Tipi / C Type
1035-RERF08200	800	2000	850	825	105	170	130	188	10	74	140	C Tipi / C Type
1035-RERF09160	900	1600	950	925	105	170	130	218	11	74	140	C Tipi / C Type
1035-RERF09200	900	2000	950	925	105	170	130	248	11	74	140	C Tipi / C Type

Ürün Nr. 1035 Kalıp Kaydırma Kolu Model RE-RF

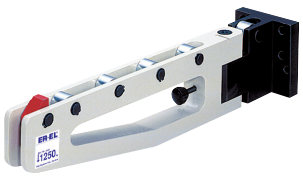
- İş bittiğinde sağa veya sola katlanabilir.
- RE ve RF Modellerinin kurulduğu mesafe (C) mesafesinden daha büyük olmalıdır.

Product Nr. 1035 Die Arm Model RE-RF

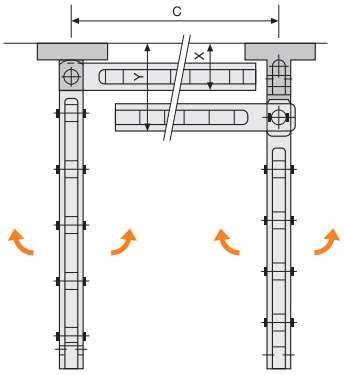
- Itself can be turned left or right for storage.
- The distance for installing the two arms of Model RE and RF should be more than the distance between the installations (C)

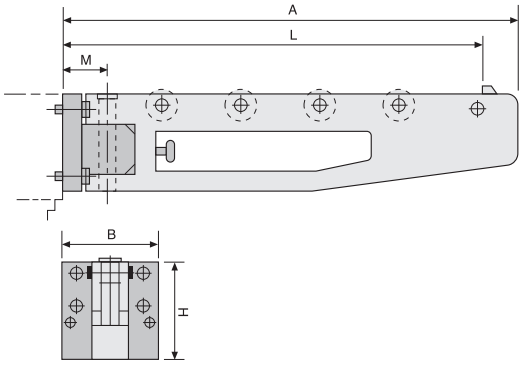


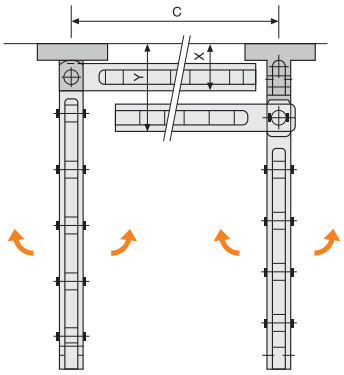
Model RE
Katlamalı / Folding

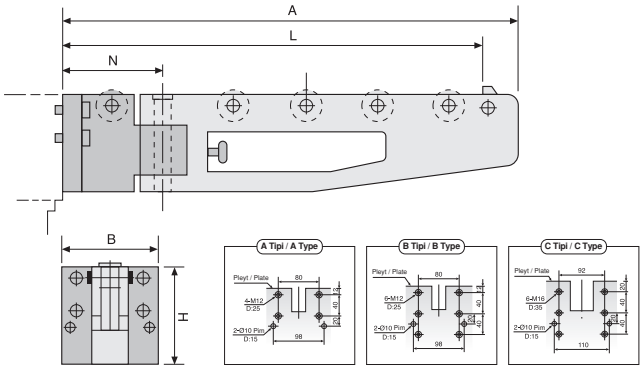


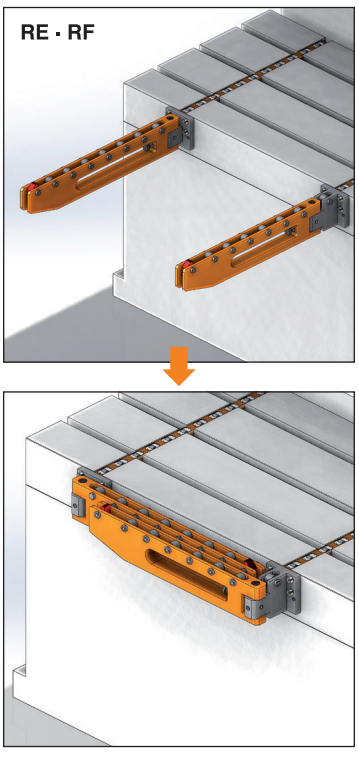
Model RF
Katlamalı / Folding











Model RS (Destekli / Supporter)

Not
Proje özel üretimidir.

Note
Project is special produce.



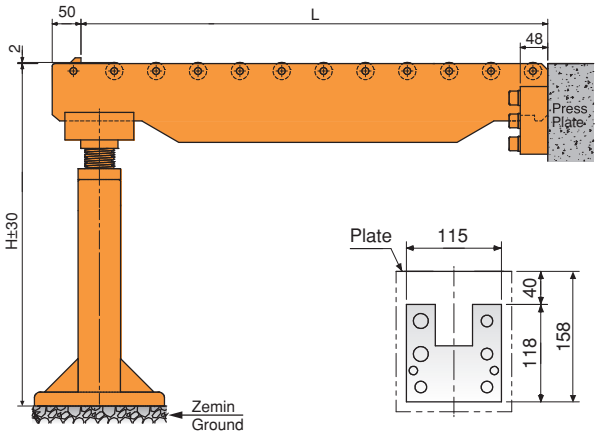
Model Seçimi / Model Selection

RS – Ⓛ – Ⓗ – Ⓦ

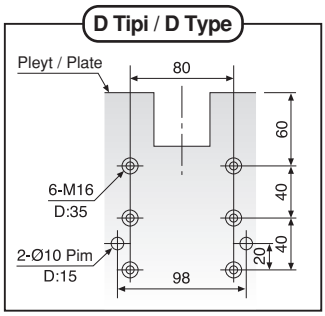
- Ⓛ Kullanım uzunluğu / Use length
- Ⓗ Pres Pleyti ile zemin arasındaki yükseklik / The height between the press plate and the ground
- Ⓦ Kalıp ağırlığı / Die weight

Ürün Nr. 1037 Kalıp Kaydırma Kolu Model RS (Ağır Yük)
Product Nr. 1037 Die Arm Model RS (Heavy Duty)

- Sipariş verirken yukarıdaki bilgileri bildirmeniz gerekmektedir.
- Delik işleminde (D) tipi destek ölçülerini kullanın.
- Pleasa cleary indicate the above information while ordering.
- Adopt (D) type to install hole pattern.



RS MODEL DELİK DELME ŞABLONU
RS MODEL HOLE PATTERN FOR INSTALLATION

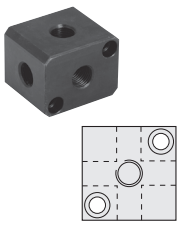






Aksesuarlar
Accessories

Bağlayıcı Tüp
Tube Connecter
Referans Nr.
1036-BT



Fır Döndü
Swivel
Referans Nr.
1036-FD



Döner Eklem
Rotary Joint
Referans Nr.
1036-DE



Pabuç Askısı
Clamp Bracket
Referans Nr.
1036-CACV



Pabuç Askısı
Clamp Bracket
Referans Nr.
1036-CB



Pompa Kabini
Pump Cabin
Referans Nr.
1036-PK



Motorlu Kalıp Kaydırma Kolu Model RSM (Ağır Yük)

Motor-Driven Die Arm Console Set - Model RSM (Heavy Duty)

Model RSM (Destekli / Supporter)

Not
Proje özel üretimidir.

Note
Project is special produce.



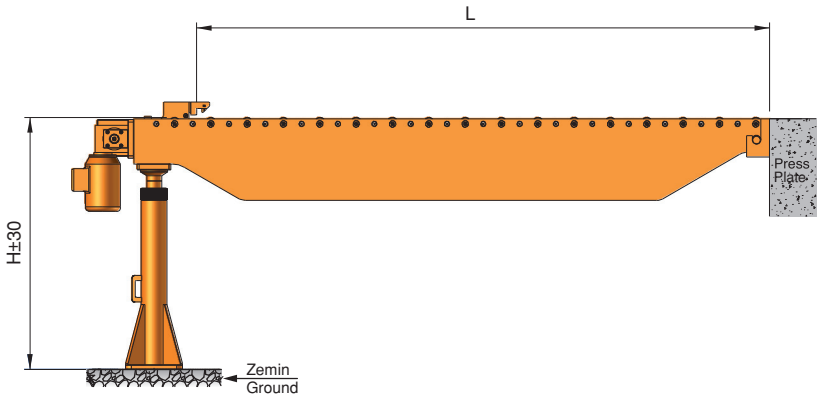
Model Seçimi / Model Selection

RSM – Ⓛ – Ⓗ – Ⓦ

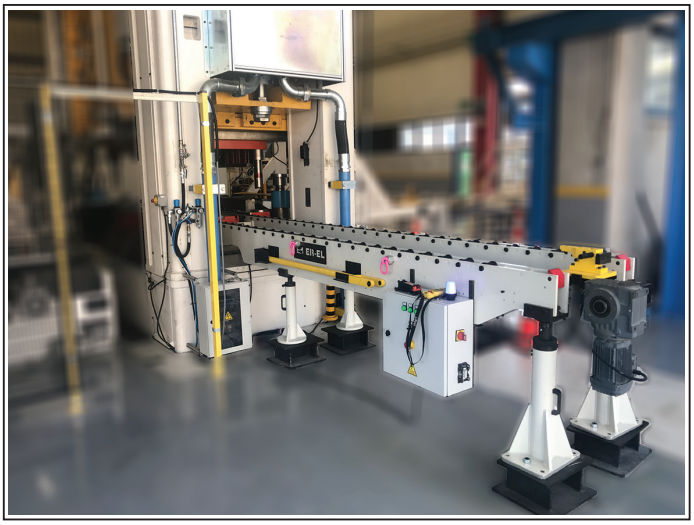
- Ⓛ Kullanım uzunluğu / Use length
- Ⓗ Pres Pleyti ile zemin arasındaki yükseklik / The height between the press plate and the ground
- Ⓦ Kalıp ağırlığı / Die weight

Ürün Nr. 1038 Motorlu Kalıp Kaydırma Kolu Model RSM (Ağır Yük)
Product Nr. 1038 Motor-Driven Die Arm Console Set - Model RSM (Heavy Duty)

- Sipariş verirken yukarıdaki bilgileri bildirmeniz gerekmektedir.
- Pleasa cleary indicate the above information while ordering.







Hava Tahrikli Hidrolik Pompa Ünitesi

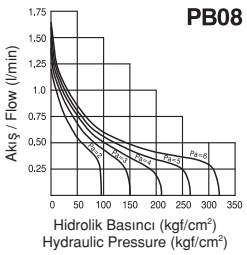
Air Driven Hydraulic Pump Unit

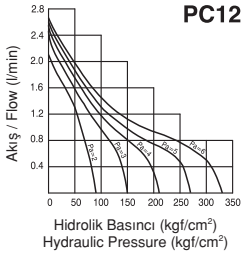
Referans Nr.	L1	L2	H	(kg)
1040-PB0801P1V	250	225	367	15.55
1040-PB0801P2V	310	285	367	18.55
1040-PB0801P3V	428	403	367	21.50
1040-PB0801P4V	487	462	367	24.70
1040-PC1202P2V	-	397	367	-
1040-PJ1202P4V	660	-	500	-

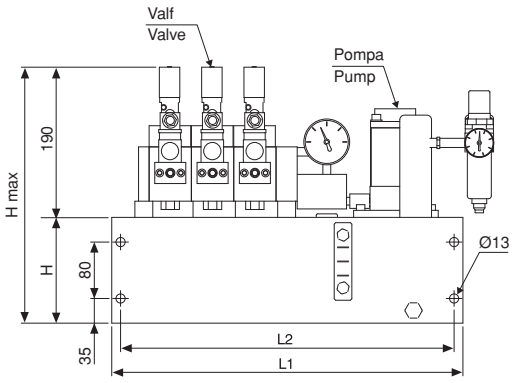


Ürün Nr. 1040 Hava Tahrikli Hidrolik Pompa Ünitesi
- Hidrolik Pompa hava tahriklidir. Hidrolik basınç ayarlanan seviyeye geldiğinde pompalamayı tasarruf etmek için keser. Diğer taraftan, çalışma basıncı azalırsa, pompa devamlılığı sağlamak için otomatik olarak basınç verir.
- Devre kontrol sistemi olası kaçakları denetleme ve engelleme fonksiyonuyla tasarlanmıştır. Pnömatik basınç devre dışı kalsa bile hidrolik basınç kalır.
- Basınç denetleme ve makinelere bağlanma özelliği vardır.
- CA ve CB-16 veya 25 bağlama pabuçlarıyla uygulama yapıldığında, PC12 model pompa kullanılması önerilir.
- Kapasite 350 max. Bar
- Basınç kontrol valfli

Product Nr. 1040 Air Driven Hydraulic Pump Unit
- The hydraulic pump is driven by air. Once the hydraulic pressure reaches the pressure setting, it stops pumping which is energy saving. Meanwhile, if the working pressure reduces, the pump wouki supply pressure automatically to keep working pressure continuously.
- The circuit control system is designed with the function of checking and avoiding oil leakage. If pneumatic pressure out, the hydraulic pressure still maintains.
- It is capable of pressure inspection and connecting to machines.
- It is suggested to adopt pump model PC12 when used with clamp model CA&CB-16 or 25.
- Capacity 350 max. bar
- Pressure control valve







Kontrol Ünitesi

Control Unit

Referans Nr.	Devreli Circuits
1041-QDC01	1
1041-QDC02	2
1041-QDC03	3
1041-QDC04	4
1041-QMC04	4



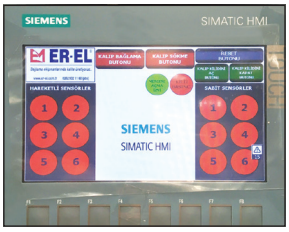
Ürün Nr. 1041 Kontrol Ünitesi
- QDC Pres kontrol ünitesi
- QMC Enjeksiyon kontrol ünitesi

Product Nr. 1041 Control Unit
- QDC Press control unit
- QMC Injection control unit

PLC Kontrol Ünitesi

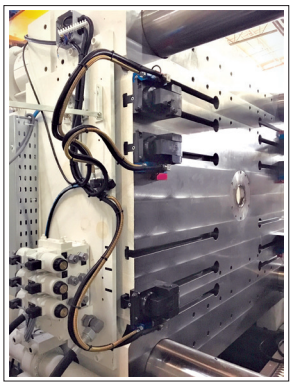
PLC Control Unit

Referans Nr.
1041-PLCSMS
1041-PLCGMT



Ürün Nr. 1041 PLC Kontrol Ünitesi
- PLC Kontrol Ünitesi Katagori 4
- PLC Kontrol Ünitesi

Product Nr. 1041 PLC Control Unit
- PLC Control Unit Category 4
- PLC Control Unit



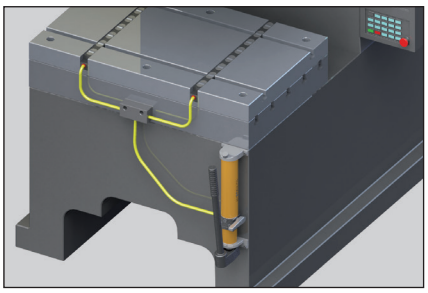
Hidrolik El Pompası

Hydraulic Hand Pump

Referans Nr.
1040-PB0101

Ürün Nr. 1040 Hidrolik El Pompası
- Sadece kalıp kaldırma kullanıldığında alternatif olarak hidrolik el pompası kullanılabilir.
- 250 Bar

Product Nr. 1040 Hydraulic Hand Pump
- If only the die ifter is used, the usage of a manual hydraulic pump can alternatively be used.
- 250 Bar



Alternatif Sistem
Alternative Systems



Ayak Pedallı Hidro-Pnömatik Pompa

Foot Pedal Hydropneumatic Pump

Referans Nr.	Tank Yağ Kapasitesi Working Pressure	Aktif Yağ Miktarı Reservoir Capacity	Pompa Tipi Usable Oil	litre/dk. 50/700 bar lt./min. 50/700 bar	Hava Barı Air requirement min-max	Hava Tüketimi Air Consumption	Basınç Barı Pressure Rating	Yağ Çıkış Bağlantısı Connection Thread	Yağ Dolu Ağırlık Weight incl. Oil	Ölçüler Sizes mm
1040-PA0202	1500 cm^3	1000 cm^3	Tek Etkili Single Stage	600/110 cm^3	5-7	250 l/d	50-700	3/8 NPT	12 kg	262x190x186

Ürün Nr. 1040 Ayak Pedallı Hidro-Pnömatik Pompa
- Ayak pedallı kullanımda hidro-pnömatik bir sistem ile daha kolay-rijit kullanımı olur.
- Ayak pedalı tek hareketle 5-6 bar ile çalışan sistem devreye girer ve insan kuvveti yerine kaldırıcılara yağı iletme-boşaltma görevini yapar sadece.
- Minimum 5 bar hava ile 700 bar hidrolik yağ basınç üreten hidropnömatik ayak pompaları çok farklı alanlarda kullanılabilir; hidrolik silindirler, kalıp kaldırıcılar, preslerin çalışma alanlarında.



Product Nr. 1040 Foot Pedal Hydro-Pneumatic Pump
- With foot pedal operation, hydro-pneumatic system makes it easier to use rigid.
- The foot pedal is operated with 5-6 bar in one movement and the system is activated and instead of manpower, it only serves to transfer oil to lifters.
- Hydropneumatic foot pumps producing 700 bar hydraulic oil pressure with minimum 5 bar air can be used in many different fields ; operating hydraulic cylinders, pullers, mold lifters and presses.

Elektrikli Hidrolik Pompa Ünitesi

Electric Hydraulic Pump Unit

Referans Nr.	Valf Valve	Akış - Flow (l/min)	(l/min)	bar
1040-1P1VD	1	6	14	100
1040-1P2VD	2	6	14	100
1040-1P3VD	3	6	14	100
1040-1P4VD	4	6	14	100

Ürün Nr. 1040 Elektrikli Hidrolik Pompa Ünitesi
- Doğrudan bağlantı sisteme uygundur.
- Satın almadan önce (l/dk.) akış hızını belirtiniz.

Product Nr. 1040 Electric Hydraulic Pump Unit
- It is suitable for direct connection system.
- Please,you specify about flow speed (l/minute) before make purchase.



Hava Tahrikli Hidrolik Pompa Ünitesi

Air Driven Hydraulic Pump Unit

Referans Nr.	Maksimum Basınç Maximum Pressure	Maks. Operasyon Basıncı Max Operation Pressure	Hidrolik Sıvı Akışı Hydraulic fluid expelled l/min	Yağ Tankı Kapasitesi Oli Tank Capacity	Yağ Oil
1040-06ABP	36	6 Kg/cm^2	16	5 lt	ISO-VG68
1040-10ABP	60	6 Kg/cm^2	10	5 lt	ISO-VG68
1040-25ABP	150	6 Kg/cm^2	5	5 lt	ISO-VG68
1040-44ABP	250	6 Kg/cm^2	3	5 lt	ISO-VG68

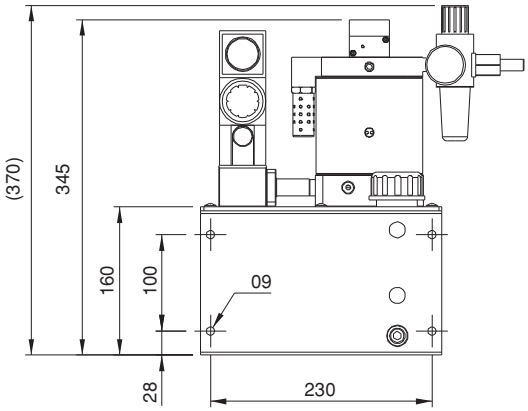


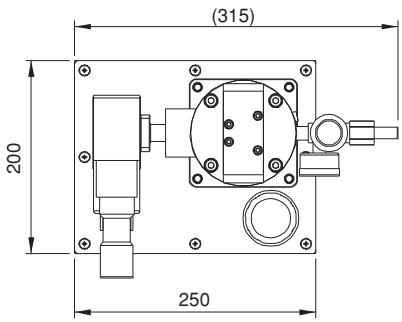
Not
Hidrolik komponentler için kullanıma uygundur.
Volt Tipi : AC110V, AC220V, DC12V, DC24V

Note
Suibtable for use with hydraulic components
Coil Type : AC110V, AC220V, DC12V, DC24V

Ürün Nr. 1040 Hava Tahrikli Hidrolik Pompa Ünitesi

- Hidrolik güçlendirici pompası, basınç çıkışına güç olarak silindirlere hidrolik basınç kaynağını üretmek üzere hava ile tahrik edilir. Pompanın akış hızı oranı geleneksel bir güçlendiriciden daha büyüktür. Silindirlerin strok aksiyonlarında sürekli basınç yükseltmesinde sınırlama yoktur.
- Basınç ayarı; hava basınç ayar valfi tarafından yapılmıştır. Basınç istenen değere ulaştığında sürücü derhal durur. Bu durumda basınç düşerse pompa otomatik olarak basıncı engelleyecektir. Özellikle uzun süre hidrolik sıkma uygulaması için ideal serilerdir. Ayrıca enerji tasarrufu sağlayan uygun ve ekonomik olup yağ sıcaklığı artmaz.
- Çift pompa uygulandığında, yükseltme basıncı oranını seçebilirsiniz. Özellikle yüksek ve alçak basınç gerektiren aparat ve fikstür birlikte operasyonlarında kullanımı için uygundur.
  A Tipi: ISO onaylı manifold ve solenoid valf ile donatılmıştır. Tek etkili veya çift etkili hidrolik silindir için geçerlidir. Dahili kaçak problemini iyileştirmek ve hava pompasının ömrünü uzatmak için HDV yön kontrol değeri ile donatılmıştır.
  B Tipi: Çalışma kontrolü için manuel bir sürgülü valfe bağlanmasına izin veren PT bağlantı noktalarına sahip boru bloğu ile donatılmıştır.
- Yerden tasarruf ve rahat kurulum için azaltılmış yağ tankı hacmi.

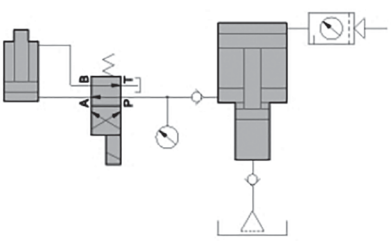




Product Nr. 1040 Air Driven Hydraulic Pump Unit

- The booster pump is driven by air to output hydraulic pressure for a power source for hydraulic cylinder. Its flow rate is bigger than than of a conventional booter. Continuous pressure boosting and no limitation of booster stroke for the acting cylinder.
- Pressure adjustment is made by an air pressure regulation valve. Once pressure reaches the desired value drive stops immediately. In case pressure drops the pump will compensate pressure automatically. The series is especially ideal for long time hydraulic clamping application. Also features energy saving no oil temperature growth economical and convenient.
- When double-pump is applied you can select the boost pressure ratio. It is especially suitable for jig and fixture which requires high and low pressure operation together.
  A Type: Equipped with ISO approved manifold and solenoid valve. Applicable for single-acting or double-acting hydraulic cylinder. Equipped with HDV direction control value to improve internal leakage problem and ensure the service life of air pump.
  B Type: Equipped with pipe block with PT ports permitting for connecting to a manual contort valve for operation control.
- Reduced oil tank volume for space saving and convenient installation

Devre Şeması
Circuit Diagram



Referans Nr.	Arttırılmış Destek Multiple Boost	Yüksek Basınç Çıkışı High Pressure Output	A	B	C	ØD	E1	E2	F1	F2	F3	H	ØK	ØM	N	PT
1040-HB0906	9	6cc	157	107	50	46	58	72	43	56	55	7	7	11	71	PT1/4
1040-HB0510	5	10cc	157	107	50	46	58	72	43	56	55	7	7	11	71	PT1/4
1040-HB3515	3.5	15cc	157	107	50	46	58	72	43	56	55	7	7	11	71	PT1/4
1040-HB0822	8	22cc	210	139	71	58	82	95	62	80	70	9	9	14	96	PT1/4
1040-HB0535	5	35cc	210	139	71	58	82	95	62	80	70	9	9	14	96	PT1/4
1040-HB3845	3.8	45cc	210	139	71	58	82	95	62	80	70	9	9	14	96	PT1/4



M6 Yükseklik L mm M6 Length L mm	7	6	5	4	3	2	1
Başlangıç Basıncı Start Pressure kg/cm	20	25	30	35	40	45	50

Max Operasyon Basıncı
Max. Operation pressure 50kg/cm

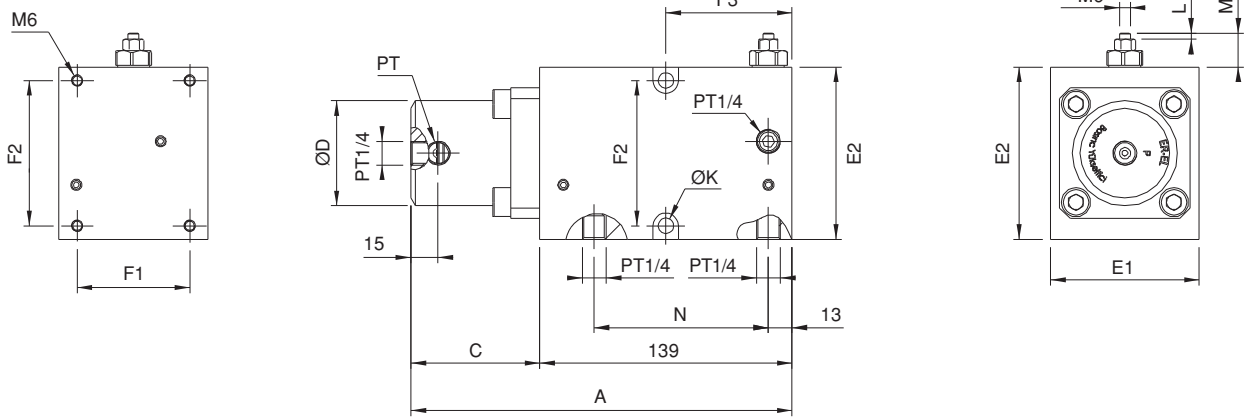
Ayarlanan basınç 30kg/cm
Pressure set at 30kg/cm

Ürün Nr. 1040 Hidrolik Basınç Yükseltici

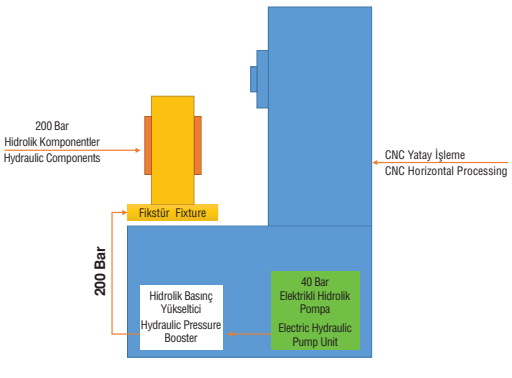
- Bu ünitenin yapısına hidrolik sıralı bir valf bağlanmıştır. Çalıştırırken, silindire yağ yapabilir ve çift basınçta olmasını sağlar ve sıralı vananın hareket etmesine izin verir ve çok sayıda yükseltme basıncı sağlar.
- Hidrolik özel amaçlı makine ve düşük basınç devresinde MC kelepçe için uygundur. Devreye monte edilmiş bir solenoid valfe ihtiyacı vardır ve sonra HB süper şarj cihazını kullanabilir. Süper şarj cihazı otomatik olarak düşük yağ basıncından yüksek yağ basıncına dönüştürülebilir ve yüksek basınçta sıkma elde edilebilir.

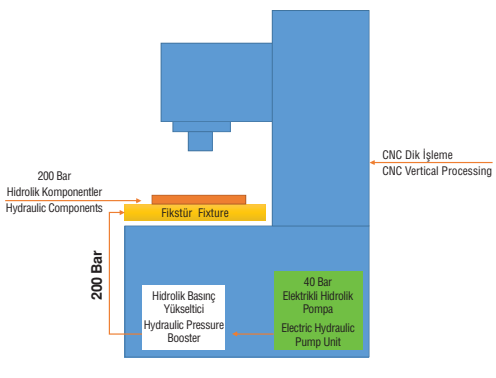
Product Nr. 1040 Hydraulic Pressure Booster

- A hydraulic sequential valve is attached to the structure of this unit. When operating, it may oil to cylinder and makes it be at the dual pressure and let the sequential valve act and then it will provide multiple boosting pressure.
- It's fit for hydraulic special purpose machine and MC clamp in low pressure circuit, It needs a solenoid valve installed in the circuit and then it will be able to operato HB super-charger. The super-charger may be converted automatically from low oil-pressure to high oil-pressure and obtain a high pressure clamping.

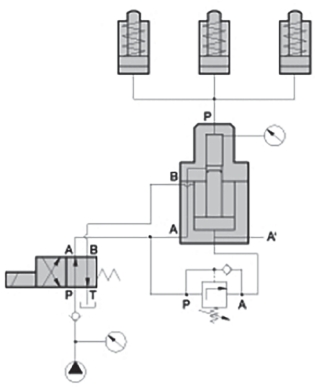


Uygulama Örnegi / Aplication Example





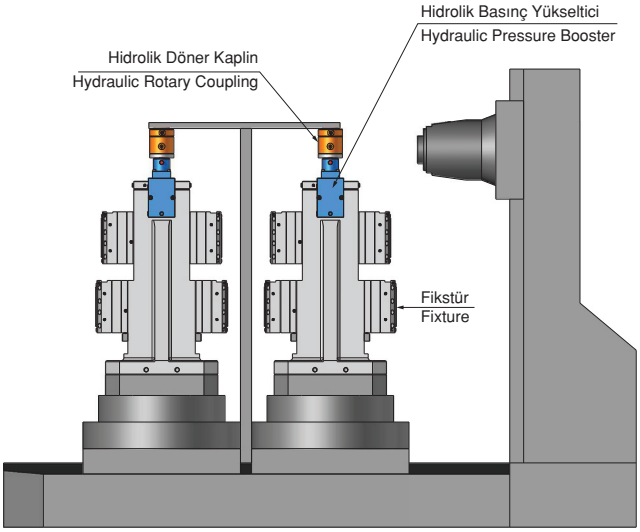
Devre Şeması
Circuit Diagram

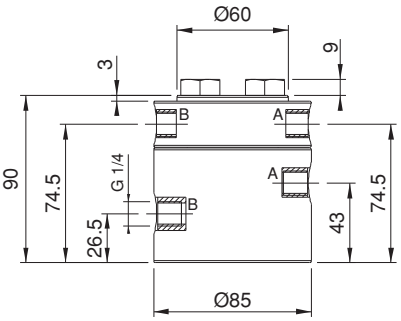


Referans Nr.	Çıkış Sayısı Number of Outlets	Hız Speed	Max. bar	(kg)
1040-02	2	5.0 m/sn	300	2.3

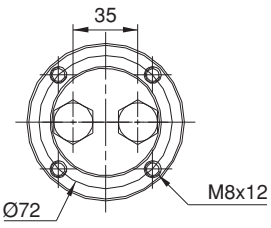
Ürün Nr. 1040 Hidrolik Döner Kaplin

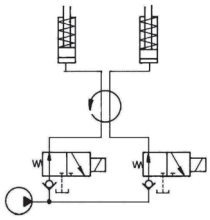
Product Nr. 1040 Hydraulic Rotary Coupling



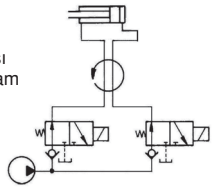








Hidrolik Devre Şeması
Hydraulic Circuit Diagram

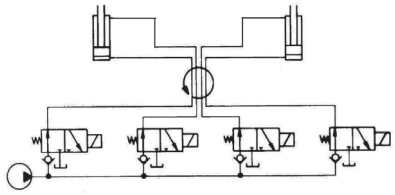


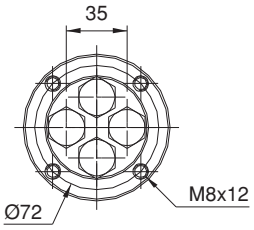
Referans Nr.	Çıkış Sayısı Number of Outlets	Hız Speed	Max. bar	(kg)
1040-04	4	5.0 m/sn	300	2.8

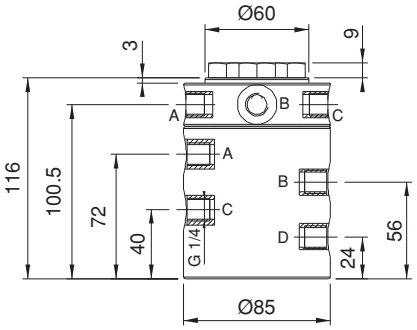
Ürün Nr. 1040 Hidrolik Döner Kaplin

Product Nr. 1040 Hydraulic Rotary Coupling

Hidrolik Devre Şeması
Hydraulic Circuit Diagram







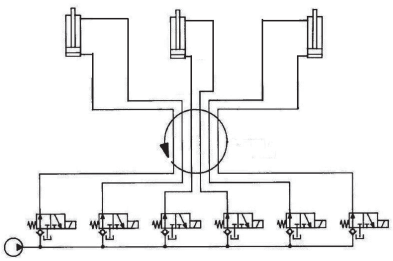


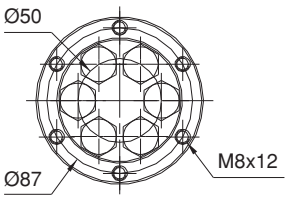
Referans Nr.	Çıkış Sayısı Number of Outlets	Hız Speed	Max. bar	(kg)
1040-06	6	5.0 m/sn	300	4.2

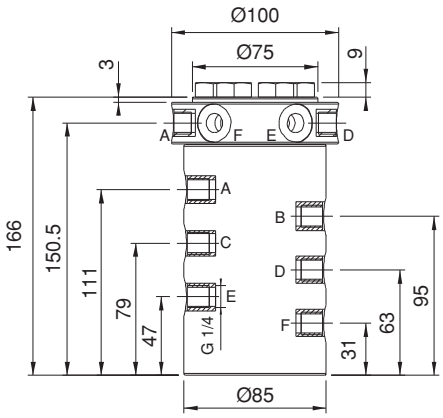
Ürün Nr. 1040 Hidrolik Döner Kaplin

Product Nr. 1040 Hydraulic Rotary Coupling

Hidrolik Devre Şeması
Hydraulic Circuit Diagram









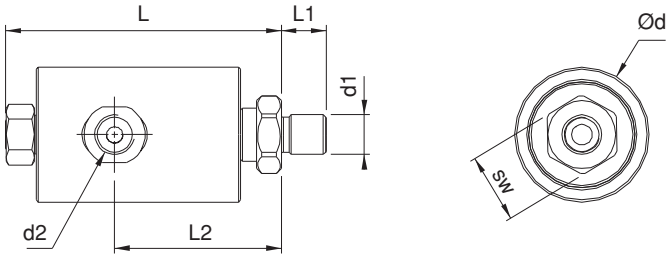
Pnömatik Döner Caplin

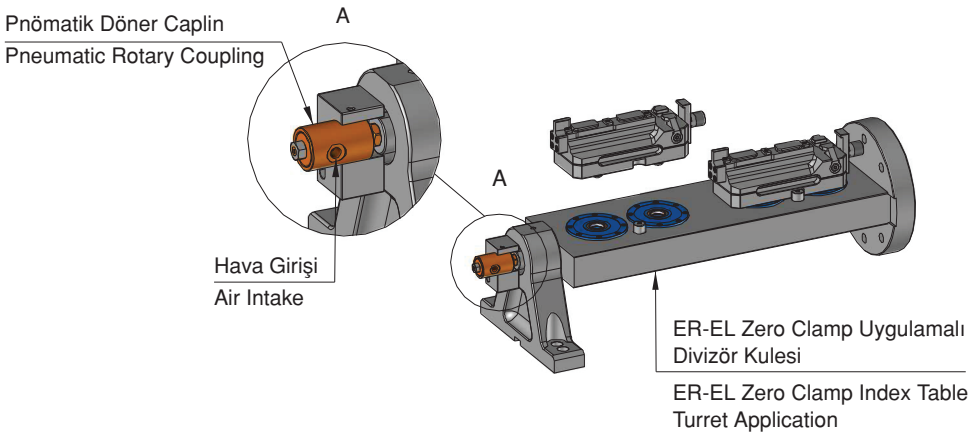
Pneumatic Rotary Coupling

Referans Nr.	d	d1	d2	L	L1	L2	Bar	sw	(g)
1040-001P	77	40	6-40	114	27	17	7	17	200



Ürün Nr. 1040 Pnömatik Döner Caplin
Product Nr. 1040 Pneumatic Rotary Coupling









Hidrolik Yaylı Akümülatör

Hydraulic Spring Battery

Referans Nr.	d	d1	L	L1	sw	Bar Kapasitesi Bar Capacity (MPa)	Yağ Kapasitesi Oil Capacity (cm^3)	(kg)
1040-070	58	1/4	108	16	40	7	12,8	1,3
1040-100	66	1/4	108	14	45	10	17,6	1,6
1040-200	100	1/4	141	16	45	20	16,3	4,5
1040-250	100	1/4	141	16	45	25	13,6	4,5

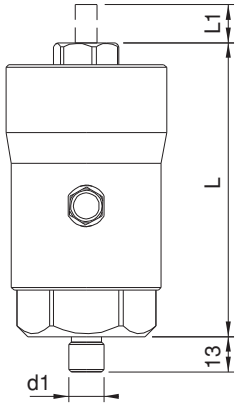


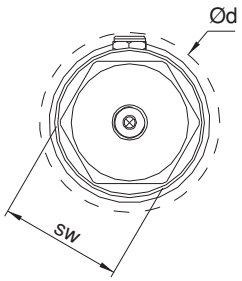
Ürün Nr. 1040 Hidrolik Yaylı Akümülatör

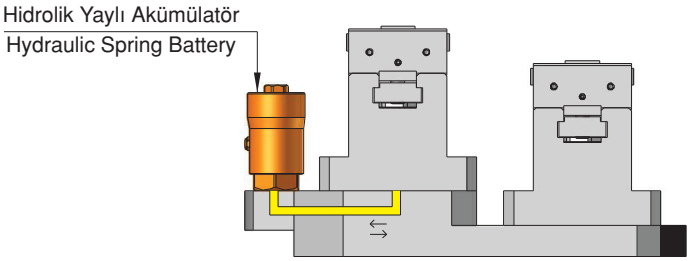
- Hidrolik fikstür ve aparatlarda kullanılan hidrolik ekipmanların veya komponentlerin yağ kaçaklarında basınç desteği sağlayarak ani düşüşlerini önleyen ve hidrolik yağın basınçla depolanmasını sağlayan, Yaylı Akümülatör seviye göstergesi ile aktif olarak çalışmayı veya sızıntılardaki eksilmeyi seviye çubuğu ile tespit edebilirsiniz.

Product Nr. 1040 Hydraulic Spring Battery

- It helps to prevent oil leaks, sudden drops of the hydraulic oils by providing pressure support for hydraulic equipments and or components that are used with hydraulic fixtures and apparatus / devices by storing hydraulic oil. The spring battery gives you the opportunity to be able to monitorize the active working and the drop of leek / flow

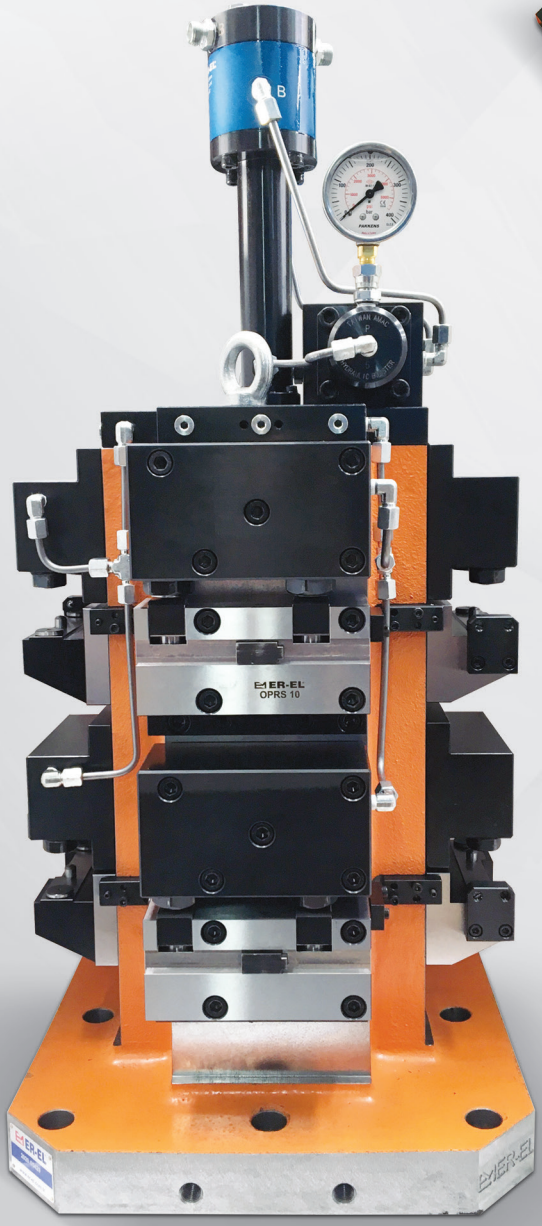


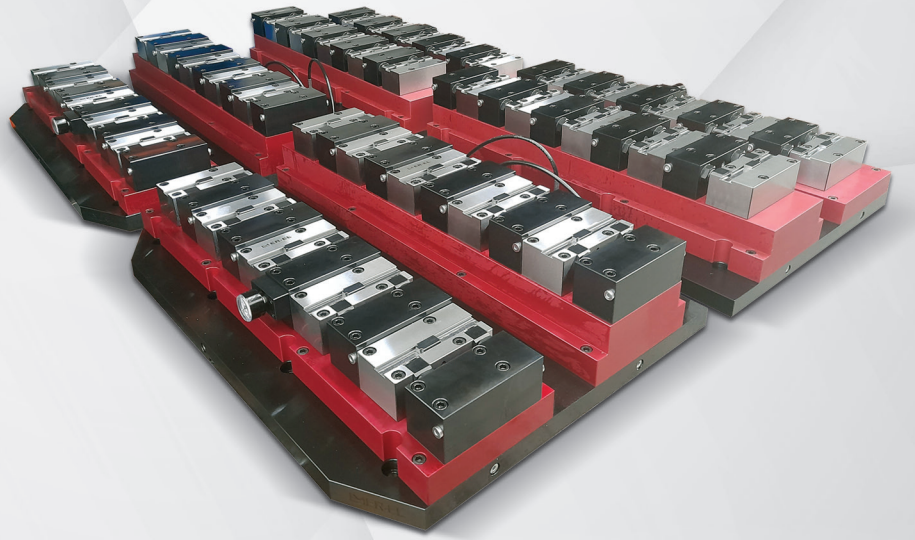




HİDROLİK FİKSTÜR UYGULAMALARI

HYDRAULIC FIXTURE APPLICATION







HİDROLİK KOMPONENTLER

HYDRAULIC COMPONENTS

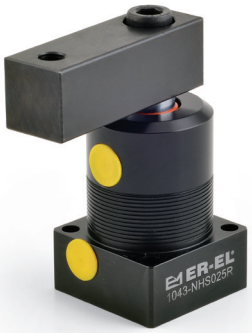


Uygulama
Bir işparçası takım ile işlenirken, işparçasının operatör tarafından yerleştirilmesi - alınmasına olanak yoksa ve daha yüksek bağlama kuvvetine ihtiyaç duyuyorsa, hidrolik dönmeli bağlama silindiri en iyi seçim olacaktır.

Fonksiyon
Bu silindir çekme özelliğine sahiptir. Toplam bağlama stroku, dönme ve çekme strokuna eşittir.

Tip
Bu silindir aşağı doğru baskı yapar. Saat yönüne ve ters istikametine çift haraketli çeşidi vardır. Standart 90° olup, fonksiyonel 0°-45° ve 60° açılara sahiptir. Bağlama şekline tek kol veya çift kol dahildir. Bağlama türüne dişli tip ve o-ring keçeli manifoltlu tipi için alttan flanşlı dahildir.

Malzeme
Ana gövdenin malzemesi alüminyum alaşımlıdır.



Application
When machining a workpiece by means of a machine tool, a hydraulic swing clamping cylinder will be your best choice if the placing and taking of the workpiece are not allowed to be interfered by the clamper and need a larger clamping force.

Function
This cylinder belongs to a pull cylinder of which the total stroke is equal to the sum of a swing stroke and a clamping stroke, and is usually used within the clamping stroke.

Type
This swing cylinder belongs to a double-acting type which is operated mainly in a downward pressing manner, including clockwise swing and counterclockwise swing; standard angle is 90°, and optional angles include 0°, 45°, 60°; clamping means includes single arm or double arms; the mounting manner includes threaded type and lower flange type for manifold mounting with O-ring seal.

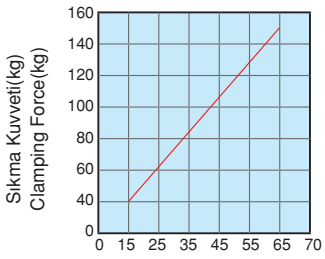
Material
This material of the main body is aluminum alloy.

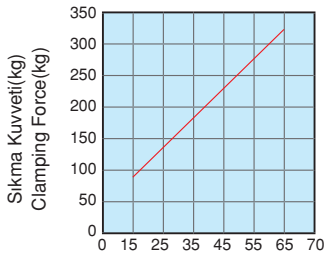


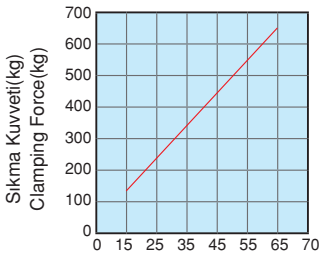
Sipariş örneği / Ordering example

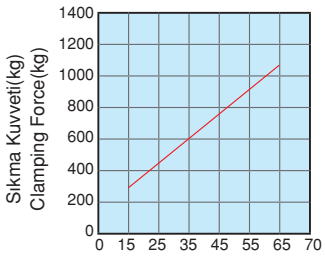
Referans Nr.	NHS Temel No. Base No.	T Tip / Type Flanş Flange T: Dişli T: Threaded	D Kol Tipi / Arm Type D: Çift Hareket D: Double Arm Boş: Tek Haraket Blank: Single Arm	L – Dönüş İstikameti Swivel Direction L:Sol L: Left R: Sağ R: Right	40 Piston Ø 25 32 40 50 63	x 90° – Açı / Angle 0° 45° 60° 90° 180°

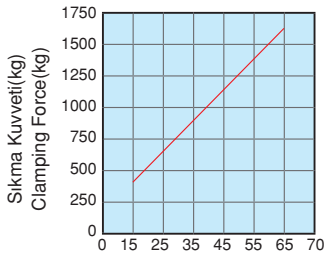
Değişik hidrolik basınçlar altında teorik bağlama gücünü gösteren şematik tablolar
Schematic view showing a theoretical clamping force under different hydraulic pressure:







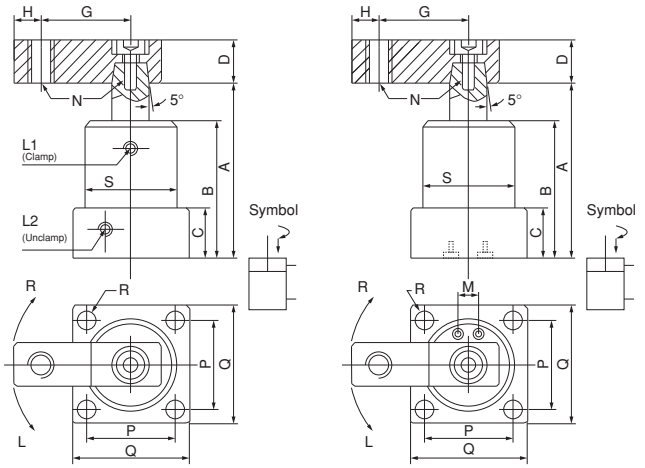




Hidrolik Dönmeli Bağlama

Hydraulic Swing Clamp

Referans Nr.	Bağlama Tipi Mounting Type	Bağlama Kolu Clamping Arm	Max.Basınç Max. Pressure	Normal Basınç Normal Pres.	Hareket Tipi Acting Type	Dönme Açısı Swivel Angle	Dönme Strok Swivel Stroke (mm)	Bağlama Strok Clamp. Str. (mm)	Delik Çapı / Bore Diameter Ø (mm)	Piston Çubuğu Piston Rod Ø	Bağl. Gücü/Clamp Force (25kg/cm2)	A (mm) Sökme Unclamp	B (mm)	C (mm)	D (mm)	G (mm)	H (mm)	L1 Bağlama / Clamp L2 Sökme / Unclamp	N (mm)	P (mm)	Q (mm)	R (mm)	S (mm)	Çeşitli O-Ring Manifold O-Ring	M (mm)	F (mm)	Ağırlık Weight (kg)
1043-NHS025	Flanş / Bottom Flange	Tel Kol / Single Arm	70 kg/cm²	20-45 kg/cm²	Çift Hareketli / Double Acting	90° (0° 45° , 60° , 180°) ± 2°	12	14	25	18	59	100	70	23	□ 25.4	50	10	1/8 PF	M10 x1.5	40	50	Ø 6.5	Ø 45	S4	18	15	0.8
1043-NHS032							14	15	32	20	125	111	76	25	□ 25.4	55	10	1/8 PF	M10 x1.5	44	55	Ø 6.5	Ø 50	S4	24	17	1.0
1043-NHS040							14	15	40	20	200	113.6	80	27	□ 25.4	55	10	1/8 PF	M10 x1.5	48	62	Ø 8.5	Ø 54	S4	26	20	1.1
1043-NHS050							14	15	50	20	400	114.5	80	27	□ 25.4	55	10	1/8 PF	M10 x1.5	57	74	Ø 8.5	Ø 65	S4	30	25	1.4
1043-NHS063							14	15	63	25	600	118	85	32	□ 32	75	11	1/8 PF	M12 x1.75	70	88	Ø 10.5	Ø 80	S4	40	30	2.3



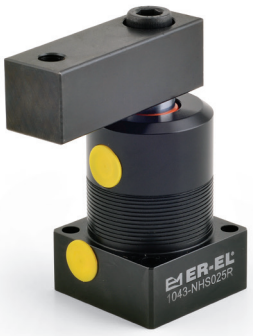
Ürün Nr. 1043 Hidrolik Dönmeli Bağlama

Product Nr. 1043 Hydraulic Swing Clamp

NHS – Flanşlı Uyarlama, Tek Kol Borulu veya Manifoldlu

NHS – Flange Version, Single Arm With Pipe or the Manifold

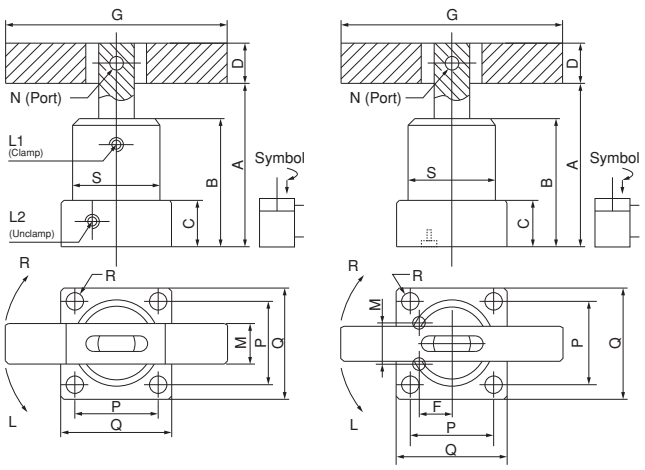
- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



Hidrolik Dönmeli Bağlama

Hydraulic Swing Clamp

Referans Nr.	Bağlama Tipi Mounting Type	Bağlama Kolu Clamping Arm	Max.Basınç Max. Pressure	Normal Basınç Normal Pres.	Hareket Tipi Acting Type	Dönme Açısı Swivel Angle	Dönme Strok Swivel Stroke (mm)	Bağlama Strok Clamp. Str. (mm)	Delik Çapı / Bore Diameter Ø (mm)	Piston Çubuğu Piston Rod Ø	Bağl. Gücü/Clamp Force (25kg/cm2)	A (mm) Sökme Unclamp	B (mm)	C (mm)	D (mm)	G (mm)	L1 Bağlama / Clamp L2 Sökme / Unclamp	N (mm)	P (mm)	Q (mm)	R (mm)	S (mm)	Çeşitli O-Ring Manifold O-Ring	M (mm)	F (mm)	Ağırlık Weight (kg)
1045-NHSD025	Flanş / Bottom Flange	Çift Kol / Double Arm	70 kg/cm²	20-45 kg/cm²	Çift Hareketli / Double Acting	90° (0° 45° , 60° , 180°) ± 2°	12	14	25	18	59	100	70	23	□ 19	100	1/8 PF	Ø 8	40	50	Ø 6.5	Ø 45	S4	18	15	0.9
1045-NHSD032							14	15	32	20	125	111	76	25	□ 22	120	1/8 PF	Ø 8	44	55	Ø 6.5	Ø 50	S4	24	17	1.1
1045-NHSD040							14	15	40	20	200	113.6	80	27	□ 22	120	1/8 PF	Ø 8	48	62	Ø 8.5	Ø 54	S4	26	20	1.2
1045-NHSD050							14	15	50	20	400	114.5	80	27	□ 22	120	1/8 PF	Ø 8	57	74	Ø 8.5	Ø 65	S4	30	25	1.5
1045-NHSD063							14	15	63	25	600	118	85	32	□ 25.4	140	1/8 PF	Ø 10	70	88	Ø 10.5	Ø 80	S4	40	30	2.5



Ürün Nr. 1045 Hidrolik Dönmeli Bağlama

Product Nr. 1045 Hydraulic Swing Clamp

NHSD – Flanşlı Uyarlama, Çift Kol Borulu veya Manifoldlu

NHSD – Flange Version, Double Arms With Pipe or the Manifold

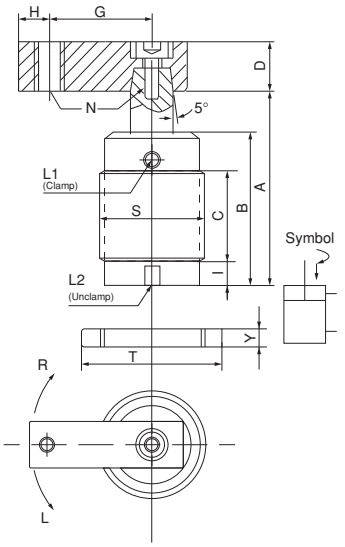
- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



Hidrolik Dönmeli Bağlama

Hydraulic Swing Clamp

Referans Nr.	Bağlama Tipi Mounting Type	Bağlama Kolu Clamping Arm	Max.Basınç Max. Pressure	Normal Basınç Normal Pres.	Hareket Tipi Acting Type	Dönme Açısı Swivel Angle	Dönme Strok Swivel Stroke (mm)	Bağlama Strok Clamp. Str. (mm)	Delik Çapı / Bore Diameter Ø (mm)	Piston Çubuğu Piston Rod Ø	Bağl. Gücü/Clamp Force (25kg/cm2)	A (mm) Sökme Unclamp	B (mm)	C (mm)	D (mm)	G (mm)	H (mm)	I (mm)	L1 Bağlama / Clamp L2 Sökme / Unclamp	N (mm)	S (mm)	T (mm) Kontra Sõm. 2 ad. T (mm) 2 pcs/set	Y (mm)	Ağırlık Weight (kg)
1047-NHTS025	Dişli Gövde / Threaded Body	Tek Kol / Single Arm	70 kg/cm²	20-45 kg/cm²	Çift Hareketli / Double Acting	90° (0° 45°, 60°, 180°) ± 2°	12	14	25	18	59	100	70	35	□ 25.4	50	10	9	1/8 PF	M10 x1.5	M45 x1.5	Ø 65	10	0.8
1047-NHTS032							14	15	32	20	125	111	76	45	□ 25.4	55	10	9	1/8 PF	M10 x1.5	M50 x1.5	Ø 70	11	1.1
1047-NHTS040							14	15	40	20	200	113.6	80	45	□ 25.4	55	10	9	1/8 PF	M10 x1.5	M55 x1.5	Ø 75	11	1.25
1047-NHTS050							14	14	50	20	400	120	87	50	□ 25.4	55	10	9	1/8 PF	M10 x1.5	M65 x1.5	Ø 85	12	1.7



Ürün Nr. 1047 Hidrolik Dönmeli Bağlama

Product Nr. 1047 Hydraulic Swing Clamp

NHTS – Dişli Uyarlama, Tek Kol Borulu

NHTS – Threaded Version, Single Arm With Pipe

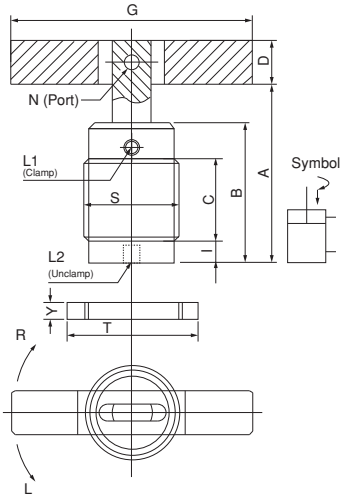
- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



Hidrolik Dönmeli Bağlama

Hydraulic Swing Clamp

Referans Nr.	Bağlama Tipi Mounting Type	Bağlama Kolu Clamping Arm	Max.Basınç Max. Pressure	Normal Basınç Normal Pres.	Hareket Tipi Acting Type	Dönme Açısı Swivel Angle	Dönme Strok Swivel Stroke (mm)	Bağlama Strok Clamp. Str. (mm)	Delik Çapı / Bore Diameter Ø (mm)	Piston Çubuğu Piston Rod Ø	Bağl. Gücü/Clamp Force (25kg/cm2)	A (mm) Sökme Unclamp	B (mm)	C (mm)	D (mm)	G (mm)	I (mm)	L1 Bağlama / Clamp L2 Sökme / Unclamp	N (mm)	S (mm)	T (mm) Kontra Sõm. 2 ad. T (mm) 2 pcs/set	Y (mm)	Ağırlık Weight (kg)
1050-NHTSD025	Dişli Gövde / Threaded Body	Çift Kol / Double Arm	70 kg/cm²	20-45 kg/cm²	Çift Hareketli / Double Acting	90° (0° 45° 60° 180°) ± 2°	12	14	25	18	59	100	70	35	□ 19	100	9	1/8 PT	Ø 8	M45 x1.5	Ø 65	10	0.9
1050-NHTSD032							14	15	32	20	125	111	76	45	□ 22	120	10	1/8 PT	Ø 8	M50 x1.5	Ø 70	11	1.2
1050-NHTSD040							14	15	40	20	200	113.6	80	45	□ 22	120	10	1/8 PT	Ø 8	M55 x1.5	Ø 75	11	1.4
1050-NHTSD050							14	14	50	20	400	120	87	50	□ 22	120	10	1/8 PT	Ø 8	M65 x1.5	Ø 85	12	1.85



Ürün Nr. 1050 Hidrolik Dönmeli Bağlama

Product Nr. 1050 Hydraulic Swing Clamp

NHTSD – Dişli Uyarlama, Çift Kol Borulu

NHTSD – Threaded Version, Double Arms With Pipe

- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



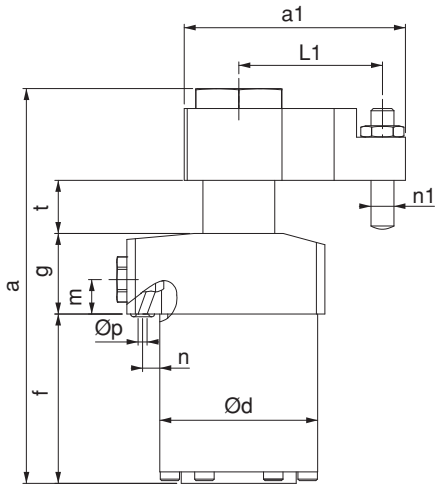
Referans Nr.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	K (mm)	M (mm)	N (mm)	P (mm)	Q (mm)	R (mm)	T (mm)	Z (mm)	A1 (mm)	L1 (mm)	N1 (mm)	(kg)
1051-VS035	129	61	51	48	80	52	28	35.5	25.5	40	12	30	3	9.5	5.5	16	22	65.5	42	M6	0.84
1051-VS042	146	69	60	55	87	59	28	39	30	47	12	33.5	3	11	6.5	18.5	24	77	50	M8	1.25
1051-VS050	153	81	70	65	93	63	30	46	35	55	13	39.5	5	11	6.5	20	30	91.5	56.5	M10	1.86
1051-VS060	179	92	80	75	108	71	37	52	40	63	16	45	5	14	8.5	23.5	32	105	65	M12	2.86
1051-VS074	192	107	95	90	114	74	40	59.5	47.5	75	16	52.5	5	17.5	10.5	25	37	127	75	M16	4.75

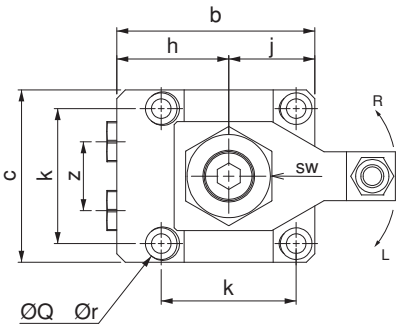
Referans Nr.	Silindir Alan cm^2 Cylinder Area cm^2	Toplam Strok Total Stroke	Sıkma Strok Clamp Stroke	Dönme Strok Swivel Stroke	Silindir Hacmi cm^3/Sıkma Cylinder Volume cm^3/Clamp	Silindir Hacmi cm^3/Boşta Cylinder Volume cm^3/Release	Maximum Çalışma Basıncı 70 kg/cm^2 Clamping Force at 70 kg/cm^2	Min./Max. Çalışma Basıncı kg/cm^2 Min./Max. Operating Pressure kg/cm^2	Çalışma Sıcaklığı Operating Temperature	90° Dönme Açı Tolaransı 90° Swing Angle Tolerance	Sıkma Salıncak Pozisyon Tekrarı Clamp-Swing Position Repeat Tolerance
1051-VS035	5.8	22	8	14	12.8	21.2	405	5 -70	0-70°	90±2°	0.5°
1051-VS042	8.9	25	10	15	22.4	34.6	625	5 -70	0-70°	90±2°	0.5°
1051-VS050	12.6	26	10	16	32.7	51.0	880	5 -70	0-70°	90±2°	0.5°
1051-VS060	18.4	29	12	17	53.3	82.0	1285	5 -70	0-70°	90±2°	0.5°
1051-VS074	27.1	30	12	18	81.3	129.0	1896	5 -70	0-70°	90±2°	0.5°

Ürün Nr. 1051 Hidrolik Dönmeli Bağlama

Product Nr. 1051 Hydraulic Swing Clamp

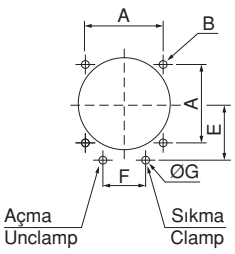
Borulu ve Manifodlu
With Pipe and the Manifold

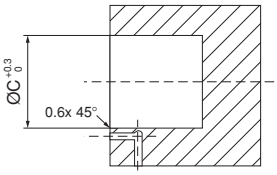






Referans Nr.	A	B	C	E	F	G
1051-VS035	40	M5	48	30	22	3
1051-VS042	47	M6	55	33.5	24	3
1051-VS050	55	M6	65	39.5	30	5
1051-VS060	63	M8	75	45	32	5
1051-VS074	75	M10	90	52.5	37	5





Hidrolik Üstten Bağlama

Hydraulic Above Clamp

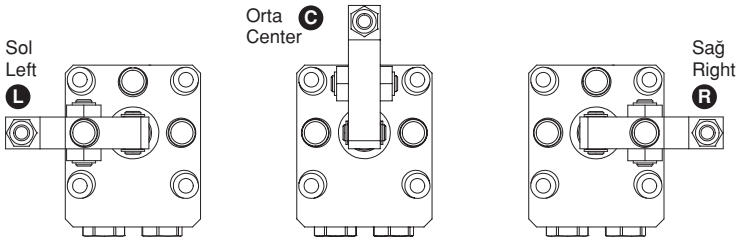
Referans Nr.	Toplam Tork Total Stroke (mm)	Sıkma Torku Lock Stroke (mm)	Ekstra Tork Extra Stroke (mm)	Max. Basınç Max. operating pressure kg/cm	Min. Basınç Min. operating pressure kg/cm	Sıkma Kuvveti Clamping Force (at 70 kg/cm²)	Çalışma Isısı Operating Temperature	(kg)
1052-VT25S	23.5	20.5	3	70	20	280kg	0 - 70°C	0.60
1052-VT32S	26	23	3	70	20	448kg	0 - 70°C	0.92
1052-VT40S	29.5	26.5	3	70	20	700kg	0 - 70°C	1.86
1052-VT50S	35	32	3	70	20	1092kg	0 - 70°C	2.34
1052-VT63S*	41	38	3	70	20	1736kg	0 - 70°C	3.90



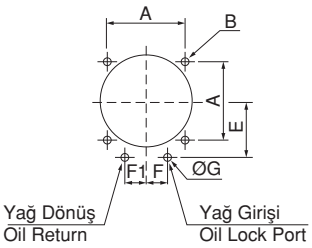
Borulu ve Manifodlu
With Pipe and the Manifold

Ürün Nr. 1052 Hidrolik Üstten Bağlama
- 1052-VT63S kodlu ürün manifoldlu ve yağ gidiş, yağ dönüşlüdür.

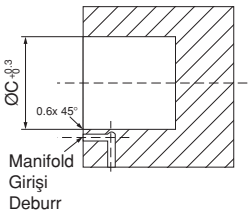
Product Nr. 1052 Hydraulic Above Clamp
- 1052-VT63S coded products manifold and oil flow, oil is reflexive.

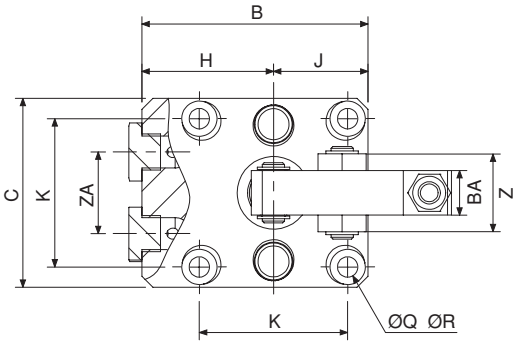


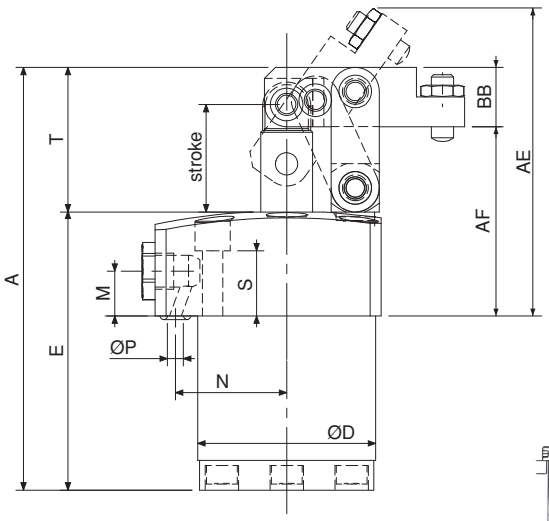
Referans Nr.	A	B	C	E	F	G
1052-VT25S	40	M5x0.8	48	30	11	3
1052-VT32S	47	M6	55	33.5	12	3
1052-VT40S	55	M6	65	39.5	15	5
1052-VT50S	63	M8	75	45	16	5
1052-VT63S	75	M10	90	52.5	18.5	5

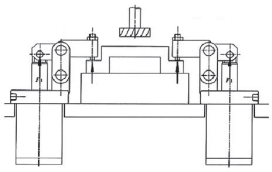


VT63S









Referans Nr.	A	B	C	D	E	H	J	K	M	N	S	T	Z	part	ZA	Bağlama Pabucu Clamping Arm				ØQ	ØR
																AE	AF	BA	BB		
1052-VT25S	114	61	51	48	75	35.5	25.5	40	12	30	17.5	35	21	G1/8	22	92.4	51	12	16	9.5	5.5
1052-VT32S	132.5	69	60	55	87	39	30	47	12	33.5	15	37.5	28	G1/8	24	101.9	53.5	16	20	11	6.8
1052-VT40S	147	81	70	65	93	46	35	55	13	39.5	15.5	45	37	G1/4	30	111.4	59	19	25	11	6.8
1052-VT50S	175	94.5	85	75	108	52	42.5	63	16	45	19.5	55	40	G1/4	32	130.8	72	22	32	14	9
1052-VT63S	207	109.5	100	90	128	59.5	50	75	16	52.5	19	64.5	49	G3/8	37	146.5	81	25	38	17.5	11

Açıklama

Bu dişli-gövde bağlama silindiri itme koşullu ve iş parçasını güvenle bağlamak için belirli bir strok aralığında çalışır. Dişli gövde bağlama silindirinin montaj şekli, önerilen ölçülerde aşağıdaki çizimde belirtilmiştir. Bu montaj da yağ sızıntısını önlemek için teflon pul kullanılır.

Description

This threaded-body clamping cylinder is applied to a condition of knocking-out, and applies a clamping force on a workpiece within a stroke in order to secure the workpiece. The mounting manner for this threaded-body clamping cylinder is shown as the following drawing illustrating suggested dimensions of devices, and this mounting needs a Teflon packing in order to avoid oil leakage.



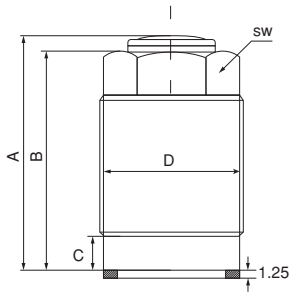
A Tipi / A Type



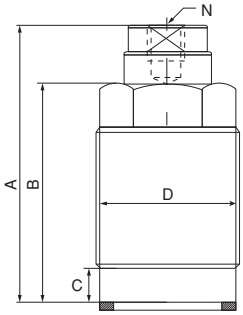
B Tipi / B Type

Sipariş Örneği / Ordering example

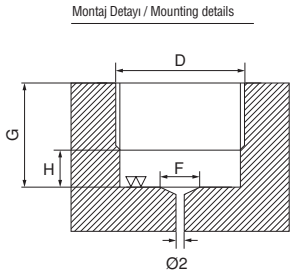
Nr. 1053 **TC** Temel No. Base No. | **12** Piston Ø | **A** Seri / Series



A Tipi / A Type



B Tipi / B Type



Bağlama Diyagramı
Mounting Diagram

Referans Nr.	Çalışma Yağ Basıncı Operating Oil Pressure	Hareket Tipi Acting Type	Strok Stroke S(mm)	Piston Çubuğu Piston Rod Ø(mm)	Bağl. Gücü/Clamp Force (200kg/cm2)	A (mm)	B (mm)	C (mm)	D (mm)	F (mm)	G (mm)	H (mm)	N (mm)	SW	Ağırlık Weight (kg)
1053-TC12A	20-350 kg/cm^2	Tek Hareketli / Single Acting	10	12	200 (kg)	38	36	7	M22 x1.5	12	16	6	-	17	0.07
1053-TC16A			12	16	400 (kg)	46.5	44.5	8	M26 x1.5	16	20	7	-	22	0.14
1053-TC-20A			15	20	620 (kg)	56	54	8	M30 x1.5	20	24	7	-	24	0.22
1053-TC25A			16	25	980 (kg)	57	55	11	M38 x1.5	25	28	10	-	32	0.37
1053-TC12B			10	12	200 (kg)	45	36	7	M22 x1.5	12	16	6	M6x1	17	0.08
1053-TC16B			12	16	400 (kg)	52	44.5	8	M26 x1.5	16	20	7	M6x1	22	0.15
1053-TC20B			15	20	620 (kg)	64.5	54	8	M30 x1.5	20	24	7	M8x1.25	24	0.24
1053-TC25B			16	25	980 (kg)	67	55	11	M38 x1.5	25	28	10	M8x1.25	32	0.4

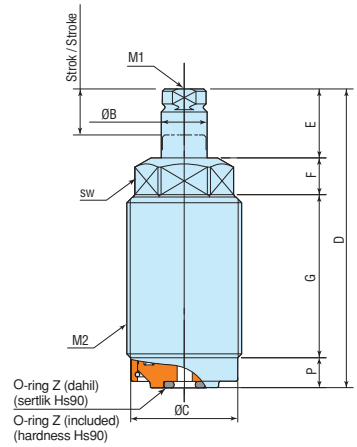
Ürün Nr. 1053 Hidrolik İtme Dişli Silindir **Product Nr. 1053 Hydraulic Thread Cylinder**

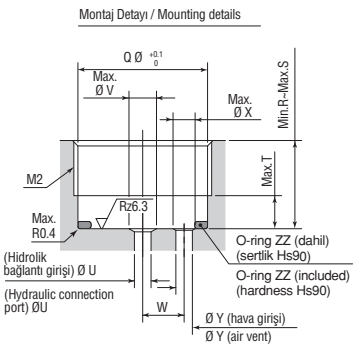
Referans Nr.	Strok Stroke (mm)	Silindir Forsu(kN) / Cylinder Force(kN)				Silindir iç çap (mm) Cyl. inner dia. (mm)	Çubuç Çapı (mm) Rod dia. (mm)	Etkili Alan (cm^2) Effec. area(cm^2)	Max. Yağ akış alanı (ℓ/min) Max. oil flow rate(ℓ/min)	Silindir kapa.(cm^3) Cylinder cap.(cm^3)		*2Yay geri çekiş gücü (N) *2Return spring force (N)	Sıkma Kuvveti Clamp Force (200kg/cm2)
		Hidrolik Basınç Hydraulic Press. 3.5 MPa	Hidrolik Basınç Hydraulic Press. 7 MPa	Hidrolik Basınç Hydraulic Press. 25 MPa	Hidrolik Basınç Hydraulic Press. 35 MPa								
1055-CMD02	5	0.3	0.5	2.1	2.9	16	10	0.84	0.25	0.5	0.9	30~56	245
1055-CMD03	10	0.3	0.5	2.1	2.9	16	10	0.84	0.25	0.5	0.9	30~56	245
1055-CMD04	5	0.4	0.9	3.4	4.8	18	10	1.37	0.41	0.7	1.4	43~77	351
1055-CMD05	10	0.4	0.9	3.4	4.8	18	10	1.37	0.41	0.7	1.4	43~77	351
1055-CMD06	10	0.7	1.5	5.6	7.9	22	12	2.29	0.69	2.3	4.6	65~120	533
1055-CMD07	20	0.7	1.5	5.6	7.9	22	12	2.29	0.69	2.3	4.6	65~120	533
1055-CMD10	10	1.2	2.5	9.3	13	28	16	3.76	1.13	3.8	7.5	100~193	828
1055-CMD11	20	1.2	2.5	9.3	13	28	16	3.76	1.13	3.8	7.5	100~193	828
1055-CMD20	10	2	4.3	15.8	22.2	36	20	6.40	1.92	6.4	12.8	170~267	1400
1055-CMD21	20	2	4.3	15.8	22.2	36	20	6.40	1.92	6.4	12.8	170~267	1400

Referans Nr.	Strok (mm) Stroke (mm)	B	C	D	E	F	G	SW (yassılar arasında sw genişl.) (hex width across flats)	M1 (Uç kısım dişli) (tip section thread)	M2 (Dişli gövde) (threaded body)	P	Q	R	S	T	U (Hidrolik bağlantı girişi) (hydraulic connection port)	V	W	X	Y	O-ring Z	O-ring ZZ
CMD02	5	10	20.3	51	10	7.5	27	17	M6×1 depth 11	M22 ×1.5	6.5	20.5	13	32.5	5.5	3	5	7	4	3	P6	AS568-017
CMD03	10	10	20.3	65	15	7.5	36	17	M6×1 depth 11	M22 ×1.5	6.5	20.5	13	41.5	5.5	3	5	7	4	3	P6	AS568-017
CMD04	5	10	23.3	51	10	8	26.5	19	M6×1 depth 11	M25 ×1.5	6.5	23.5	14	32	5.5	3	5	7.5	4	3	P6	AS568-019
CMD05	10	10	23.3	65	15	8	35.5	19	M6×1 depth 11	M25 ×1.5	6.5	23.5	14	41	5.5	3	5	7.5	4	3	P6	AS568-019
CMD06	10	12	28.3	69	16	9.5	35.5	24	M8×1.25 depth 18	M30 ×1.5	8	28.5	15	42.5	7	3	5	9.5	4	3	P6	AS568-022
CMD07	20	12	28.3	96	26	9.5	52.5	24	M8×1.25 depth 18	M30 ×1.5	8	28.5	15	59.5	7	3	5	9.5	4	3	P6	AS568-022
CMD10	10	16	34.3	73	17	11.5	35.5	30	M10×1.5 depth 20	M36 ×1.5	9	34.5	17	43.5	8	4	5	12	4	3	P6	AS568-026
CMD11	20	16	34.3	101	27	11.5	53.5	30	M10×1.5 depth 20	M36 ×1.5	9	34.5	17	61.5	8	4	5	12	4	3	P6	AS568-026
CMD20	10	20	46.3	80	19	13.5	35.5	41	M12×1.75 depth 22	M48 ×1.5	12	46.5	20	46.5	11	6	7	15	4	3	P8	AS568-031
CMD21	20	20	46.3	109	29	13.5	54.5	41	M12×1.75 depth 22	M48 ×1.5	12	46.5	20	65.5	11	6	7	15	4	3	P8	AS568-031

Ürün Nr. 1055 Hidrolik Çekme Dişli Silindir

Product Nr. 1055 Hydraulic Pull Cylinder







Referans Nr.	Kuvvet Desteği 70kg/ cm² Supporting Force	Strok Stroke	Max.Basınç Max. Pressure	Normal Basınç Normal Pressure	Temas Kuvveti Contact force	A	B	C	D	E	F	G	H	I	J	K	M	N	O	P	Q	R	S	CA	CB	CC	Ağırlık Weight (kg)
1056-WST26BL	200 kg	6	105 kg / cm²	25 - 70 kg / cm²	0.67	66	48	6.5	9	5	4	24	9	10	-	-	-	M6 x9D	-	24	26	10	M26 x1	M26 x1	20-30	2	0.20
1056-WST30BL	300 kg	8			0.96	73	53	9.5	9	7	4	27	8	10	-	-	-	M6 x9D	-	28	30	10	M30 x1.5	M26 x1.5	20-50	9	0.25
1056-WST36BL	360 kg	8			2.12	69	50	9.5	8	7	4	32	11	10	-	-	-	M8 x11D	-	34.2	36	13	M36 x1.5	M26 x1.5	20-48	8	0.35
1056-WSU40BL	360 kg	8			1.82	67	31	25	14.5	7	4	-	11	12	22.5	31.5	5.5	M10 x8	26	34	45	13	Ø40	Ø40	-	-	0.60
1056-WSU48BL	720 kg	10			2.16	75	39	23	13.5	9	4	-	12	11	25.5	35.5	5.5	M10 x8	30	40	51	14	Ø48	Ø48	-	-	0.80
1056-WSU55BL	840 kg	12			1.33	85	45	23	11.5	11	6	-	15	14	30.5	39	6.8	M10 x10	33.5	47	60	18	Ø55	Ø55	-	-	1.40
1056-WSU65BL	1200 kg	14			1.05	101	56	27	14.5	12	6	-	17	14	35	46	6.8	M10 x10	40.5	55	70	20	Ø55	Ø55	-	-	2.20

Ürün Nr. 1056 Hidrolik İş Parçası Desteği **Product Nr. 1056 Hydraulic Work Support**

İş Parçası Desteği

- Hidrolik basınç aralığı 25-70 kg/cm², borulu ve manifoltlu montaj seçeneği vardır.
- Giriş ağızı küçük olduğundan dolayı pistonun yükselme hızını azaltır, iş parçasına olan temasının şok ve toleransını azaltır.

Önemli Notlar

- Hidrolik yağın saflığı: İş parçası desteğinin iç parçaları hassas olduğundan ve ürünün ömrünü etkileyeceğinden hidrolik yağın saflığı çok önemlidir, kötü yağ kullanımı destek kuvvetini etkiler.
- Silindir gövdenin temizlenmesi: Her işlemden sonra hava tabancasıyla temizleyiniz.
- Lütfen iş parçası desteğinin deformasyona uğramaması için aşağıdaki konulara dikkat ediniz.
  A: Piston mili üzerine, merkezi kaçık kuvvet uygulamayınız.
  B: Belirtilen kuvvet desteği üzerinde güç uygulamayınız.
  C: Piston kilitlendikten sonra çevirme işlemi yapmayınız.



WSU **WST**

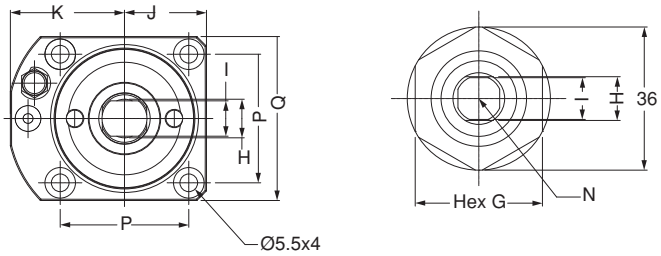
Work Support Low Pressure

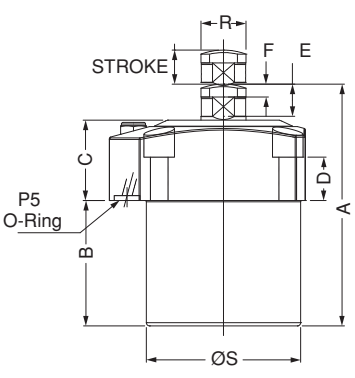
- The operating range is 25-70 kg/cm², the mounting type includes thread body and upper flange, and we have piping mounting and manifold mounting in upper flange type.
- Inlet orifice is smaller, so it can reduce the speed of plunger when it is rising, it can reduce the impact onto workpiece, and reduce the tolerance which is caused by instant shock.

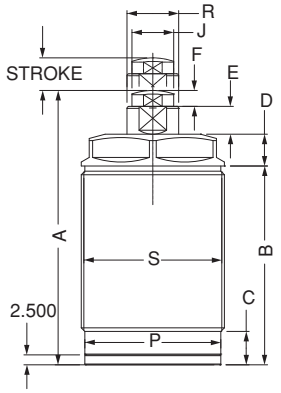
The important issue when you use work support

- The purity of hydraulic oil: the inner parts installed in work support are very precise, so the purity of hydraulic oil becomes a very important issue which can affect the life cycle of work support, bad quality of oil will cause to lose its supporting force. In usual, the work support will work well again after we clean the hydraulic oil, for few conditions, we need to disassemble the work support and clean the inner parts, even we need to replace oil seal.
- Clean the cylinder body: the metal impurity is possible going into the collet during the action, please make sure to clean by using an air gun after each machining.
- Please avoid the following condition, otherwise the collet will be deformed, and plunger will not work, or will lose supporting force.

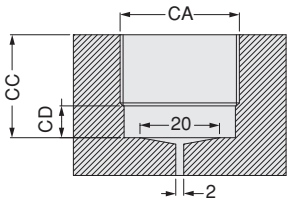
A: Apply eccentric force onto plunger.
B: Apply an load which exceeds the estimated supporting force.
C: To turn the plunger when it is locked at supporting position







Montaj Detayı / Mounting Details



Hidrolik İş Parçası Desteği

Hydraulic Work Support

Referans Nr.	Çalışma Özelliği Advane Method	Kuvvet Desteği 20 Mpa Supporting Force	Strok Stroke	Max. Basınç Max. Pressure	Min. Basınç Min. Pressure	Normal Basınç Normal Pressure	Çalışma Isısı Operating Temperature	Temas Kuvveti / kg Contact force	A	B	C	C1	D	D1	D2	E	F	H1	H2	K	L	Q	U1	U2	O (O-ring)	Port	Ağırlık Weight (kg)
1056-WS16A	Yay Spring	600 kgf	8	35 Mpa	5 Mpa	21 Mpa	0°~ +70°	-	85.1	75.4	64.5	23.9	M35 x1.5	38.1	60.5	16	12.4	11.2	7.6	M10 x1.5	4.5	-	41.1	23.9	-	-	0.60
1056-WS16B	Hidrolik Hydraulic	600 kgf	8					2.35	99.3	89.7	78.7	27.4	M35 x1.5	38.1	60.5	16	12.4	14.2	17.8	M10 x1.5	4.5	-	41.1	23.9	-	-	0.60
1056-WS30A	Yay Spring	800 kgf	13					-	105	92	83	25	M60 x1.5	64	64	25	19	12.5	-	M10 x1.5	-	-	52	52	P7	G1/8	1.80
1056-WS25B	Hidrolik Hydraulic	800 kgf	10.4					6.25	102.1	91.7	77.5	26.5	M50 x1.5	64	64	25	19	14	17.5	M16 x2	6	24.5	50	50	P7	G1/8	1.80
1056-WS38A	Yay Spring	1200 kgf	10.4					-	96.5	86.1	74.9	24.9	M68 x1.5	69.9	82.6	39	25.4	12.2	10.2	M20 x2.5	6.1	27.4	55.4	55.4	P10	G1/8	2.20
1056-WS38B	Hidrolik Hydraulic	1200 kgf	10.4					8.86	102.1	91.7	78	26.4	M68 x1.5	69.9	82.6	38	25.4	13.7	13.2	M20 x2.5	6.1	27.4	55.4	55.4	P10	G1/8	2.20

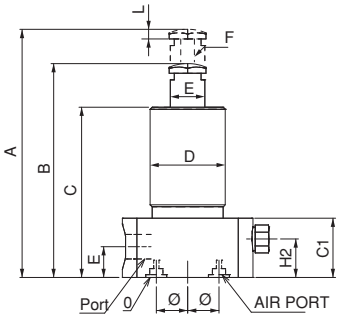
Ürün Nr. 1056 Hidrolik İş Parçası Desteği

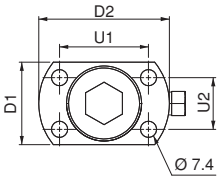
Açıklama
İş parçası desteği işlem esnasında vibrasyonu düşürmek ve deformasyonu engellemek için kullanılır.
Türleri
A tipi : Yayla itme; Piston milini en yüksek pozisyondayken iş parçası pozisyonu ayarlanır.
B tipi : Yağ basıncıyla itme; Piston milini en alçak pozisyonda iken iş parçası pozisyonu ayarlanır.

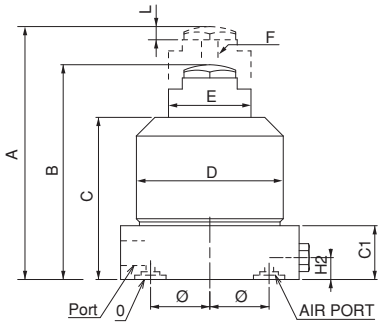
Product Nr. 1056 Hydraulic Work Support

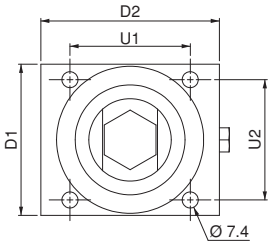
Description
Hydraulic work support is used for avoiding deformation and decreasing vibration during machining.
Types
A type : knocking-out with a spring；the spring is used to control a contact force when the knocking out rod (piston rod) extends to a higest knocking-out position and contacts the workpiece.
B type : Knocking-out with oil pressure；when the knocking-out rod is at lowest position, it is operated by means of oil pressure and is knocked out when being filled with oil and uses a spring to control the contact force with the workpiece.











Hidrolik İş Parçası Desteği

Hydraulic Work Support

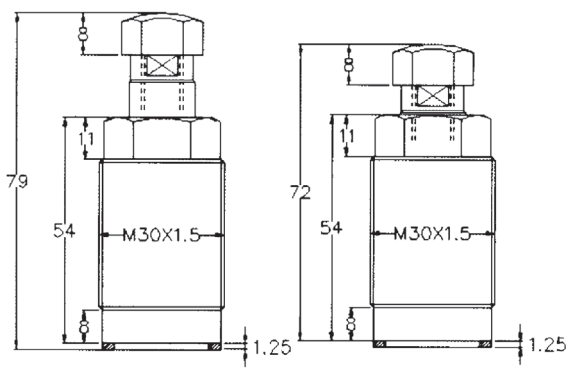
Referans Nr.	Çalışma Yağ Basıncı Operating Oil Pressure	Hareket Tipi Acting Type	Strok Stroke	Piston Çubuğu Piston Rod Ø(mm)	Kuvvet Desteği 200kg/ cm² Supporting Force	Temas Kuvveti / kg Contact force	A	B	C	D	E	F	Ağırlık Weight (kg)
1056-SP16A	100-350 kg/cm²	Yaylı Spring	8	16	210 kg	-	79	54	8	M30 x1.5	11	8	0.30
1056-SP16B	100-350 kg/cm²	Hidrolik Hydraulic	8	16	210 kg	2.35	72	54	8	M30 x1.5	11	8	0.30

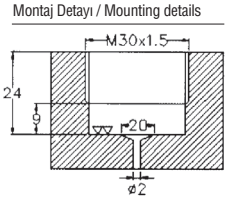


SP16A **SP16B**

Ürün Nr. 1056 Hidrolik İş Parçası Desteği

Product Nr. 1056 Hydraulic Work Support





Referans Nr.	Piston Ø D (mm)	Rod Ø d (mm)	Force to pull at 100 bar (kgf)	Force to pull at 500 bar (kgf)	Spring return force, min. (N)	Oil volume per 10 mm stroke (cm^3)	a (mm)	b (mm)	c (mm)	f (mm)	g (mm)	h (mm)	k (mm)	m (mm)	n (mm)	o	p	r (mm)	s (mm)	t (mm)	SW (mm)	Strok ± 1 (mm)	l ± 1 (mm)	Ağırlık Weight (kg)
1057-010016	16	10	110	600	40	1.22	60	35	22	30	6.5	30	17.5	16.5	11	M6x12	G1/4	-	40	22	8	8	78	0.8
1057-010025	25	16	270	1430	140	2.90	65	45	27	50	8.5	33	22.5	18	11	M10x15	G1/4	-	50	30	13	8	91	1.2
1057-010032	32	20	460	2420	195	4.90	75	55	35	55	10.5	38	27.5	22	11	M12x15	G1/4	-	55	35	17	10	110	1.8
1057-010040	40	25	730	3790	270	7.65	85	63	35	63	10.5	40	31.5	24	11	M16x25	G1/4	4	63	40	-	10	114	2.6
1057-010050	50	32	1100	5730	440	11.60	100	75	35	76	13	44	37.5	27	13	M20x25	G1/4	4	76	45	-	12	125	3.8
1057-010063	63	40	1790	9230	430	18.60	125	95	44	95	17	50	47.5	26	17	M27x40	G1/2	4	95	65	-	12	146	6.7
1057-010080	80	50	2920	15180	760	30.63	160	120	46	120	21	60	60	34	21	M30x40	G1/2	5	120	80	-	12	193	12.8

Ürün Nr. 1057 Çekme Tipi Silindir

Product Nr. 1057 Pull-Type Cylinder

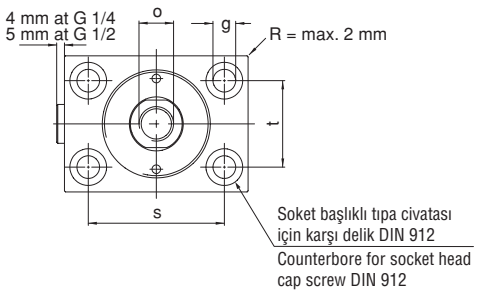
- Uzunluk ve açı ölçüeri DIN 7168-m'ye göredir.
- Tolerances for length and angle dimensions as per DIN 7168-m

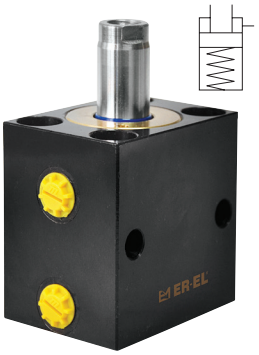
Önemli Notlar

Eğer sinterli metalin hava filtresinden silindirin içine, agresif talaş kaldırmadan dolayı, yağ veya soğutma suyu girme olasılığı var ise, bir hava deliği hortumu bağlanıp korunaklı bir pozisyona yerleştirilmeli.

Important notes

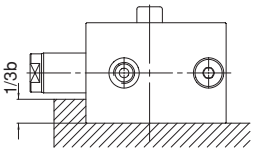
If there is a possibility that aggressive cutting lubricants and coolants penetrate through the sintered metal air filter into the cylinder's interior, a vent hose has to be connected and be placed in a protected position.

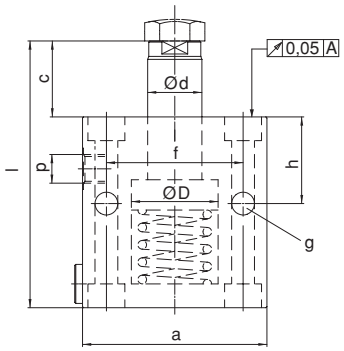


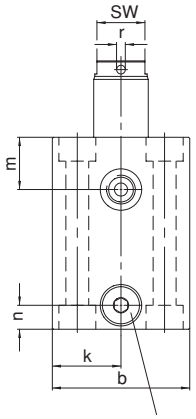


250 barı aşan çalışma basınçlarında silindirler önden destekli olmalıdır.

Cylinders must be supported at the front for operating pressures exceeding 250 bar







Sinter metalden hava filtreli soket yeri

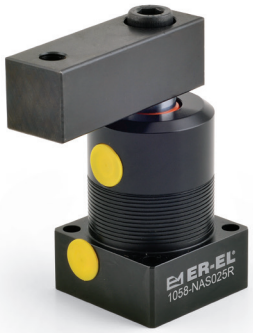
Bleeding by plug with sintered metal air filter

Uygulama
Bir işparçası takım ile işlenirken, işparçasının operatör tarafından yerleştirilmesi - alınmasına olanak yoksa ve daha yüksek bağlama kuvvetine ihtiyaç duyuyorsa, pnömatik dönmeli bağlama silindiri en iyi seçim olacaktır.

Fonksiyon
Bu silindir çekme özelliğine sahiptir. Toplam bağlama stroku, dönme ve çekme strokuna eşittir.

Tip
Bu silindir aşağı doğru baskı yapar. Saat yönüne ve ters istikametine çift haraketli çeşidi vardır. Standart 90° olup, fonksiyonel 0°-45° ve 60° açılara sahiptir. Bağlama şekline tek kol veya çift kol dahildir. Bağlama türüne dişli tip ve o-ring keçeli manifoltlu tipi için alttan flanşlı dahildir.

Malzeme
Ana gövdenin malzemesi alüminyum alaşımlıdır.



Application
When machining a workpiece by means of a machine tool, a pneumatic swing clamping cylinder will be your best choice if the placing and taking of the workpiece are not allowed to be interfered by the clamper and need a larger clamping force.

Function
This cylinder belongs to a pull cylinder of which the total stroke is equal to the sum of a swing stroke and a clamping stroke, and is usually used within the clamping stroke.

Type
This swing cylinder belongs to a double-acting type which is operated mainly in a downward pressing manner, including clockwise swing and counterclockwise swing; standard angle is 90°, and optional angles include 0°, 45°, 60°; clamping means includes single arm or double arms; the mounting manner includes threaded type and lower flange type for manifold mounting with O-ring seal.

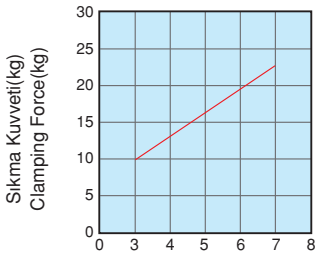
Material
This material of the main body is aluminum alloy.

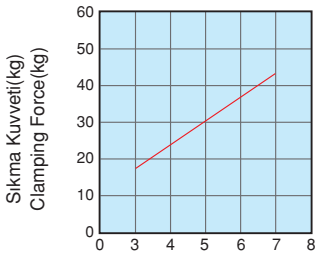


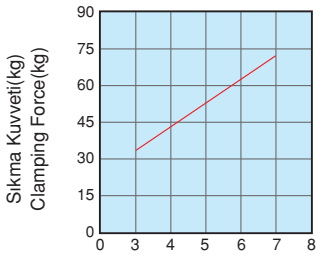
Sipariş örneği / Ordering example

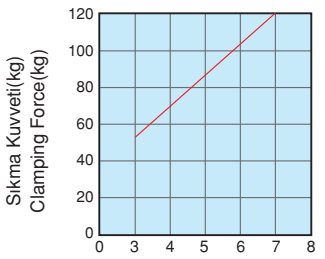
Referans Nr.	NAS Temel No. Base No.	T Tip / Type Flanş Flange T: Dişli T: Threaded	D Kol Tipi / Arm Type D: Çift Hareket D: Double Arm Boş: Tek Haraket Blank: Single Arm	L – Dönüş İstikameti Swivel Direction L:Sol L: Left R: Sağ R: Right	40 Piston Ø 25 32 40 50 63	x 90° – Açı / Angle 0° 45° 60° 90° 180°

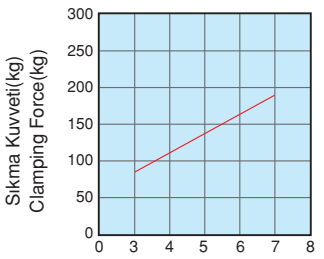
Değişik hidrolik basınçlar altında teorik bağlama gücünü gösteren şematik tablolar
Schematic view showing a theoretical clamping force under different hydraulic pressure:



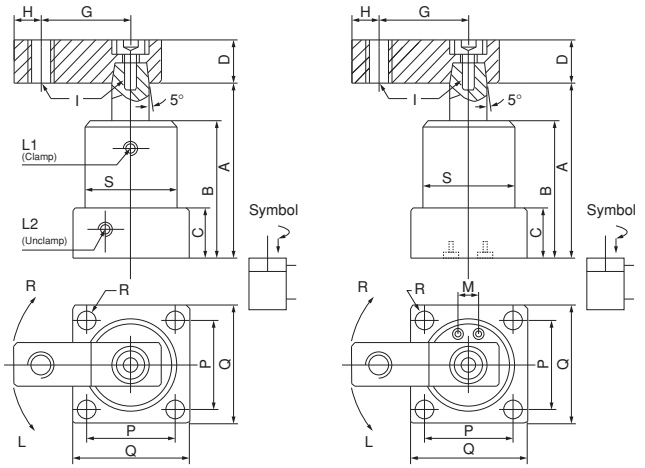








Referans Nr.	Bağlama Tipi Mounting Type	Bağlama Kolu Clamping Arm	Max.Basınç Max. Pressure	Normal Basınç Normal Pres.	Hareket Tipi Acting Type	Dönme Açısı Swivel Angle	Dönme Strok Swivel Stroke (mm)	Bağlama Strok Clamp. Str. (mm)	Delik Çapı / Bore Diameter Ø (mm)	Piston Çubuğu Piston Rod Ø	Bağl. Gücü/Clamp Force (5 kg/cm2)	A (mm) Sökme Unclamp	B (mm)	C (mm)	D (mm)	G (mm)	H (mm)	L1 Bağlama / Clamp L2 Sökme / Unclamp	I (mm)	P (mm)	Q (mm)	R (mm)	S (mm)	M (mm)	F (mm)	Ağırlık Weight (kg)
1058-NAS025	Flanş / Bottom Flange	Tek Kol / Single Arm	7 kg/cm²	4-6 kg/cm²	Çift Hareketli / Double Acting	90° (0° 45°, 60°, 180°) ± 2°	12	14	25	14	16	95.5	65.5	23	□ 16	30	8	M5	M6	30	40	Ø 4.5	Ø 35	18	12.5	0.40
1058-NAS032							12	14	32	16	30	102.5	71	23	□ 19	50	9	1/8 PF	M8	44	54	Ø 6.5	Ø 50	22	17	0.70
1058-NAS040							12	15	40	16	50	106	75	26	□ 19	50	9	1/8 PF	M8	48	58	Ø 6.5	Ø 55	26	19.5	0.85
1058-NAS050							14	15	50	20	85	113	80	26	□ 25.4	70	10	1/8 PF	M10	55	68	Ø 8.5	Ø 65	30	24	1.30
1058-NAS063							14	15	63	20	140	119	86	30	□ 25.4	70	10	1/8 PF	M10	64	80	Ø 8.5	Ø 70	40	20	1.80

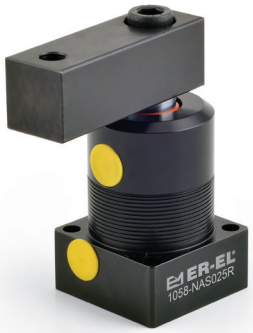


Ürün Nr. 1058 Pnömatik Dönmeli Bağlama
Product Nr. 1058 Pneumatic Swing Clamp

NAS – Flanşlı Uyarlama, Tek Kol Borulu veya Manifoldlu

NAS – Flange Version, Single Arm With Pipe or the Manifold

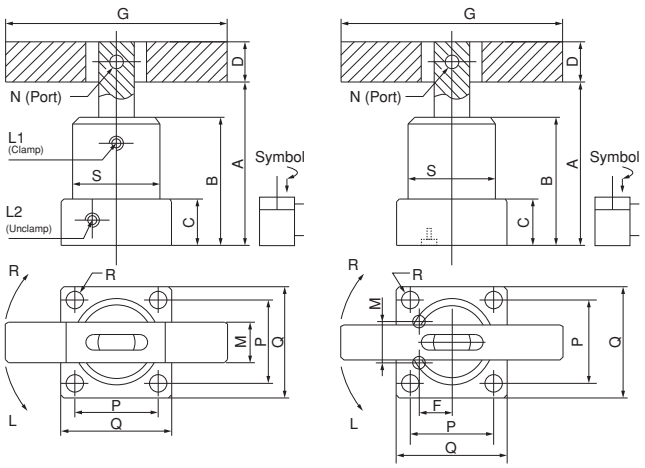
- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



Pnömatik Dönmeli Bağlama

Pneumatic Swing Clamp

Referans Nr.	Bağlama Tipi Mounting Type	Bağlama Kolu Clamping Arm	Max.Basınç Max. Pressure	Normal Basınç Normal Pres.	Hareket Tipi Acting Type	Dönme Açısı Swivel Angle	Dönme Strok Swivel Stroke (mm)	Bağlama Strok Clamp. Str. (mm)	Delik Çapı / Bore Diameter Ø (mm)	Piston Çubuğu Piston Rod Ø	Bağl. Gücü/Clamp Force (5kg/cm2)	A (mm) Sökme Unclamp	B (mm)	C (mm)	D (mm)	G (mm)	L1 Bağlama / Clamp L2 Sökme / Unclamp	N (mm)	P (mm)	Q (mm)	R (mm)	S (mm)	M (mm)	F (mm)	Ağırlık Weight (kg)
1058-NASD032	Flanş / Bottom Flange	Çift Kol / Double Arm	7 kg/cm²	4-6 kg/cm²	Çift Hareketli / Double Acting	90° (0° 45°, 60°, 180°) ± 2°	12	14	32	16	30	102.5	71	23	□ 19	100	1/8 PF	Ø 8	44	54	Ø 6.5	Ø 50	22	17	0.80
1058-NASD040							12	15	40	16	50	106	75	26	□ 19	100	1/8 PF	Ø 8	48	58	Ø 6.5	Ø 55	26	19.5	0.95
1058-NASD050							14	15	50	20	85	113	80	26	□ 22	120	1/8 PF	Ø 8	55	68	Ø 8.5	Ø 65	30	24	1.40
1058-NASD063							14	15	63	25	140	119	86	30	□ 22	120	1/8 PF	Ø 8	64	80	Ø 8.5	Ø 75	40	29	1.90



Ürün Nr. 1058 Pnömatik Dönmeli Bağlama
Product Nr. 1058 Pneumatic Swing Clamp

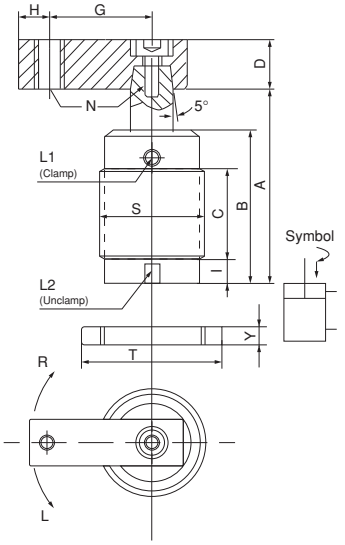
NASD – Flanşlı Uyarlama, Çift Kol Borulu veya Manifoldlu

NASD – Flange Version, Double Arms With Pipe or the Manifold

- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



Referans Nr.	Bağlama Tipi Mounting Type	Bağlama Kolu Clamping Arm	Max.Basınç Max. Pressure	Normal Basınç Normal Pres.	Hareket Tipi Acting Type	Dönme Açısı Swivel Angle	Dönme Strok Swivel Stroke (mm)	Bağlama Strok Clamp. Str. (mm)	Delik Çapı / Bore Diameter Ø (mm)	Piston Çubuğu Piston Rod Ø	Bağl. Gücü/Clamp Force (5kg/cm2)	A (mm) Sökme Unclamp	B (mm)	C (mm)	D (mm)	G (mm)	H (mm)	I (mm)	L1 Bağlama / Clamp L2 Sökme / Unclamp	N (mm)	S (mm)	T (mm) Kontra Sızm. 2 ad. T (mm) 2 pcs/set	Y (mm)	Ağırlık Weight (kg)
1058-NATS025	Dişli Gövde / Threaded Body	Tel Kol / Single Arm	7 kg/cm²	4-6 kg/cm²	Çift Hareketli / Double Acting	90° ± 2°	14	14	25	14	16	104	70	35	□ 16	50	6	10	M5	M6 x1	M40 x1.5	Ø 58	9	0.80
1058-NATS032							14	16	32	16	30	113	79	40	□ 19	60	9	13	1/8 PF	M8 x1.25	M50 x1.5	Ø 70	11	1.10
1058-NATS040							14	15	40	16	50	116	83	45	□ 19	70	9	13	1/8 PF	M8 x1.25	M55 x1.5	Ø 75	11	1.25
1058-NATS050							14	14	50	20	80	120	87	50	□ 25	80	10	13	1/8 PF	M12 x1.5	M65 x1.5	Ø 85	12	1.70
1058-NATS063							15	15	63	20	140	127	92	56	□ 25	90	10	13	1/8 PF	M12 x1.5	M80 x1.5	Ø 105	15	2.20



Ürün Nr. 1058 Pnömatik Dönmeli Bağlama
Product Nr. 1058 Pneumatic Swing Clamp

NATS – Dişli Uyarlama, Tek Kol Borulu

NATS – Threaded Version, Single Arm With Pipe

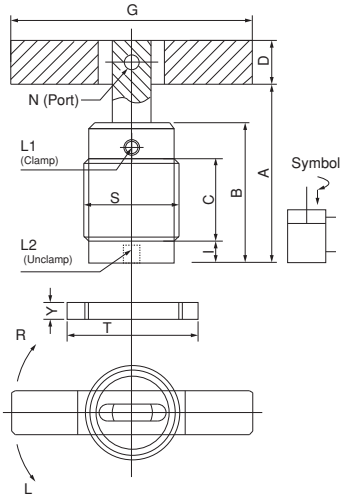
- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



Pnömatik Dönmeli Bağlama

Pneumatic Swing Clamp

Referans Nr.	Bağlama Tipi Mounting Type	Bağlama Kolu Clamping Arm	Max.Basınç Max. Pressure	Normal Basınç Normal Pres.	Hareket Tipi Acting Type	Dönme Açısı Swivel Angle	Dönme Strok Swivel Stroke (mm)	Bağlama Strok Clamp. Str. (mm)	Delik Çapı / Bore Diameter Ø (mm)	Piston Çubuğu Piston Rod Ø	Bağl. Gücü/Clamp Force (5kg/cm2)	A (mm) Sökme Unclamp	B (mm)	C (mm)	D (mm)	G (mm)	I (mm)	L1 Bağlama / Clamp L2 Sökme / Unclamp	N (mm)	S (mm)	T (mm) Kontra Sızm. 2 ad. T (mm) 2 pcs/set	Y (mm)	Ağırlık Weight (kg)
1058-NATSD032	Dişli Gövde / Threaded Body	Çiftli Kol / Double Arm	7 kg/cm²	4-6 kg/cm²	Çiftli Hareketli / Double Acting	90° (0° 45° 60° , 180°) ± 2°	14	16	32	16	30	113	79	40	□ 19	100	13	1/8 PT	Ø 8	M50 x1.5	Ø 70	11	1.10
1058-NATSD040							14	15	40	16	50	116	83	45	□ 19	100	13	1/8 PT	Ø 8	M55 x1.5	Ø 75	11	1.30
1058-NATSD050							14	14	50	20	85	120	77	50	□ 22	120	13	1/8 PT	Ø 8	M65 x1.5	Ø 85	12	1.80



Ürün Nr. 1058 Pnömatik Dönmeli Bağlama
Product Nr. 1058 Pneumatic Swing Clamp

NATSD – Dişli Uyarlama, Çift Kol Borulu

NATSD – Threaded Version, Double Arms With Pipe

- Satın almadan önce hareket tipini ve dönme açısını bildiriniz.
- Before buying please, movement indicate the type and rotation angle.



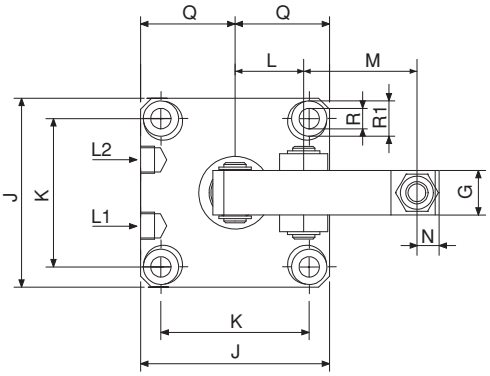
Referans Nr.	Çalışma Basıncı Operating Pressure	Çalışma Isısı Temperature Range	Bağlama Tipi Mounting Type	Strok Stroke (mm)	Delik Çapı / Bore Diameter Ø (mm)	Piston Çubuğu Piston Rod Ø (mm)	Sıkma Kuvveti Clamping Force (kg)	A	B	C	D	E	F	G	H	I	J	K	L	M	O	N	P	Q	R	R1	S	L1 Bağlama / Clamp L2 Sökme / Unclamp	Ağırlık Weight (kg)
1058-PLCU25	4-10 kgf/cm²	-10° ~ +80°	Üst Flanş ve Dişli Gövde Upper Flange & Threaded Body	22	Ø 25	Ø 14	27	128.5	86.5	25	61.5	50	17	16	M40 x1.5	60	50	37	18	23	23	7	35	25	5.5	9	M6 x1	M5 x0.8	0.60
1058-PLCU32				28	Ø 32	Ø 16	40	149.5	97.5	25	72.5	57	20	18	M50 x1.5	70	60	45	22	30	23	8	40	30	6.5	11	M8 x1.25	G 1/8	1.00
1058-PLCU40				30	Ø 40	Ø 16	66	157.5	97.5	25	72.5	60	25	20	M55 x1.5	75	65	50	24	32	26	10	42.5	32.5	6.5	11	M8 x1.25	G 1/8	1.20
1058-PLCU50				30	Ø 50	Ø 20	105	174	104	25	79	65	30	22	M65 x1.5	88	75	58	27.5	36	32	14	50.5	37.5	8.5	14	M12 x1.75	G 1/8	2.00
1058-PLCU63				30	Ø 63	Ø 20	166	179	105	25	80	69	30	22	M80 x1.5	108	90	70	32	42	35	14	63	45	8.5	14	M12 x1.75	G 1/8	2.70

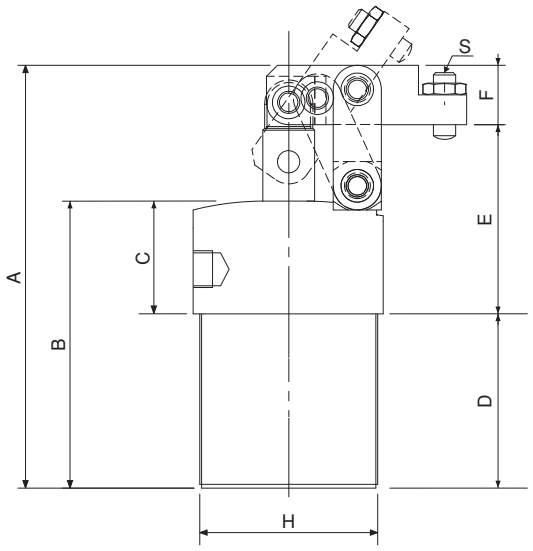
Ürün Nr. 1058 Pnömatik Üstten Bağlama

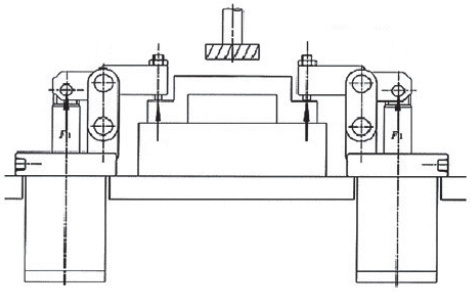
Product Nr. 1058 Pneumatic Above Clamp



Borulu / With Pipe







ER-EL ZERO CLAMP UYGULAMALARI

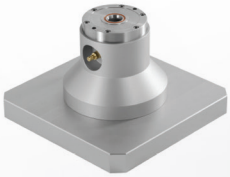
ER-EL ZERO CLAMP APPLICATION

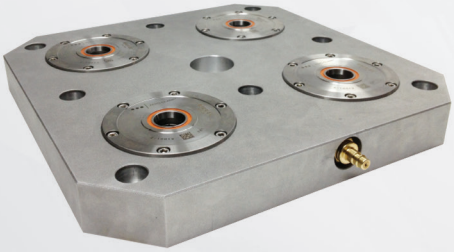


Tekrarlanabilen Hassasiyetin
Doruk Noktası

0,005 Tekrarlanabilen Hassasiyet
0,005 Repeat Accoracy







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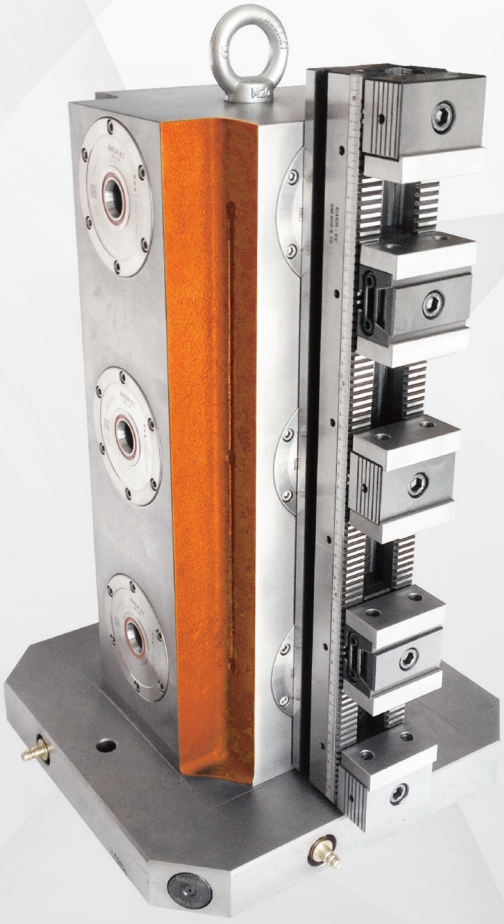
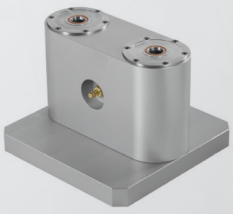


Nr. 2480









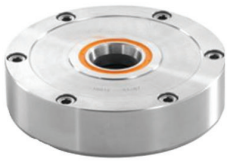




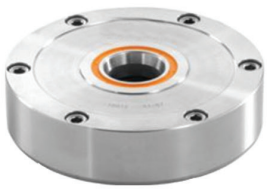


ER-EL® ZERO CLAMP

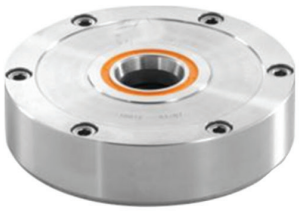
Zero Point Clamping Systems



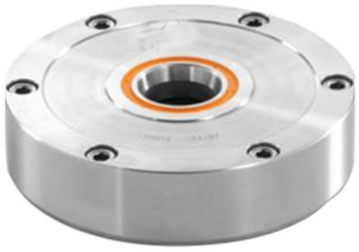
Ø90
1250 kgf



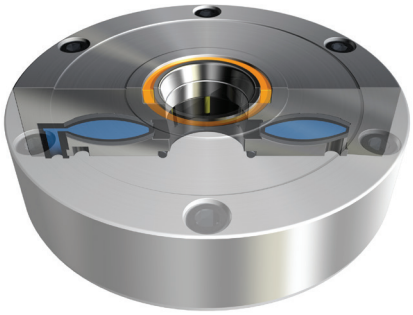
Ø120
2500 kgf



Ø138
4000 kgf



Ø190
6000 kgf



Açıklama / Description

1- Sertleştirilmiş çelik konik / Hardened steel cone

2- Radyal Yay / Radial spring

3- NBR kauçuk / NBR rubber

4- Ayna gövdesi / Chuck housing

5- Bağlama plakası /Clamping sheets

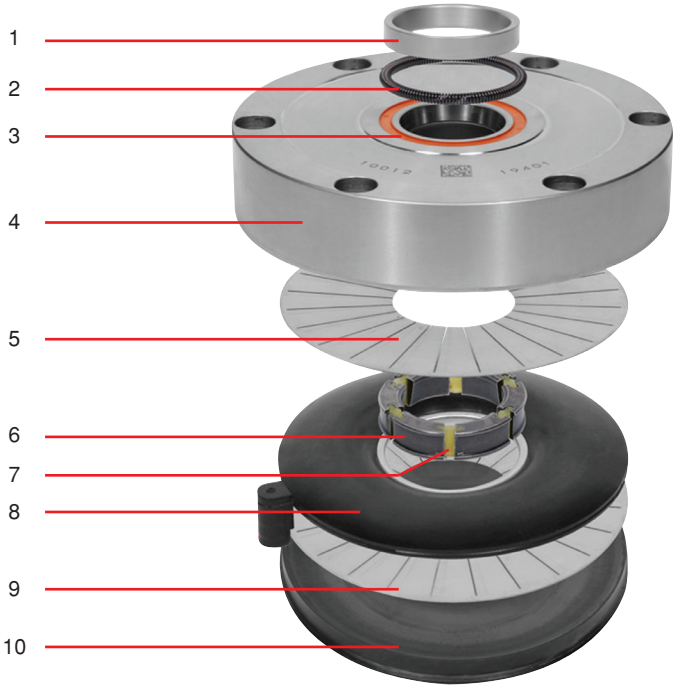
6- Kilitleme ünitesi / Locking unit

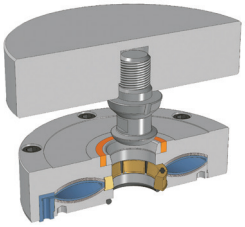
7- Ayraç (Elastomer) / Spacer (Elastomer)

8- Hava hortumu /Air hose

9- Bağlama plakaları / Clamping sheets

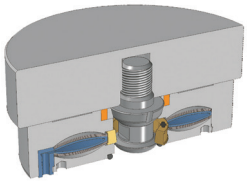
10- Gövde kapağı / Housing cover





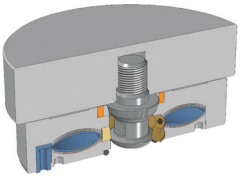
Plaka açık vaziyetteki ZeroClamp aynasına yerleştirilir.

The pallet is placed on the opened ZeroClamp chuck.



Hava hortumu içindeki hava basıncı sayesinde, yaylı elemanlar kilitleme ünitesini (bağlama plakalarını) açık tutar.

The spring elements keep the locking unit (clamping wedges) open with the help of the air pressure inside the air hose.

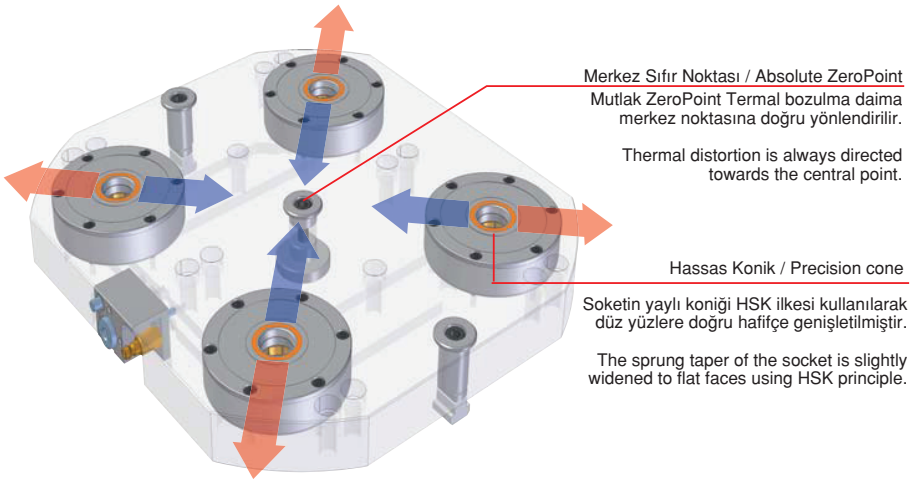


Hava hortumunun serbest bırakılması gövde içerisindeki kilitleme ünitesinin yerleşmesini ve sıkılmasını sağlar.

Venting the air hose results in the positioning and clamping of the clamp bolt in the chuck.

ZeroPoint Kilitleme Sistemi 0.005 Tekrarlama Hassasiyeti

ZeroPoint Clamping System 5 µm repeat accuracy



- ZeroPoint : Termal değişim her zaman merkez eksene doğru dengelenir.
- Çekterme civatalarının konumu ± 0.1mm'lik hatalara kadar dengelenebilir.
- Hassas bağlama konileri düşük titreşimli çalışmalara karşı sabittir.
- Özel kılıç şeklinde saplamalar veya çözme/kızaklı saplamalar gerekli değildir.

- Absolute ZeroPoint: Compensation for thermal change is always towards centre axis
- Clamping stud location errors of up to ±0.1mm can be compensated for
- Precision clamping cones are free from play for low-vibration operation
- Special sword studs or loose/sliding studs are not required

HSK Prensibi

Geleneksel sistemler merkezleme için silindirik bir oturma yüzeyi ya da sert bir konik kullanır. Silindirik oturma yüzeylerin her zaman bir oynama alanına ihtiyacı vardır (örneğin: 25 H5 tutucu / 25 h5 civata). Böyle bir alan 0.018 kadar çıkabilir. Konik oturmada koniğin şeklinin kusursuz olması gerekir. Aksi takdirde civatalar çok büyük olması durumunda, palet çıkar, veya oynama silindirik bir sistemdeki gibi olacaktır.

Zero Clamp sıfır noktası bağlama sisteminin işlevi, içi boş bir konik HSK sapına benzemektedir. Bu sistemde ince duvarlı konik, yüzeyi tam olarak oturma noktasının hatlarıyla eşleşene kadar deforme edilir.

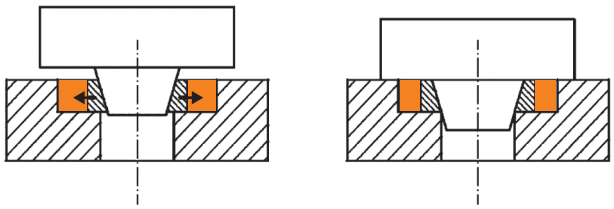
Zero Clamp sıfır noktası sıkma sistemi, yüzey ve konik temas kullanımıyla aynı şekilde çalışır. Konik çekilirken, oturma halkası minimal genişlemiş olacaktır. Böylece düzlem oturma noktası ile temas halinde paletin içinde veya iş parçasında herhangi bir oynama ortadan kalkar.

HSK Principle

Traditional systems use either a cylindrical seat or a rigid cone for centring. A cylindrical seat always requires some amount of play (i.e. 25 H5 holder / 25 h5 bolt). Play in such a combination may be as much as 0.018. With a canical fit the cone must be shaped precisely. Otherwise the pallet will protrude if the bolts are too large, or else the play will be the same as in a cylindrical system.

The function of the Zero Clamp zero point clamping system resembles that of a hollow cone HSK shank. In this system the thin-walled cone is deformed as it is drawn in until its surface exactly matches the contours of the seat.

Zero Clamp zero point clamping system works the same way, using face and taper contact. While the cone is being drawn in, the seat ring will be widened minimally. Within the pallet or the workpiece in contact with the plane seat and so any play is eliminated.



Karşılaştırma İşlemleri / Comparison Processes

Geleneksel kurulum süreci
Setup Process

Gerekli zaman / Required Time

%100

1. Tablanın temas yüzeylerini temizleyin / Clean the table's contact surfaces
2. Sıkma civatalarını ayarlayın / Adjust the clamping bolts
3. Hizala / Alignment
4. Sıkma vidaları ile sabitleyin / Secure with clamping screws
5. Sıfır noktalarını kontrol edin / Check the zero points
6. Programını başlatın. Programı Sonlandır / Start the program, End the program

ER-EL Zero Clamp kurulum süreci
ER-EL Zero Clamp installation process

Gerekli zaman / Required Time

%10

1. Zero Clamp Temas yüzeylerini temizleyin / Clean the Zero Clamp contact surfaces
2.
3. Aradaki büyük zaman faktörü tamamen atlandı!
4. Biggest time factor completely omitted!
5.
6. Programını başlatın, Programı sonlandır / Start the program, End the program

ZeroClamp Benzersiz Özellikleri ZeroClamp Unique Features	Benzer Ürünlerdeki Sistemler Competitor Systems
Basit düzeni ile tasarım tescilli patent Sadece birkaç basit bileşenle son derece güvenilir bir tasarım sağlar. Hatta talaş bile ünitenin fonksiyonunu etkilemez. **Patent-registered design with a simple layout.** Just a few simple components provide an extremely reliable desing. Even swarf will not affect the function of the clamping unit.	Bilyeli burç, piston, valf vs. gibi karışık mekanzimalar. Talaş ile tıkandığında bloke olma veya arızalanma riski vardır. Complex mechanics using ball cages, pistons, valves, etc. When contaminated with swarf there is a risk of blockage and/or malfunction.
HSK prensibi nedeniyle yüksek hassasiyet Sıkma civatası, geri çekildiğinde, aynanın konik halka elastik kısmı genişletilip, 0.005 mm'den biraz daha az bir tekrarlama ile mükemmel ve son derece hassas bir uyum sağlayacaktır. **High precision due to the HSK principle** When retracting the clamping bolt, the elastic part of the taper ring of the chuck will be slightly expanded providing a perfect and extremely accurate fit with a repeatability of less than 0.005	Normalde hafif bir kaydırma işlemi gerekir (örn.Civata ve desteklerde 32 mm h5/H5). Bu örnekte minimum boşluk 0 µm oysa maksimum 0.022'dir. Böylece iddia edilen tekrarlanabilirliğin elde edilmesi (0.005) zor olması gerekir. Normally a light sliding fit is required (e.g. 32 mm h5/H5 for bolts and mountings). In this particular case the minimum backlash is 0 µm whereas the maximum is 0.022 So the claimed repeatability (0.005) must be difficult to achieve.
Termal sabitlik Termal etkiler ve/veya mikro sapmalar, konik gövde tarafından (HSK prensibi) eşitlenir. Gövde halkaları her zaman bağlama merkezindeki hataları eşitler. (Döner tablada, plaka merkezi her zaman makinenin merkez çizgisinde kalır). **Thermal stability** Thermal effects and/or micro deviations are compensated for by the hollow shank taper (HSK) principle. The taper rings always compensate for the errors to the centre of the clamping position. (On a rotary table the centre of a pallet always remains on the centre line of the machine).	Üç farklı civata tasarımı olan sabit sistem. Termal etikiler ve/veya mikro sapmalar sıfır cıvatasından kaynaklı asimetrik dengelere sebep verir. (Döner tablada, plaka merkezi makinenin merkez çizgisinden itilerek uzaklaşır). Fixed system with three diff erent bolt designs. Thermal effects and/or micro deviations will cause asymmetrical off sets originating from the zero bolt. (On a rotary table, the centre of a pallet will be pushed away from the centre line of the machine).
Sadece bir tip bağlama civatası gerektirir. Pim deliğine takılması gereken sadece tek tip civata bağlanması gerektiğinden çok daha basit kullanımlıdır. **Only one type of clamping bolt required.** Far simpler to manage as only one type of bolt needs to be screwed into the pin bore.	Genelde üç farklı tip civata gerektirir. (sıfırlama civatası, yüzer veya kılıç civata, serbest civata). Çok komplike, her fikstürün kurulumda, nereye ve hangi açıda pozisyonlanması gerektiği talimatlarla belirlenmek zorunda. Yani hata riski yüksektir. Generally three diff erent types of bolts required (zero bolt, floating or sword bolt, free bolt). Very complicated, each fixture needs to be documented with set up instructions, showing which bolt has to be mounted where and in which angular position. So there is a high risk of errors.
Kendinden kilitli değildir Tezgah bindirme söz konusu olursa, bağlama ekipmanı fikstürleri yol verip, makine aynasını koruma ihtimalini yaratır. Enerji kaynağı hava yollarının tı-kanması sözkonusu olursa, sıkıştırma vidaları fikstürün sökülmesine izin verir. **No self-locking.** In case of a crash, the fi xture or the clamping device can give way, possibly saving the machine spindle. In the case of damage to the airways for energy supply, forcing screws will allow the removal of the fi xture.	Tezgah bindirme sözkonsu olursa, kendinden kilitlemeli sistemler mümkün olan en büyük hasara sebep olur. Güç kaynağının kesilmesi sözkonusu olduğunda ise, çoğunlukla plakanın sökülmesi için fikstürün tamamen bozulması gerekir. In case of a crash self-locking systems will cause the worst possible demage. In the case of a power loss, in most cases the fi xture will have to be completely destroyed in order to be able to remove the pallet.
Eğilme yok Düzen ve tasarım bağlama civataların eğilmesini engeller. Eğimli pozisyonlar veya dengesiz yüklerde bile, merkez oyuktaki yüksek dengeden dolayı kolay söküp takma işlemleri. **No tilting** Layout and design will prevent any tilting of the clamping bolts. Easy joining and removal even in inclined positions or with an unbalanced load with a large off set of the centre of gravity.	Silindir veya konik bağlama civatalarının minimalde konik olmalarından dolayı, söküp takma işlemleri, paralel konumda çok hassas olarak yapılmalı. Ağır asimetrik elemanların sökülmesi daima sorunlu olacaktır. Joining and removal must be carried out in precisely defined and parallel positions as the cylindrical or tapered clamping bolts used have a minimal taper. The removal of heavy asymmetric components will always cause problems.
Düşük montaj yüksekliği olan pnömatik sistem Bağlaması yay vasıtasıyla, serbest bırakılması hava basıncıyla. Standart hava basıncıyla bile yüksek bağlama gücü olan patentli tasarımdır. **Pneumatic system with low installation height** Clamping via spring assembly, unclamping by means of compressed air. Patented design for very high clamping force even with standard air-pressures.	Hidrolik sistemlerin sistemden dolayı dezavantajları vardır: pompa, boru, çarpışma, sızıntı, akma, vs. Ayrıca, hidrolik sistemlerin kurulumu pnömatik sistemlerinkinden daha maliyetli olduğu tespit edilmiştir. Hydraulic systems have disadvantages determined by the system: pump, duct, collision, leakage, bleeding, etc. Also, installation costs tend to be more expensive compared to pneumatic systems.

ER-EL Zero Clamp Gövde

ER-EL Zero Clamp Body

Referans Nr.	d	h	d1	Nm	sıkma kuvveti clamping force Kgf	(g)
1060-090	90	22	M4	5	1250	730
1060-120	120	28	M6	14	2500	1840
1060-138	138	33	M8	35	4000	2860
1060-190	190	38	M8	35	6000	5460

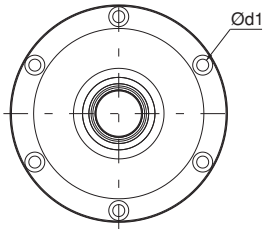


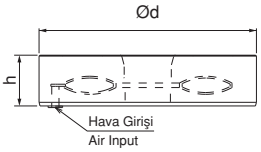
Ürün Nr. 1060 ER-EL Zero Clamp Gövde

- Min. Bar 5.5
- Max. Bar 8

Product Nr. 1060 ER-EL Zero Clamp Body

- Min. Bar 5.5
- Max. Bar 8





Çektirme Civatası

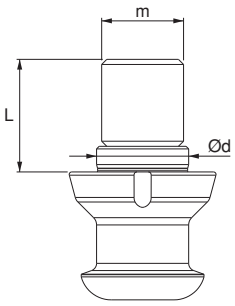
Pull Stud

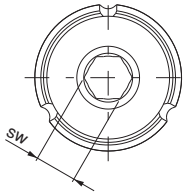
Referans Nr.	m	L	d	sw	Nm	(g)
1065-09012	M12	20	14 k6	6	80	40
1065-12016	M16	22	18 k6	8	170	97
1065-13816	M16	30	25 k6	8	170	235
1065-19024	M24	36	30 k6	10	400	460



Ürün Nr. 1065 Çektirme Civatası

Product Nr. 1065 Pull Stud





Gövde Talaş Koruyucu

Body Chip Protector

Referans Nr.	Zero	(g)
1067-090	90	29
1067-120	120	85
1067-138	138	202
1067-190	190	398



Ürün Nr. 1067 Gövde Talaş Koruyucu

Product Nr. 1067 Body Chip Protector

BAĞLAMA PABUÇLARI

CLAMPING COMPONENTS



KIZAKLI KOMBİNE BAĞLAMA PABUCU UYGULAMALARI

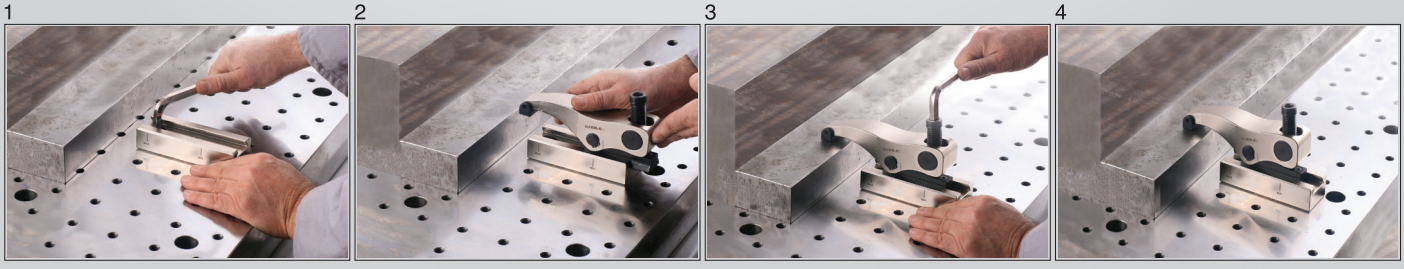
COMBINED SLIDING CLAMP APPLICATION

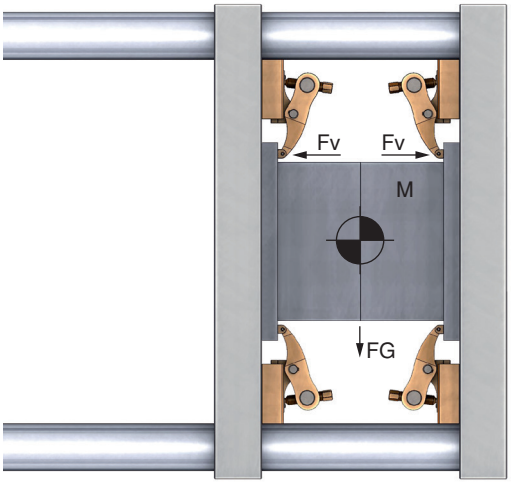


1 2 3 4



1 2 3 4



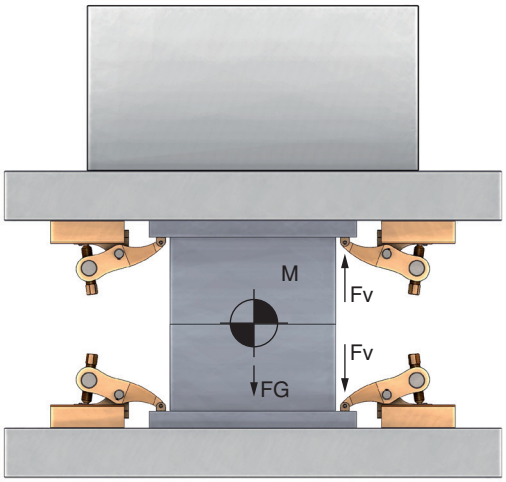


Enjeksiyon Kalıpları İçin Uygulama Örneği

Power Clamp For Injection Moulding

Hesaplama Formülü / Formula Calculator

$\frac{M \times FG}{1000}$ = kN	$\frac{2500 \times 9.81}{1000}$ (kg) = 24.52 kN
$\frac{kN}{\mu}$ = Sonuç / Result	$\frac{24.52}{0.14}$ = 175.14 kN
$\frac{\text{Sonuç}}{Fv}$ = Bağlama Sayısı / Number of Clamp	$\frac{175.14\ kN}{25\ kN}$ = 7 Bağlama / Clamp, 8 adet kullanın, 8 pcs Use



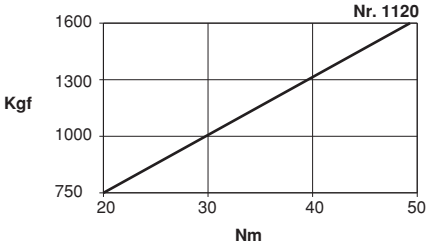
Pres Kalıpları İçin Uygulama Örneği

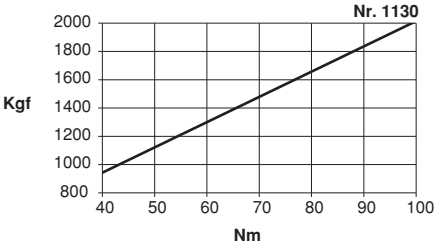
Power Clamp For Press Moulding

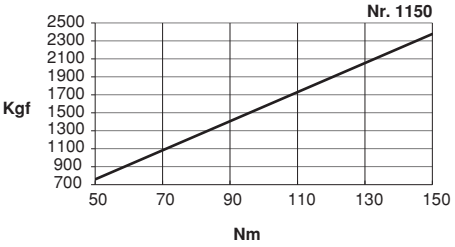
Hesaplama Formülü / Formula Calculator

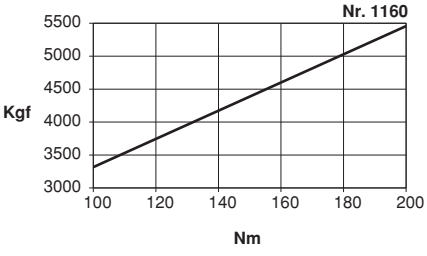
$\frac{M \times FG}{1000}$ = kN	$\frac{5000 \times 9.81}{1000}$ (kg) = 49.050 kN
$\frac{kN}{\mu}$ = Sonuç / Result (Üst Kalıp %60) (Alt Kalıp % 40)	$\frac{49.05}{0.14}$ = 350.35 kN (%60 Üst Kalıp= 210.21) (% 40 Alt Kalıp= 140.14)
$\frac{\text{Sonuç}_{(\text{Üst Kalıp})}}{Fv}$ = Bağlama Sayısı / Number of Clamp	$\frac{210.21\ kN}{25\ kN}$ (Üst Kalıp) = 8 Bağlama Sayısı, 8 Number of Clamp
$\frac{\text{Sonuç}_{(\text{Alt Kalıp})}}{Fv}$ = Bağlama Sayısı / Number of Clamp	$\frac{140.14\ kN}{25\ kN}$ (Üst Kalıp) = 5.6 Bağlama / Clamp, 6 adet kullanın, 6 pcs Use

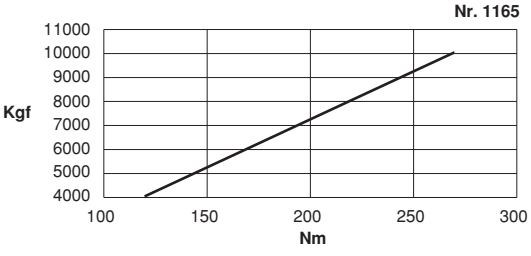
K.K.S.P. Kuvvet Diyagramı / Force Diagram











Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

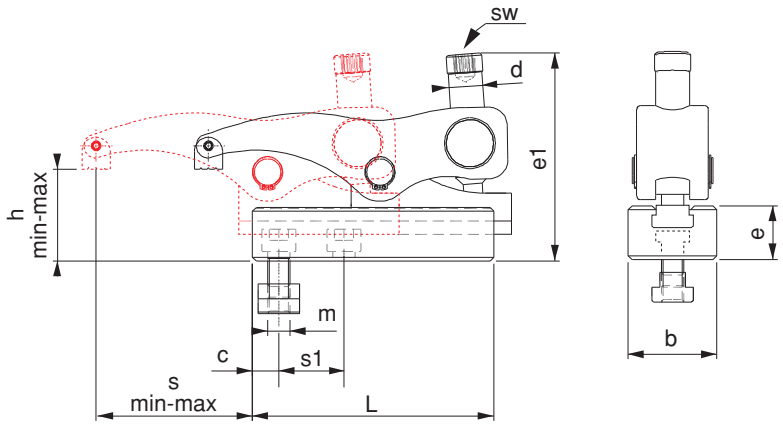
Referans Nr.	a	m	h min	h max	s	s1	e1	d	sw	L	e	b	c	Sıkma Kuvveti Clamping Force Kgf	Nm	(g)
1120-014 T	14	M12	0	50	12-66	25	100	M14	8	104	35.5	38	13	1600	50	1740
1120-016 T	16	M12	0	50	12-66	25	100	M14	8	104	35.5	38	13	1600	50	1755
1120-018 T	18	M12	0	50	12-66	25	100	M14	8	104	35.5	38	13	1600	50	1785
1120-014 LT	14	M12	0	50	12-81	25	100	M14	8	130	35.5	38	13	1600	50	1980
1120-016 LT	16	M12	0	50	12-81	25	100	M14	8	130	35.5	38	13	1600	50	1995
1120-018 LT	18	M12	0	50	12-81	25	100	M14	8	130	35.5	38	13	1600	50	2000

Ürün Nr. 1120-(T) Kızaklı Kombine Bağlama Pabucu
- (a) 14-18 T-Kanalda M12 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-50 mm.
- İleri-geri hareket mesafesi 54mm'dir. Sıkma Kuvveti 1600 kgf.

Ürün Nr. 1120-(LT) Kızaklı Kombine Bağlama Pabucu
- (a) 14-18 T-Kanalda M12 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-50 mm.
- İleri-geri hareket mesafesi 69mm'dir. Sıkma Kuvveti 1600 kgf.

Product Nr. 1120-(T) Combined Slinding Clamp
- (a) 14-18 is used in T-Slot and M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-50mm
- Back and forth movement distance is 54mm. Clamping force is 1600 kgf.

Product Nr. 1120-(LT) Combined Slinding Clamp
- (a) 14-18 is used in T-Slot and M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-50mm
- Back and forth movement distance is 69mm. Clamping force is 1600 kgf.





1120-... T



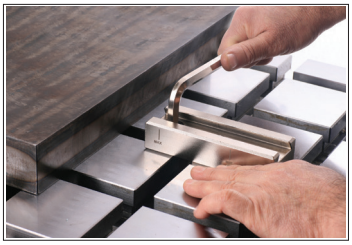
1120-... LT

UYGULAMA;
1- Alt kızağı iş parçasına uygun şekle getir sabitle
2- Üst gövdeyi kızağa sür, istenilen pozizyona getir
3- Pabuç imbus civatasıyla iş parçasını sabitle
4- Parça işlenmek için hazır

APPLICATION;
1- Slide cradle is brought to suitable form with the work piece and then it is fixed
2- Upper body is driven to the slide and it is brought to desired position
3- Work piece is fixed with the imbus bolt of the clamp
4- Then the work piece becomes ready to be machined.

Kullanım Alanı
Enjeksiyon makinaları presler, freze tezgahları, matkap tezgahları ve çeşitli sanayi makinaları

Area of Use
Injection Machines, Presses, Milling Machines, Drilling Machines and various Industrial Machines

1


2


3


4


Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

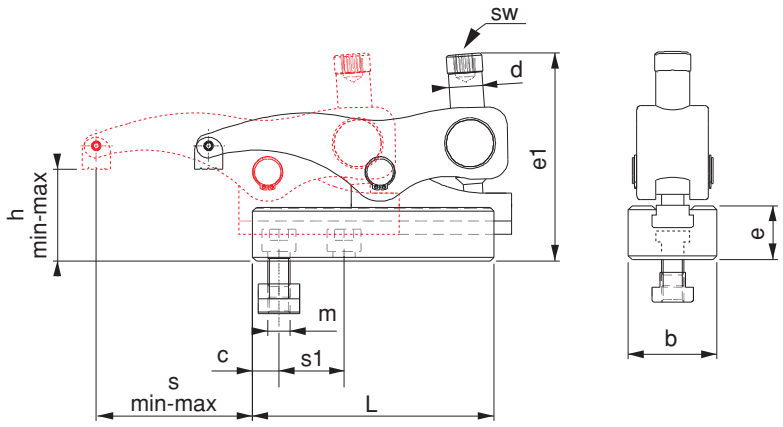
Referans Nr.	a	m	h min	h max	s	s1	e1	d	sw	L	e	b	c	Sıkma Kuvveti Clamping Force Kgf	Nm	(g)
1130-014 T	14	M12	0	60	15-83	30	113	M18	10	130	39	48	17,5	2000	100	3040
1130-016 T	16	M12	0	60	15-83	30	113	M18	10	130	39	48	17,5	2000	100	3055
1130-018 T	18	M16	0	60	15-83	30	113	M18	10	130	39	48	17,5	2000	100	3085
1130-020 T	20	M16	0	60	15-83	30	113	M18	10	130	39	48	17,5	2000	100	3135
1130-022 T	22	M16	0	60	15-83	30	113	M18	10	130	39	48	17,5	2000	100	3150
1130-014 LT	14	M12	0	60	15-107	30	113	M18	10	170	39	48	17,5	2000	100	3820
1130-016 LT	16	M12	0	60	15-107	30	113	M18	10	170	39	48	17,5	2000	100	3835
1130-018 LT	18	M16	0	60	15-107	30	113	M18	10	170	39	48	17,5	2000	100	3865
1130-020 LT	20	M16	0	60	15-107	30	113	M18	10	170	39	48	17,5	2000	100	3915
1130-022 LT	22	M16	0	60	15-107	30	113	M18	10	170	39	48	17,5	2000	100	3930

Ürün Nr. 1130-(T) Kızaklı Kombine Bağlama Pabucu
- (a) 14-22 T-Kanalda M12 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-60 mm.
- İleri-geri hareket mesafesi 68mm'dir. Sıkma Kuvveti 2000 kgf.

Ürün Nr. 1130-(LT) Kızaklı Kombine Bağlama Pabucu
- (a) 14-22 T-Kanalda M12 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-60 mm.
- İleri-geri hareket mesafesi 92mm'dir. Sıkma Kuvveti 2000 kgf.

Product Nr. 1130-(T) Combined Slinding Clamp
- (a) 14-22 is used in T-Slot and M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-60mm.
- Back and forth movement distance is 68mm. Clamping force is 2000 kgf.

Product Nr. 1130-(LT) Combined Slinding Clamp
- (a) 14-22 is used in T-Slot and M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-60mm.
- Back and forth movement distance is 92mm. Clamping force is 2000 kgf.





1130-... T



1130-... LT

UYGULAMA;
1- Alt kızağı iş parçasına uygun şekle getir sabitle
2- Üst gövdeyi kızağa sür, istenilen pozizyona getir
3- Pabuç imbus civatasıyla iş parçasını sabitle
4- Parça işlenmek için hazır

APPLICATION;
1- Slide cradle is brought to suitable form with the work piece and then it is fixed
2- Upper body is driven to the slide and it is brought to desired position
3- Work piece is fixed with the imbus bolt of the clamp
4- Then the work piece becomes ready to be machined.

Kullanım Alanı
Enjeksiyon makinaları presler, freze tezgahları, matkap tezgahları ve çeşitli sanayi makinaları

Area of Use
Injection Machines, Presses, Milling Machines, Drilling Machines and various Industrial Machines

1


2


3


4


Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

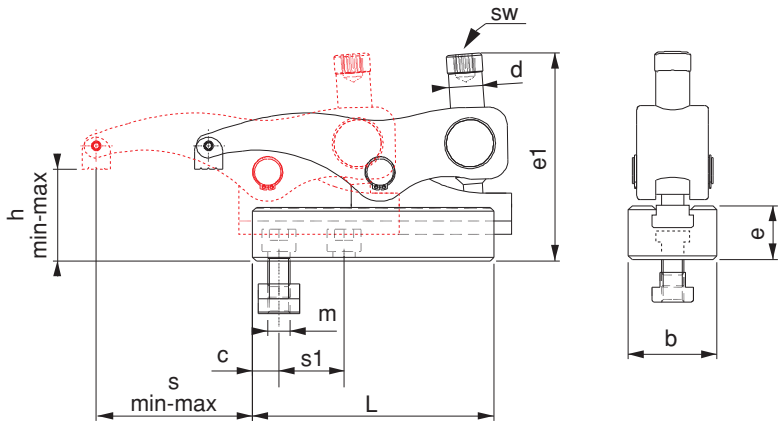
Referans Nr.	a	m	h min	h max	s	s1	e1	d	sw	L	e	b	c	Sıkma Kuvveti Clamping Force Kgf	Nm	(g)
1150-118 T	18	M16	0	65	18-96	35	125	M20	12	140	43	55	19,5	2500	150	4410
1150-120 T	20	M16	0	65	18-96	35	125	M20	12	140	43	55	19,5	2500	150	4460
1150-122 T	22	M20	0	65	18-96	35	125	M20	12	140	43	55	19,5	2500	150	4515
1150-124 T	24	M20	0	65	18-96	35	125	M20	12	140	43	55	19,5	2500	150	4615
1150-128 T	28	M20	0	65	18-96	35	125	M20	12	140	43	55	19,5	2500	150	4715
1150-118 LT	18	M16	0	65	18-128	35	125	M20	12	200	43	55	19,5	2500	150	5770
1150-120 LT	20	M16	0	65	18-128	35	125	M20	12	200	43	55	19,5	2500	150	5830
1150-122 LT	22	M20	0	65	18-128	35	125	M20	12	200	43	55	19,5	2500	150	5885
1150-124 LT	24	M20	0	65	18-128	35	125	M20	12	200	43	55	19,5	2500	150	5985
1150-128 LT	28	M20	0	65	18-128	35	125	M20	12	200	43	55	19,5	2500	150	6000

Ürün Nr. 1150-(T) Kızaklı Kombine Bağlama Pabucu
- (a) 18-28 T-Kanalda M16 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-65mm.
- İleri-geri hareket mesafesi 78mm'dir. Sıkma Kuvveti 2500 kgf.

Ürün Nr. 1150-(LT) Kızaklı Kombine Bağlama Pabucu
- (a) 18-28 T-Kanalda M16 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 0-65mm.
- İleri-geri hareket mesafesi 110mm'dir. Sıkma Kuvveti 2500 kgf.

Product Nr. 1150-(T) Combined Slinding Clamp
- (a) 18-28 is used in T-Slot and M16 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-65mm.
- Back and forth movement distance is 78mm. Clamping force is 2500 kgf.

Product Nr. 1150-(LT) Combined Slinding Clamp
- (a) 18-28 is used in T-Slot and M16 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 0-65mm
- Back and forth movement. distance is 110mm. Clamping force is 2500 kgf.





UYGULAMA;
1- Alt kızağı iş parçasına uygun şekle getir sabitle
2- Üst gövdeyi kızağa sür, istenilen pozizyona getir
3- Pabuç imbus civatasıyla iş parçasını sabitle
4- Parça işlenmek için hazır

APPLICATION;
1- Slide cradle is brought to suitable form with the work piece and then it is fixed
2- Upper body is driven to the slide and it is brought to desired position
3- Work piece is fixed with the imbus bolt of the clamp
4- Then the work piece becomes ready to be machined.

Kullanım Alanı
Enjeksiyon makinaları presler, freze tezgahları, matkap tezgahları ve çeşitli sanayi makinaları

Area of Use
Injection Machines, Presses, Milling Machines, Drilling Machines and various Industrial Machines

1


2


3


4


Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

Referans Nr.	a	m	h min	h max	s	s1	e1	d	sw		L	e	b	c	Sıkma Kuvveti Clamping Force Kgf	Nm	(g)
1160-222 T	22	M20	20	80	17-92	41.5	175	M24	12	24	178	55	74	24	5500	200	9030
1160-224 T	24	M20	20	80	17-92	41.5	175	M24	12	24	178	55	74	24	5500	200	9120
1160-228 T	28	M24	20	80	17-92	41.5	175	M24	12	24	178	55	74	24	5500	200	9180
1160-236 T	36	M24	20	80	17-92	41.5	175	M24	12	24	178	55	74	24	5500	200	9600
1160-222 LT	22	M20	20	80	25-148	41.5	175	M24	12	24	256	55	74	24	5500	280	12110
1160-224 LT	24	M20	20	80	25-148	41.5	175	M24	12	24	256	55	74	24	5500	280	12210
1160-228 LT	28	M24	20	80	25-148	41.5	175	M24	12	24	256	55	74	24	5500	280	12270
1160-236 LT	36	M24	20	80	25-148	41.5	175	M24	12	24	256	55	74	24	5500	280	12310
1165-222 T	22	M20	30	80	34-92	41.5	194	M24	12	24	205	55	85	24	10000	270	11820
1165-224 T	24	M20	30	80	34-92	41.5	194	M24	12	24	205	55	85	24	10000	270	11900
1165-228 T	28	M24	30	80	34-92	41.5	194	M24	12	24	205	55	85	24	10000	270	11960
1165-236 T	36	M24	30	80	34-92	41.5	194	M24	12	24	205	55	85	24	10000	270	12000

Ürün Nr. 1160-(T) Kızaklı Kombine Bağlama Pabucu
- (a) 22-36 T-Kanalda M20-M24 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 20-80mm.
- İleri-geri hareket mesafesi 75mm'dir. Sıkma Kuvveti 5500 kgf.

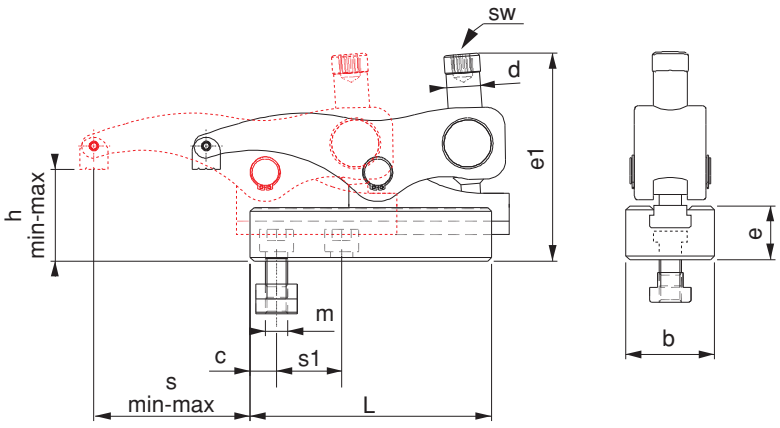
Ürün Nr. 1160-(LT) Kızaklı Kombine Bağlama Pabucu
- (a) 22-36 T-Kanalda M20-M24 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 20-80mm.
- İleri-geri hareket mesafesi 123mm'dir. Sıkma Kuvveti 5500 kgf.

Ürün Nr. 1165-(T) Kızaklı Kombine Bağlama Pabucu
- (a) 22-36 T-Kanalda M20-M24 imbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 30-80mm.
- İleri-geri hareket mesafesi 58mm'dir. Sıkma Kuvveti 10000 kgf.

Product Nr. 1160-(T) Combined Slinding Clamp
- (a) 22-36 is used in T-Slot and M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 20-80mm.
- Back and forth movement distance is 75mm. Clamping force is 5500 kgf.

Product Nr. 1160-(LT) Combined Slinding Clamp
- (a) 22-36 is used in T-Slot and M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 20-80mm.
- Back and forth movement distance is 123mm. Clamping force is 5500 kgf.

Product Nr. 1165-(T) Combined Slinding Clamp
- (a) 22-36 is used in T-Slot and M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 30-80mm.
- Back and forth movement distance is 58mm. Clamping force is 10000 kgf.





UYGULAMA;
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2- Üst gövdeyi kızağa sür, istenilen pozizyona getir
3- Pabuç imbus civatasıyla iş parçasını sabitle
4- Parça işlenmek için hazır

APPLICATION;
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4- Then the work piece becomes ready to be machined.

Kullanım Alanı
Enjeksiyon makinaları presler, freze tezgahları, matkap tezgahları ve çeşitli sanayi makinaları

Area of Use
Injection Machines, Presses, Milling Machines, Drilling Machines and various Industrial Machines

1


2


3


4


Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

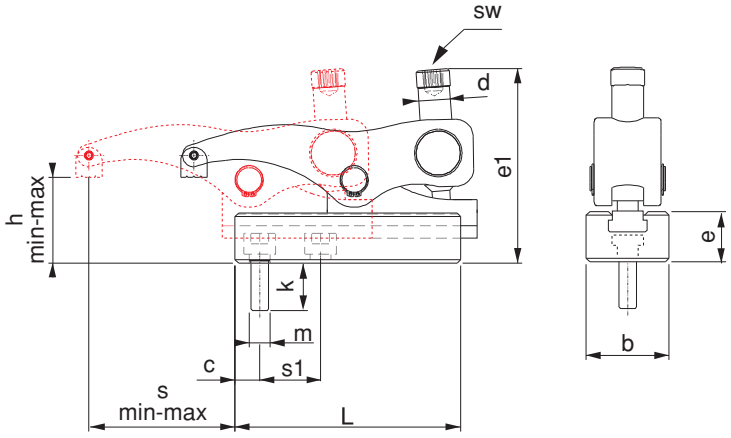
Referans Nr.	m	h min	h max	s	s1	e1	d	sw	L	e	b	c	k	Sıkma Kuvveti Clamping Force Kgf	Nm	(g)
1120-010 M	M10	0	50	12-66	25	100	M14	8	104	35.5	38	13	20	1600	50	1740
1120-012 M	M12	0	0	12-66	25	100	M14	8	104	35.5	38	13	20	1600	50	1755
1120-010 LM	M10	0	50	12-81	25	100	M14	8	130	35.5	38	13	20	1600	50	1980
1120-012 LM	M12	0	50	12-81	25	100	M14	8	130	35.5	38	13	20	1600	50	1995

Ürün Nr. 1120-(M) Kızaklı Kombine Bağlama Pabucu
- M10-M12 diş deliklerde (1120-310)-(1120-312) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-50 mm.
- İleri-geri hareket mesafesi 54mm'dir. Sıkma Kuvveti 1600 kgf.

Ürün Nr.1120-(LM) Kızaklı Kombine Bağlama Pabucu
- M10-M12 diş deliklerde (1120-310)-(1120-312) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-50 mm.
- İleri-geri hareket mesafesi 69mm'dir. Sıkma Kuvveti 1600 kgf.

Product Nr. 1120-(M) Combined Sliding Clamp
- In the outer holes M10-M12 are used with the Reference Nr. imbus bolt (1120-310)-(1120-312)
- Height clamping gap of the piece is 0-50mm.
- Back and forth movement distance is 54mm. Clamping force is 1600 kgf.

Product Nr.1120-(LM) Combined Sliding Clamp
- In the outer holes M10-M12 are used with the Reference Nr. imbus bolt (1120-310)-(1120-312)
- Height clamping gap of the piece is 0-50mm.
- Back and forth movement distance is 69mm. Clamping force is 1600 kgf.





1120-... M



1120-... LM

AVANTAJLARI;
- 1600 kgf - 2000 kgf sıkma kuvveti
- Delik ve T-Kanalda kullanım
- Kızak üzerinde kaydırarak değişik pozizyonlarda sabitleme
- imbus civatasıyla desteksiz yüksek ve düşük mesafeleri sıkar
- Pratik yapısından dolayı hızlı ve kolay şekilde bağlama sağlar

ADVANTAGES
- 1600 kgf - 2000 kgf Clamping Force.
- Usings in the hole and T-Slot.
- Ability to be fixed in verious positions by sliding on the slide.
- It clamps high and low distances without support with the imbus bolt.
- It provides rapid and easy connection due to it's practical structure.

1



2



3



4



Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

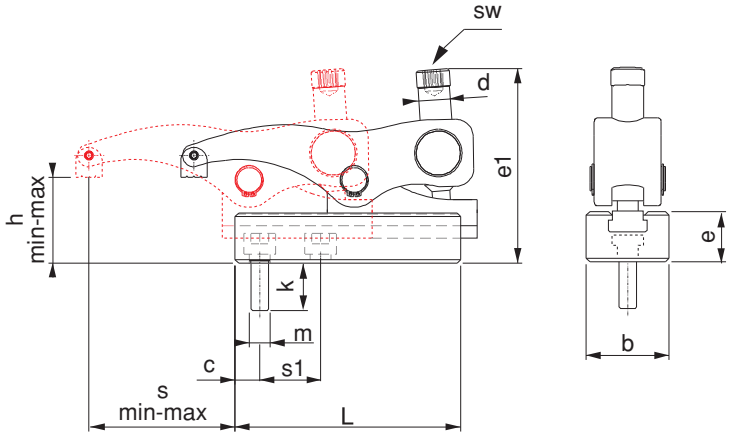
Referans Nr.	m	h min	h max	s	s1	e1	d	sw	L	e	b	c	k	Sıkma Kuvveti Clamping Force Kgf	Nm	(g)
1130-012 M	M12	0	60	15-83	30	113	M18	10	130	39	48	17,5	22	2000	100	3040
1130-016 M	M16	0	60	15-83	30	113	M18	10	130	39	48	17,5	26	2000	100	3055
1130-012 LM	M12	0	60	15-107	30	113	M18	10	170	39	48	17,5	22	2000	100	3820
1130-016 LM	M16	0	60	15-107	30	113	M18	10	170	39	48	17,5	26	2000	100	3835

Ürün Nr. 1130-(M) Kızaklı Kombine Bağlama Pabucu
- M12-M16 diş deliklerde (1130-412)-(1130-416) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-60 mm.
- İleri-geri hareket mesafesi 68mm'dir. Sıkma Kuvveti 2000 kgf.

Ürün Nr. 1130-(LM) Kızaklı Kombine Bağlama Pabucu
- M12-M16 diş deliklerde (1130-412)-(1130-416) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-60 mm.
- İleri-geri hareket mesafesi 92mm'dir. Sıkma Kuvveti 2000 kgf.

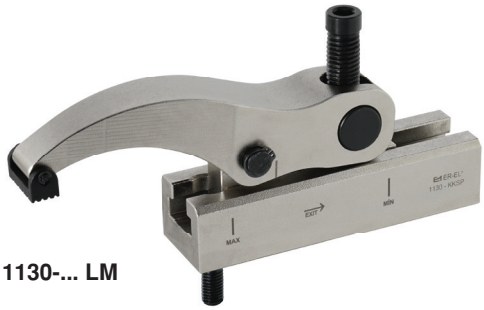
Product Nr. 1130-(M) Combined Slinding Clamp
- In the outer holes M12-M16 are used with the Reference Nr. imbus bolt (1130-412)-(1130-416)
- Height clamping gap of the piece is 0-60mm.
- Back and forth movement distance is 68mm. Clamping force is 2000 kgf.

Product Nr. 1130-(LM) Combined Slinding Clamp
- In the outer holes M12-M16 are used with the Reference Nr. imbus bolt (1130-412)-(1130-416)
- Height clamping gap of the piece is 0-60mm.
- Back and forth movement. distance is 92mm. Clamping force is 2000 kgf.





1130-... M

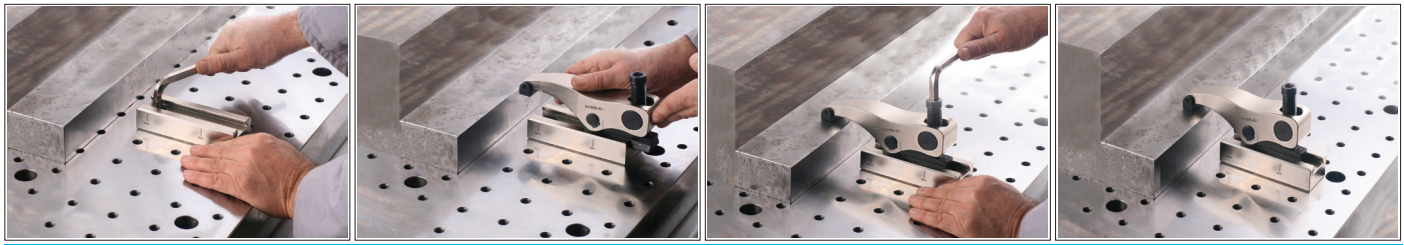


1130-... LM

AVANTAJLARI;
- 1600 kgf - 2000 kgf sıkma kuvveti
- Delik ve T-Kanalda kullanım
- Kızak üzerinde kaydırarak değişik pozizyonlarda sabitleme
- imbus civatasıyla desteksiz yüksek ve düşük mesafeleri sıkar
- Pratik yapısından dolayı hızlı ve kolay şekilde bağlama sağlar

ADVANTAGES
- 1600 kgf - 2000 kgf Clamping Force.
- Usings in the hole and T-Slot.
- Ability to be fixed in verious positions by sliding on the slide.
- It clamps high and low distances without support with the imbus bolt.
- It provides rapid and easy connection due to it's practical structure.

1 2 3 4



Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

Referans Nr.	m	h min	h max	s	s1	e1	d	sw	L	e	b	c	k	Sıkma Kuvveti Clamping Force Kgf	Nm	(g)
1150-116 M	M16	0	65	18-96	35	125	M20	12	140	43	55	19.5	26	2500	150	4340
1150-118 M	M18	0	65	18-96	35	125	M20	12	140	43	55	19.5	30	2500	150	4360
1150-120 M	M20	0	65	18-96	35	125	M20	12	140	43	55	19.5	30	2500	150	4370
1150-116 LM	M16	0	65	18-128	35	125	M20	12	200	43	55	19.5	26	2500	150	5770
1150-118 LM	M18	0	65	18-128	35	125	M20	12	200	43	55	19.5	30	2500	150	5830
1150-120 LM	M20	0	65	18-128	35	125	M20	12	200	43	55	19.5	30	2500	150	5885

Ürün Nr. 1150-(M) Kızaklı Kombine Bağlama Pabucu

- M16-M18-M20 diş deliklerde (1150-516)-(1150-518)-(1160-520) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-65mm.
- İleri-geri hareket mesafesi 78mm'dir. Sıkma Kuvveti 2500 kgf.

Ürün Nr. 1150-(LM) Kızaklı Kombine Bağlama Pabucu

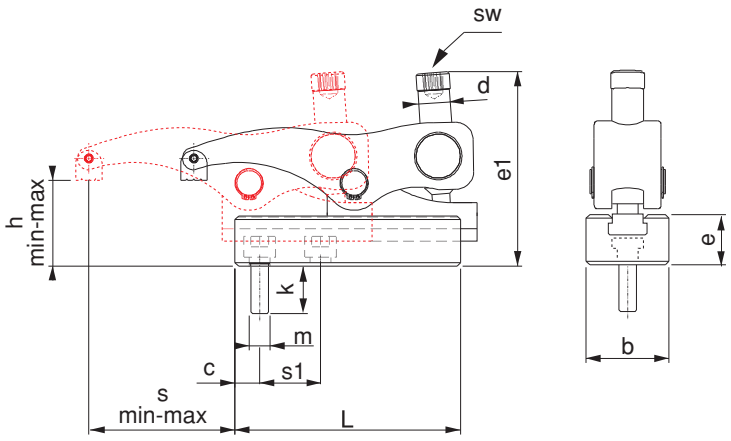
- M16-M18-M20 diş deliklerde (1150-516)-(1150-518)-(1160-520) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 0-65mm.
- İleri-geri hareket mesafesi 110mm'dir. Sıkma Kuvveti 2500 kgf.

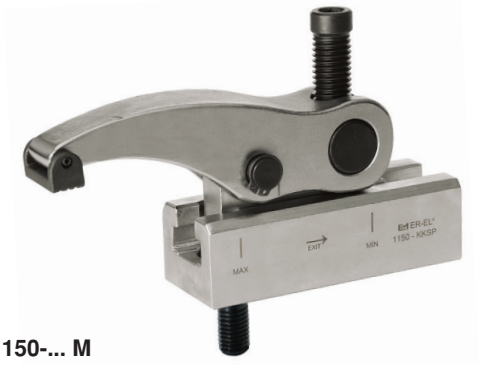
Product Nr. 1150-(M) Combined Slinding Clamp

- In the outer holes M16-M18-M20 are used with the Reference Nr. imbus bolt (1150-516)-(1150-518)-(1150-520).
- Height clamping gap of the piece is 0-65mm.
- Back and forth movement distance is 78mm. Clamping force is 2500 kgf.

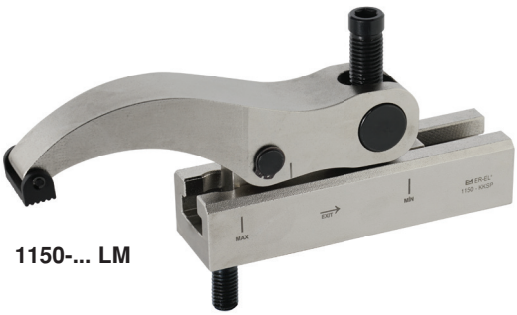
Product Nr. 1150-(LM) Combined Slinding Clamp

- In the outer holes M16-M18-M20 are used with the Reference Nr. imbus bolt (1150-516)-(1150-518)-(1150-520).
- Height clamping gap of the piece is 0-65mm.
- Back and forth movement distance is 110mm. Clamping force is 2500 kgf.





1150-... M



1150-... LM

AVANTAJLARI;

- 1600 kgf - 2000 kgf sıkma kuvveti
- Delik ve T-Kanalda kullanım
- Kızak üzerinde kaydırarak değişik pozizyonlarda sabitleme
- imbus civatasıyla desteksiz yüksek ve düşük mesafeleri sıkar
- Pratik yapısından dolayı hızlı ve kolay şekilde bağlama sağlar

ADVANTAGES

- 1600 kgf - 2000 kgf Clamping Force.
- Usings in the hole and T-Slot.
- Ability to be fixed in verious positions by sliding on the slide.
- It clamps high and low distances without support with the imbus bolt.
- It provides rapid and easy connection due to it's practical structure.

1



2



3



4



Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

Referans Nr.	m	h min	h max	s	s1	e1	d	sw		L	e	b	c	k	Sıkma Kuvveti Clamping Force Kgf	Nm	(g)
1160-220 M	M20	20	80	17-92	41.5	175	M24	12	24	178	55	74	24	34	5500	200	8880
1160-222 M	M22	20	80	17-92	41.5	175	M24	12	24	178	55	74	24	38	5500	200	8900
1160-224 M	M24	20	80	17-92	41.5	175	M24	12	24	178	55	74	24	44	5500	200	8920
1160-230 M	M30*	20	80	17-92	41.5	175	M24	12	24	178	55	74	24	51	5500	200	9110
1160-220 LM	M20	20	80	25-148	41.5	175	M24	12	24	256	55	74	24	34	5500	280	12110
1160-222 LM	M22	20	80	25-148	41.5	175	M24	12	24	256	55	74	24	38	5500	280	12210
1160-224 LM	M24	20	80	25-148	41.5	175	M24	12	24	256	55	74	24	44	5500	280	12270
1160-230 LM	M30*	20	80	25-148	41.5	175	M24	12	24	256	55	74	24	51	5500	280	12310
1165-220 M	M20	30	80	34-92	41.5	215	M24	12	24	205	55	85	24	34	10000	270	11820
1165-222 M	M22	30	80	34-92	41.5	215	M24	12	24	205	55	85	24	38	10000	270	11900
1165-224 M	M24	30	80	34-92	41.5	215	M24	12	24	205	55	85	24	44	10000	270	11960
1165-230 M	M30*	30	80	34-92	41.5	215	M24	12	24	205	55	85	24	51	10000	270	12000

Ürün Nr. 1160-(M) Kızaklı Kombine Bağlama Pabucu

- M20-M22-M24-M30 diş deliklerde(1160-620)-(1160-622) (1160-624)-(1160-724)-(1160-730) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 20-80mm.
- İleri-geri hareket mesafesi 75mm'dir. Sıkma Kuvveti 5500 kgf.

Ürün Nr. 1160-(LM) Kızaklı Kombine Bağlama Pabucu

- M20-M22-M24-M30 diş deliklerde(1160-620)-(1160-622) (1160-624)-(1160-724)-(1160-730) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 20-80mm.
- İleri-geri hareket mesafesi 123mm'dir. Sıkma Kuvveti 5500 kgf.

Ürün Nr. 1165-(M) Kızaklı Kombine Bağlama Pabucu

- M20-M22-M24-M30 diş deliklerde(1160-620)-(1160-622) (1160-624)-(1160-724)-(1160-730) Referans Nr. imbus civatayla kullanılır.
- Parça yükseklik sıkma aralığı 30-80mm.
- İleri-geri hareket mesafesi 58mm'dir. Sıkma Kuvveti 10000 kgf.

Not: Nr.1160-230M - Nr.1165-230M kodlu ürünün alt T-Kızaklı gövdesindeki civata yeri standart değildir. Civata yeri bu ürüne özel işlenmektedir.

Product Nr. 1160-(M) Combined Slinding Clamp

- In the outer holes M20-M22-M24-M30 are used with the Reference Nr. imbus bolt (1160-620)-(1160-622)-(1160-624)-(1160-724)-(1160-730)
- Height clamping gap of the piece is 20-80mm.
- Back and forth movement distance is 75mm. Clamping force is 5500 kgf.

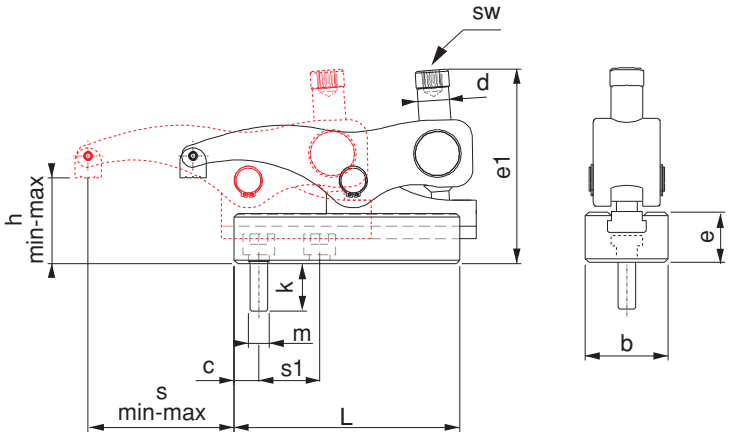
Product Nr. 1160-(LM) Combined Slinding Clamp

- In the outer holes M20-M22-M24-M30 are used with the Reference Nr. imbus bolt (1160-620)-(1160-622)-(1160-624)-(1160-724)-(1160-730)
- Height clamping gap of the piece is 20-80mm.
- Back and forth movement distance is 123mm. Clamping force is 5500 kgf.

Product Nr. 1165-(M) Combined Slinding Clamp

- In the outer holes M20-M22-M24-M30 are used with the Reference Nr. imbus bolt (1160-620)-(1160-622)-(1160-624)-(1160-724)-(1160-730)
- Height clamping gap of the piece is 30-80mm.
- Back and forth movement distance is 58mm. Clamping force is 10000 kgf.

Note: The drilling for cylinder head screw of the support element for 1160-230M - Nr.1165-230M is not standard. It is specially manufactured for this product.





AVANTAJLARI;

- 1600 kgf - 2000 kgf sıkma kuvveti
- Delik ve T-Kanalda kullanım
- Kızak üzerinde kaydırarak değişik pozizyonlarda sabitleme
- imbus civatasıyla desteksiz yüksek ve düşük mesafeleri sıkar
- Pratik yapısından dolayı hızlı ve kolay şekilde bağlama sağlar

ADVANTAGES

- 1600 kgf - 2000 kgf Clamping Force.
- Usings in the hole and T-Slot.
- Ability to be fixed in verious positions by sliding on the slide.
- It clamps high and low distances without support with the imbus bolt.
- It provides rapid and easy connection due to it's practical structure.

1



2



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4



Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

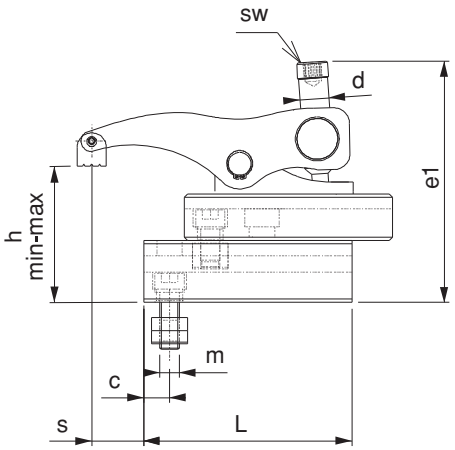
Referans Nr.	a	m	h min	h max	s	e1	e2	d	sw	L	b	e3	c	(g)
1120-014 DT	14	M12	36	86	12-66	136	71.5	M14	8	104	38	38	13	2540
1120-016 DT	16	M12	36	86	12-66	136	71.5	M14	8	104	38	38	13	2540
1120-018 DT	18	M12	36	86	12-66	136	71.5	M14	8	104	38	38	13	2540
1120-014 LDT	14	M12	36	86	12-81	136	71.5	M14	8	130	38	38	13	2980
1120-016 LDT	16	M12	36	86	12-81	136	71.5	M14	8	130	38	38	13	2995
1120-018 LDT	18	M12	36	86	12-81	136	71.5	M14	8	130	38	38	13	3000

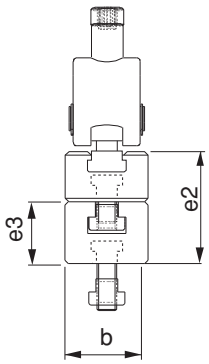
Ürün Nr. 1120-(DT) Alt Destekli
- M12 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 36-86mm.
- İleri-geri hareket mesafesi 54mm'dir. Sıkma Kuvveti 1600 kgf.

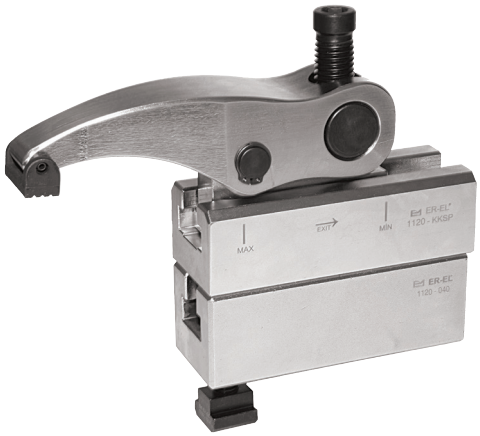
Ürün Nr. 1120-(LDT) Alt Destekli
- M12 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 36-86mm.
- İleri-geri hareket mesafesi 69mm'dir. Sıkma Kuvveti 1600 kgf.

Product Nr. 1120-(DT) Bottom Supported
- M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 36-86mm
- Back and forth movement distance is 54mm. Clamping force is 1600 kgf.

Product Nr. 1120-(LDT) Bottom Supported
- M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 36-86mm.
- Back and forthmovement distance is 69mm. Clamping force is 1600 kgf.







UYGULAMA;
1- Alt desteği iş parçasına uygun şekle getir sabitle
2- K.K.S.P. destekler artırılarak istenilen mesafeye ulaşılır
3- K.K.S.P. imbus civata ile T-Pabuca karşılık T-Kanala tak istenilen pozisyona getir.
4- Pabuç imbus civatasıyla iş parçasını sabitle

APPLICATION
1- Bottom support is brought to suitable form with the work piece and then it is fixed.
2- Desired distance is reached by increasing K.K.S.P. supports
3- K.K.S.P. is applied in T-Slot with imbus bolt against T-Nut
4- Work piece is fixed with the imbus bolt of the clamp

1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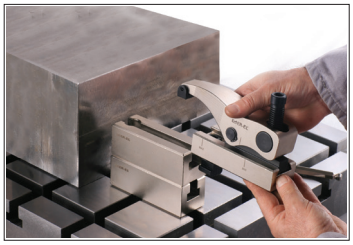


4


Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

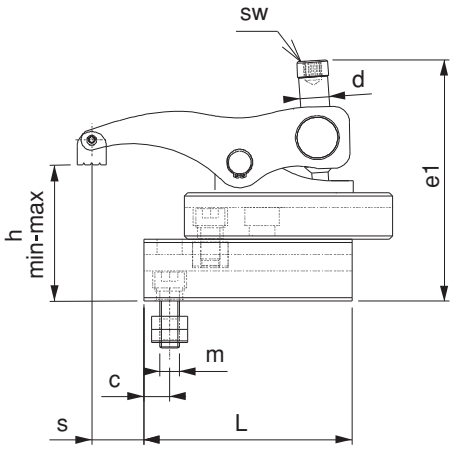
Referans Nr.	a	m	h min	h max	s	e1	e2	d	sw	L	b	e3	c	(g)
1130-014 DT	14	M12	45	105	15-83	158	83	M18	10	130	48	45	17.5	4750
1130-016 DT	16	M12	45	105	15-83	158	83	M18	10	130	48	45	17.5	4775
1130-018 DT	18	M16	45	105	15-83	158	83	M18	10	130	48	45	17.5	4805
1130-020 DT	20	M16	45	105	15-83	158	83	M18	10	130	48	45	17.5	4885
1130-022 DT	22	M16	45	105	15-83	158	83	M18	10	130	48	45	17.5	4905
1130-014 LDT	14	M12	45	105	15-107	158	83	M18	10	170	48	45	17.5	5970
1130-016 LDT	16	M12	45	105	15-107	158	83	M18	10	170	48	45	17.5	5985
1130-018 LDT	18	M16	45	105	15-107	158	83	M18	10	170	48	45	17.5	6015
1130-020 LDT	20	M16	45	105	15-107	158	83	M18	10	170	48	45	17.5	6045
1130-022 LDT	22	M16	45	105	15-107	158	83	M18	10	170	48	45	17.5	6080

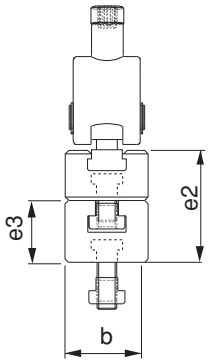
Ürün Nr. 1130-(DT) Alt Destek
- M12 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 45-105mm
- İleri-geri hareket mesafesi 68mm'dir. Sıkma Kuvveti 2000 kgf.

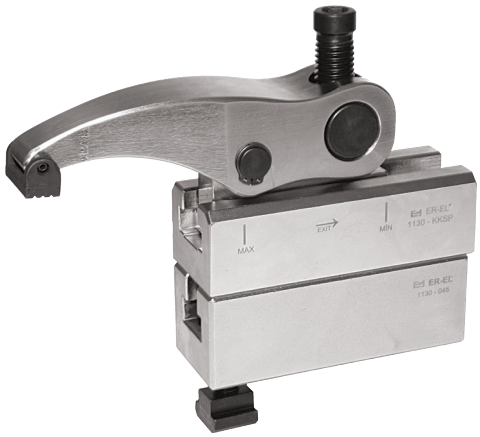
Ürün Nr. 1130-(LDT) Alt Destek
- M12 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 45-105mm
- İleri-geri hareket mesafesi 92mm'dir. Sıkma Kuvveti 2000 kgf.

Product Nr. 1130-(DT) Bottom Supported
- M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 45-105mm
- Back and forth movement distance is 68mm. Clamping force is 2000 kgf.

Product Nr. 1130-(LDT) Bottom Supported
- M12 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 45-105mm
- Back and forth movement distance is 92mm. Clamping force is 2000 kgf.

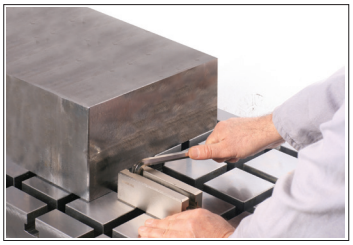






UYGULAMA;
1- Alt desteği iş parçasına uygun şekle getir sabitle
2- K.K.S.P. destekler artırılarak istenilen mesafeye ulaşılır
3- K.K.S.P. imbus civata ile T-Pabuca karşılık T-Kanala tak istenilen pozisyona getir.
4- Pabuç imbus civatasıyla iş parçasını sabitle

APPLICATION
1- Bottom support is brought to suitable form with the work piece and then it is fixed.
2- Desired distance is reached by increasing K.K.S.P. supports
3- K.K.S.P. is applied in T-Slot with imbus bolt against T-Nut
4- Work piece is fixed with the imbus bolt of the clamp

1


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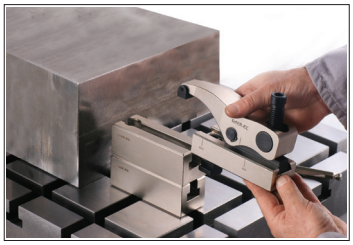


4

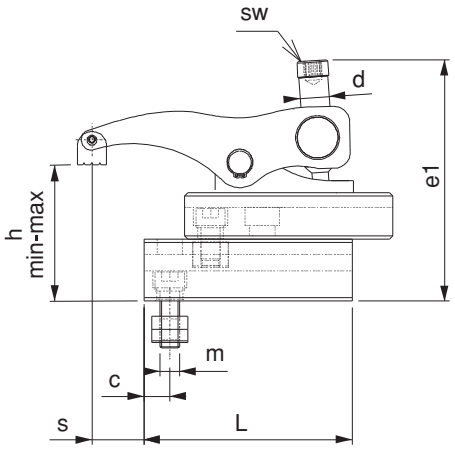

Referans Nr.	a	m	h min	h max	s	e1	e2	d	sw	L	b	e3	c	(g)
1150-118 DT	18	M16	48	113	18-96	173	90	M20	12	140	55	48	19.5	6625
1150-120 DT	20	M16	48	113	18-96	173	90	M20	12	140	55	48	19.5	6690
1150-122 DT	22	M20	48	113	18-96	173	90	M20	12	140	55	48	19.5	6750
1150-124 DT	24	M20	48	113	18-96	173	90	M20	12	140	55	48	19.5	6840
1150-128 DT	28	M20	48	113	18-96	173	90	M20	12	140	55	48	19.5	6960
1150-118 LDT	18	M16	48	113	18-128	173	90	M20	12	200	55	48	19.5	8770
1150-120 LDT	20	M16	48	113	18-128	173	90	M20	12	200	55	48	19.5	8830
1150-122 LDT	22	M20	48	113	18-128	173	90	M20	12	200	55	48	19.5	8885
1150-124 LDT	24	M20	48	113	18-128	173	90	M20	12	200	55	48	19.5	8985
1150-128 LDT	28	M20	48	113	18-128	173	90	M20	12	200	55	48	19.5	9000

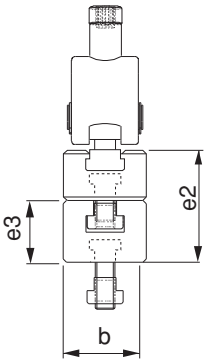
Ürün Nr. 1150-(DT) Alt Destekli
- M16 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 48-113mm
- İleri-geri hareket mesafesi 78mm'dir. Sıkma Kuvveti 2500 kgf.

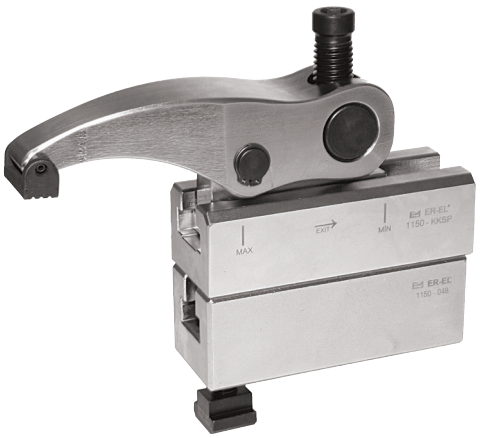
Ürün Nr. 1150-(LDT) Alt Destekli
- M16 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 48-113mm
- İleri-geri hareket mesafesi 110mm'dir. Sıkma Kuvveti 2500 kgf.

Product Nr. 1150-(DT) Bottom Supported
- M16 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 48-113mm
- back-and- forth movement distance is 78mm. Clamping force is 2500 kgf.

Product Nr. 1150-(LDT) Bottom Supported
- M16 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 48-113mm
- back-and- forth movement distance is 110mm. Clamping force is 2500 kgf.

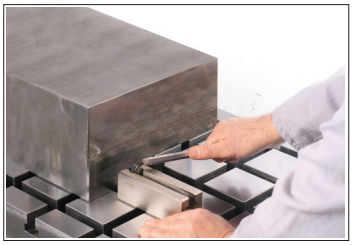






UYGULAMA;
1- Alt desteği iş parçasına uygun şekle getir sabitle
2- K.K.S.P. destekler artırılarak istenilen mesafeye ulaşılır
3- K.K.S.P. imbus civata ile T-Pabuca karşılık T-Kanala tak istenilen pozisyona getir.
4- Pabuç imbus civatasıyla iş parçasını sabitle

APPLICATION
1- Bottom support is brought to suitable form with the work piece and then it is fixed.
2- Desired distance is reached by increasing K.K.S.P. supports
3- K.K.S.P. is applied in T-Slot with imbus bolt against T-Nut
4- Work piece is fixed with the imbus bolt of the clamp

1


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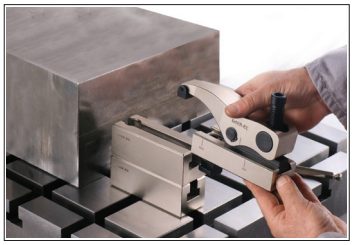


4


Kızaklı Kombine Bağlama Pabucu

Combined Sliding Clamp

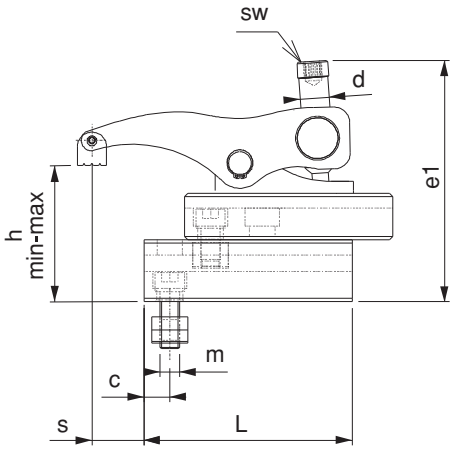
Referans Nr.	a	m	h min	h max	s	e1	e2	d	sw	sw	L	b	e3	c	(g)
1160-222 DT	22	M20	79	139	17-92	235	114	M24	12	24	178	74	59	24	13330
1160-224 DT	24	M20	79	139	17-92	235	114	M24	12	24	178	74	59	24	13465
1160-228 DT	28	M24	79	139	17-92	235	114	M24	12	24	178	74	59	24	13580
1160-236 DT	36	M24	79	139	17-92	235	114	M24	12	24	178	74	59	24	13890
1160-222 LDT	22	M20	79	139	25-148	235	114	M24	12	24	256	74	59	24	17910
1160-224 LDT	24	M20	79	139	25-148	235	114	M24	12	24	256	74	59	24	18210
1160-228 LDT	28	M24	79	139	25-148	235	114	M24	12	24	256	74	59	24	18270
1160-236 LDT	36	M24	79	139	25-148	235	114	M24	12	24	256	74	59	24	18310

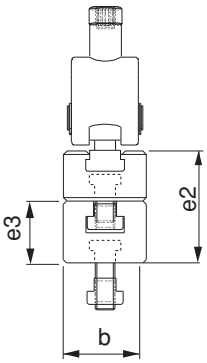
Ürün Nr. 1160-(DT) Alt Destekli
- M20-M24 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 79-139mm
- İleri-geri hareket mesafesi 75mm'dir. Sıkma Kuvveti 5500 kgf.

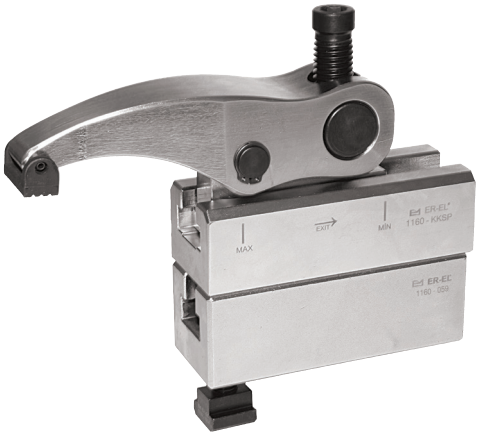
Ürün Nr. 1160-(LDT) Alt Destekli
- M20-M24 İmbus civata DIN 508 T-Pabuçla kullanılır.
- Parça yükseklik sıkma aralığı 79-139mm
- İleri-geri hareket mesafesi 123mm'dir. Sıkma Kuvveti 5500 kgf.

Product Nr. 1160-(DT) Bottom Supported
- M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 79-139mm
- Back and forth movement distance is 75mm. Clamping force is 5500 kgf.

Product Nr. 1160-(LDT) Bottom Supported
- M20-M24 imbus bolt is used with DIN 508 T-Nut.
- Height clamping gap of the piece is 79-139mm
- Back and forth movement distance is 123mm. Clamping force is 5500 kgf.

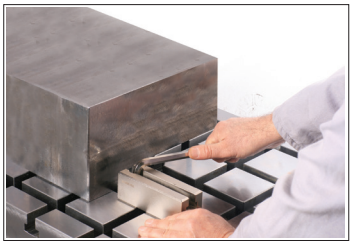




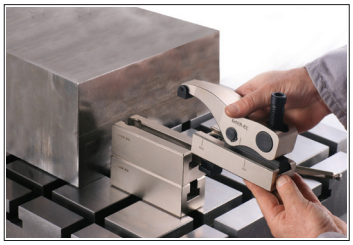


UYGULAMA;
1- Alt desteği iş parçasına uygun şekle getir sabitle
2- K.K.S.P. destekler artırılarak istenilen mesafeye ulaşılır
3- K.K.S.P. imbus civata ile T-Pabuca karşılık T-Kanala tak istenilen pozisyona getir.
4- Pabuç imbus civatasıyla iş parçasını sabitle

APPLICATION
1- Bottom support is brought to suitable form with the work piece and then it is fixed.
2- Desired distance is reached by increasing K.K.S.P. supports
3- K.K.S.P. is applied in T-Slot with imbus bolt against T-Nut
4- Work piece is fixed with the imbus bolt of the clamp

1


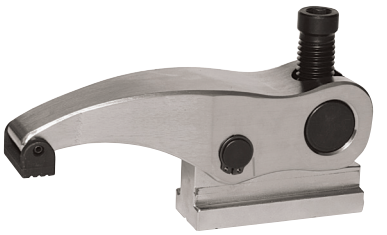
2


3


4

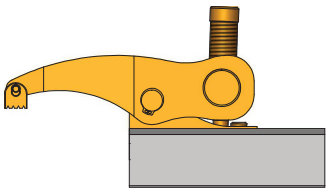

Üst Kızak Grubu
Upper Slide Group

Referans Nr.	h min	h max	sw		(g)
1120-0050	0	50	8	-	860
1120-0051	0	50	8	-	1050
1130-0060	0	60	10	-	1680
1130-0061	0	60	10	-	2150
1150-0062	0	65	12	-	2565
1150-0063	0	65	12	-	3360
1160-2080	20	80	12	24	5050
1160-2081	20	80	12	24	6900
1165-3080	20	80	-	24	6850



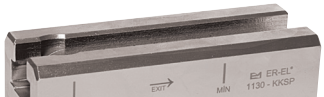
Ürün Nr. 1120-1130-1150-1160-1165
Üst Kızak Grubu
• Üst Kızak Grubu: Dövme Çelik
• Sertleştirilmiş

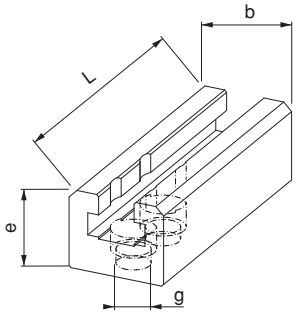
Product Nr. 1120-1130-1150-1160-1165
Upper Slide Group
• Upper Slide Group: Forged Steel
• Hardened



T-Kızaklı Gövde
Body with Bottom T-Slide

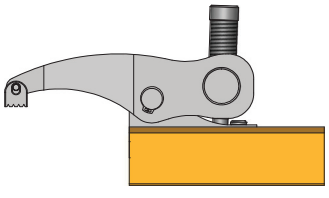
Referans Nr.	g	a	L	b	e	(g)
1120-045	M10 M12	14-18	104	38	35.5	750
1120-145	M10 M12	14-18	130	38	39	950
1130-047	M12 M16	18-28	130	48	39	1275
1130-147	M12 M16	18-28	170	48	39	1700
1150-053	M16 M18 M20	18-28	140	55	42	1700
1150-153	M16 M18 M20	18-28	200	55	42	2500
1160-074	M20 M22 M24	22-28	178	74	55	3650
1160-075	M30*	36	178	74	55	3650
1160-174	M20 M22 M24	22-28	256	74	55	5400
1160-175	M30*	36	256	74	55	5400
1165-085	M20 M22 M24	36	205	85	55	5300
1165-086	M30*	36	205	85	55	5300





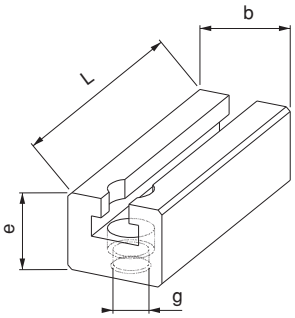
Ürün Nr. 1120-1130-1150-1160-1165
Alt T-Kızaklı Gövde
• Sertleştirilmiş

Product Nr. 1120-1130-1150-1160-1165
Body with Bottom T-Slide
• Hardened



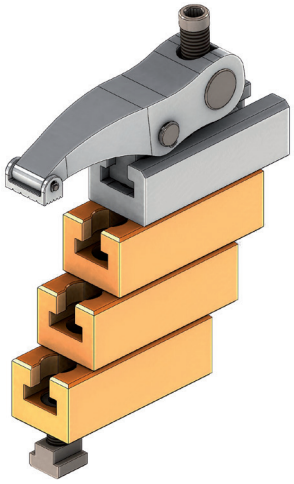
Referans Nr.	g	a	L	b	e	(g)
1120-040	M10 M12	14	104	38	38	820
1120-140	M10 M12	14	130	38	38	1030
1130-045	M12 M16	14	130	48	45	1630
1130-145	M12 M16	14	170	48	45	2150
1150-048	M16 M18 M20	18	140	55	48	2070
1150-148	M16 M18 M20	18	200	55	48	3000
1160-059	M20 M22 M24	28	178	74	59	3980
1160-159	M20 M22 M24	28	256	74	59	5800





Ürün Nr. 1120-1130-1150-1160
Alt Destek
• Sertleştirilmiş

Product Nr. 1120-1130-1150-1160
Bottom Support
• Hardened



UYGULAMA;
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2- K.K.S.P. destekler artırılarak istenilen mesafeye ulaşılır
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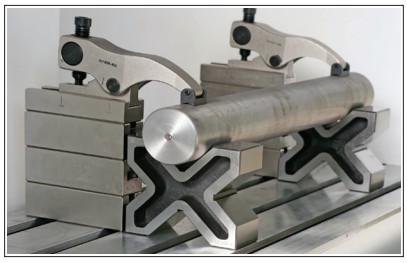
4- Pabuç imbus civatasıyla iş parçasını sabitle



APPLICATION
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2- Desired distance is reached by increasing K.K.S.P. supports
3- K.K.S.P. is applied in T-Slot with imbus bolt against T-Nut
4- Work piece is fixed with the imbus bolt of the clamp

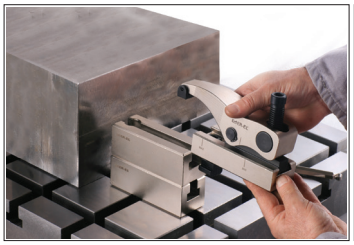
1



2



3

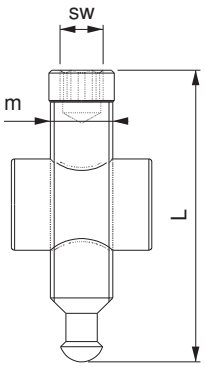


4

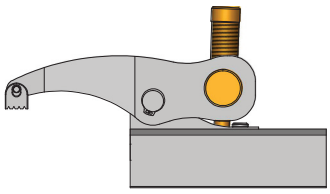


Pabuç Kaldırma Civata ve Somunu
Clamp Lifting Bolt and Nut

Referans Nr.	m	L	sw		(g)
1120-0714	M14	72	8	-	138
1130-0818	M18	83	10	-	235
1150-0920	M20	96	12	-	360
1160-1024	M24	134	12	24	795
1165-1124	M24	149	-	24	950







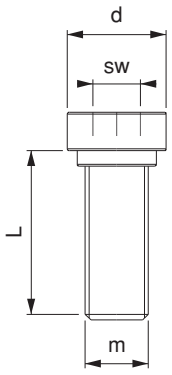
Ürün Nr. 1120-1130-1150-1160-1165 Pabuç Kaldırma Civata ve Somunu
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1120-1130-1150-1160-1165 Clamp Lifting Bolt and Nut
- Hardened
- Black Coating

Sabitleme İmbus Civatası
Imbus Bolt for Fixing

Referans Nr.	m	L	d	sw	(g)
1120-310	M10	29	16.5	8	28
1120-312	M12	29	16.5	8	34
1130-412	M12	30	20.5	10	45
1130-416	M16	34	20.5	10	75
1150-516	M16	34	24.5	12	75
1150-518	M18	38	24.5	12	90
1150-520	M20	38	24.5	12	105
1160-620	M20	45	34	12	170
1160-622	M22	49	34	12	217
1160-624	M24	45	34	12	390
1160-724	M24	55	34	12	405
1160-730	M30*	66	38.5	12	450
1165-820	M20	45	34	12	170
1165-822	M22	49	34	12	217
1165-824	M24	45	34	12	390
1165-924	M24	55	34	12	405
1165-930	M30*	66	38.5	12	400





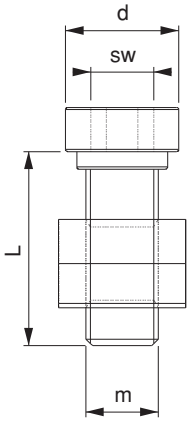
Ürün Nr. 1120-1130-1150-1160-1165 Sabitleme İmbus Civatası
- M12-M16-M18-M20 diş delikler için
- Kalite 10.9
- Siyah kaplama

Product Nr. 1120-1130-1150-1160-1165 Imbus Bolt for Fixing
- For M12-M16-M18-M20 thread holes
- Quality 10.9
- Black Coating

Sabitleme İmbus Civata ve T-Pabuç

Fixing Imbus Bolt and T-Nut

Referans Nr.	a	m	L	d	sw	(g)
1120-512	12	M10	29	16.5	8	48
1120-514*	14	M12	29	16.5	8	54
1130-614*	14	M12	30	20.5	10	80
1130-616	16	M12	30	20.5	10	100
1130-618	18	M16	30	20.5	10	130
1130-620	20	M16	36	20.5	10	180
1130-622	22	M16	36	20.5	10	220
1150-718*	18	M16	34	24.5	12	145
1150-720	20	M16	34	24.5	12	190
1150-722	22	M20	42	24.5	12	260
1150-724	24	M20	42	24.5	12	350
1150-728	28	M20	42	24.5	12	470
1160-822	22	M20	45	34	12	320
1160-824	24	M20	45	34	12	410
1160-826*	28	M24	45	34	12	550
1160-828	28	M24	55	34	12	580
1160-832	32	M24	61	34	12	603
1160-836	36	M24	66	38.5	12	865
1165-922	22	M20	45	34	12	320
1165-924	24	M20	45	34	12	410
1165-926*	28	M24	45	34	12	550
1165-928	28	M24	55	34	12	580
1165-932	32	M24	61	34	12	603
1165-936	36	M24	66	38.5	12	865





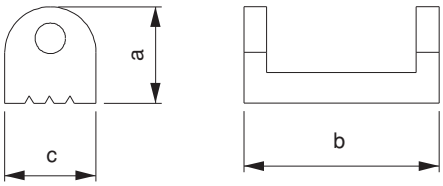
Ürün Nr. 1120-1130-1150-1160-1165
Sabitleme İmbus Civata ve T-Pabuç
- (a) 14-28 T-Kanal sabitleme imbus civata ve T-Pabuç DIN 508
- Kalite 10.9
- Siyah Kaplama
- Yıldızlı olan kodlar alt destek civatalarıdır.

Prod. Nr. 1120-1130-1150-1160-1165
Fixing Imbus Bolt and T-Nut
- (a) 14-28 T-Slot fixing imbus bolt and T-Nut DIN 508
- Quality 10.9
- Black Coating
- Star-marked codes are bottom support bolts.

Ön Baskı Pabucu

Front Press Clamp

Referans Nr.	a	b	c	(g)
1120-DP	13.5	26.5	12	15
1120-BSP	15.5	26.5	12	18
1120-ESP	18	26.5	12	21
1130-DP	17	32	15	20
1130-BSP	19	32	15	30
1130-ESP	22	32	15	30
1150-DP	19	38	18	40
1150-BSP	21	38	18	40
1150-ESP	25	38	18	50
1160-DP	22	44	22	55
1160-BSP	25	44	22	70
1160-ESP	28	44	22	80
1165-DP	22	44	22	55
1165-BSP	25	44	22	70
1165-ESP	28	44	22	80



DP



BSP



ESP



Ürün Nr. 1120-1130-1150-1160-1165
Ön Baskı Pabucu
- Ürün DP : Düz parça sıkma
- Ürün BSP: Boyuna silindir sıkma
- Ürün ESP: Enine silindir sıkma
- Siyah Kaplama

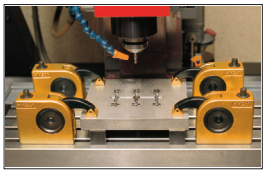
Prod. Nr. 1120-1130-1150-1160-1165
Front Press Clamp
- Product DP : Straight piece clamping
- Product BSP: Longitudional cylinder clamping
- Product ESP: Lateril cylinder clamping
- Black Coating

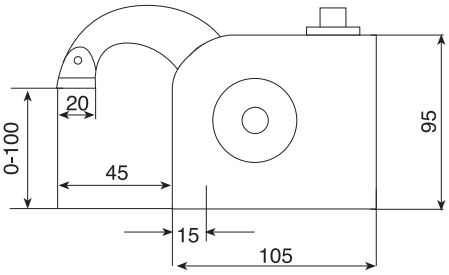
Kombine Bağlama Pabucu

Combined Clamp

Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
1168-MB101112	12	1000	160	1.70
1168-MB101114	14	1000	160	1.70
1168-MB101116	16	1000	160	1.70
1168-MB101118	18	1000	160	1.70
1168-MB101120	20	1000	160	1.70

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp





Genişlik / Width 40 mm.

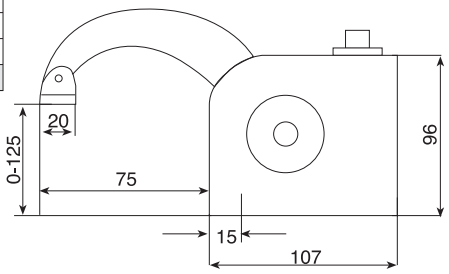


Kombine Bağlama Pabucu

Combined Clamp

Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
1168-MBU103112	12	1000	160	1.80
1168-MBU103114	14	1000	160	1.80
1168-MBU103116	16	1000	160	1.80
1168-MBU103118	18	1000	160	1.80
1168-MBU103120	20	1000	160	1.80

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp



Genişlik / Width 40 mm.

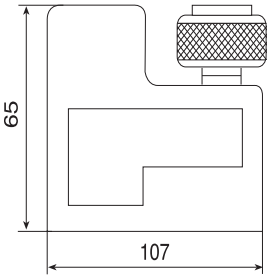


Kombine Bağlama Pabucu Alt Destek

Combined Clamp Bottom Support

Referans Nr.	a	(kg)
1168-MK1021	16	1.80

Ürün Nr. 1168 Kombine Bağlama Pabucu Alt Destek
Product Nr. 1168 Combined Clamp Bottom Support



Genişlik / Width 40 mm.



Kombine Bağlama Pabucu Alt Destek

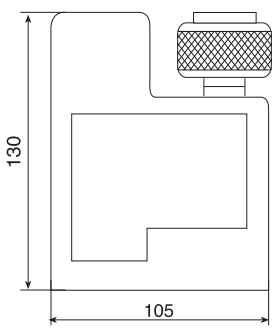
Combined Clamp Bottom Support

Referans Nr.	a	(kg)
1168-MK1022	16	1.10

Ürün Nr. 1168 Kombine Bağlama Pabucu Alt Destek
Product Nr. 1168 Combined Clamp Bottom Support

Uygulama Örneği
Example Application





Genişlik / Width 40 mm.

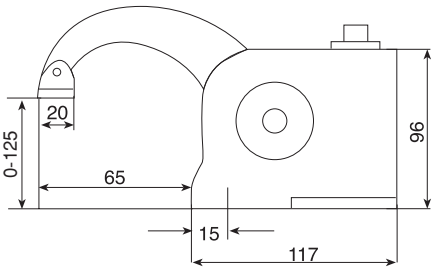


Kombine Bağlama Pabucu

Combined Clamp

Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
1168-MFB204112	12	1000	160	1.70
1168-MFB204114	14	1000	160	1.70
1168-MFB204116	16	1000	160	1.70
1168-MFB204118	18	1000	160	1.70
1168-MFB204120	20	1000	160	1.70

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp





Genişlik / Width 40 mm.

Kombine Bağlama Pabucu Alt Destek

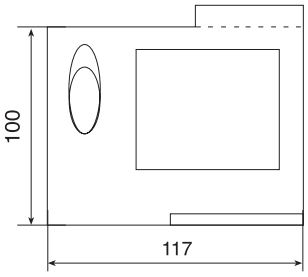
Combined Clamp Bottom Support

Referans Nr.	a	(kg)
1168-MFK204212	12	0.80
1168-MFK204214	14	0.80
1168-MFK204216	16	0.80
1168-MFK204218	18	0.80
1168-MFK204220	20	0.80

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp



Uygulama Örneği
Example Application



Genişlik / Width 40 mm.

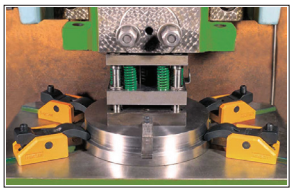


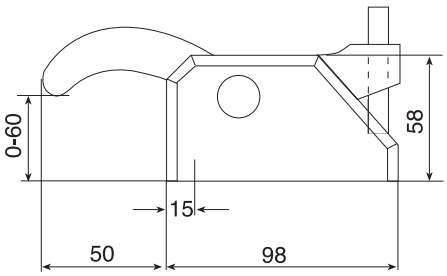
Kombine Bağlama Pabucu

Combined Clamp

Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
1168-MEP501116	16	2000	110	2.80
1168-MEP501118	18	2000	110	2.80
1168-MEP501120	20	2000	110	2.80
1168-MEP501122	22	2000	110	2.80
1168-MEP501124	24	2000	110	2.80

Ürün Nr. 1168 Kombine Bağlama Pabucu
Product Nr. 1168 Combined Clamp





Genişlik / Width 72 mm.



Kombine Bağlama Pabucu Alt Destek

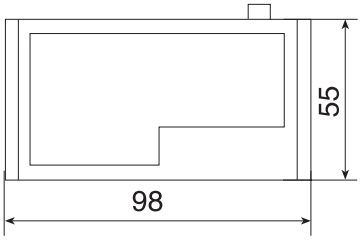
Combined Clamp Bottom Support

Referans Nr.	a	(kg)
1168-MPK5022	18	0.90

Ürün Nr. 1168 Kombine Bağlama Pabucu Alt Destek
Product Nr. 1168 Combined Clamp Bottom Support



Uygulama Örneği
Example Application



Genişlik / Width 72 mm.



Kombine Bağlama Pabucu

Combined Clamp

Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
1168-MP601214	14	2000	130	2.50
1168-MP601216	16	2000	130	2.50
1168-MP601218	18	2000	130	2.50
1168-MP601220	20	2000	130	2.50

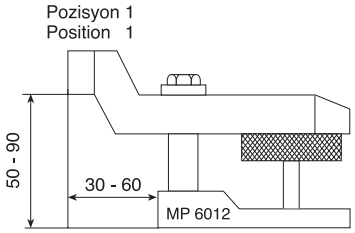


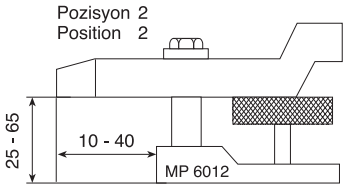
Ürün Nr. 1168 Kombine Bağlama Pabucu

• Pabucun çift taraflı kullanım özelliği; kendi içinde bulunan yükseltici desteği ile kısıtlı alanlarda kullanım kolaylığı sağlar.

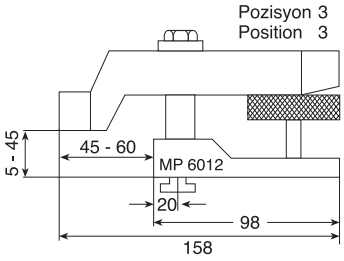
Product Nr. 1168 Combined Clamp

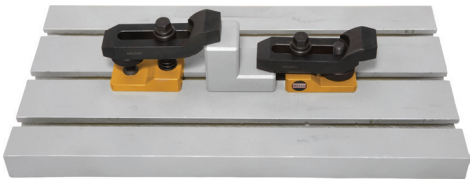
• Double-sided usage of the clamp and it's stepped lifter's provides using advantage in restricted areas





Genişlik / Width 60 mm.





Kombine Bağlama Pabucu Alt Destek

Combined Clamp Bottom Support

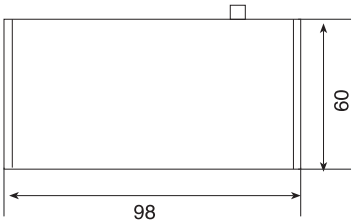
Referans Nr.	a	(kg)
1168-MY602114	14	0.60
1168-MY602116	16	0.60
1168-MY602118	18	0.60
1168-MY602120	20	0.60



Ürün Nr. 1168 Kombine Bağlama Pabucu Alt Destek
Product Nr. 1168 Combined Clamp Bottom Support



Uygulama Örneği
Example Application



Genişlik / Width 58 mm.

Ayarlanabilir Destek Civatalı Kombine Bağlama Pabucu

Combined Coupling Clamps with Adjustable Support Bolt

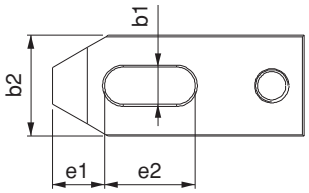
Referans Nr.	a	L	Nr.1330 a1	Nr.1330 b2	e1	e2	b1	Nr.1610	h	Nr.1490 D x F	(g)
1170-1010080	10	80	15	30	15	30	11	M10x10x80	10-35	M10x42	370
1170-1212100	12	100	20	40	21	40	14.5	M12x12x100	12-40	M12x50	740
1170-1212125	12	125	20	40	21	50	14.5	M12x12x160	12-85	M12x95	940
1170-1214100	14	100	20	40	21	40	14.5	M12x14x100	12-40	M12x50	705
1170-1214125	14	125	20	40	21	50	14.5	M12x14x160	12-85	M12x95	965
1170-1616125	16	125	25	50	26	45	18.5	M16x16x125	15-50	M16x62	1115
1170-1616160	16	160	25	50	26	65	18.5	M16x16x160	15-85	M16x97	1870
1170-1618125	18	125	25	50	26	45	18.5	M16x18x125	15-50	M16x62	1540
1170-1618160	18	160	25	50	26	65	18.5	M16x18x160	15-85	M16x97	1900
1170-2020160	20	160	30	60	30	60	22.5	M20x20x160	15-45	M20x62	1675
1170-2020200	20	200	30	60	30	80	22.5	M20x20x200	15-80	M20x97	3295
1170-2022160	22	160	30	60	30	60	22.5	M20x22x160	15-45	M20x62	2730
1170-2022200	22	200	30	60	30	80	22.5	M20x22x200	15-80	M20x97	3340
1170-2424160	24	160	30	70	35	60	26.5	M24x24x160	16-60	M24x81	3465
1170-2424200	24	200	30	70	35	80	26.5	M24x24x200	16-95	M24x116	4660
1170-2428160	28	160	30	70	35	60	26.5	M24x28x160	16-60	M24x81	5560
1170-2428200	28	200	30	70	35	80	26.5	M24x28x200	16-95	M24x116	4755

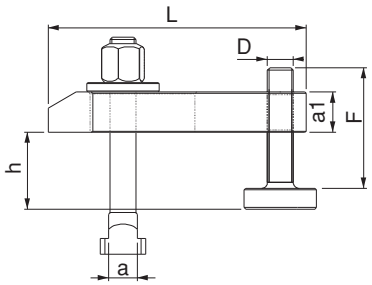
Ürün Nr. 1170 Ayarlanabilir Destek Civatalı Kombine Bağlama Pabuç

• Ürün DIN 650 T-Kanala uyumludur.

Product Nr. 1170 Combined Coupling Clamp with Adjustable Support Bolt

• Product is suitable to DIN 650 T-Slot







Referans Nr.	a	L	Nr.1450 a1	Nr.1450 b2	e1	e2	b1	Nr.1610	h	Nr.1490 D x F	(g)
1190-1010100	10	100	15	30	32	32	11	M10x10x80	26-50	M10x42	405
1190-1212125	12	125	20	40	40	40	14.5	M12x12x100	33-60	M12x50	870
1190-1214125	14	125	20	40	40	40	14.5	M12x14x100	37-60	M12x50	890
1190-1616160	16	160	25	50	49	50	18.5	M16x16x125	41-75	M16x62	1785
1190-1618160	18	160	25	50	49	50	18.5	M16x18x125	41-75	M16x62	1810
1190-2020200	20	200	30	60	55	70	22.5	M20x20x160	46-75	M20x62	3105
1190-2022200	22	200	30	60	55	70	22.5	M20x22x160	46-75	M20x62	3155
1190-2424200	24	200	35	70	72	60	26	M24x24x200	52-95	M24x81	4695
1190-2428200	28	200	35	70	72	60	26	M24x28x200	52-95	M24x81	4790

Ürün Nr. 1190 Ayarlanabilir Destek Civatalı Kombine Bağlama Z-Pabuç

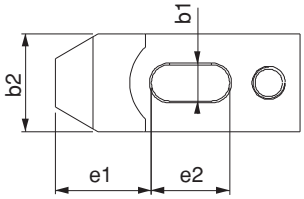
• Kısıtlı yükseklik mesafelerinden kazanma amaçlı kullanılır.

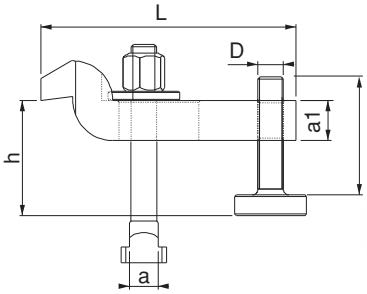
• Ürün DIN 650 T-Kanala uyumludur.

Product Nr. 1190 Combined Coupling Z-Clamp with Adjustable Support Bolt

• This is used to gain from restricted height distances

• Product is suitable to DIN 650 T-Slot







Çift Taraflı Bağlama Pabucu

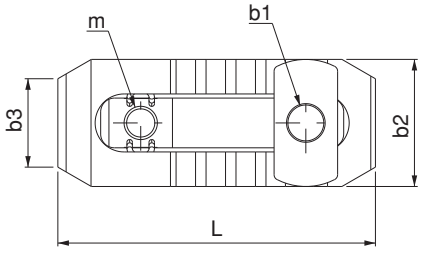
Coupling Clamps Double Sided

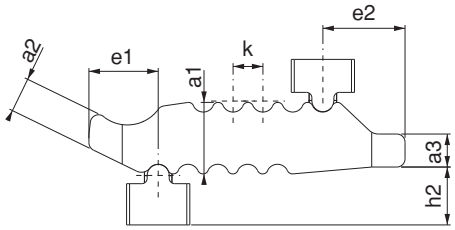
Referans Nr.	a	a1	a2	a3	b2xL	b3	e1	e2	h2	k	b1	m	h1	kgf	(g)
1195-44115	10-12-14	27	12.5	12	44x115	30	25	30	21	11	13	M12	0-55	3000	506
1195-55150	12-14-16-18	36	18	17	55x150	41	35	36	23	12	17	M16	0-70	4000	1382
1195-63187	16-18-20-22	42	25	20	63x187	30	44	44	32.5	14	21	M20	0-80	6000	2241
1195-70235	20-22-24-28	51	36.5	24	70x235	30	60	47	34	17	25	M20	0-100	7500	3550

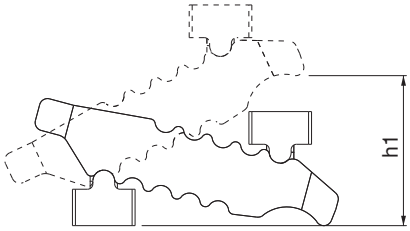
Ürün Nr. 1195 Çift Taraflı Bağlama Pabucu
- Malzeme: Dövme Çelik
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1195 Coupling Clamps Double Sided
- Metarial: Forged Steel
- Hardened
- Black coating





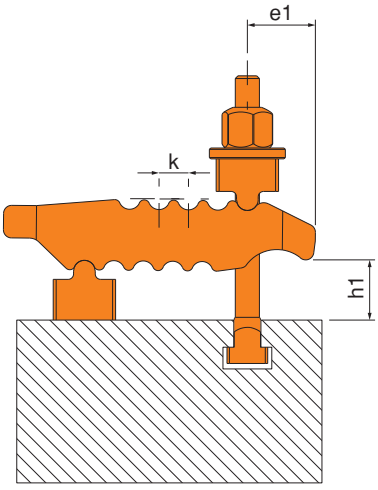


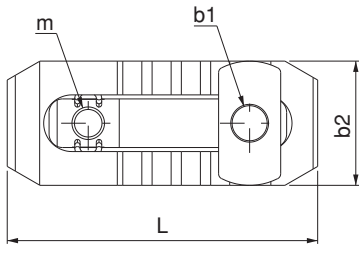


Kombine Çift Taraflı Bağlama Pabucu

Combined Coupling Clamps Double Sided

Referans Nr	b1	b2xL	e1	h1	k	m	a	DIN 787	Sıkma Kuvveti Clamping Force kgf	(g)
1195-1010100	13	44x115	25	0-55	11	M12	10	M10x10x100	2500	613
1195-1212125	13	44x115	25	0-55	11	M12	12	M12x12x125	3000	686
1195-1214125	13	44x115	25	0-55	11	M12	14	M12x14x125	3000	705
1195-1212160	17	55x150	35	0-70	12	M16	12	M12x12x160	3500	1591
1195-1214160	17	55x150	35	0-70	12	M16	14	M12x14x160	3500	1610
1195-1616160	17	55x150	35	0-70	12	M16	16	M16x16x160	4000	1798
1195-1618160	17	55x150	35	0-70	12	M16	18	M16x18x160	4000	1818
1195-1616200	21	63x187	44	0-80	14	M20	16	M16x16x200	5500	2715
1195-1618200	21	63x187	44	0-80	14	M20	18	M16x18x200	5500	3018
1195-2020200	21	63x187	44	0-80	14	M20	20	M20x20x200	6000	3018
1195-2022200	21	63x187	44	0-80	14	M20	22	M20x22x200	6000	3060
1195-2020250	25	70x235	60	0-100	17	M20	20	M20x20x250	7000	4368
1195-2022250	25	70x235	60	0-100	17	M20	22	M20x22x250	7000	4410
1195-2424250	25	70x235	60	0-100	17	M20	24	M24x24x250	7500	4895
1195-2428250	25	70x235	60	0-100	17	M20	28	M24x28x250	7500	4966





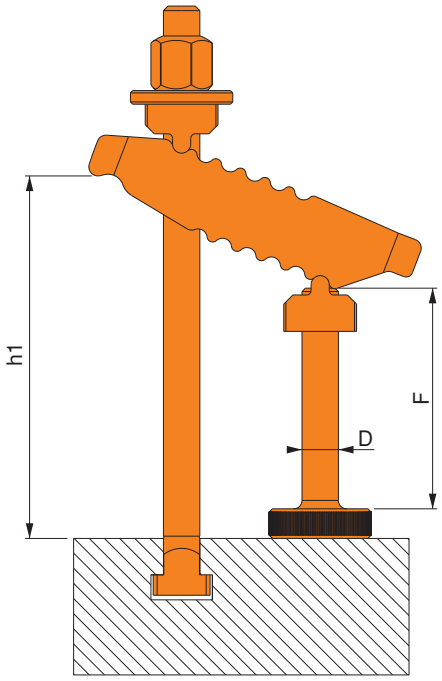
Ürün Nr. 1195 Kombine Çift Taraflı Bağlama Pabucu
- Ürün DIN 650 T-Kanala uyumludur.

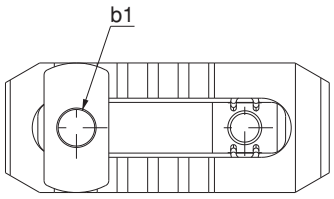
Product Nr. 1195 Combined Coupling Clamps Double Sided
- Product is suitable to DIN 650 T-Slot

Kombine Çift Taraflı Bağlama Pabucu

Combined Coupling Clamps Double Sided

Referans Nr	B1	D x F	DIN 787	h1
1195-10101005013	13	M12x50	M10x10x100	15-31
1195-12121605013	13	M12x50	M12x12x160	15-97
1195-12141605013	13	M12x50	M12x14x160	15-97
1195-12122006217	17	M16x62	M12x12x200	18-126
1195-12142006217	17	M16x62	M12x14x200	18-126
1195-16162006217	17	M16x62	M16x16x200	18-126
1195-16182006217	17	M16x62	M16x18x200	18-126
1195-12122009717	17	M16x97	M12x12x200	18-120
1195-12142009717	17	M16x97	M12x14x200	18-120
1195-16162509717	17	M16x97	M16x16x250	39-161
1195-16182509717	17	M16x97	M16x18x250	39-161
1195-16162506221	21	M20x62	M16x16x250	18-129
1195-16182506221	21	M20x62	M16x18x250	18-129
1195-20202506221	21	M20x62	M20x20x250	18-129
1195-20222506221	21	M20x62	M20x22x250	18-129
1195-16162509721	21	M20x97	M16x16x250	18-151
1195-16182509721	21	M20x97	M16x18x250	18-151
1195-20203159721	21	M20x97	M20x20x315	42-184
1195-20223159721	21	M20x97	M20x22x315	42-184
1195-20203156225	25	M20x62	M20x20x315	21-147
1195-20223156225	25	M20x62	M20x22x315	21-147
1195-24243156225	25	M20x62	M24x24x315	21-147
1195-24283156225	25	M20x62	M24x28x315	21-147
1195-20203159725	25	M20x97	M20x20x315	21-182
1195-20223159725	25	M20x97	M20x22x315	21-182
1195-24243159725	25	M20x97	M24x24x315	21-182
1195-24283159725	25	M20x97	M24x28x315	21-182





Ürün Nr. 1195 Kombine Çift Taraflı Bağlama Pabucu
• Ürün DIN 650 T-Kanala uyumludur.

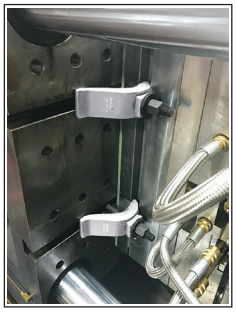
Product Nr. 1195 Combined Coupling Clamps Double Sided
• Product is suitable to DIN 650 T-Slot

S-Bağlama Pabucu

S-Coupling Clamp

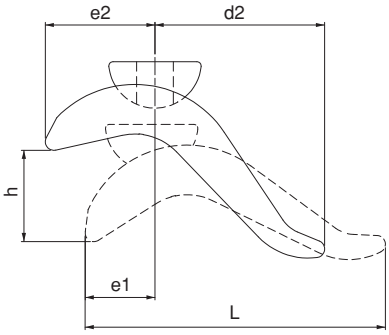
Referans Nr.	a	DIN 787	b1	b2xL	d	e1	e2	h	(g)
1200-50140	16-18	-	17	50x140	60	30	55	75	900
1200-60175	20-22	-	21	60x175	80	40	70	85	1600
1200-12125	12	M12x12x125	17	50x140	60	30	55	0-50	1070
1200-14125	14	M12x14x125	17	50x140	60	30	55	0-55	1080
1200-16160	16	M16x16x160	17	50x140	60	30	55	0-75	1270
1200-18160	18	M16x18x160	17	50x140	60	30	55	0-75	1280
1200-20200	20	M20x20x200	21	60x175	80	40	70	0-85	2300
1200-22200	22	M20x22x200	21	60x175	80	40	70	0-85	2370

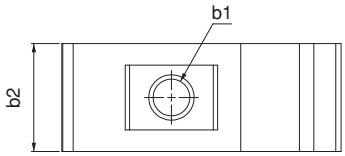


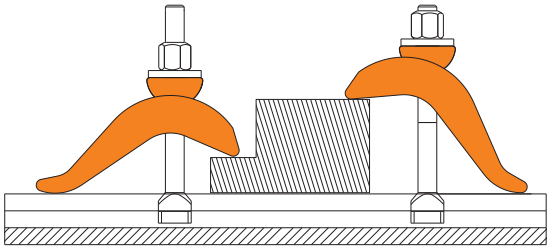


Ürün Nr. 1200 S-Bağlama Pabucu
- Malzeme: Dövme Çelik
- Çinko Kaplama

Product Nr. 1200 S-Coupling Clamp
- Metarial: Forged Steel
- Zinc Coating







Kademeli Bağlama Pabucu

Stepped Coupling Clamp

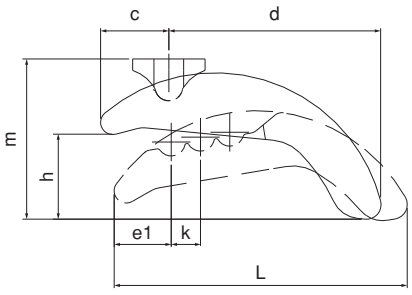
Referans Nr.	b1	a	DIN 787	m	h	b x L	c	d	e1	k x3	(g)
1205-017	17	16-18	-	93	15-50	65x165	39	128	30	17	2100
1205-021	21	20-22	-	111	20-65	75x189	43	146	33	19	3200
1205-025	25	24-28	-	126	20-75	85x213	49	164	39	21	4500
1205-031	31	36	-	143.5	20-85	95x238	56	182	46	23	6300
1205-016	17	16	M16x16x125	93	15-50	65x165	39	128	30	17	2500
1205-018	17	18	M16x18x125	93	15-50	65x165	39	128	30	17	2500
1205-020	21	20	M20x20x160	111	20-65	75x189	43	146	33	19	3900
1205-022	21	22	M20x22x160	111	20-65	75x189	43	146	33	19	3900
1205-024	25	24	M24x24x200	126	20-75	85x213	49	164	39	21	5700
1205-028	25	28	M24x28x200	126	20-75	85x213	49	164	39	21	5700
1205-036	31	36	M30x36x250	143.5	20-85	95x238	56	182	46	23	8800

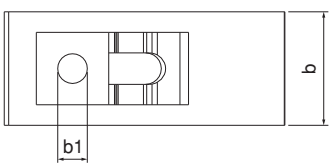




Ürün Nr. 1205 Kademeli Bağlama Pabucu
- Destek kullanmadan 15-85mm arası kullanım imkanı sağlar
- Malzeme: Dövme Çelik
- Çinko Kaplama

Product Nr. 1205 Stepped Coupling Clamp
- It provides using between 15-85 mm without supporting.
- Material: Forged Steel
- Zinc Coating





Kademeli Bağlama Pabucu

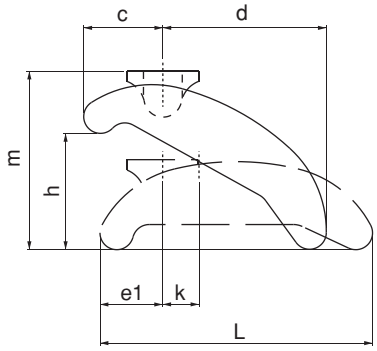
Stepped Coupling Clamp

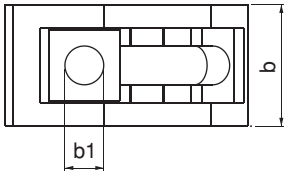
Referans Nr.	b1	a	DIN 787	m	h	b x L	c	d	e1	k x4	(g)
1210-013	13	12-14	-	52	0-40	40x90	28	48	23	14	340
1210-017	17	16-18	-	80	0-60	58x130	38	74	29	18	990
1210-021	21	20-22	-	98	0-75	68x140	46	80	32	20	1450
1210-025	25	24-28	-	110	0-90	78x175	52	100	39	24	2360
1210-012	13	12	M12x12x100	52	0-40	40x90	28	48	23	14	400
1210-014	13	14	M12x14x100	52	0-40	40x90	28	48	23	14	420
1210-016	17	16	M16x16x160	80	0-60	58x130	38	74	29	18	1140
1210-018	17	18	M16x18x160	80	0-60	58x130	38	74	29	18	1145
1210-020	21	20	M20x20x200	98	0-75	68x140	46	80	32	20	1560



Ürün Nr. 1210 Kademeli Bağlama Pabucu
- Destek kullanmadan 0-75mm arası kullanım imkanı sağlar
- Malzeme: Dövme Çelik
- Sertleştirilmiş
- Çinko Kaplama

Product Nr. 1210 Stepped Coupling Clamp
- It provides using between 0-75 mm without supporting
- Material: Forged Steel
- Hardened
- Zinc Coating







Basamaklı Kombine Pabuç

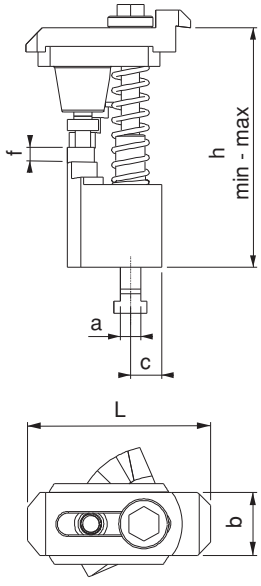
Stepped Combined Clamp

Referans Nr.	a	h min - max	f	c	L	b	(g)
1230-01	14-16-18-20-22	40 - 80	5	16	110	38	1200
1230-02		70 - 125	10	16	110	38	1490
1230-03		120 - 175	10	18	110	38	2700
1230-04		170 - 225	10	23	110	38	4260



Ürün Nr. 1230 Basamaklı Kombine Pabuç
- Pabucun çift taraflı kullanım özelliği; basamaklı yükselticisi ile kısıtlı alanlarda kullanım avantajı sağlar.
- DIN 650 T-Kanala uyumludur.
- Pabuç malzeme: Sertleştirilmiş
- Civata 10.9 kalite
- Gövde statik boyalı diğer parçalar siyah kaplama

Product Nr. 1230 Stepped Combined Clamp
- Double-sided usage of the clamp provides using advantage in restricted areas
- Product is suitable to DIN 650 T-Slot
- Clamp Material: Hardened
- Bolt Quality: 10.9
- Body is statically painted and the other parts are black coating





Kombine Bağlama Pabucu

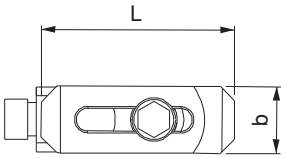
Combined Coupling Clamp

Referans Nr.	a	h min-max	f	c	L	b	m	sw	Sıkma Kuvveti Clamping Force Kgf	Nm	(g)
1250 - 02	14-16-18-20-22	80-137	3	17	110	38	M12	19	2250	85	2015
1250 - 03		125-224	3	17	110	38	M12	19	2250	85	2910
1250 - 04		160-300	3	17	110	38	M12	19	2250	85	3665



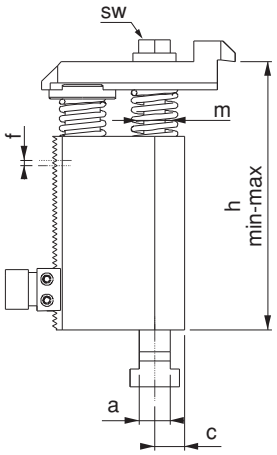
Ürün Nr. 1250 Kombine Bağlama Pabuç

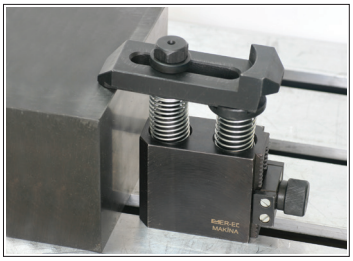
- Pabucun çift taraflı kullanım özelliği; kendi içinde bulunan kademeli yükseltici desteği ile kısıtlı alanlarda kullanım kolaylığı sağlar.
- DIN 650 T-Kanala uyumludur.
- Pabuç Malzeme: Sertleştirilmiş
- Civata 10.9 kalite
- Siyah kaplama



Product Nr. 1250 Combined Coupling Clamp

- Double-sided usage of the clamp and it's stepped lifter's support provides using advantage in restricted areas
- It is suitable to DIN 650 T-Slot
- Clamp Hardness: Hardened
- Bolt Quality: 10.9
- Black coating





Desteksiz Askı Pabuç

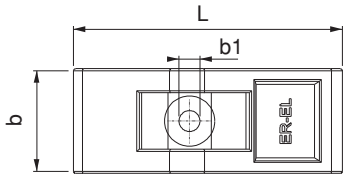
Unsupported Suspension Clamp

Referans Nr.	a	h min-max	DIN 787	b1	e	z	L	b	(g)
1270-1012	12	0-45	M10x12x100	11	48	61	109	40	660
1270-1214	14	0-45	M12x14x100	13	48	61	109	40	705
1270-1416	16	0-55	M14x16x125	15	57	72	129	50	1190
1270-1618	18	0-55	M16x18x125	17	57	72	129	50	1265



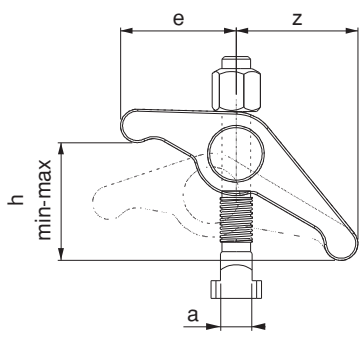
Ürün Nr. 1270 Desteksiz Askı Pabuç

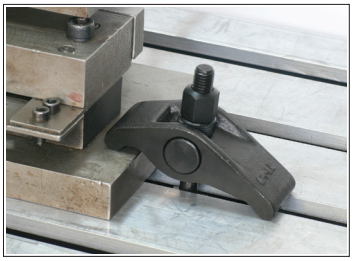
- Destek kullanmadan 0-55 mm arası kullanım imkanı sağlar.
- Malzeme: Dövme çelik
- Pabuç Malzeme: Sertleştirilmiş
- Civata 12.9 kalite
- Çinko Kaplama



Product Nr. 1270 Unsupported Suspension Clamp

- Product provides using between 0-55 mm without using support
- Material: Forged Steel
- Clamp Hardness: Hardened
- Bolt Quality: 12.9
- Zinc Coating





Kombine Burçlu Pabuç

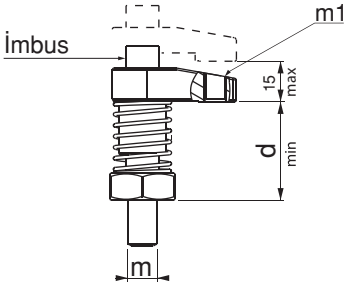
Combined Clamp With Bush

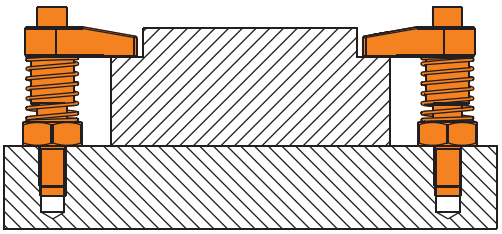
Referans Nr.	a	b	c	d	e	m	sw	m1	İmbus	sıkma kuvveti clamping force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(g)
1275-3012	30	28	16	40	23	M12	30	M8	M10	750	20	300
1275-5012	50	32	20	45	40	M12	36	M12	M12	1000	30	500
1275-5016	50	32	20	45	40	M16	36	M12	M12	1000	30	510
1275-6016	60	40	25	45	45	M16	41	M16	M16	1250	45	750

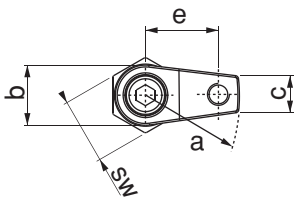


Ürün Nr. 1275 Kombine Burçlu Pabuç
- Kısıtlı alanlarda çalışma özelliği
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1275 Combined Clamp With Bush
- Function working in restricted areas
- Hardened
- Black coating







Kombine Burçlu Pabuç

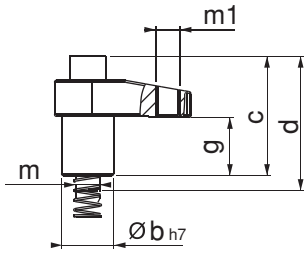
Combined Clamp With Bush

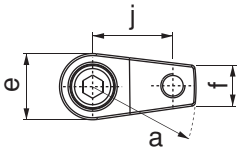
Referans Nr.	a	Ø b h7	c	d	e	f	g	m	m1	j	sıkma kuvveti clamping force Kgf	(g)
1280-3010	30	22	58	80	28	16	30	M10	M8	23	750	220
1280-5012	50	26	70	90	32	20	40	M12	M12	40	1100	400
1280-6016	60	32	74	95	40	25	40	M16	M16	45	1250	610



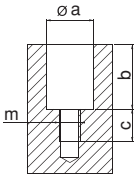
Ürün Nr. 1280 Kombine Burçlu Pabuç
- Kısıtlı alanlarda çalışma özelliği plaka üstüne uygulama seçeneği
- Sertleştirilmiş
- Siyah kaplama

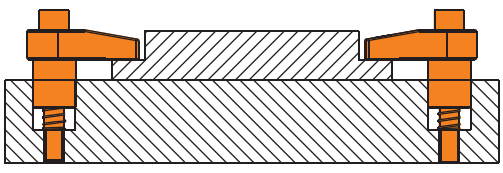
Product Nr. 1280 Combined Clamp With Bush
- Function working in restricted areas and variety application at plate
- Hardened
- Black coating





Referans Nr.	a (F7)	b	c	m
1280-3010	22	30	20	M10
1280-5012	26	40	25	M12
1280-6016	32	40	25	M16





Oynar Başlı Baskı Pabucu

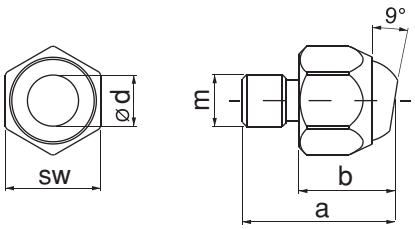
Pivoting Head Pad Printing

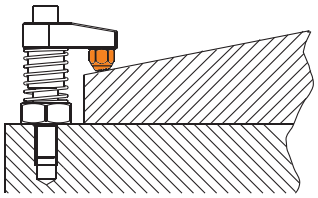
Referans Nr.	a	b	m	d	sw	(g)
1282-0825	25	12	M8	8	14	10
1282-1030	30	17	M10	10	17	30
1282-1235	35	22	M12	12	22	60
1282-1642	42	26	M16	14	27	125



Ürün Nr. 1282 Oynar Başlı Baskı Pabucu
- Dereceli temiz yüzeyler için
- Nr.1275 ve 1280 ürünlerle uyumludur.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1282 Moving Head Press Clamp
- Graded clean surfaces.
- It is applicable with Nr. 1275 and 1280
- Hardened
- Black coating





Oynar Başlı Baskı Pabucu (Uzun)

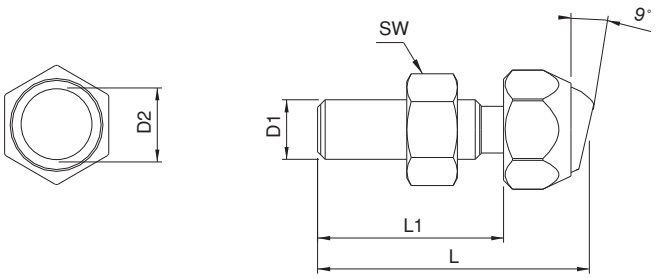
Pivoting Head Pad Printing (Long)

Referans Nr.	D1	D2	L	L1	SW	(g)
1282-25D	M8	8	36.6	25	13	26
1282-30D	M10	10	45.7	30	17	42
1282-35D	M12	12	50.7	35	17	53
1282-40D	M16	14	60.7	40	24	117
1282-50D	M20	14	77.3	50	30	240



Ürün Nr. 1282 Oynar Başlı Baskı Pabucu (Uzun)
- Dereceli temiz yüzeyler için
- Nr.1275 ve 1280 ürünlerle uyumludur.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1282 Moving Head Press Clamp (Long)
- Graded clean surfaces.
- It is applicable with Nr. 1275 and 1280
- Hardened
- Black coating



Oynar Başlı Baskı Pabucu

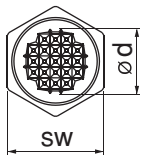
Pivoting Head Pad Printing

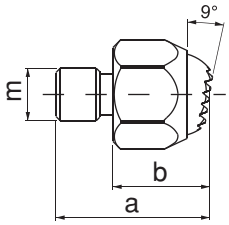
Referans Nr.	a	b	m	d	sw	(g)
1283-0825	25	12	M8	8	14	10
1283-1030	30	17	M10	10	17	30
1283-1235	35	22	M12	12	22	60
1283-1642	42	26	M16	14	27	120

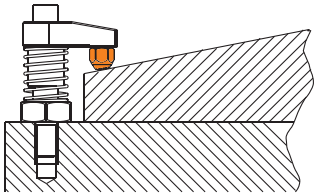


Ürün Nr. 1283 Oynar Başlı Baskı Pabucu
- Dereceli ve bozuk yüzeyler için baskı yüzeyi tırtıllı olarak tasarlanmıştır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1283 Moving Head Press Clamp
- Its clamping surface is designed with bead graded bad surfaces.
- Hardened
- Black coating







Oynar Başlı Baskı Pabucu (Uzun)

Pivoting Head Pad Printing (Long)

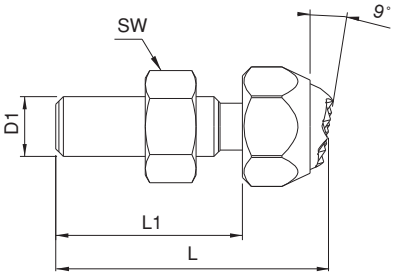
Referans Nr.	D1	D2	L	L1	SW	(g)
1283-25T	M8	8	36.6	25	13	26
1283-30T	M10	10	45.7	30	17	42
1283-35T	M12	12	50.7	35	17	53
1283-40T	M16	14	60.7	40	24	117
1283-50T	M20	14	77.3	50	30	240



Ürün Nr. 1283 Oynar Başlı Baskı Pabucu (Uzun)
- Dereceli ve bozuk yüzeyler için baskı yüzeyi tırtıllı olarak tasarlanmıştır.
- Nr.1275 ve 1280 ürünlerle uyumludur.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1283 Moving Head Press Clamp (Long)
- Its clamping surface is designed with bead graded bad surfaces.
- It is applicable with Nr. 1275 and 1280
- Hardened
- Black coating

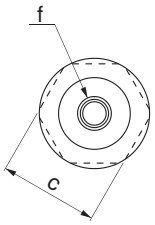




Yükseltme Kovanı

Support to The Hive

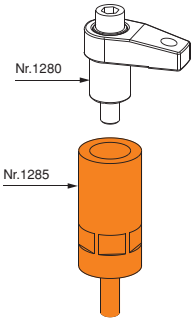
Referans Nr.	a	b F7	c	d	e	f	m	h	(g)
1285-12080	80	26	36	40	110	M12	M12	40	600
1285-12100	100	26	36	40	130	M12	M12	40	795
1285-16080	80	32	46	50	110	M16	M16	40	945
1285-16100	100	32	46	50	130	M16	M16	40	1230

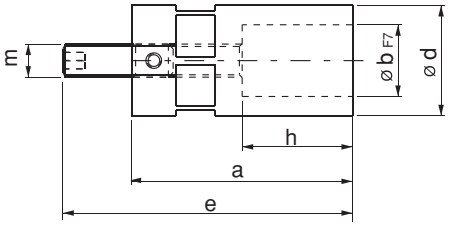




Ürün Nr. 1285 Yükseltme Kovanı
- Nr.1280 ürün ile yüksek parça bağlamalarda kullanılır
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1285 Support to The Hive
- It is used together with Nr. 1280 for clamping high pieces.
- Hardened
- Black coating





Baskı Pabucu

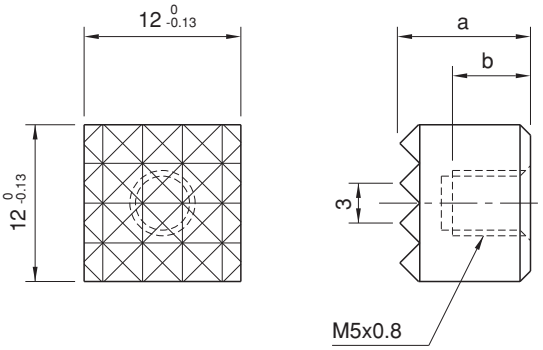
Pressure Pad

Referans Nr.	a ($^{0}_{-0.13}$)	b	(g)
1287-CT9120	12	7.8	13



Ürün Nr. 1287 Baskı Pabucu
- Sertleştirilmiş
- Siyah kaplama

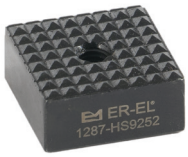
Product Nr. 1287 Pressure Pad
- Hardened
- Black coating



Baskı Pabucu

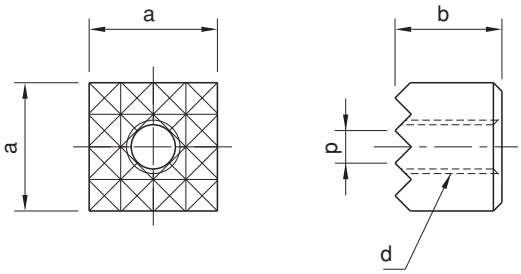
Pressure Pad

Referans Nr.	a ($^{0}_{-0.13}$)	b ($^{0}_{-0.13}$)	d	p	(g)
1287-HS9102	10	12	M5x0.8	2.3	7.5
1287-HS9122	12	12	M5x0.8	3	11
1287-HS9160	16	12	M6x1	3	17
1287-HS9202	20	12	M5x0.8	3	33.5
1287-HS9252	25	12	M6x1	3	53



Ürün Nr. 1287 Baskı Pabucu
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1287 Pressure Pad
- Hardened
- Black coating



Baskı Pabucu

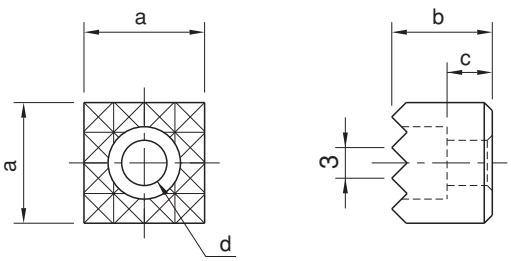
Pressure Pad

Referans Nr.	a ($^{0}_{-0.13}$)	b ($^{0}_{-0.13}$)	c	d	(g)
1287-HS9122C	12	12	6.5	M4	10
1287-HS9160C	16	12	4.5	M4	16
1287-HS9202C	20	12	5.5	M5	31
1287-HS9252C	25	12	4.5	M6	49



Ürün Nr. 1287 Baskı Pabucu
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1287 Pressure Pad
- Hardened
- Black coating



Baskı Pabucu

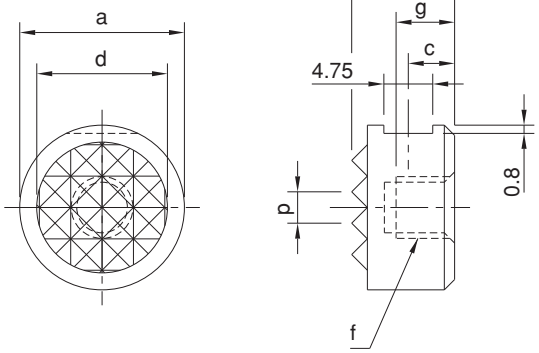
Pressure Pad

Referans Nr.	a ($^{0}_{-0.13}$)	b ($^{0}_{-0.13}$)	c	d	f	g	p	(g)
1288-CT102	10	12	6	7.9	M5x0.8	8	2.3	6
1288-CT122	12	12	6	9.5	M5x0.8	8	3	9
1288-CT162	16	12	6	12.7	M6x1	7.8	3	17
1288-CT202	20	12	6	15.9	M6x1	7.8	3	28
1288-CT252	25	12	6	19.1	M6x1	7.8	3	43



Ürün Nr. 1288 Baskı Pabucu
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1288 Pressure Pad
- Hardened
- Black coating



Baskı Pabucu

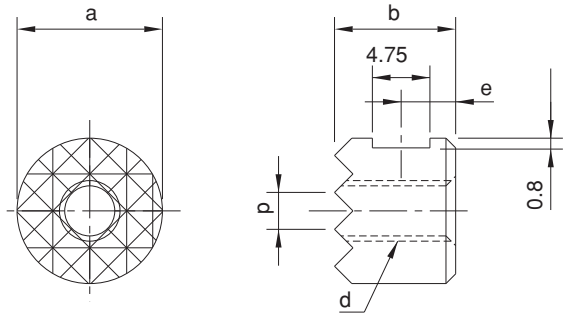
Pressure Pad

Referans Nr.	a ($^{0}_{-0.13}$)	b ($^{0}_{-0.13}$)	d	e	p	(g)
1288-HS102	10	12	M5x0.8	6	2.3	6
1288-HS122	12	12	M5x0.8	6	3	9
1288-HS162	16	12	M6x1	6	3	15
1288-HS202	20	12	M6x1	6	3	25
1288-HS252	25	12	M6x1	6	3	40



Ürün Nr. 1288 Baskı Pabucu
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1288 Pressure Pad
- Hardened
- Black coating



Baskı Pabucu

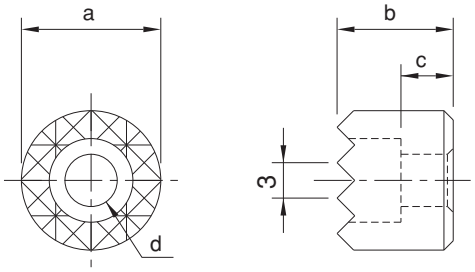
Pressure Pad

Referans Nr.	a ($^{0}_{-0.13}$)	b ($^{0}_{-0.13}$)	c	d	(g)
1288-HS122C	12	12	6.5	M4	8
1288-HS162C	16	12	6.5	M4	15
1288-HS202C	20	12	6.5	M5	23
1288-HS252C	25	12	6.5	M6	38



Ürün Nr. 1288 Baskı Pabucu
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1288 Pressure Pad
- Hardened
- Black coating

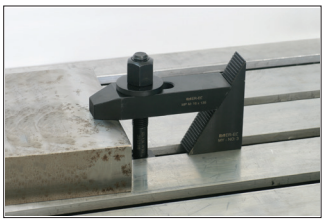


Merdiven Diş Bağlama Pabucu

Serrated Thread Clamp

Referans Nr.	L	b1	metrik	whitworth	a	b2	b3	e1	e2	(g)
1290-06050	50	6.6	M6	1/4	10	20	8	10	20	50
1290-06080	80								30	95
1290-08060	60	9	M8	5/16	12	25	10	13	22	100
1290-08100	100								45	170
1290-10080	80	11	M10	3/8	15	30	12	15	30	190
1290-10100	100								45	225
1290-12100	100	14.5	M12-M14	1/2	20	40	14	21	45	435
1290-12125	125								55	580
1290-16125	125	18.5	M16-M18	5/8	25	50	18	26	55	855
1290-16160	160								65	1175

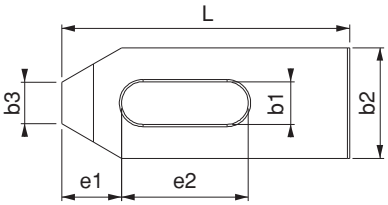




Ürün Nr. 1290 Merdiven Diş Bağlama Pabucu
- Nr. 1310 Merdiven destek ile kullanılır
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1290 Serrated Thread Clamp
- Product is used with Nr. 1310 Serrated Support
- Hardened
- Black Coating





Merdiven Diş Destek

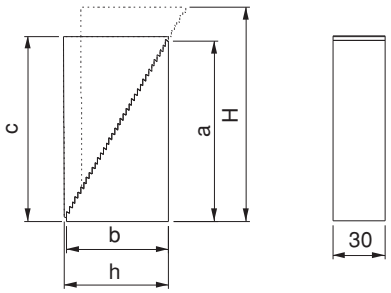
Serrated Thread Support

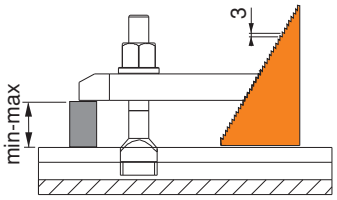
Referans Nr.	h-H	a	b	c	min-max	(g)
1310-01	37-85	57	35	60	0-40	505
1310-02	48-112	73	45	76	0-60	825
1310-03	58-139	90	55	93	0-75	1250
1310-04	66-165	108	64	111	0-90	685



Ürün Nr. 1310 Merdiven Diş Destek
- Nr. 1290 Merdiven diş pabuç ile kullanılır
- Siyah Kaplama

Product Nr. 1310 Serrated Thread Support
- Product is used with Nr. 1290 Serrated Thread Clamp
- Black Coating

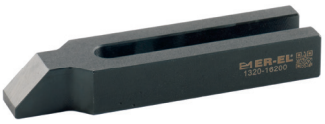




Çatal Pabuç

Bifurcated Clamp

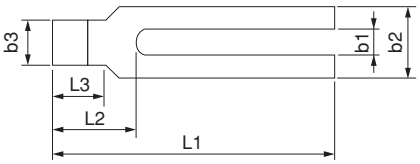
Referans Nr.	b1	L1	metrik	whitworth	a	b2	b3	L2	L3	(g)
1320-08100	9	100	M8	5/16	15	30	16	32	18	240
1320-10125	11	125	M10	3/8	20	30	20	38	24	380
1320-12160	14.5	160	M12-M14	1/2	25	40	24	47	30	800
1320-12200	14.5	200	M12-M14	1/2	25	40	24	47	30	950
1320-16200	18.5	200	M16-M18	5/8	30	50	28	57	36	1500
1320-16250	18.5	250	M16-M18	5/8	30	50	28	57	36	1850
1320-20250	22.5	250	M20-M22	3/4	40	60	35	68	45	2900
1320-20315	22.5	315	M20-M22	3/4	40	60	35	68	45	3600
1320-24250	26	250	M24	1	40	70	43	83	56	3400
1320-24315	26	315	M24	1	40	70	43	83	56	4300
1320-30315	33	315	M30	1 ¼	50	80	50	88	56	6000
1320-30400	33	400	M30	1 ¼	50	80	50	88	56	7300



Ürün Nr. 1320 Çatal Pabuç
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1320 Bifurcated Clamp
- Hardened
- Black Coating





Destek Delikli Düz Pabuç

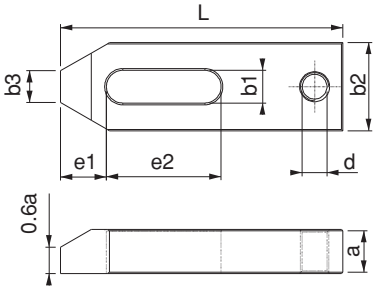
Straight Clamp with Support Hole

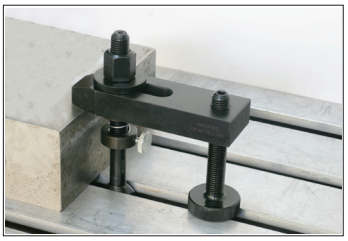
Referans Nr.	L	b1	metrik	whitworth	a	b2	b3	e1	e2	d	(g)
1330-06050	50	6,6	M6	1/4	10	20	8	10	20	M8	50
1330-08060	60	9	M8	5/16	12	25	10	13	22	M8	105
1330-10080	80	11	M10	3/8	15	30	12	15	30	M10	210
1330-12100	100	14.5	M12-M14	1/2	20	40	14	21	40	M12	465
1330-12125	125							21	50		590
1330-16125	125	18.5	M16-M18	5/8	25	50	18	26	45	M16	930
1330-16160	160								65		1200
1330-20160	160	22.5	M20-M22	3/4	30	60	22	30	60	M20	1710
1330-20200	200				30	60	22		80		2170
1330-20250	250				35	70	30		100		3885
1330-24160	160	26	M24	1	30	70	26	35	60	M24	1965
1330-24200	200				35	70	26		80		2920
1330-24250	250				35	70	26		100		3720
1330-24315	315				40	80	35		100		6435
1330-30250	250	33	M30	11/4	40	80	34	45	100	M24	4825
1330-30315	315				50				130		7665
1330-36400	400	43	M36-M42	11/2	58	100	43	100	150	M30	14490



Ürün Nr. 1330 Destek Delikli Düz Pabuç
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1330 Straight Clamp with Support Hole
- Hardened
- Black Coating





Düz Pabuç

Straight Clamp

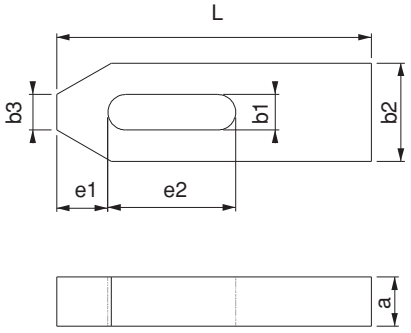
Referans Nr.	L	b1	metrik	whitworth	a	b2	b3	e1	e2	(g)
1350-06050	50	6,6	M6	1/4	10	20	8	10	20	60
1350-08060	60	9	M8	5/16	12	25	10	13	22	110
1350-10080	80	11	M10	3/8	15	30	12	15	30	185
1350-12100	100	14,5	M12-M14	1/2	20	40	14	21	40	480
1350-12125	125							21	50	610
1350-16125	125	18,5	M16-M18	5/8	25	50	18	26	45	980
1350-16160	160								65	1240
1350-20160	160	22,5	M20-M22	3/4	30	60	22	30	60	1795
1350-20200	200								80	2255
1350-24200	200	26	M24	1	30	70	26	35	80	2570
1350-24250	250				35				100	3875
1350-30250	250	33	M30	11/4	40	80	34	45	100	4990
1350-30315	315				50				130	7885
1350-36400	400	43	M36-M42	11/2	60	100	43	100	150	14450



DIN 6314

Ürün Nr. 1350 Düz Pabuç
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1350 Straight Clamp
- Hardened
- Black Coating



Kademeli Destek Delikli Düz Pabuç

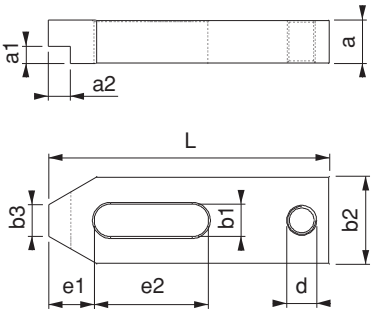
Straight Clamp with Stepped Support Hole

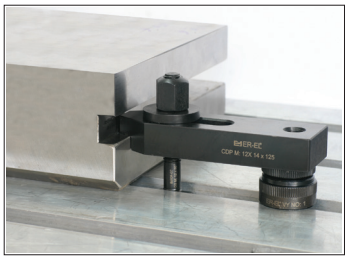
Referans Nr.	L	b1	metrik	whitworth	a	b2	a1xa2	b3	e1	e2	d	(g)
1370-10080	80	11	M10	3/8	15	30	5x8	12	15	30	M10	180
1370-12100	100	14.5	M12-14	1/2	20	40	8x10	14	21	40	M12	410
1370-12125	125									50		590
1370-16125	125	18.5	M16-18	5/8	25	50	10x12.5	18	26	45	M16	910
1370-16160	160									65		1180
1370-20160	160	22.5	M20-22	3/4	30	60	12x15	22	30	60	M20	1575
1370-20200	200									80		2150
1370-24160	160	26	M24	1	30	70	12x15	26	35	60	M24	1800
1370-24200	200				35		14x17			80		2875
1370-24250	250				35		14x17			100		3500



Ürün Nr. 1370 Kademeli Destek Delikli Düz Pabuç
- Kısıtlı alanlarda yükseklikten kazanma amaçlı kullanılır.
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1370 Straight Clamp with Stepped Support Hole
- This product is used in restricted areas with the purpose of gaining height
- Hardened
- Black Coating



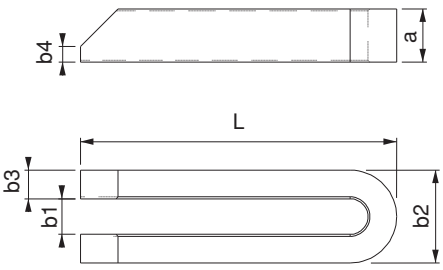


Çatal Pabuç

Bifurcated Clamp

Referans Nr.	L	b1	metrik	whitworth	a	b2	b3	b4	(g)
1390-06060	60	6.6	M6	1/4	12	19	6.2	3	65
1390-08080	80	9	M8	5/16	15	25	8	4	140
1390-10100	100	11	M10	3/8	20	30	9.5	5	240
1390-12125	125	14.5	M12-M14	1/2	25	38	12	6	700
1390-12160	160								915
1390-12200	200								1235
1390-16160	160	18.5	M16-M18	5/8	27	48	15	8	945
1390-16200	200				27			8	1215
1390-16250	250				37			10	2000
1390-20200	200	22.5	M20-M22	3/4	37	52	15	10	1650
1390-20250	250				37	62	20		2765
1390-20315	315				37	62	20		3510
1390-20500	500				47	62	20		7200
1390-24200	200	26	M24	1	37	66	20	10	2260
1390-24250	250				37				2740
1390-24315	315				37				3515
1390-24500	500				47				7100
1390-30250	250	33	M30	11/4	47	73	20	12	3500
1390-30315	315				47	73	20		4190
1390-30400	400				47	73	20		5735
1390-30600	600				46	73	20		8455
1390-301000	1000				57	93	30		28000
1390-36400	400	40	M36	11/2	57	100	30	12	10800
1390-36600	600								16500
1390-42600	600	43	M42	11/2	77	123	40	12	28800

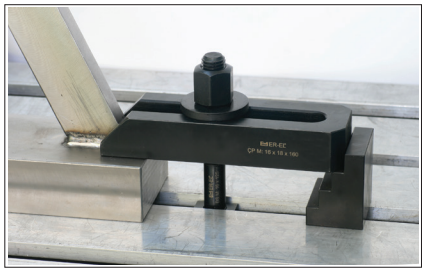




DIN 6315B

Ürün Nr. 1390 Çatal Pabuç
- Kademeli yüzeylerde şekilli iş parçalarının bağlanmasında pabucun yapısı itibarı ile kolaylık sağlar
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1390 Bifurcated Clamp
- Due to the structure of the clamp, this product provides convenience for the couplings of formed work pieces on graded surfaces
- Hardened
- Black Coating



Plaka Bağlama Pabucu

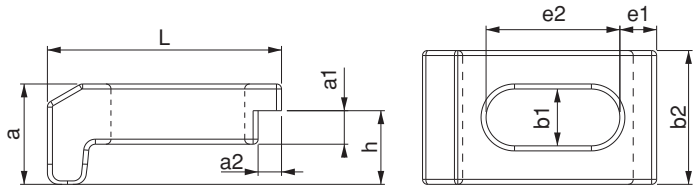
Plate Sliding Clamp

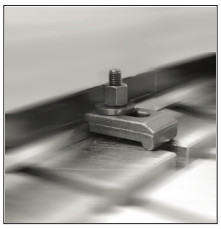
Referans Nr.	L	b1	metrik	whitworth	a	b2	a1xa2	e1	e2	h	(g)
1387-12070	70	13	M12	1/2	21.5	40	8x6	11	40	14	255
1387-16070	70	17	M16	5/8	29.5	40	10x7	11	40	22	290



Ürün Nr. 1387 Plaka Sıkma Pabucu
- Yükselticisiz çalışma özelliği avantajı sağlar
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1387 Plate Sliding Clamp
- Provides the advantage of working without support.
- Hardened
- Black coating





Kademeli Destek Delikli Çatal Pabuç

Bifurcated Clamp with Stepped Support Hole

Referans Nr.	L	b1	metrik	whitworth	a	e2	a1xa2	b2	d	(g)
1400-10100	100	11	M10	3/8	20	70	10x10	30	M10	260
1400-12125	125	14.5	M12-14	1/2	25	90	12x12	40	M12	565
1400-16160	160	18.5	M16-18	5/8	30	110	15x15	50	M16	1235
1400-20200	200	22.5	M20-22	3/4	40	135	20x20	60	M20	2460

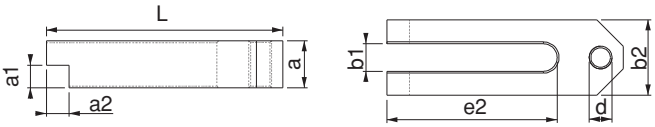


Ürün Nr. 1400 Kademeli Destek Delikli Çatal Pabuç
- Sertleştirilmiş
- Siyah Kaplama

Kademeli ve kısıtlı alanlarda kullanım avantajı sağlar.

It provides usage advantage in gradual and limited areas.

Product Nr. 1400 Bifurcated Clamp with stepped support Hole
- Hardened
- Black Coating



Destek Delikli Çatal Pabuç

Bifurcated Clamp with Support Hole

Referans Nr.	L	b1	metrik	whitworth	a	e1	e2	b2	d	(g)
1410-10100	100	11	M10	3/8	20	5	70	30	M10	260
1410-12125	125	14.5	M12-14	1/2	25	6	90	40	M12	560
1410-16160	160	18.5	M16-18	5/8	30	8	110	50	M16	1230
1410-20200	200	22.5	M20-22	3/4	40	10	135	60	M20	1490

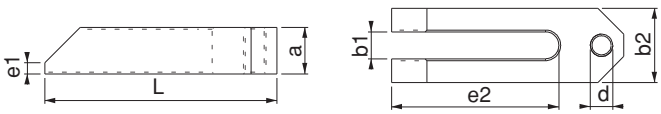


Ürün Nr. 1410 Destek Delikli Çatal Pabuç
- Sertleştirilmiş
- Siyah Kaplama

Kademeli parçalarda ileri sıkmalarda haraket ve kullanım avantajı sağlar.

It provides usage advantage for gradual parts during forward tightenings.

Product Nr. 1410 Bifurcated clamp with support hole
- Hardened
- Black Coating



Destek Delikli Z-Bağlama Pabucu

Z-Type Clamp with Support Hole

Referans Nr.	L	b1	metrik	whitworth	a	a2	b2	b3	c	e1	e2	d	(g)
1450-06060	60	6.6	M6	1/4	10	20	20	10	8	20	20	M8	80
1450-08080	80	9	M8	5/16	12	24	25	12	9	25	25	M8	170
1450-10100	100	11	M10	3/8	15	30	30	15	12	32	32	M10	245
1450-12125	125	14.5	M12-M14	1/2	19	40	38	20	16	40	40	M12	600
1450-16125 1450-16160	125 160	18.5	M16-M18	5/8	24	50	48	25	20	49	40 50	M16	925 1205
1450-20160 1450-20200	160 200	22.5	M20-M22	3/4	29	58	58	30	24	55	55 70	M20	1705 2145
1450-24160 1450-24200 1450-24250	160 200 250	26	M24	1	33	70	70	35	28	53 72 72	55 60 80	M24	2110 3070 3710
1450-30250 1450-30315	250 315	33	M30	11/4	38 48	80 100	77	40	40	91	80 100	M24	4635 7050



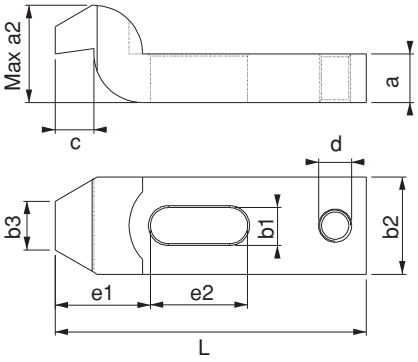
DIN 6316

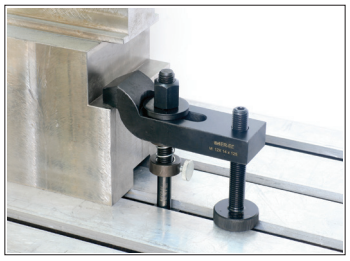
Ürün Nr. 1450 Destek Delikli Z-Bağlama Pabucu

- Yükseklikten kazanma ve somun geçişlerinde avantaj sağlar
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1450 Z-Type Cranked Clamp with Support Hole

- This product provides advantage to gain from the height and in the passings of the bolt
- Hardened
- Black Coating





Silindir Başlı Çatal Pabuç

Forked Clamp with Pin Head

Referans Nr.	L1	b1	metrik	whitworth	a	b2	Ød	L2	L3	(g)
1470-08100	100	9	M8	5/6	15	30	12	30	18	180
1470-10125	125	11	M10	3/8	20	30	16	36	24	290
1470-12160 1470-12200	160 200	14.5	M12-M14	1/2	25	40	20	45	30	715 815
1470-16200 1470-16250	200 250	18.5	M16-M18	5/8	30	50	24	55	36	1210 1550
1470-20250 1470-20315	250 315	22.5	M20-M22	3/4	40	60	30	65	45	2680 3435
1470-24250 1470-24315	250 315	26	M24	1	40	70	38	80	56	3060 4120
1470-30315 1470-30400	315 400	34	M30	11/4	50	80	45	85	56	5600 7135



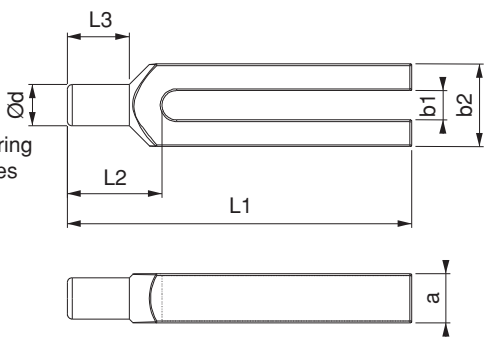
DIN 6315C

Ürün Nr. 1470 Silindir Başlı Çatal Pabuç

- Muhtelif iş parçalarının delikli yüzeylerine girerek iş parçasını sabitler
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1470 Forked Clamp with Pin Head

- This product fixes the work pieces by entering in the holed surfaces of various work pieces
- Hardened
- Black Coating

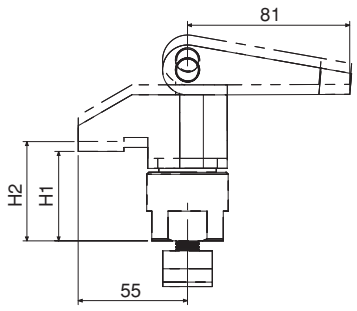




Üstten Bağlama

Above Clamping

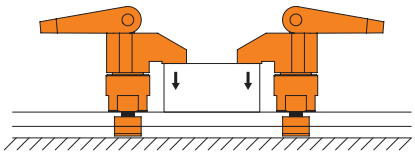
Referans Nr.	a	H1 - H2 (mm)	Sıkma Kuvveti Clamping Force Kgf	(g)
1472-02530	14-16-18-20-22	25 - 30	1000	1000
1472-03035		30 - 35	1000	1150
1472-03540		35 - 40	1000	1225
1472-04045		40 - 45	1000	1245
1472-04550		45 - 50	1000	1275

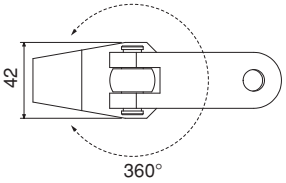




Ürün Nr. 1472 Üstten Bağlama
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1472 Above Clamping
- Hardened
- Black Coating





Sıkıştırma Pimi

Spring Locating Pins

Referans Nr.	P(N)	D	H (0 -1)	D1	H1	A Haraket Travel	d (+0.1 0)	(g)
1473-06002	76	10	11	6	10.7	1	10	4
1473-08002	102	12	13	8	13.9	1.3	12	8
1473-10002	204	16	17	10	16.7	1.6	16	16



Ürün Nr. 1473 Sıkıştırma Pimi

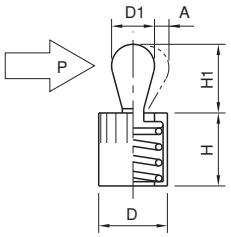
Özellikler
- Geçici bir iş bağlama profili için idealdir.

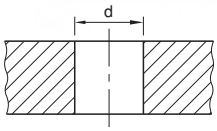
Not
- Pimin haraket etmesi için gerekli olan minimum “P” değeri
- Parça : 90 °C’ye kadar

Product Nr. 1473 Spring Locating Pins

Features
- Ideal for temporary clamping of low-profile workpieces.

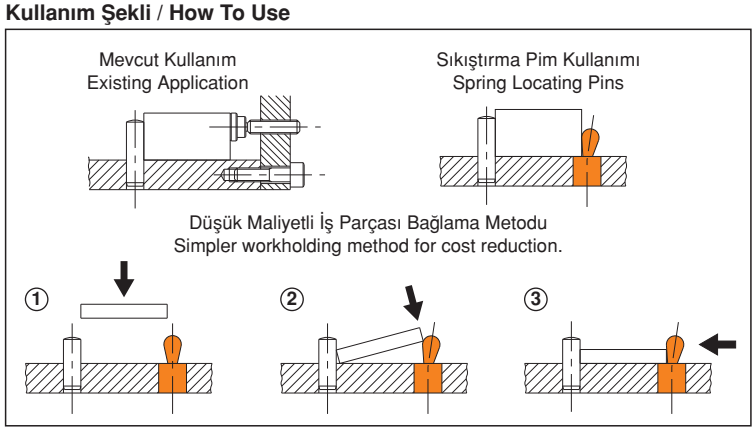
Note
- The stated value "P" denotes the minimum force needed to move the pin.
- Heat resistance : 90 °C



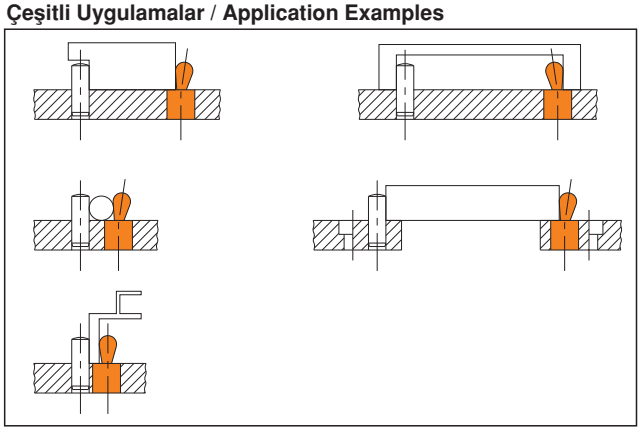


Montaj Deliği
Installation Hole

Kullanım Şekli / How To Use



Çeşitli Uygulamalar / Application Examples



Sıkıştırma Pimi Montaj Aparatı

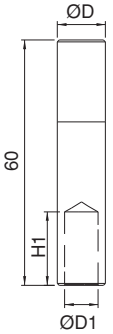
Spring Locating Pins Installation Tool

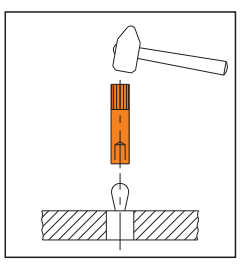
Referans Nr.	ØD	ØD1	H1	(g)
1473-06	10	6,2	15	30
1473-08	12	8,2	18	45
1473-10	16	10,2	21	80



Ürün Nr. 1473 Sıkıştırma Pimi Montaj Aparatı

Product Nr. 1473 Spring Locating Pins Installation Tool





Kullanım Şekli
How To Use

Referans Nr.	S	d (F7)	H2	D1	H (±0.01)	D	M	Dp	R
1474-06000	2	12	10	28	50	65	M8	40	160
1474-08000	2.5	16	12	34	63	80	M10	50	180

Referans Nr.	D2	H1	İzin Verilen Yük (N) Allowable Operating Load (N)	Sıkma Kuvveti Clamping Force Kgf	Önerilen Kalınlık Toleransı Recommended Workpiece Thickness Tolerance	(kg)
1474-06000	26	36	600	600	±0.5	1.2
1474-08000	28	45	600	800	±0.8	2.2

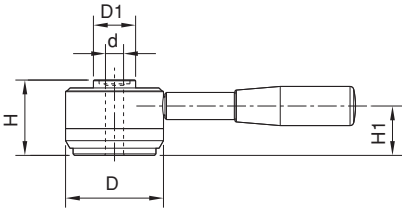
Ürün Nr. 1474 Tek Dokunuş Pimli Bağlama
• Siyah Kaplama

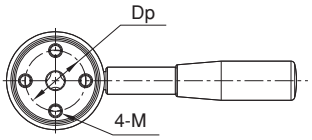
Not
• Pimler ve çektirme civataları ayrıca sipariş edilir.

Product Nr. 1474 Pull Clamps
• Black coating

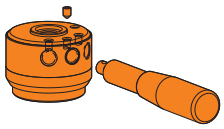
Note
• Clamping Pins or Screws must be ordered separately.



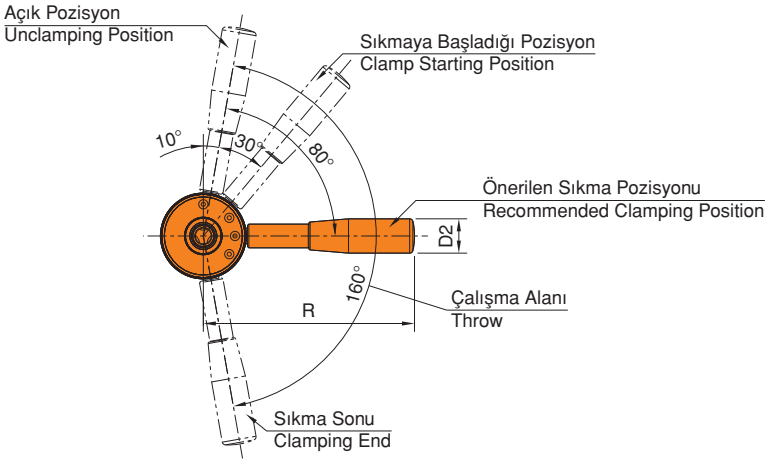


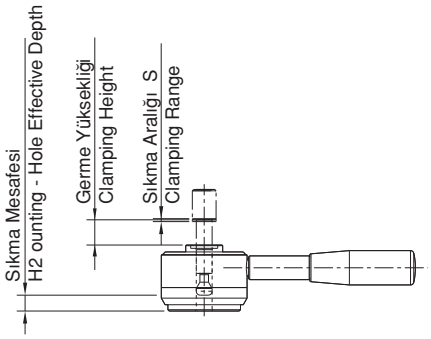


Kol, üç ayrı noktadan bağlanabilir.
Bağlama pozisyonu 3 opsiyonlu.



The handle can be removed by loosening the locking screw. To keep the handle mounted permanently, make sure that the locking screw is fully tightened. 3 options of handle mounting position.





Referans Nr.	D2 (f7)	D1 (f7)	L (By 0.1mm)	D	L2	L1	L3	D3	M	M1	(g)
1475-00012	12	12	0<L<100	18	23	38	21.5	6.5	M8	M8	70 ~ 160
1475-00016	16	16	0<L<100	24	23	38	21.5	6.5	M8	M8	175 ~ 265

Ürün Nr. 1475 Tek Dokunuş Bağlama Pimi

Pim
- Sertlik: İndüksiyon
- Taşlama

Kafa
- Siyah Kaplama

Product Nr. 1475 Clamping Pins

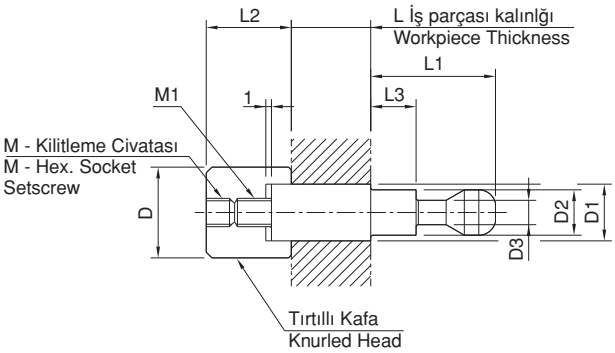
Shank
- Hardness: Induction
- Precision ground

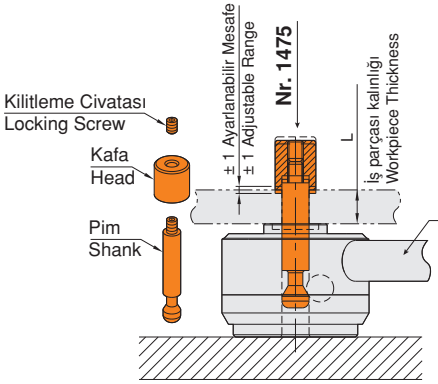
Head
- Black coating



Not
- Talebe göre üretim.

Note
- Custom Clamping Pins are available on request.





Kullanım Şekli / How To Use

L İş parçası kalınlığında ± 1mm ayarlanabilir.

L dimension is adjustable by ± 1mm to fit actual workpiece thickness.

Tek Dokunuş Bağlama Civatası

Clamping Screws

Referans Nr.	D1	M	L1	L	D	L2	L3	D2	W	L4	(g)
1476-00012	12	M12	13	38	20	21.5	2	6.5	10	4	40
1476-00016	12	M16	17	38	20	21.5	2	6.5	10	4	55

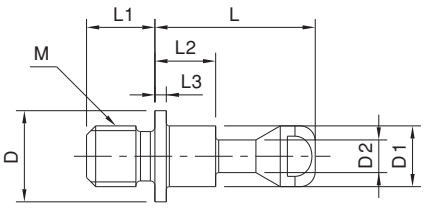
Ürün Nr. 1476 Tek Dokunuş Bağlama Civatası
- Siyah Kaplama

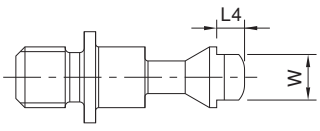
Product Nr. 1476 Clamping Screws
- Black coating



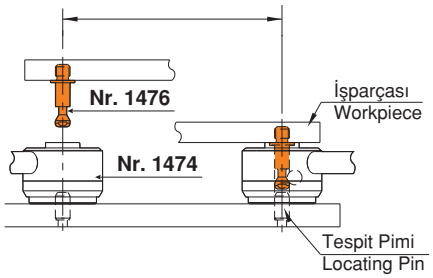
Not
- Özel bağlama vidalar (farklı vida boyları) istek üzerine üretim yapılır.

Note
- Special Clamping Screws (different screw thread sizes) are available on request.





Çektirme civataları önerilen aralık toleransında olmalı
Recommended Spacing Tolerancein Use of Clamping Screws

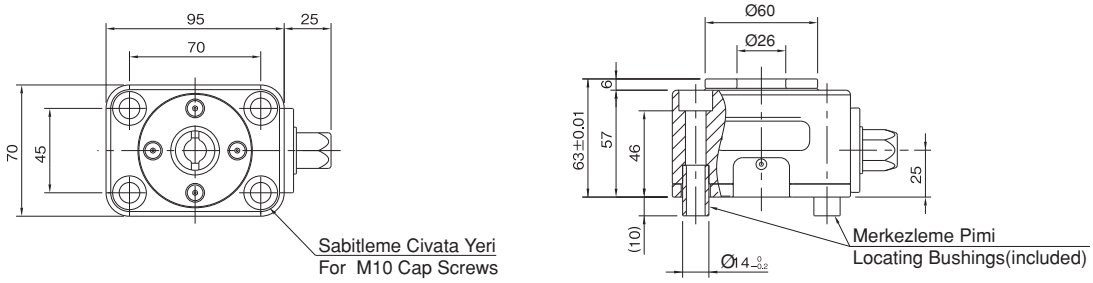


Referans Nr.	Sıkma Kuvveti Clamping Force Kgf	Tork N-m	(kg)
1477-00012	1200	40	2.3



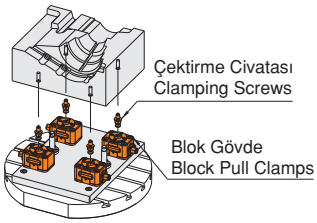
Ürün Nr. 1477 Pimli Bağlama

Product Nr. 1477 Power-tool Actuated Block Pull Clamps



1. 5 Eksen İşleme için İdeal Kullanım
İş parçasının bütün açık yüzeylerini işleme olanağı sağlar.

1. Ideal for 5-Axis Machining
Block Pull Clamps mount under a workpiece making its surfaces to be machined fully open for the cutting tool. This allows completing multiple machining processes at a time.

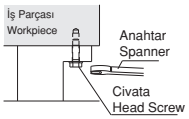


2. Daha iyi İşlenebilirlik
Blok çekme ile daha kolay iş bağlama ve klasik yöntemden daha kullanışlıdır.

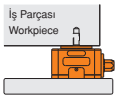
2. Better Workability
Block Pull Clamps allow fastening a workpiece easily, unlike the conventional method of fastening with hexagon head screws from below.

3. Uzun Anahtar Ünite Kullanımı
Birden fazla farklı parçaları işleme olanağı sağlar.

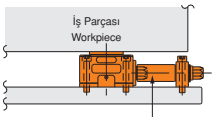
3. Actuated Remote-Control Units
If used in conjunction with Power-Tool Actuated Remote-Control Units, Block Pull Clamps can be installed at the best possible position under the workpiece.



Mevcut Uygulama
Conventional Method

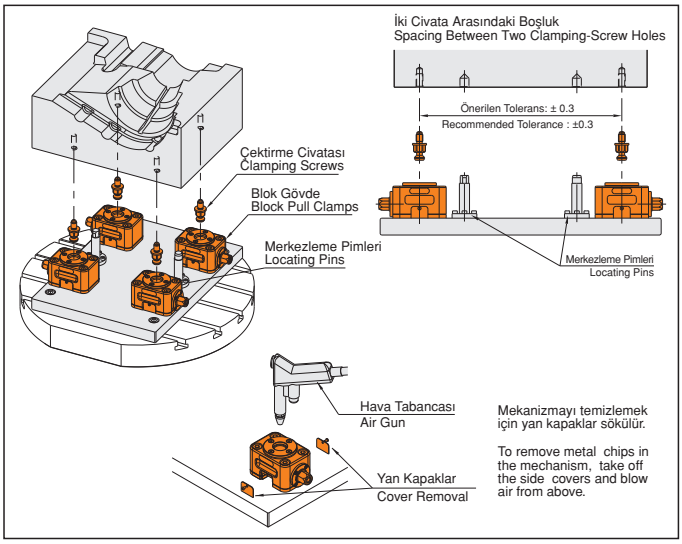


Çektirme Civatası ile Uygulama
Application with pull stud



Uzun Anahtar Aktuatörü Ünitesi
Power-Tool Actuated Remote-Control Unit

Kullanım Şekli / How To Use



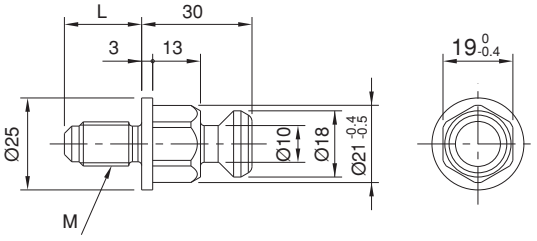
Bağlama Civatası
Clamping Screws

Referans Nr.	M	L	(g)
1478-00012	M12	21	75
1478-00016	M16	28	98



Ürün Nr. 1478 Bağlama Civatası
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1478 Clamping Screws
- Hardened
- Black coating



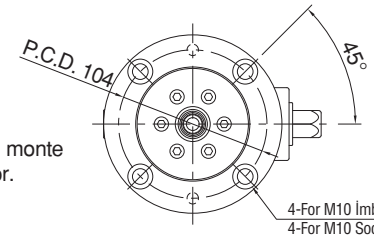
Referans Nr.	M	S	Bağlanma Kuvveti Clamping Force (kN)*	Kabul Edilebilir Sıkma Torku Allowable Tightening Torque (N.m)	(kg)
1477-PTPD112	M12x1.75	18	10	27	7.6
1477-PTPD116	M16x2.00	21	15	45	7.6

* Darbeli Anahtarla kullanmak için bağlama kuvvetinin ve kabul edilebilen sıkma torkunun %50'sinden azını kullanın.

*To operate with an impact wrench, use less than 50% of the clamping force and allowable tightening torque.

NEW





Ürün Nr. 1477 Somunlu 5 Eksen Blok Bağlama

Gövde
- S45C çelik
- Siyah Oksit Kaplama

Altıgen Başlık
- SCM440 çelik
- Sertleştirilmiş
- Siyah Oksit Kaplama

Yükseltici
- S45C Çelilk
- Sertleştirilmiş
- HRC 39-45
- Siyah Oksit Kaplama

Pabuç Civatası
- SCM415 çelik
- Sertleştirilmiş
- Siyah Oksit Kaplama

Product Nr. 1477 Nutrunner Pull Clamps

Body
- S45C steel
- Black oxide finished

Hex. Head
- SCM440 steel
- Induction hardened
- Black oxide finished

Riser
- S45C steel
- Quenched and tempered
- HRC 39-45
- Black oxide finished

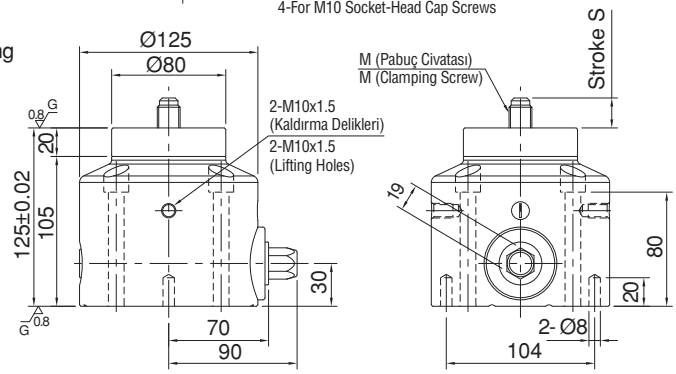
Clamping Screw
- SCM415 steel
- Carburized-hardened
- Black oxide finished

Kilit Nokta

Pabuç civatalarının monte edilmesi gerekmiyor.

Key Point

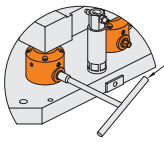
No need for mounting clamping screws.



Kullanım Şekli / How To Use

- Otomatik bir üretim ağında bir somun sıkma aletiyle kullanıma idealdir.
- Bu pabuç manuel olarak da kullanılabilir.
- Bağlanıp bırakma işlemini pabucun altıgen başına bir işparçası monte edip çevirmek kadar kolaydır.

- Ideal for use with a nut runner for automated production line.
- This clamp can be also operated manually.
- Clamping/unclamping can be done simply by mounting a workpiece and turning the hex. head.



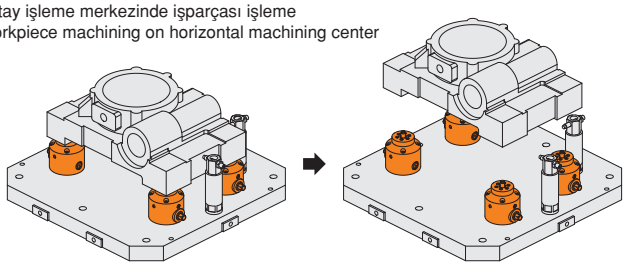
T-Kol Soket Anahtarı

T-Handle Socket Wrench

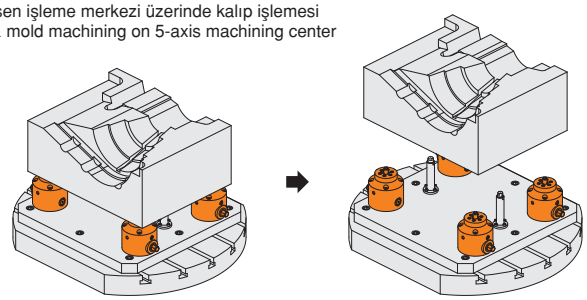
Bu pabuç T-Kol Soket Anahtarı kullanılarak manuel bir şekilde bağlanıp bırakabilir. Manuel bırakma için anahtarı pabuç tık edene kadar çevirin ve pabuç civatası işparçasını bırakır

This clamp can also be clamped/unclamped manually using a T-handle socket wrench. For manual unclamping, turn the wrench until the clamp clicks, and the clamping screw releases a workpiece.

Yatay işleme merkezinde işparçası işleme
Workpiece machining on horizontal machining center



5 Eksen işleme merkezi üzerinde kalıp işlemesi
Die & mold machining on 5-axis machining center



Note
- Bu iş desteği bir darbeli ahantar ile kullanılabilir. Darbeli anahtar torku ayarlayabilmelidir.
- Pabuc Civataları servis parçaları olarak bulunmaktadır.

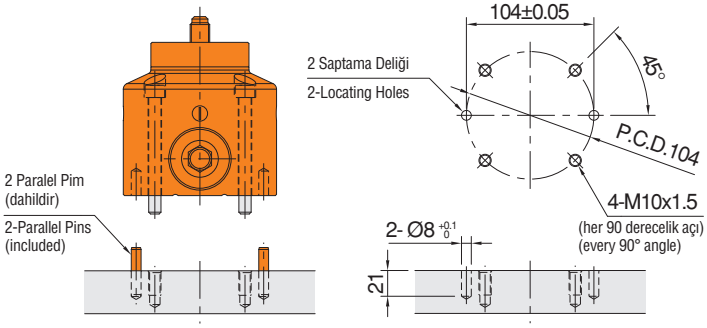
Note
- This work support can be operated with an impact wrench. Use an impact wrench that can set the torque.
- Clamping screws are available as maintenance parts.

Özellikler
- Gövdeye entegre edilmiş olan pabuç civatası iş parçasındaki civata deliğini çekerek işparçasını bağlar.

Features
- The clamping screw integrated with the body clamps the workpiece by pulling in the tapped hole on the workpiece.

Monte Deliği Boyutları
- Birden çok çekme pabucu kullanırken merkez ekseninin aralık toleransı ±0.05 olmalıdır.
- Bir işparçasının üzerindeki civata deliklerinin aralık toleransı ±0.2 olmalıdır.

Mounting Hole Dimension
- For using multiple pull clamps, the spacing tolerance of the central axes should be ±0.05
- The spacing tolerance for tapped holes on a workpiece should be ±0.2.



Referans Nr.	Sıkma Yüksekliği Clamping Height				Sıkma Torku Clamping Stroke	L2	L3	L1	L4	W	L	H4	B	Dp
	Finiş Yüzey Temas Finished Surface Contact		Kaba Yüzey Temas Rough Surface Contact											
	Min.	Max.	Min.	Max.										
1479-0618	21.8 (21.8-24.8)	23.8 (23.8-26.8)	21.4 (21.4-24.4)	23.4 (23.4-26.4)	3	22	6	26	11.5	36	18	6	4.3	27
1479-0823	30.3 (30.3-34.3)	32.3 (32.3-36.3)	31.2 (31.2-35.2)	33.2 (33.2-37.2)	4	30	8	35	15.3	45	23	8	5.3	34
1479-1030	30.5 (30.5-34.5)	37 (37-41)	31.5 (31.5-35.5)	38 (38-42)	4	37	8	45	20.7	65	30	12	8.4	48
1479-1240	34.5 (34.5-39.5)	44 (44-49)	37 (37-42)	46.5 (46.5-51.5)	5	45	8	55	25.4	85	40	15	10.5	64

Referans Nr.	H	D	W1	W2	H2	H1	M1	H3	W3	M	Sıkma Kuvveti Clamping Force Kgf	İzin Verilen Tork Allowable Screw Torque (N-m)	(g)
1479-0618	56.5	18	8	4.3	10	29	M4	22.8	10	M6	230	6	94
1479-0823	73.5	23	10	5.3	14	39	M5	28.5	13	M8	360	10.5	210
1479-1030	91	30	16	8.4	18	48	M8	45.5	17	M10	600	30	515
1479-1240	114	40	20	10.4	22	58	M10	57	19	M12	750	45	1100

Ürün Nr. 1479 Dönmeli Üstten Bağlama

Gövde
- Sertleştirilmiş
- Siyah Kaplama

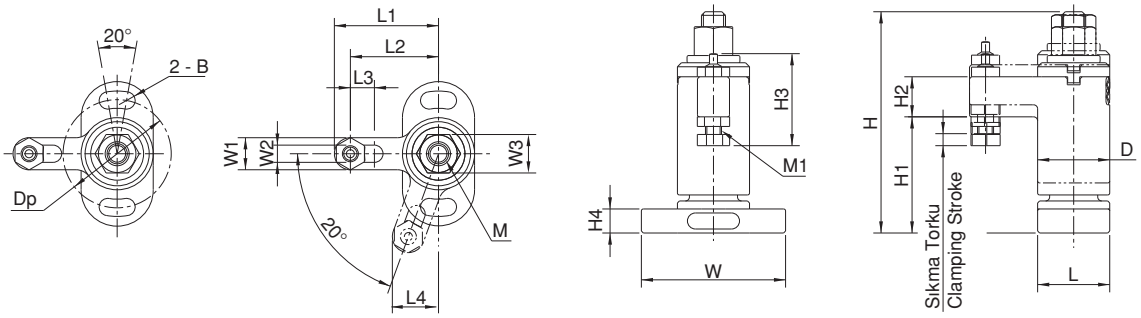
Sıkma Mili
- Siyah Kaplama

Product Nr. 1479 Swing Clamps For Torque Control

Body
- Hardened
- Black coating

Clamping Spindle
- Black coating

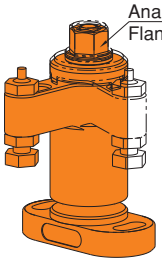




Not
- Bağlama işlemini tork anahtarı ile yapın.

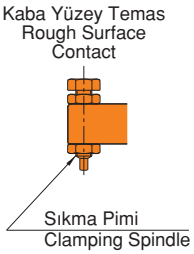
Note
- Make the fastening with a torque wrench.

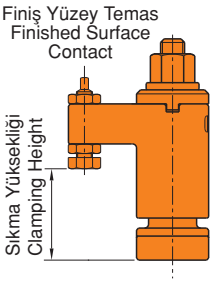
Kullanım Şekli / How To Use



Ürün pozisyon aldıktan sonra bağlama işlemi yapın

Turning the flange nut allows the clamp arm to swing into position for clamping.





Referans Nr.	H1	S	S1	M	L2	L1	W	L	H4	d	P	H	D	W1	H2	W2	H3
1480-00012	80	10	11	M12	55	66	90	50	15	11	70	139	50	22	30	19	29
1480-00016	95	10	15	M16	65	79	100	60	20	13	80	165	60	28	35	24	35

Referans Nr.	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N - m)	Sıkıştırma Yönü Clamping Direction	(kg)
1480-00012	600	28	Saat Yönünde Clockwise	1.6
1480-00016	1000	55	Saat Yönünde Clockwise	2.9



Ürün Nr. 1480 Dönmeli Üstten Bağlama

Gövde
- Sertleştirilmiş
- Siyah Kaplama

Sıkma Pabucu
- Sertleştirilmiş
- Siyah Kaplama

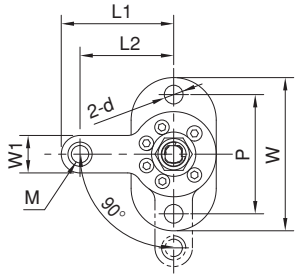
Product Nr. 1480 Swing Clamps

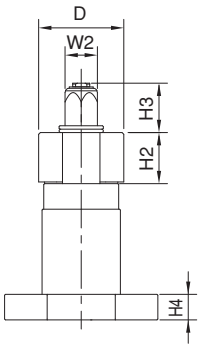
Body
- Hardened
- Black coating

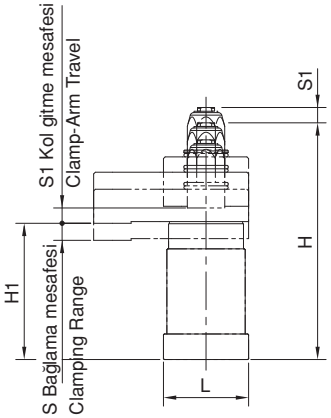
Clamping Arm
- Hardened
- Black coating

Özellikler
- Hızlı bağlama için üründe sıkma anahtarına tepkili mekanizma vardır.
- Kısa bir harekette bağlama işlemi yapar.

Features
- The clamp arm swings in swift response to the turning speed of an impact wrench, for quick clamping.
- A short clamp-arm travel allows quick clamping.



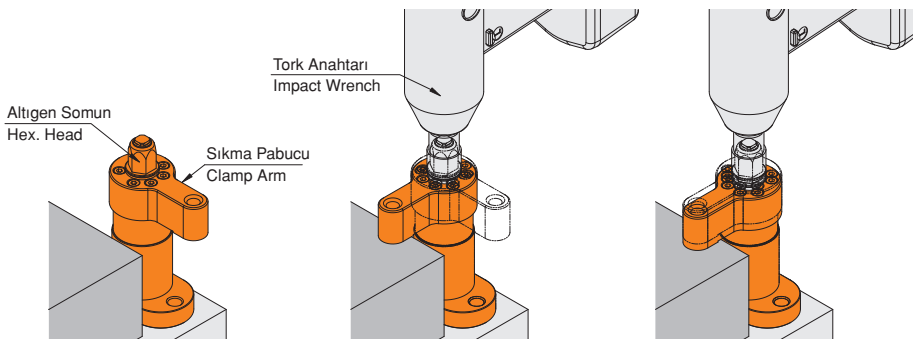


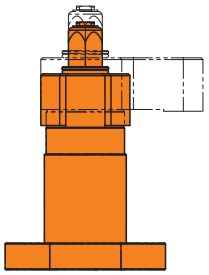


Not
- Bağlama işlemini kesinlikle tork anahtarı ile teknik tabloda verilen tork değerine uygun sıkma işlemi yapınız.

Note
- Do not use applying higher torque than allowable for a long period of time, to avoid damage. Using a torque-settable impact wrench is recommended.

Kullanım Şekli / How To Use





Robot heraketleri için sipral dönmeli bağlama

For robotized production lines, use Spiral-Acting Swing Clamps.

Referans Nr.	Sıkma Yüksekliği Clamping Height				Sıkma Torku Clamping Stroke	İnme Torku Advance Stroke	L2	L3	L1	L4	W	L	H5	B
	Finiş Yüzey Temas Finished Surface Contact		Kaba Yüzey Temas Rough Surface Contact											
	Min.	Max.	Min.	Max.										
1481-0100R	22.8 (22.3 - 23.3)	24.8 (24.3 - 25.3)	22.4 (21.9 - 22.9)	24.4 (23.9 - 24.9)	1.0	0.8	22	6	26	11.5	36	18	6	4.3
1481-0100L														
1481-0150R	31.3 (30.6-32)	33.3 (32.6-34)	32.2 (31.5-32.9)	34.2 (33.5-34.9)	1.4	1.1	30	8	35	15.3	45	23	8	5.3
1481-0150L														
1481-0200R	32.5 (31.7-33.2)	39 (38.2-39.7)	33.5 (32.7-34.2)	40 (39.2-40.7)	1.5	1.4	37	8	45	20.7	65	30	12	8.4
1481-0200L														
1481-0300R	36.5 (33.5-37.4)	46 (45-46.9)	39 (38-39.9)	48.5 (47.5-49.4)	1.9	1.7	45	8	55	25.4	85	40	15	10.5
1481-0300L														

Referans Nr.	Dp	H	D	W1	W2	H3	H2	M	H4	R	A	H1	İzin Verilen Çalışma Yükü Allowable Operating Load (N)	Sıkma Kuvveti Clamping Force Kgf	(g)
1481-0100R	27	49	18	8	4.3	10	30	M4	22.8	50	15	45.8	100	110	112
1481-0100L															
1481-0150R	34	66	23	10	5.3	14	40	M5	28.5	63	20	61.3	150	180	250
1481-0150L															
1481-0200R	48	82	30	16	8.4	18	50	M8	45.5	80	26	76.5	200	220	570
1481-0200L															
1481-0300R	64	100	40	20	10.4	22	60	M10	57	100	33	93	300	350	1200
1481-0300L															

Ürün Nr. 1481 Tek Dokunuş Dönmeli Üstten Bağlama

Gövde
- Sertleştirilmiş
- Siyah Kaplama

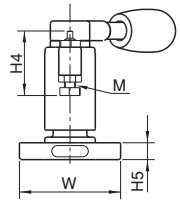
Sıkma Mili
- Siyah Kaplama

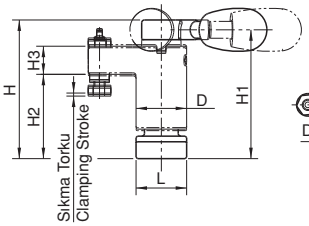
Product Nr. 1481 Swing Clamps

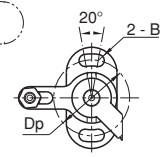
Body
- Hardened
- Black coating

Clamping Spindle
- Black coating

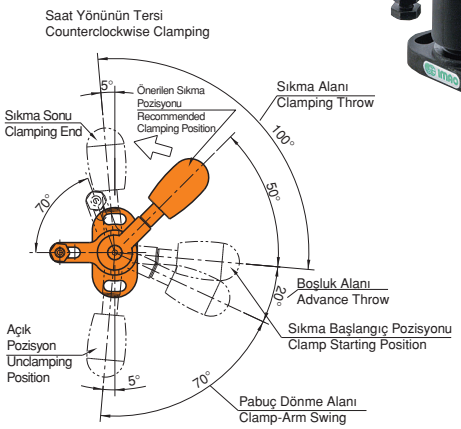




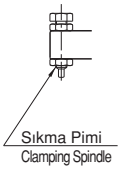




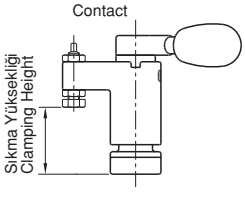
Montaj Delikleri
Mounting Holes

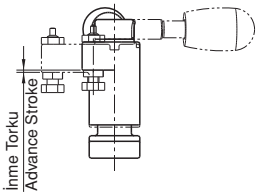


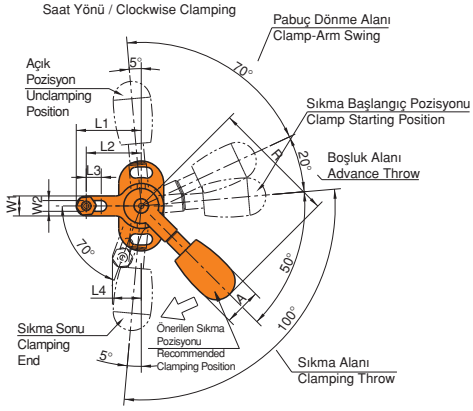
Kaba Yüzey Temas
Rough Surface Contact



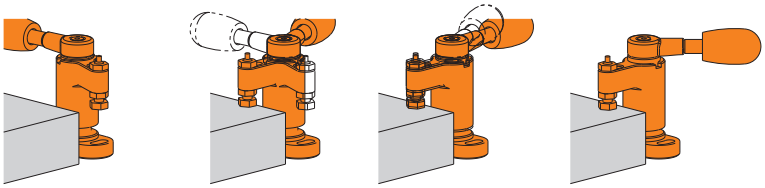
Finiş Yüzey Temas
Finished Surface Contact







Kullanım Şekli / How To Use



① ② ③ ④

Referans Nr.	Sıkma Yüksekliği Clamping Height				Sıkma Torku Clamping Stroke	İnme Torku Advance Stroke	L2	L3	L1	L4	W	L	H5	B
	Finiş Yüzey Temas Finished Surface Contact		Kaba Yüzey Temas Rough Surface Contact											
	Min.	Max.	Min.	Max.										
1482-0150R	31.3 (30.8-31.8)	33.3 (32.8-33.8)	32.2 (31.7-32.7)	34.2 (33.7-34.7)	1	1.5	30	8	35	15.3	45	23	8	5.3
1482-0150L														
1482-0200R	32.5 (31.9-33.1)	39 (38.4-39.6)	33.5 (32.9-34.1)	40 (39.4-40.6)	1.2	1.8	37	8	45	20.7	65	30	12	8.4
1482-0200L														
1482-0300R	36.5 (35.7-37.2)	46 (45.2-46.7)	39 (38.2-39.7)	48.5 (47.7-39.2)	1.5	2.3	45	8	55	25.4	85	40	15	10.5
1482-0300L														

Referans Nr.	Dp	H	D	W1	W2	H3	H2	M	H4	R	A	H1	İzin Verilen Çalışma Yükü Allowable Operating Load (N)	Sıkma Kuvveti Clamping Force Kgf	(g)
1482-0150R	34	131	23	10	5.3	14	40	M5	28.5	63	19	68	150	150	272
1482-0150L															
1482-0200R	48	167	30	16	8.4	18	50	M8	45.5	80	24	87	200	210	625
1482-0200L															
1482-0300R	64	207	40	20	10.4	22	60	M10	57	100	30	107	300	280	1340
1482-0300L															

Ürün Nr. 1482 Tek Dokunuş Dönmeli Üstten Bağlama

Gövde
- Sertleştirilmiş
- Siyah Kaplama

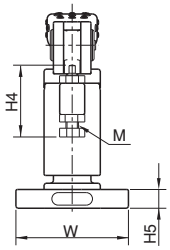
Sıkma Mili
- Siyah Kaplama

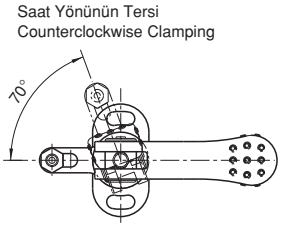
Product Nr. 1482 Swing Clamps With Cam Handle

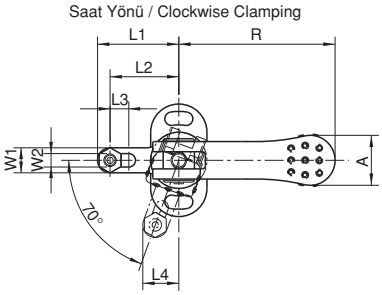
Body
- Hardened
- Black coating

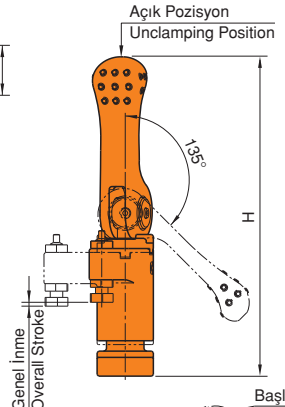
Clamping Spindle
- Black coating

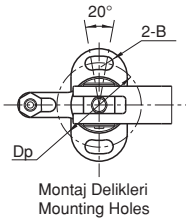


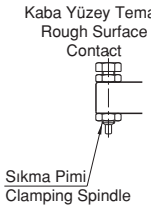


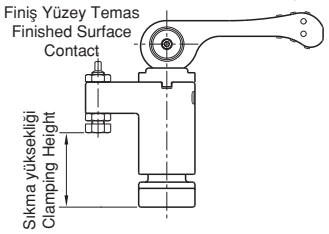




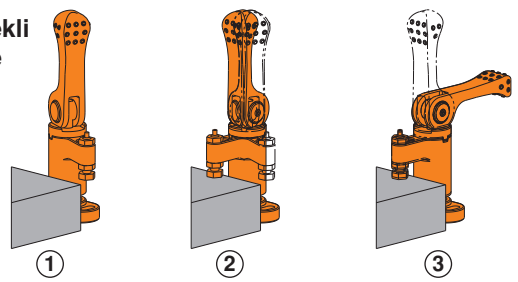


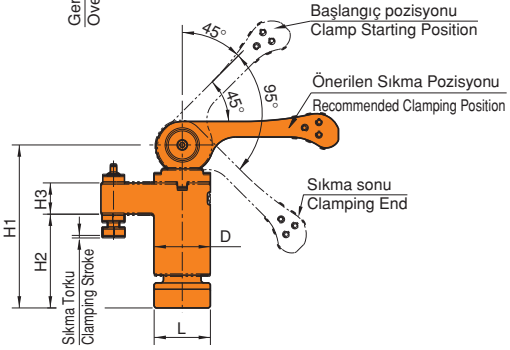






Kullanım Şekli
How To Use





Referans Nr.	Sıkma Yüksekliği Clamping Height				Sıkma Torku Clamping Stroke	L2	L5	W	L	H4	d	P	H	L1	L3	W1
	Finiş Yüzey Temas Finished Surface Contact		Kaba Yüzey Temas Rough Surface Contact													
	Min.	Max.	Min.	Max.												
1483-03240	32 (32-29.5)	40 (40-37.5)	35 (35-32.5)	43 (43-40.5)	2.5	20	11	42	18	8	5.5	32	81	25.5	25	26
1483-03748	37 (37-33.5)	48 (48-44.5)	42 (42-38.5)	53 (53-49.5)	3.5	25	14	52	22	10	6.6	40	100	32	31	32

Referans Nr.	W2	H2	H1	M	H3	R	H5	L4	Ayarlanabilir Kol Adjustable Handles	İzin Verilen Yük (N) Allowable Operating Load (N)	Sıkma Kuvveti Clamping Force Kgf	Sıkma Mekanızması Clamping Mechanism	(g)
1483-03240	22	10	45	M6	24	40	47	16	FKF8-BR	170	240	Vida Screw	242
1483-03748	28	12	55	M8	30.5	65	63	20	FKF8-BR	210	420	Vida Screw	490

Ürün Nr. 1483 Tek Dokunuş Üstten Bağlama

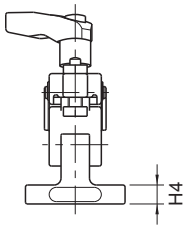
Gövde
- Sertleştirilmiş
- Siyah Kaplama

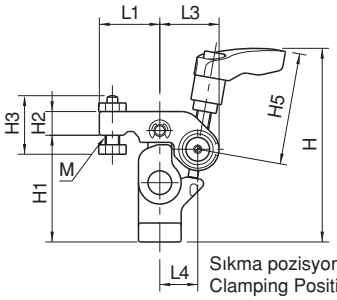
Sıkma Mili
- Siyah Kaplama

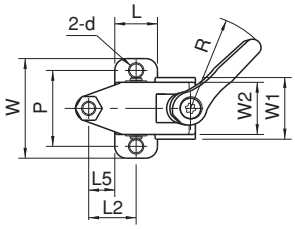
Product Nr. 1483 One-Touch Above Clamping

Body
- Hardened
- Black coating

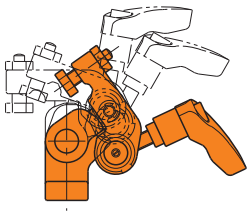
Clamping Spindle
- Black coating



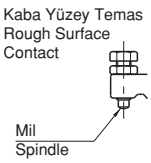


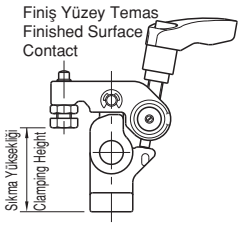


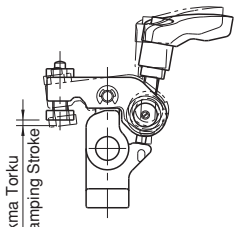




Açık Pozisyon
Unclamped

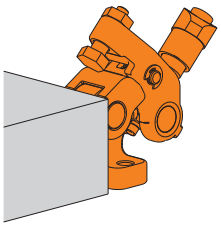






Ayarlanabilir Mesafe
Clamping Throw

Kullanım Şekli / How To Use



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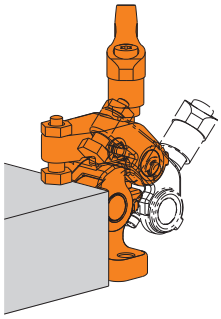
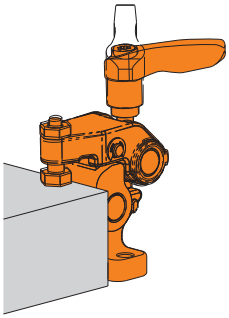


②



③

Referans Nr.	A	B	C	D	E	F	G (g6)	H	J (h6)	K	L	M	N	P (±0.02)	Q	R
1484-06501	65	57	10	47	39	70	28	12	6	5	19	M6	42	26	32	25
1484-09001	90	72	15	57	46	95	42	14	8	7	23	M8	60	36	38	28

Referans Nr.	T	U	V	W	Z	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N - m)	(kg)
1484-06501	15	18	4	M4	M8	400	60	1.1
1484-09001	17	22	6	M5	M10	600	100	2.6

Ürün Nr. 1484 Dış Çap Bağlama

Teknik Özellikler
- Parça tekrarlama hassasiyeti: ±0.03
- Yumuşak ayak tekrarlama hassasiyeti : ±0.02

Not
- İş parçası olmadan kilit civatasını sıkmayın.
- Çeneye izin verildiğinden daha derin işlemeyin.

İçindekiler
- 1 adet kilitleme pulu
- 1 adet elmas pim
- 1 imbus civata

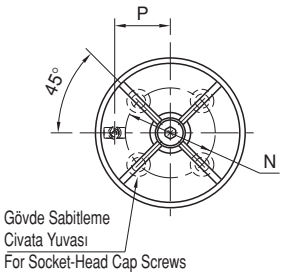
Product Nr. 1484 Outer Diameter Clamp

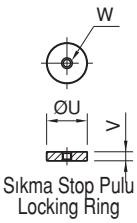
Technical Data
- Part locating repeatability: ±0.03
- Jaw locating repeatability: ±0.02

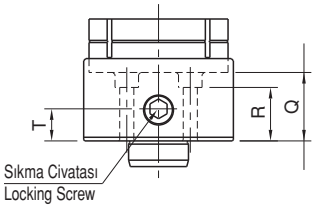
Notes
- Never tighten the locking screw without a part mounted, to avoid damage and deformation
- Do not machine the jaw deeper than allowed.

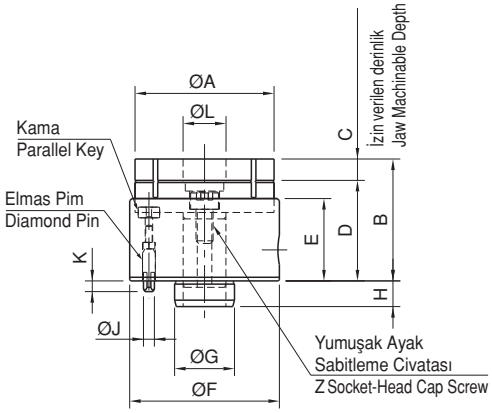
Included
- 1 of locking ring
- 1 of diamond pin
- 1 of socket-head cap screw











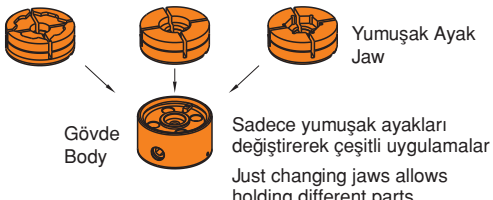
Yumuşak Ayak
Jaws

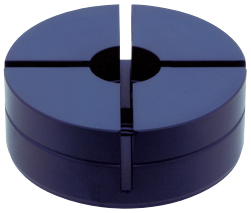
Referans Nr.	A	B	C	D	E	F	G	H	J	K	(g)
1485-06501	65	25	10	15	19	28	18	4	M4	M10	170
1485-09001	90	34	15	19	23	39	22	6	M5	M12	470

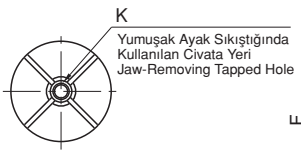
Ürün Nr. 1485 Yumuşak Ayak
- Malzeme: A7075

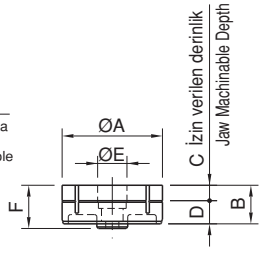
Product Nr. 1485 Jaws
- Material: A7075

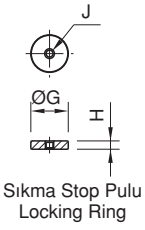
Özellik / Feature

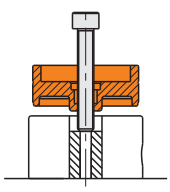












Çene Çıkarma Şekli / How To Remove Jaw

Eğer yumuşak ayak el ile çıkartılamıyorsa civata kullanınız.

When it is hard to remove the jaw by hand, screw a bolt into the jaw-removing tapped hole to push it against the body, for easier removal.

Referans Nr.	d	h (±0.01)	d1 (g6)	h1	M	h2	dp	p (±0.02)	w	h3	M1	İzin Verilen Vida Torku Allowable Screw Torque (N•m)	(kg)
1486-CP125.06501	65	25	28	12	M6	27	42	22	8	12	M8x1.25	15	0.8
1486-CP125.09001	90	30	42	14	M8	30	60	30	8	14	M10x1.5	25	1.7
1486-CP125.12001	120	35	55	18	M10	33	80	43	10	16	M10x1.5	40	3.5
1486-CP125.16001	160	40	63	24	M12	36	110	60	10	18	M12x1.75	40	7.1

Uygun Çene / Proper Jaws					
Dış Form Tutamağı İçin / For External Form Holding			İç Form Tutamağı İçin / For Internal Form Holding		
Referans Nr.	Sıkma Kuvveti Clamping Force (kN)	Sıkma Torku Clamping Torque	Referans Nr.	Sıkma Kuvveti Clamping Force (kN)	Sıkma Torku Clamping Torque
1486-CP126.06501	4.5	Ø 0.3	1486-CP127.06501	4.5	Ø 0.3
1486-CP126.09001	7		1486-CP127.09001	7	
1486-CP126.12001	10		1486-CP127.12001	10	
1486-CP126.16001	12		1486-CP127.16001	10	

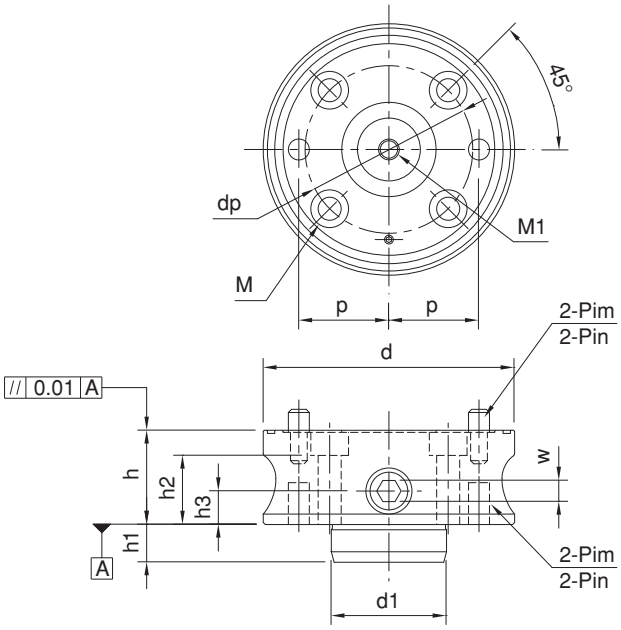


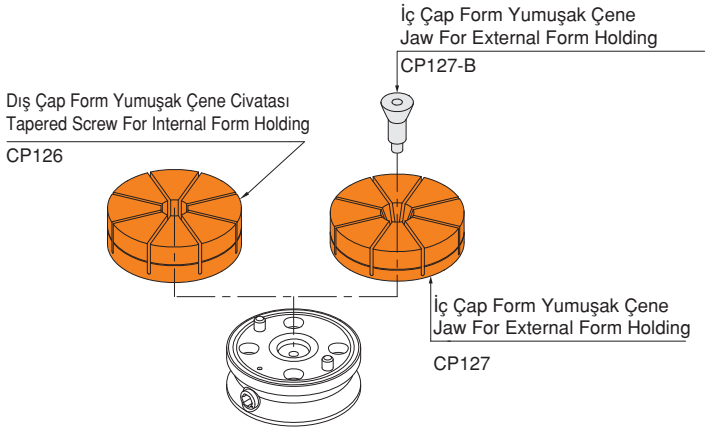
Ürün Nr. 1486 İç ve Dış Çap Bağlama
- Nikel Kaplama
- Parça Tekrarlanabilirlik ±0.03
- Yumuşak Ayak Tekrarlanabilirlik ±0.03

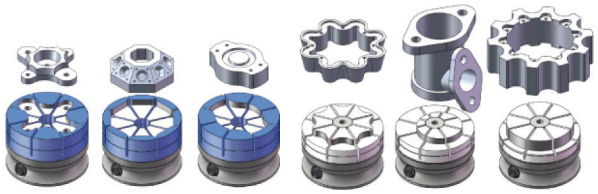
Product Nr. 1486 Inner and Outer Diameter Clamp
- Nickel Coating
- Part locating repeatability: ±0.03
- Jaw locating repeatability: ±0.03

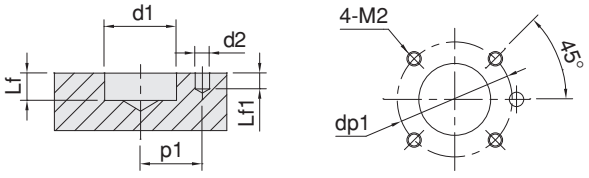
Not: Yumuşak Ayak Ayrı Sipariş Verilir.

Note: Jaws must be ordered separately.

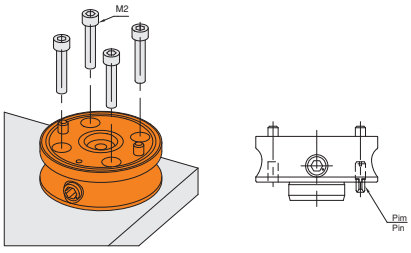








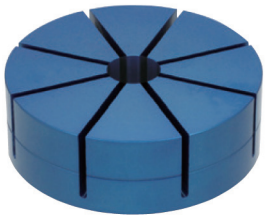
Referans Nr.	d1 (H7)	Lf	d2 (G7)	Lf1	p1 (±0.02)	M2	dp1
1486-CP125.06501	28	13	6	6	22	M 6x1	42
1486-CP125.09001	42	15	8	8	30	M 8x1.25	60
1486-CP125.12001	55	19	10	11	43	M10x1.5	80
1486-CP125.16001	63	25	12	13	60	M12x1.75	110



Pim Ölçüleri / Pin Dimensions

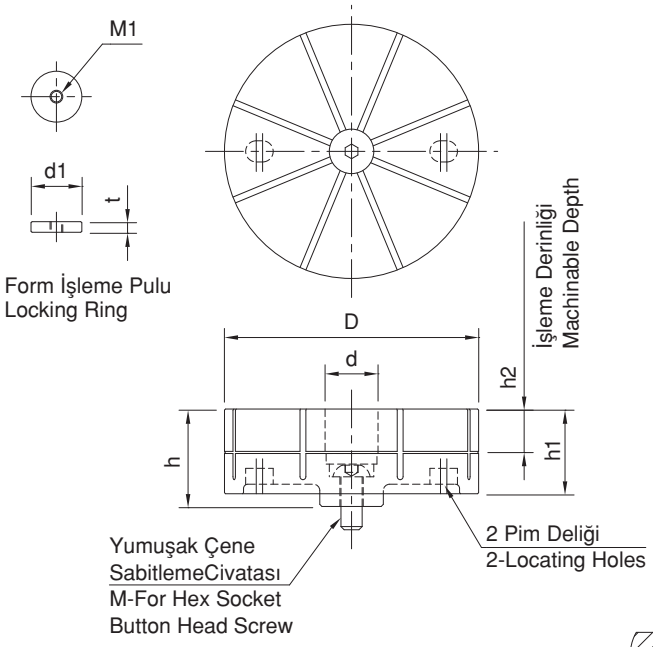
Referans Nr.	Çap Diameter
1486-CP125.06501	Ø 6h6
1486-CP125.09001	Ø 8h6
1486-CP125.12001	Ø 10h6
1486-CP125.16001	Ø 12h6

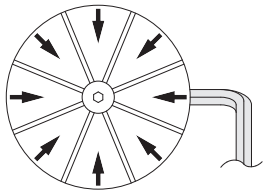
Referans Nr.	D	d	h1	h2	M	h	M	d1	t	(g)
1486-CP126.06501	65	21	25	10	M8x20	29	M5	20	4	200
1486-CP126.09001	90	25	35	15	M10x20	40	M6	24	5	500
1486-CP126.12001	120	25	40	20	M10x25	46	M6	24	5	1100
1486-CP126.16001	160	29	45	25	M12x25	52	M8	28	6	2200

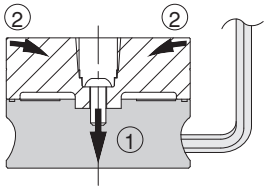


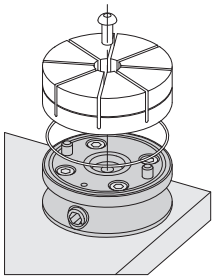
Ürün Nr. 1486 Dış Çap Form Yumuşak Çene
- Malzeme: Alüminyum A7075
- Mavi kaplama
- Sıkma Torku 0.15mm

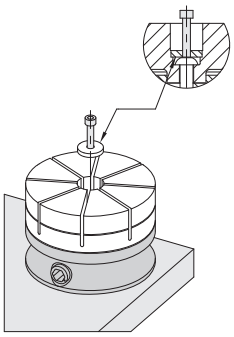
Product Nr. 1486 Outer Diameter Soft Jaw
- Material: Aluminum A7075
- Blue coating
- Clamping Torque 0.15mm

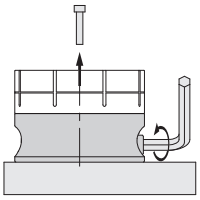


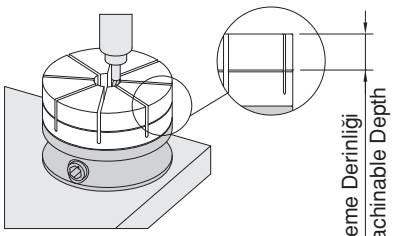


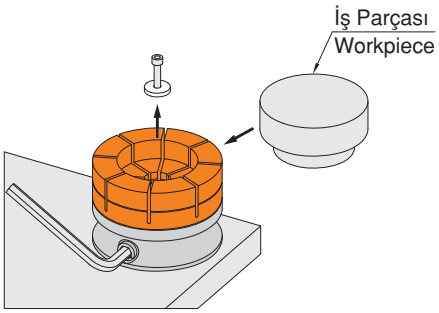




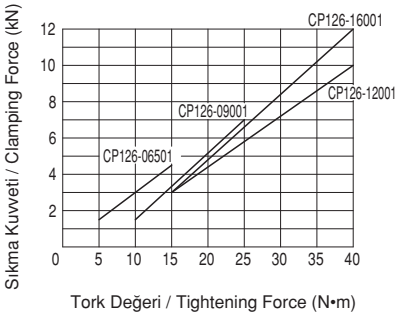










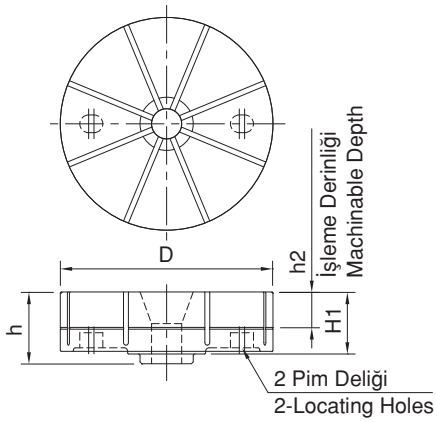


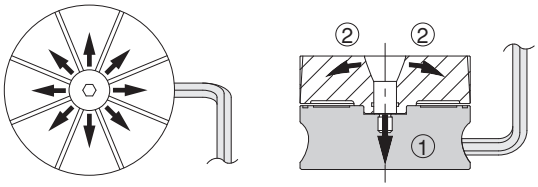
Referans Nr.	D	h1	h2	h	(g)
1486-CP127.06501	65	25	10	28.5	200
1486-CP127.09001	90	30	15	34.5	400
1486-CP127.12001	120	35	20	40.5	900
1486-CP127.16001	160	40	25	46.5	1900

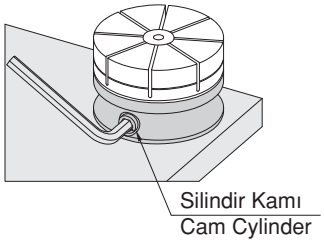


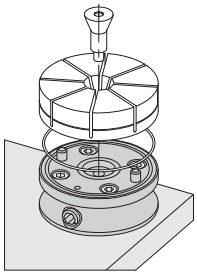
Ürün Nr. 1486 İç Çap Form Yumuşak Çene
- Malzeme: Alüminyum A7075
- Gümüş kaplama
- Sıkma Torku 0.15mm

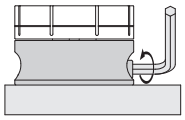
Product Nr. 1486 Inner Diameter Soft Jaw
- Material: Aluminum A7075
- Silver coating
- Clamping Torque 0.15mm

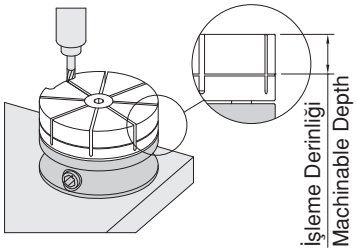


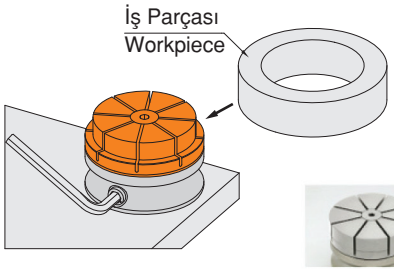


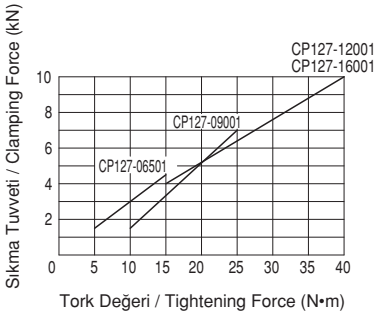














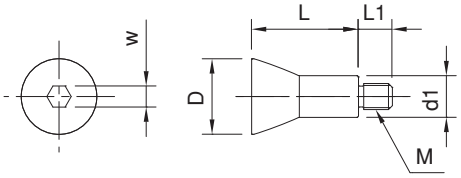
İç Çap Form Yumuşak Çene Civatası
Inner Diameter Soft Jaw Bolt

Referans Nr.	D	L	M	L1	d1	w	(g)
1486-CP127.06501B	22.5	29	M8	10	13.2	6	50
1486-CP127.09001B	27	35	M10	11	16	8	80
1486-CP127.12001B	29	41	M10	13	16	8	100
1486-CP127.16001B	33	47	M12	14	18	10	150



Ürün Nr. 1486 İç Çap Form Yumuşak Çene Civatası
- Gümüş kaplama

Product Nr. 1486 Inner Diameter Soft Jaw Bolt
- Silver coating



Referans Nr.	Uyumlu İşparçası Çapı Adaptable Workpiece Dia*	D1	H1	H	H2	D 0 (-0.05)	D2	M	L	Dp	D3	H3	d
1486-MBOD1	Ø2.5 - Ø15.9	19.1	22.9	35.6	4.6	23.9	38.1	M3x0.5-16L	6.8	29	50.8	25.4	20.1
1486-MBOD2	Ø5.1 - Ø45.7	49.5	32.4	48.3	5.1	55.9	76.2	M5x0.8-22L	11.1	63.8	88.9	36.2	50.5

* Önerilen Çene SIkıştırmasına dikkat ederek çeneyi işparçasının çapına göre işleyin.
* Machine the jaw to the workpiece diameter with attention to the Recommended Jaw Compression.

Referans Nr.	Sıkma Kuvveti Clamping Force (kN)	Kabul Edilebilir Sıkma Torku Allowable Tightening Torque (N.m)	Önerilen Çene Sıkıştırması Recommended Jaw Compression	Kabul Edilebilir Çene Sıkıştırması Allowable Jaw Compression	(g)
1486-MBOD1	17.3	81.5	0.07	0.38	200
1486-MBOD2	17.8	135.5	0.1	0.64	960

Referans Nr.	(g)	Proper MBOD Clamps
1486-MBOD1-01	130	MBOD-1
1486-MBOD2-01	740	MBOD-2





Çene / Jaw
MBOD-01



Başlık / Cap

Ürün Nr. 1486
Merkezleme Pabucu

Çene
- S17C Çelik
- Florlu Plastik Kaplama

Başlık
- A6061 alüminyum
- Sert anodize edilmiş

Product Nr. 1486
Concentric OD Clamps

Jaw
- S17C Steel
- Fluoroplastic coated

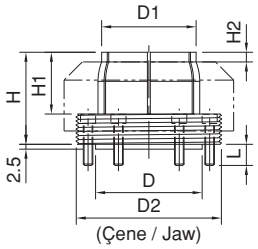
Cap
- A6061 aluminum
- Hard anodized

Kilit Nokta

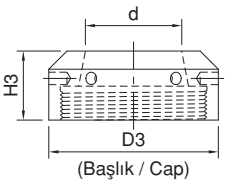
Kompakt tasarım ve yüksek bağlama kuvveti 02.5mm küçüklüğünde ve uzun işparçalarına uyumludur

Key Point

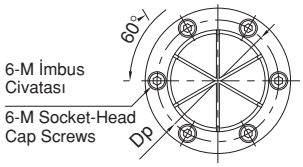
Compact design with high clamping force Applicable to small workpieces of 02.5mm and long workpieces

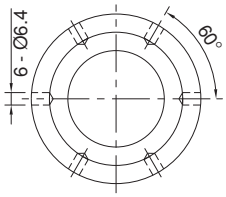


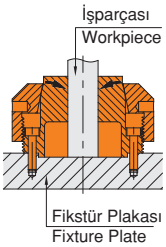
(Çene / Jaw)



(Başlık / Cap)







Özellikler

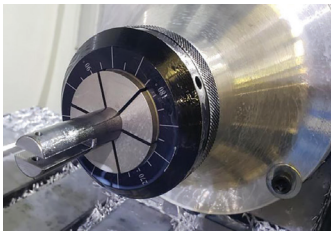
- Yüksük şeklindeki çeneler yüksek bir bağlama kuvveti açığa çıkarır.
- İşlenebilir çene işparçalarına geniş bir bağlanma alanıyla işlenerek her tür şekildeki işparçasına bağlanabilir ve uzun işparçalarını tutabilir.

Features

- Collet-shaped jaws generate high clamping force.
- The machinable jaw can clamp any shape of workpieces and hold long workpieces with a wide clamping area by machining completely through.

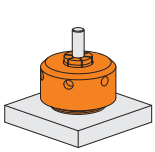
Not
- Deformasyon ve hasarı önlemek için iş parçasını takmadan önce başlığı sıkmayın.

Note
- Do not tighten the cap without the workpiece to prevent damage and deformation.

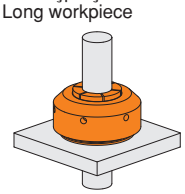


Kullanım Örneği / Application Example

Ufak yuvarlak işparçası
Small round workpiece



Uzun işparçası
Long workpiece



Teknik Bilgi / Technical Information

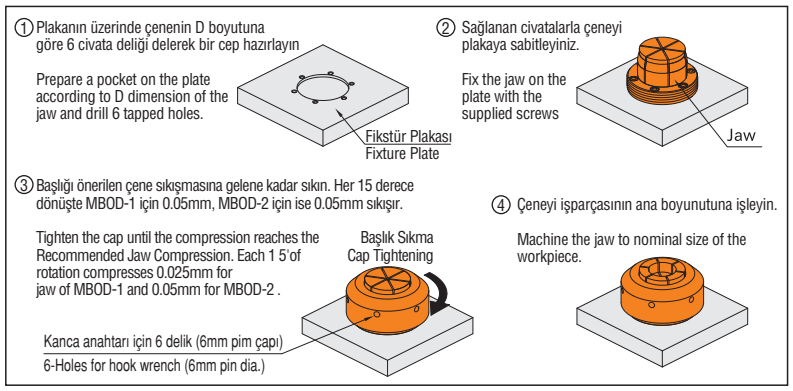
Başlığın üzerindeki göstergeler tork anahtarı kullanmadan tork kontrolü yapabilmeniz için rotasyon açısını gösterir.

Indicators on the cap are guides to read the rotation degree for torque control without a torque wrench.

Sıkma Torku Tightening Torque Torque (N.m)	MBOD-1		MBOD-2	
	Dönüş Derecesi ** Rotation Degree	Bağlanma Kuvveti Clamping Force(kN)	Dönüş Derecesi ** Rotation Degree	Bağlanma Kuvveti Clamping Force(kN)
13.5	43°	2.9	20°	1.8
27	66°	5.8	31°	3.6
40.5	88°	8.7	37°	5.3
54	111°	11.6	44°	7.1
68	133°	14.5	49°	8.9
81.5	165°	17.3	53°	10.7
95	-	-	56°	12.5
108.5	-	-	60°	14.2
122	-	-	65°	16
135.5	-	-	67°	17.8

**) 0 derece pabucun işparçasıyla ilk temas ettiği yerdir.
**) 0° is when the clamp first contacts the workpiece.

Kullanım Şekli / How To Use



Fix the jaw on the plate with the supplied screws.

Referans Nr.	D		H	H1	R	H2		L1	Uygun Civatalar Proper Cap Screws	Sıkma Kuvveti Calmping Force Kgf	(g)
	min.	max.				min.	max.				
1487-04001	19.5	24	9	2.5	R9.5	8	2.6	9.4	M4	200	20
1487-06001	23.5	29	13	4	R11.5	11.5	5	13	M6	500	45
1487-08001	28.5	36	17	5.5	R14	15	6	19	M8	900	90

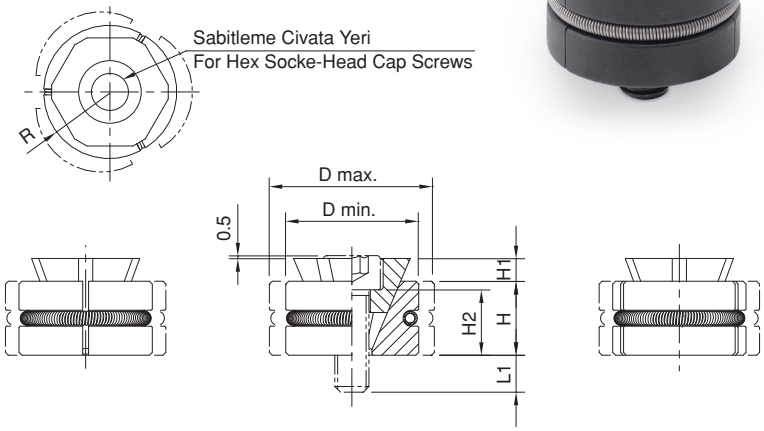
Ürün Nr. 1487 Delik İçi Bağlama
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1487 I.D. Holding Clamps
- Hardened
- Black coating

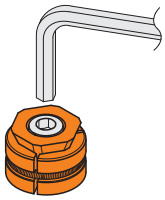


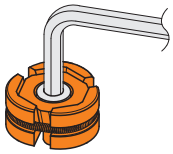
Özellik
- Bu pabuçlar iş parçasını iç çaptan sıkma işlemi yapar.
- Kamanın konik yapısından dolayı güçlü bir bağlama yapar.
- Uzun strok özelliği ile dökülmüş deliklerde ve kaba deliklerde kullanım olanağı sağlar.

Feature
- These clamps hold the inside diameter of the workpiece.
- The wedge construction allows powerfully clamping the workpiece.
- Long clamping stroke is ideal for holding as-cast or roughly-finished holes.



Kullanım Şekli / How To Use







Açık Konum
Unclamping Mode



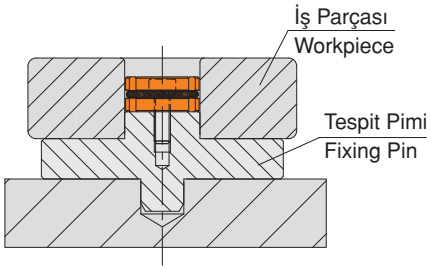
Kapalı Konum
Clamping Mode

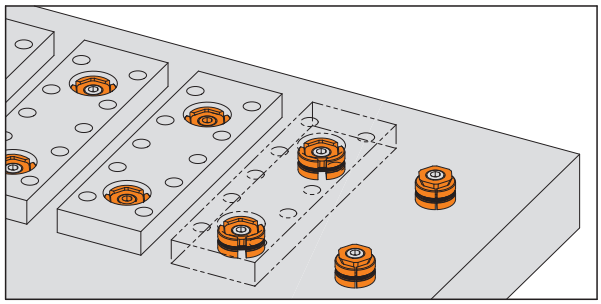
İş parçasını sıkma anında çizgi halinde temas eder. Finiş delikler için tavsiye edilmez. Delik içinde deforme olabilir.

The clamp makes a line contact with the workpiece at the clamping mode. This contact can mar the surface of the workpiece depending on its materials, and using these clamps for accurately finished holes is not recommended.

Not
- Doğru bir merkezleme işlemi aşağıdaki görsel gibidir.

Notes
- For accurate locating, use these clamps with a locator as shown below.





2'li bağlama uygulama örneğidir.
Example of application where two I.D. Holding Clamps are used.

Referans Nr.	d		h		h1	M	L1	W	Sıkma Kuvveti Clamping Force kgf	Tork Değeri Allowable Screw Torque (N - m)	(g)
	min.	max.	d min.	d max.							
1487-04001A	8	10.3	5.5	4.6	0.9	M4x12	7.3	2.5	900	2.1	3
1487-05001A	10	12.3	6.4	5.6	1.1	M5x15	9.1	3.	1500	4.3	5
1487-06001A	12	16.3	8.6	7	1.3	M6x18	11.2	4.	2100	7.3	9
1487-08001A	16	22	11.5	9.4	1.6	M8x25	16.2	5	4000	18	22
1487-04001B	8	10.3	5.5	4.6	5.1	M4x12	7.1	3	1500	2.7	4
1487-05001B	10	12.3	6.4	5.6	6.2	M5x15	9	4	2500	5.4	7
1487-06001B	12	16.3	8.6	7	7.9	M6x18	10.6	5	5000	9.1	11
1487-08001B	16	22	11.5	9.4	10.4	M8x25	15.4	6	9000	25	28



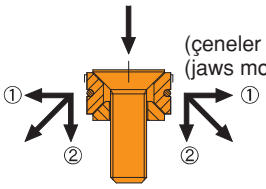
Ⓐ Ⓑ

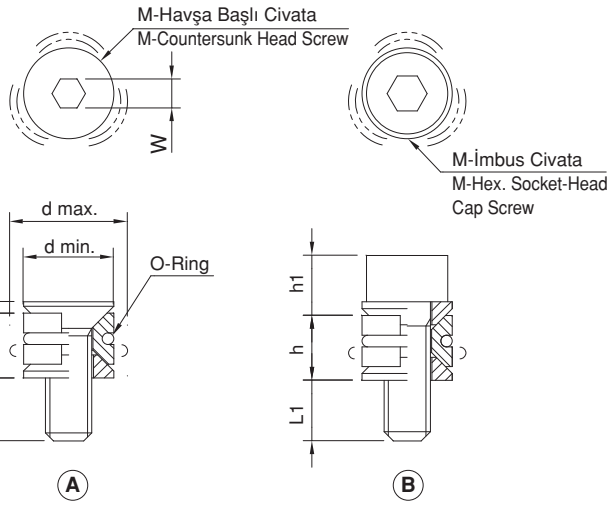
Ürün Nr. 1487 Delik İçi Bağlama
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 1487 I.D. Holding Clamps
- Hardened
- Black coating

Özellik
- Bu bağlamalar / clampler iş parçasının iç çapından tutar.
- İş parçasını Kama Konstrüksiyon güçlü sıkmasını sağlar.
- Uzun sıkma stroku döküm veya kabaca bitmiş delikleri tutmak için idealdir.

Features
- These clamps hold the inside diameter of the workpiece.
- The wedge costruction allows powerfully clamping in the workpiece.
- Long clamping stroke is ideal for holding as-cast or roughly-finished holes.





① İş parçasına karşı yatay basınç
Horizontal pressure against workpiece

② İş parçasının yükselmesini engelleyen dikey basınç.
Vertical pressure preventing workpiece lift

Kullanım Şekli / How To Use

Not
- Pabuç işparçasını sıkma modundayken bağlantı hattına temas eder. Kendi meteryallerine bağlı iş parçası yüzeyini işaretleyebilirsiniz ama bitmiş / finish delikler için bu pabuçların kullanılması tavsiye edilmez.

Notes
- The clamp makes a line contact with the workpiece at the clamping mode. This contact can mark the surface of the workpiece depending on its meterials and using these clamps for accurately finished holes is not recomended.

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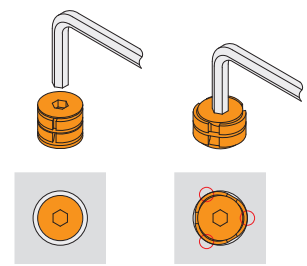

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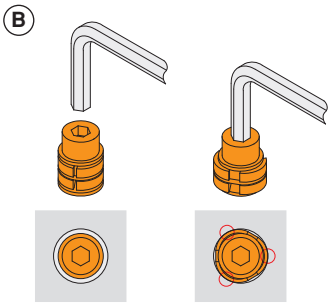
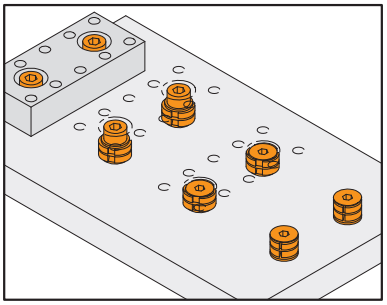


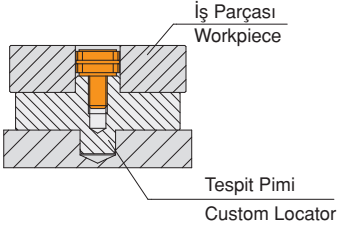


Delik içi bağlamaların kullanıldığı iki kompakt uygulamalardan örnek.

Example of applications where two compact ID holding clamps are used.

Not
- Aşağıda gösterildiği gibi doğru yer tespiti için, bir konum belirleyici ile bu pabuçları kullanın.

Notes
- For accurate locating, use these clamps with a locator as shown below.



Referans Nr.	Ayarlanabilinir iş parçası çapları Adaptable Workpiece Dia.	d1	d2	h2	h1	d ($^{0}_{-0.05}$)	h	M	L	w	M1	L1	dp	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N - m)	İzin Verilen Boşluk Recommended Range of Expansion of Dia	İzin Verilen Açılma Çapı Allowable Expansion of Dia	(g)
1488-00004	Ø7.1-Ø12.4	12.4	7.1	15	16	29.72	21.8	M4	7.2	3	M3	6	21	420	5	0.07	0.13	45
1488-00006	Ø12.2-Ø14.2	14.2	12.2	15	19	31.5	24.9	M6	11.2	5	M3	6	23.1	440	17	0.08	0.23	60
1488-00008	Ø13.5-Ø20	20	13.5	15	19	37.5	24.9	M8	13.2	6	M3	6	29	1100	34	0.08	0.30	95
1488-00010	Ø18-Ø27	27	18	17.5	22.2	50	28.6	M10	16.3	8	M4	7	39.4	2000	60	0.08	0.35	190
1488-00012	Ø23-Ø35.3	35.3	23	20.6	25.4	56	31.8	M12	20.3	10	M4	7	45.5	2600	150	0.08	0.35	300
1488-0016A	Ø29.3-Ø42	42	29.3	27	31.8	69.5	39.6	M16	21.4	14	M5	13	55.9	4400	280	0.08	0.35	570
1488-0016B	Ø29.3-Ø51.5	51.5	29.3	27	31.8	75.5	39.6	M16	21.4	14	M5	13	63.9	4400	280	0.08	0.35	750
1488-0016C	Ø29.3-Ø77.7	77.7	29.3	32.3	37.6	107.5	45.5	M16	19.3	14	M6	14	92.6	4400	280	0.15-0.4	0.60	1800
1488-0016D	Ø29.3-Ø103	103	29.3	32.3	37.6	132.9	45.5	M16	19.3	14	M6	14	118.1	4400	280	0.15-0.4	0.60	2900
1488-0016E	Ø29.3-Ø175	175	29.3	32.3	37.6	132.9	45.5	M16	19.3	14	M6	14	118.1	4400	280	0.15-0.4	0.80	6500
1488-0016F	Ø29.3-Ø250.2	250.2	29.3	32.3	37.6	152.4	45.5	M16	19.3	14	M6	14	133.4	2600	170	0.15-0.4	0.80	4800

Ürün Nr. 1488 Delik İçi Bağlama

Gövde
- Siyah Kaplama

Civata
- Sertleştirilmiş

Özellik
- Delik çapından tutma işlemi yapar
- Mükkemmel kullanımıyla birden fazla sıkma seçeneği sağlar
- Sağ tarafta görüldüğü gibi hidrolik çekme ile de kullanım olanağı sağlar.
- İş parçasına göre ayarlama olanağı sağlar

Not
- İşlenmiş olan parçaların köşeleri minimum 0.5 köşe olmalı. Radüs olabildiğince büyük olmalı
- İş parçasının deliği radüse denk gelirse burç kullanın
- İsteğe bağlı dış çap ölçü değişikliği yapabiliriz.

Product Nr. 1488 I.D. Holding Clamps

Body
- Black coating

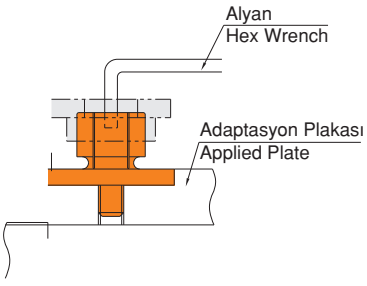
Tapered Screw
- Hardened

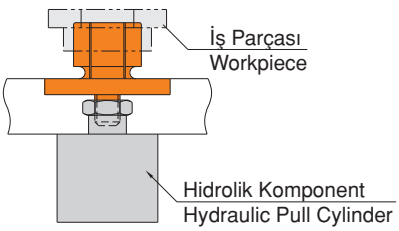
Features
- Can hold workpieces on an inside diameter.
- Perfect for multiple-parts holding arrangement.
- Using hydraulic pull cylinders to clamp instead of using hex wrenchs allows automation.
- Can be machinable to suit your workpieces.

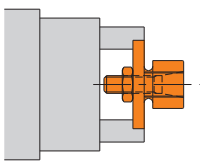
Notes
- The minimum radius of corners at the machined part should be 0.5mm for clamping small workpieces. To prevent stress concentration on these corners, make the radius as large as possible.
- If the radius will interfere with the bottom of the workpiece bore, we suggest a ring or rest-pads be fixed to the flange.

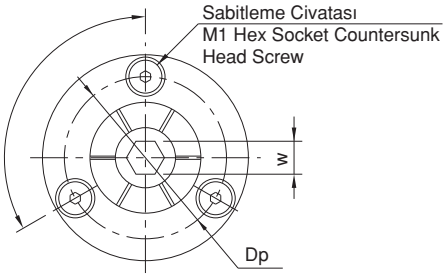


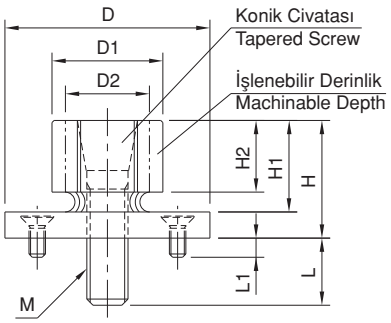












Referans Nr.	Uyumlu İşparçası Çapı Adaptable Workpiece Dia*	Bağlama Kuvveti Clamping Force (N)	Kabul Edilebilir Civata Torku Allowable Screw Torque(N•m)	Önerilen Çap Genişletme Aralığı Recommended Expansion Range of Dia **	Kabul Edilebilir Çap Genişlemesi Allowable Expansion of Dia.	(g)
1488-MBSIDM	φ17.8 ~ φ28.7	15,000	47	0.02 ~ 0.18	0.30	358
1488-MBSIDL	φ17.8 ~ φ53.3	15,000	47	0.02 ~ 0.18	0.30	720

* Pabucunuzu işparçanıza uyması için işlemeniz gerekir.
** Özel boyutlu işparçalarının çapını işlemek için önerilen sıkma torku 13.5 N.m dir.

* You need to machine the clamp to suit the diameter of your workpieces.
** The recommended tightening torque to machine the diameter for custom fit is 13.5N•m.



MBSID-M
(Değirmen Versiyonu)
(Mill Version)



MBSID-L
(Çark Versiyonu)
(Lathe Version)

Ürün Nr. 1488
Delik İçi Bağlama

Gövde
- SUM24L Çelik
- Siyah Oksit Kaplama

Silindir Kam
- SCM440 Çelik
- Siyah Oksit Kaplama
- HRC 39~45

Konik Kilit Pimi
- SCM440 Çelik
- Florlu Plastik Kaplama
- HRC 52

Yay
- SWP

Product Nr. 1488
Side Lock ID Holding Clamps

Body
- SUM24L Steel
- Black oxide finished

Cam cylinder
- SCM440 steel
- Black oxide finished
- HRC 39~45

Tapered Plunger
- SCM440 steel
- Fluoroplastic coated
- HRC 52

Spring
- SWP

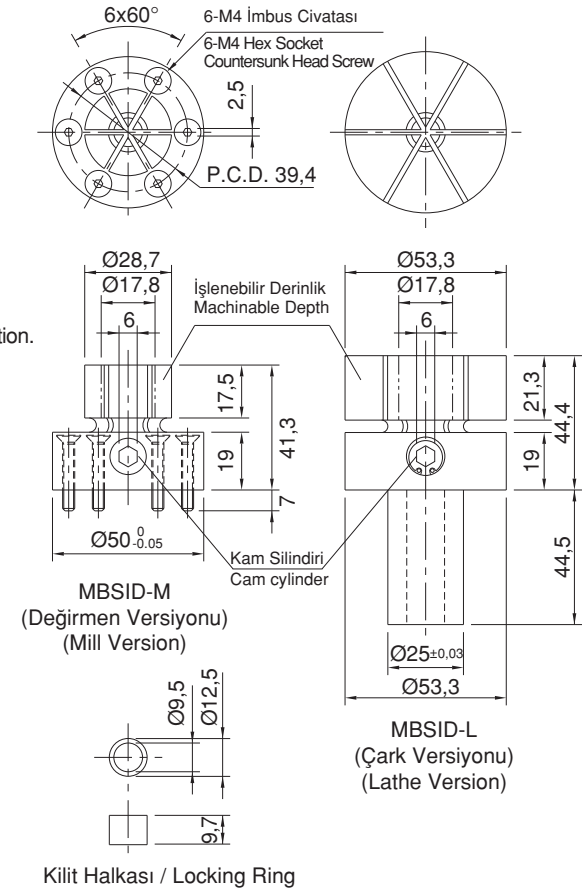
Not
- Hasar ve deformasyonu önlemek için iş parçası olmadan pabuç civatasını sıkmayın
- Küçük işparçalarını bağlamak için işlenmiş kısımdaki köşelerin minimum yarıçapı 0.5mm olmalıdır. Bu köşelerdeki stres konsantrasyonunu önlemek için koşelerin yarıçapını olabildiğince büyük yapın.
- Eğer yarıçap işparçasının alt çapıyla çakışıyorsa başlığı bir pabuç halkası vb. bir parçayla sabitlemenizi öneririz.

Note
- Do not tighten the clamp screw without the workpiece set to prevent damage and deformation.
- The minimum radius of corners at the machined part should be 0.5mm for clamping small workpieces. To prevent stress concentration on these corners, make the radius as large as possible.
- If the radius will interfere with the bottom of the workpiece bore, we suggest a ring or rest-pads be fixed to the flange.

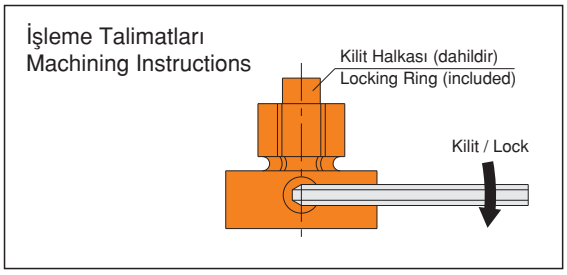
Özellikler
- Yandaki soket başlı kam silindirini çevirerek işparçalarını bir iç çapla tutabilirsiniz.
- Çok parçalı bir tutma düzeni için bire birdir.
- İşparçalarınıza uygun olması için işlenebilirler.

Features
- Can hold workpieces on an inside diameter by turning a socket head cam cylinder on the side.
- Perfect for multiple-parts holding arrangement.
- Can be machinable to suit your workpieces.

Cilalanmış Parçalar / Furnished Parts
- 1 Kilit Halkası / 1 of locking ring

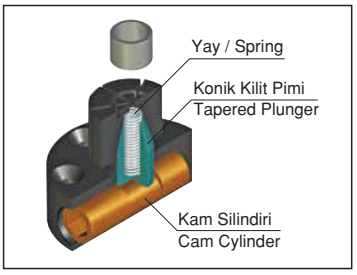


Kullanım Şekli / How To Use



Kilit halkasını üst taraftaki kanala yerleştirip pabucu çap boyutuna göre işleyin.

Insert the locking ring to the groove of the upper surface and clamp it, and then machine the clamp to your bore size.



Kam Silindirini her iki tarafa döndürmek de pabucu genişletir. (Saat yönü ve Saat yönünün tersi)

Rotating the cam cylinder both clockwise and counterclockwise expands the clamp.

Tek Dokunuş Bağlama

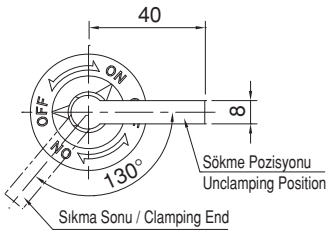
Single Touch Clamp

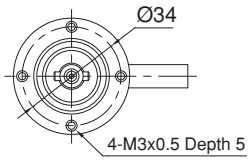
Referans Nr.	Sıkme Kuvveti Clamping Force (N)	Kaldırma Kuvveti Lifting Force (N)	(g)
1489-0840R.06	600	100	220
1489-0840R.06N	700	-	215

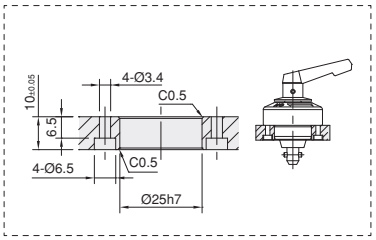


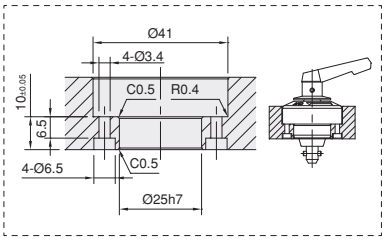
Ürün Nr. 1489 Tek Dokunuş Bağlama
• Siyah Kaplama

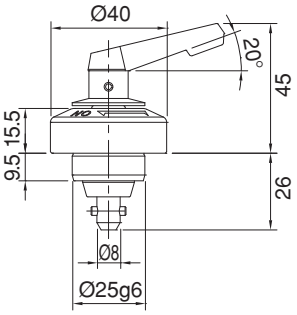
Product Nr. 1489 Single Touch Clamp
• Black coating

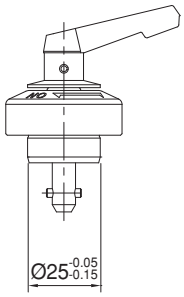






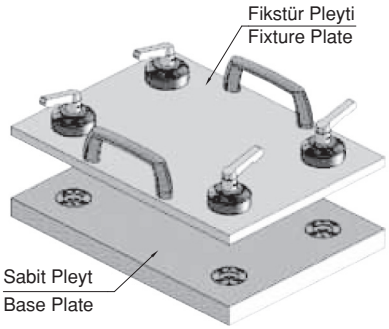


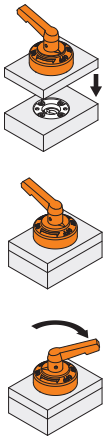




0840R.06

0840R.06N





Tek Dokunuş Bağlama Burcu

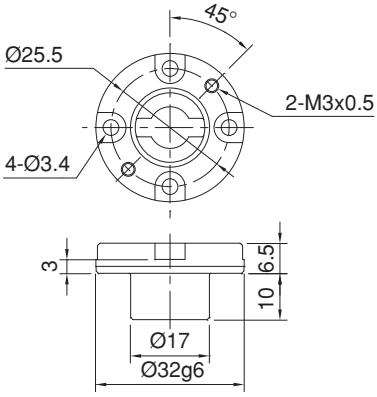
Single Touch Clamping Bush

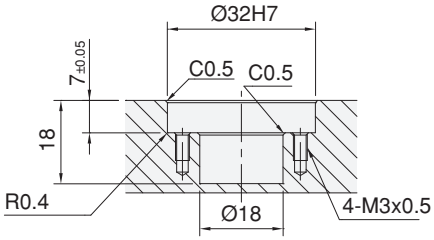
Referans Nr.	(g)
1489-0840R	32

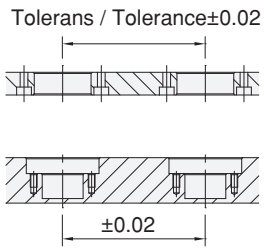


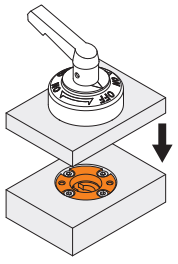
Ürün Nr. 1489 Tek Dokunuş Bağlama Burcu
• Siyah Kaplama

Product Nr. 1489 Single Touch Clamping Bush
• Black coating









Konumlama Burcu (Kapalı)

Positioning Bush (Blind)

Referans Nr.	D (g6)	H	D1	H1	M	H2	M1	Dp	Kaldırma Kuvveti Lifting Force (N)	(g)
1489-16032K	32	6.5	20	7	M3	3	M3x0.5	25.5	110	60
1489-25050K	50	10	32	9	M4	5	M4x0.7	42	180	160
1489-38070K	70	15	48	14	M5	9	M5x0.8	60	400	508
1489-56095K	95	22	70	21	M6	15	M6x1.0	84	690	1451

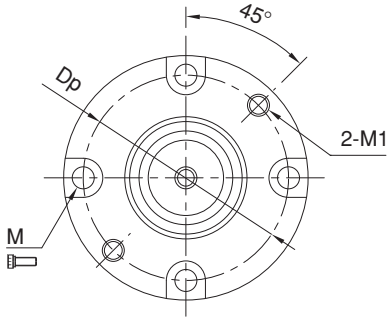


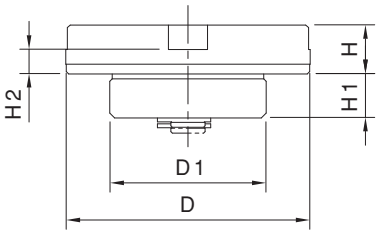
Ürün Nr. 1489 Konumlama Burcu (Kapalı)

- Kaldırma kuvveti hareketli konik burcu yukarı itmek için yay kuvvetini kullanır.(N)
- Vidalar doğru sırayla sıkılmadığında tekrarlanabilirlik 0.01 aşabilir.
- Toplam yük, maksimum yük kapasitesini aşıyorsa, tekrarlanabilirlik 0.01 aşabilir.

Product Nr. 1489 Positioning Bush (Blind)

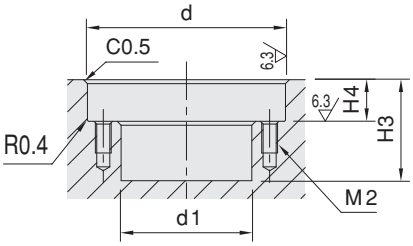
- The lifting force is the power of the inner spring of the body to push up the movable tapered bushing.(N)
- If the screws are not tightened in the correct order, the locating repeatability may exceed 0.01
- If the total load exceeds the maximum loading capacity, the locating repeatability may exceed 0.01

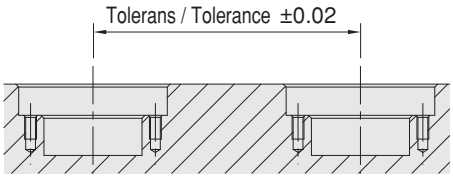


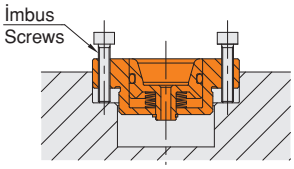


Montaj Detayı / Mounting Details

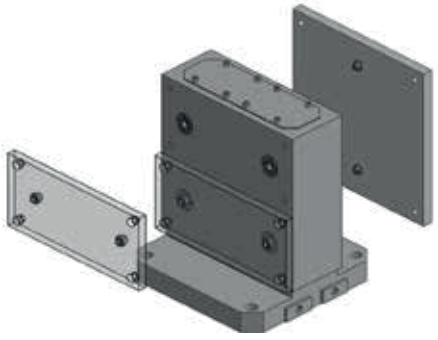
Referans Nr.	d (H7)	H4 (±0.05)	d1	H3	M
1489-16032	32	7	21	18	M3x0.5
1489-25050	50	10.5	33	24	M4x0.7
1489-38070	70	15.5	49	35	M5x0.8
1489-56095	95	22.5	71	51	M6x1.0

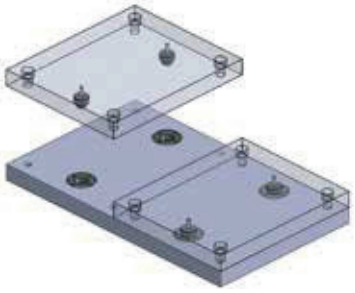


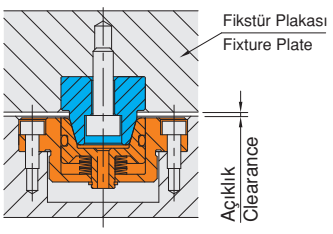




Uygulama Örneği / Application Example







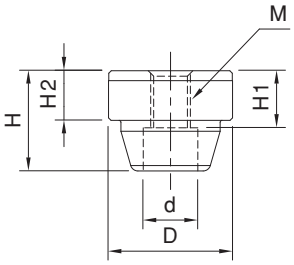
Konumlama Pimi

Positioning Pin

Referans Nr.	D (g6)	H2	H	M	H1	d	(g)
1489-16032	16	5.5	11.5	M5x0.80	6	8	18
1489-25050	25	10	20	M8x1.25	11.5	11	49
1489-38070	38	15	29.5	M10x1.50	18	14	176
1489-56095	56	22	43.5	M16x2.00	28.5	20	569

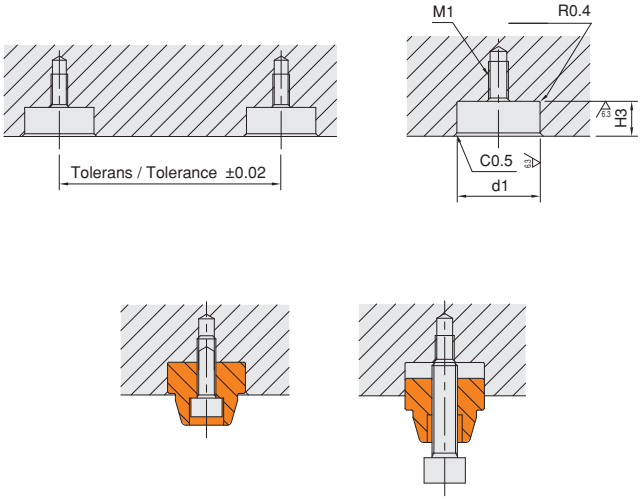


Ürün Nr. 1489 Konumlama Pimi **Product Nr. 1489 Positioning Pin**



Montaj Detayı / Mounting Details

Referans Nr.	d1 (H7)	H3 (±0.05)	M1
1489-16032	16	6	M4x0.7
1489-25050	25	10.5	M6x1.00
1489-38070	38	15.5	M8x1.25
1489-56095	56	22.5	M12x1.75



Konumlama Pimi Kapağı

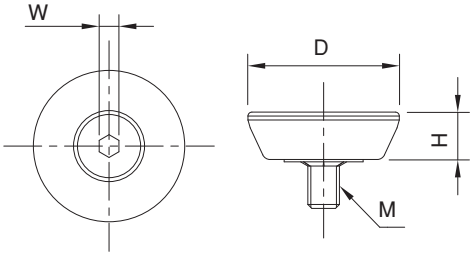
Positioning Pin Cover

Referans Nr.	D	H	M	W	(g)
1489-16032P	12	4	M3x0.5	2	3
1489-25050P	19	6	M4x0.7	2.5	5
1489-38070P	29	7	M5x0.8	3	14
1489-56095P	44	8	M6x1.0	4	35

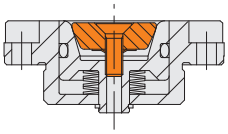


Ürün Nr. 1489 Konumlama Pimi Kapağı

Product Nr. 1489 Positioning Pin Cover



Montaj Detayı / Mounting Details



Konumlama Burcu (Açık)

Positioning Bush (Through)

Referans Nr.	D	H	H1	M	Kaldırma Kuvveti Lifting Force (N)	(g)
1489-12025A	25 $^{+0.028}_{+0.018}$	16	8	M8x1.25	540	46
1489-15032A	32 $^{+0.031}_{+0.021}$	20	9	M10x1.50	600	92
1489-20045A	45 $^{+0.031}_{+0.021}$	26	11	M14x1.50	780	230

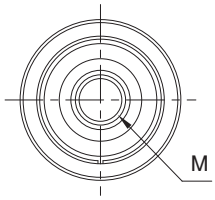


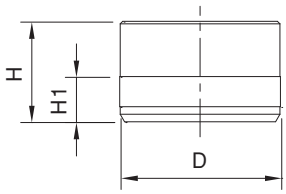
Ürün Nr. 1489 Konumlama Burcu (Açık)

- Kaldırma kuvveti hareketli konik burcu yukarı itmek için yay kuvvetini kullanır.(N)
- Vidalar doğru sırayla sıkılmadığında tekrarlanabilirlik 0.01 aşabilir.
- Toplam yük, maksimum yük kapasitesini aşıyorsa, tekrarlanabilirlik 0.01 aşabilir.

Product Nr. 1489 Flex Locator Bushings (Through)

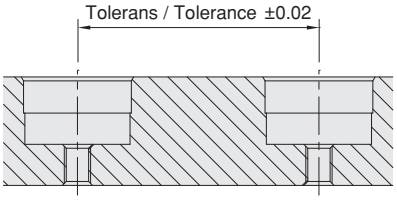
- The lifting force is the power of the inner spring of the body to push up the movable tapered bushing.(N)
- If the screws are not tightened in the correct order, the locating repeatability may exceed 0.01
- If the total load exceeds the maximum loading capacity, the locating repeatability may exceed 0.01

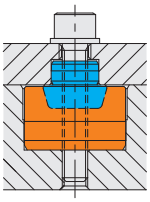


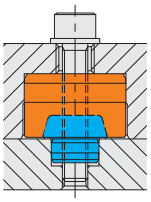


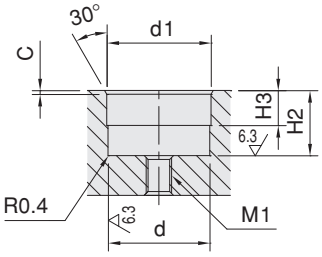
Montaj Detayı / Mounting Details

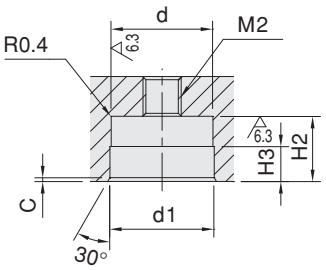
Referans Nr.	d (H6)	H2 (±0.05)	d1	H3	M1	M2
1489-12025	25	16.5	25.2	8	M6x1.00	M10x1.50
1489-15032	32	20.5	32.2	11	M8x1.25	M12x1.75
1489-20045	45	26.5	45.2	15	M12x1.75	M16x2.00



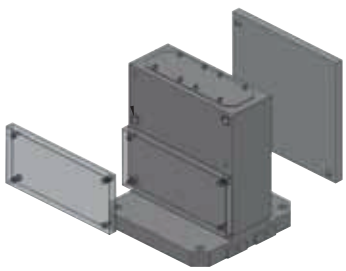


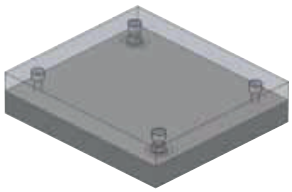


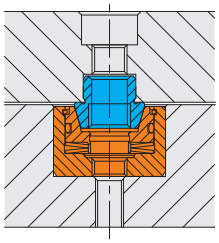


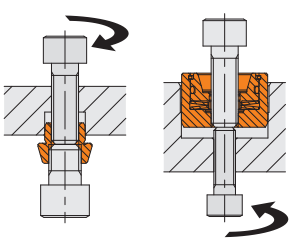


Uygulama Örneği / Aplication Example









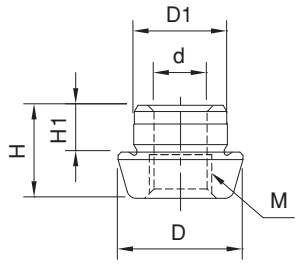
Konumlama Pimi

Positioning Pin



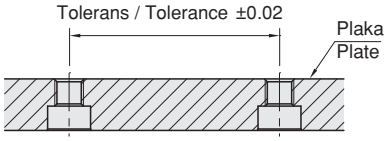
Referans Nr.	D1 (p6)	H1	D	H	M	d	(g)
1489-12025	12	4.5	15	10	M10x1.50	8.5	6
1489-15032	15	7.5	20	15	M12x1.75	10.2	16
1489-20045	20	10	30	20	M16x2.00	14	47

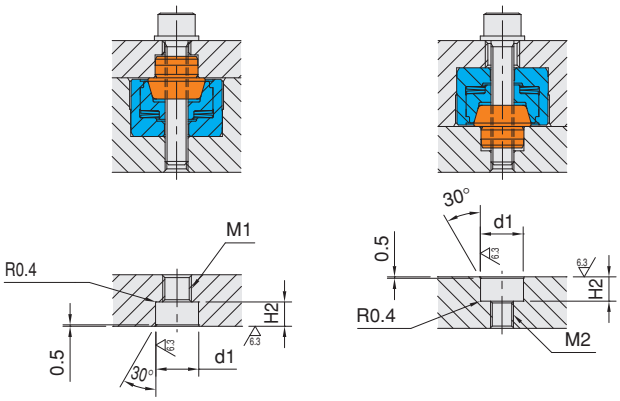
Ürün Nr. 1489 Konumlama Pimi **Product Nr. 1489 Positioning Pin**



Montaj Detayı / Mounting Details

Referans Nr.	d (H6)	H2	M1	M2
1489-12025	12	5.5	M8x1.25	M6x1.00
1489-15032	15	8.5	M10x1.50	M8x1.25
1489-20045	20	11	M14x1.50	M12x1.75





Konumlama Pimi Kapağı

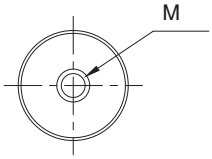
Positioning Pin Cover

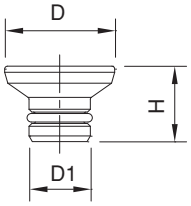


Referans Nr.	D	H	D1	M	(g)
1489-12025P	15	10	9	M4x0.7	2
1489-15032P	19	13	11	M5x0.8	5
1489-20045P	29	18	16	M6x1.0	17

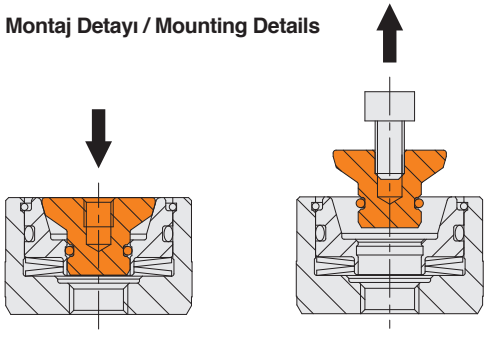
Ürün Nr. 1489 Konumlama Pimi Kapağı

Product Nr. 1489 Positioning Pin Cover





Montaj Detayı / Mounting Details

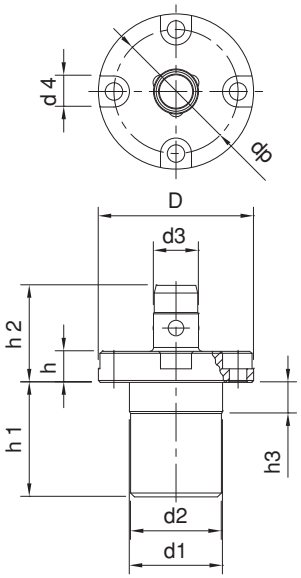


Referans Nr.	d1 g6	h3	d2	h1	D	h	d3 (h8)	h2	d	Lf	d4	dp	M	Hava Basıncı Air Pressure (MPa)	Sıkme Kuvveti Clamping Force (N)	(g)
1489-18L4S	24	8	23.4	29.5	40	8	12	11	4.5	3.5	8	32	-	0.5	250	154
1489-26L4S	32	8.5	31.4	31.7	51	9.5	16	16	5.5	4	9.5	41	-	0.5	350	289
1489-18L4SG	24	8	23.4	29.5	40	8	12	11	4.5	3.5	8	32	M4x0.7	0.5	250	136
1489-26L4SG	32	8.5	31.4	31.7	51	9.5	16	16	5.5	4	9.5	41	M5x0.8	0.5	350	252

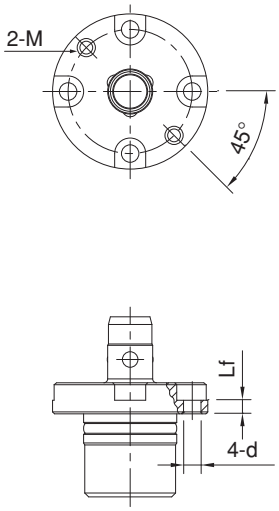
Ürün Nr. 1489 Pnömatik Bağlama
- Nikel Kaplama
- Tekrarlama Hassasiyeti ±10µm

Product Nr. 1489 Pneumatic Clamp
- Nickel Coating
- Repeat Accuracy ±10µm





L4S



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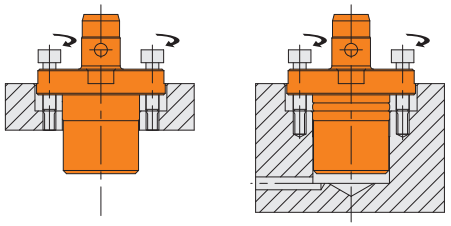


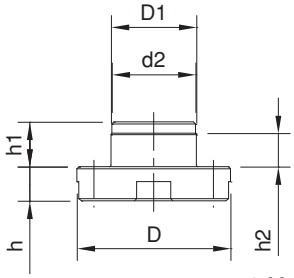
Pnömatik Bağlama Burç
Pneumatic Clamping Bush

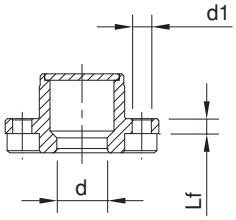
Referans Nr.	D1 g6	h2	d2	h1	D	h	d e7	d1	Lf	d3	M	dp	(g)
1489-18BU	20	7.5	19.6	10.5	36	8	12.1	4.5	3.5	8	M4x0.7	28	57
1489-26BU	25	7	24.6	11	44	9.5	16.1	5.5	4	9.5	M5x0.8	34	97

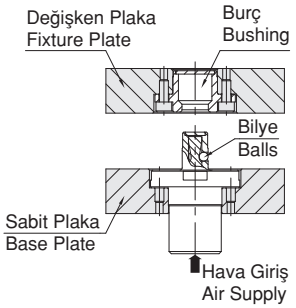


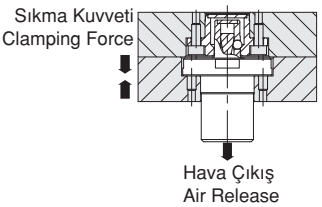
Ürün Nr. 1489 Pnömatik Bağlama Burç
- Nikel Kaplama
- Tekrarlama Hassasiyeti ±10µm

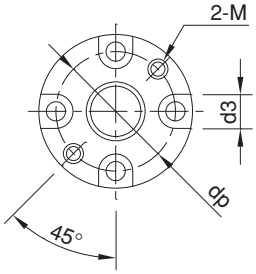
Product Nr. 1489 Pneumatic Clamping Bush
- Nickel Coating
- Repeat Accuracy ±10µm

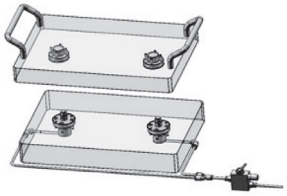


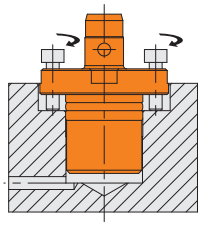


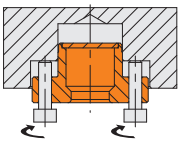












DESTEKLER

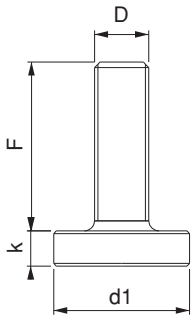
SUPPORTS



Pabuç Destek Civatası

Clamp Support Bolt

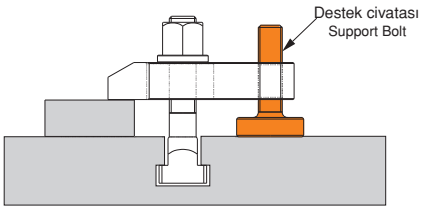
Referans Nr.	D x F	d1	k	(g)
1490-08032	M8x32	25	8	40
1490-10042	M10x42	30	8	60
1490-12050	M12x50	36	10	110
1490-12095	M12x95	36	10	150
1490-16062	M16x62	45	13	240
1490-16097	M16x97	45	13	285
1490-16117	M16x117	45	13	310
1490-20062	M20x62	50	13	320
1490-20097	M20x97	50	13	390
1490-20117	M20x117	50	13	430
1490-24081	M24x81	50	14	445
1490-24116	M24x116	50	14	555
1490-30180	M30x180	70	24	1650





Ürün Nr. 1490 Pabuç Destek Civatası
• Siyah Kaplama

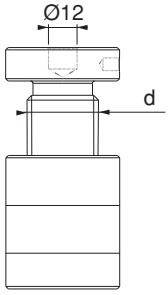
Product Nr. 1490 Clamp Support Bolt
• Black Coating



Trapez Diş Yükseltici Destek

Trapeze Thread Lifter Support

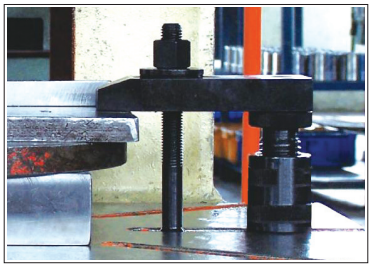
Referans Nr.	h H	d			kgf	(g)
1510-023030	23-30	M16	34	32	1000	140
1510-040060	40-60	M16	34	32	1800	250
1510-042052	42-52	Tr 30x4	50	50	6000	570
1510-050070	50-70	Tr 30x4	50	50	6000	680
1510-070100	70-100	Tr 30x4	50	50	6000	960
1510-100140	100-140	Tr 30x4	50	50	6000	1395
1510-140220	140-220	Tr 30x4	54	54	6000	2285
1510-210330	210-330	Tr 30x6	58	58	8000	3950
1510-260430	260-430	Tr 30x6	68	68	8000	7250





Ürün Nr. 1510 Trapez Diş Yükseltici Destek
• Nr. 1510 yükselticiler DIN 6314-6315-6316 pabuçlarda yükseltici destek amaçlı kullanılır.
• Hareketli parça üstünde bulunan Ø12mm delik Referens Nr. 1555-1560-1565-1570-1575 yükselticiler üst üste ve farklı amaçlı kullanılır
• Siyah Kaplama
• Destek Civatası : Sertleştirilmiş

Product Nr. 1510 Trapeze Thread Lifter Support
• Nr.1510 Lifters are used in DIN 6314-6315-6316 clamps as the lifter support
• Hole with Ø12mm taking place on the moving part are used with the lifters with the Reference Nr.1 555-1560-1565-1570-1575 on top of each other and also used with different purpose.
• Black Coating
• Support Bolt : Hardened



Manyetik Vidalı Yükseltici

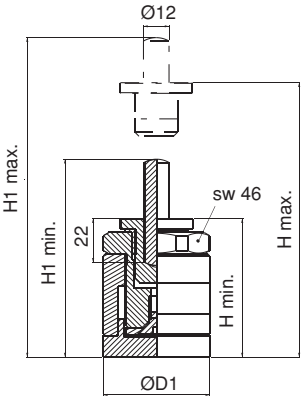
Magnetic Screw Booster

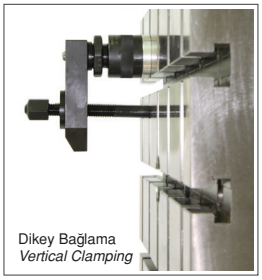
Referans Nr.	H min.	H max.	D1	Ø12x50 H1 min.- H1 max.	Ø12x80 H1 min.- H1 max.	Kgf	(g)
1515-065085	65	85	50	93-113	123-143	3000	810
1515-085125	85	125	50	113-153	143-183	3000	1050



Ürün Nr. 1515 Manyetik Vidalı Yükseltici
- Ürün manyetik oluğundan dolayı kendi ağırlığını taşıdığı için yatay bağlamalarda özellikle enjeksiyon makinalarında kullanım avantajı sağlar.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1515 Magnetic Screw Booster
- Because of magnetic it holds its own weight. Therefore it provides using advantage in horizontal clamping especially on injection machines.
- Hardened
- Black coating





Modüler Manyetik Yükseltici

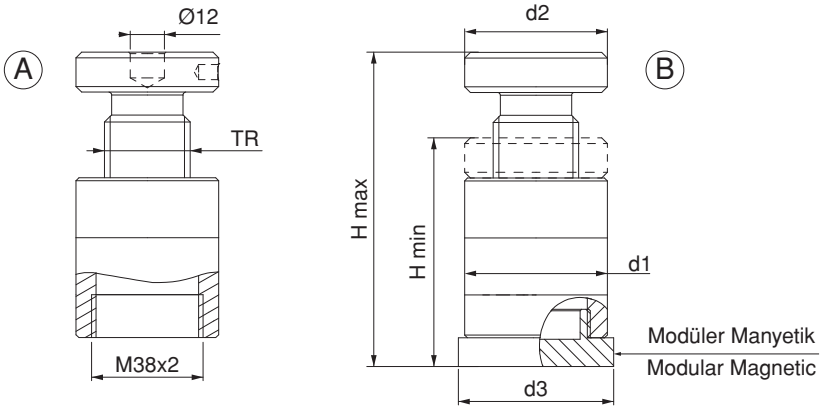
Modular Magnetic Booster

Referans Nr.	H min-max. A	H min-max. B	TR	d1	d2	d3	kgf	(g)
1517-04262	42-52	52-62	30x4	50	50	53.5	6000	700
1517-05080	50-70	60-80	30x4	50	50	53.5	6000	770
1517-70110	70-100	80-110	30x4	50	50	53.5	6000	1050



Ürün Nr. 1517 Modüler Manyetik Yükseltici
- Siyah Kaplama

Product Nr. 1517 Modular Magnetic Booster
- Black coating





Blok Destek

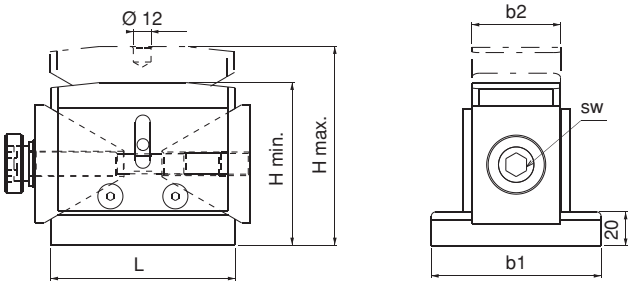
Support Block

Referans Nr.	H min.	H max.	b1	b2	L	sw	kgf	(g)
1520-050063	50	63	-	40	63	8	4000	1890
1520-100125	100	125	115	60	125	14	10000	9910
1520-170190	170	190	145	80	175	22	25000	28480



Ürün Nr. 1520 Blok Destek
- Ürün Özellikle ağır parçaların desteklenmesi ve kaldırılması için tasarlanmıştır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1520 Support Block
- Designed for supporting and lifting of heavy work pieces
- Hardened
- Black coating



Trapez Diş Yükseltici Destek

Trapeze Thread Lifter Support

Referans Nr.	H / h	d	g	k	kgf	(kg)
1530-200	200-300	Tr40x7	69	28	8000	10.0
1530-280	280-460	Tr40x7	69	28	6000	11.8
1530-430	430-750	Tr40x7	69	28	5000	14.2
1530-710	710-1250	Tr40x7	69	28	4000	20.9

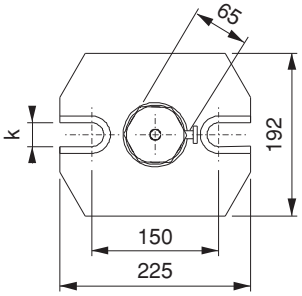


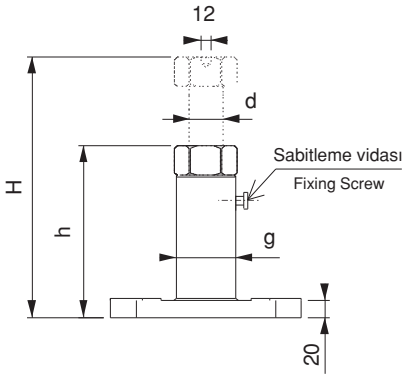
Ürün Nr. 1530 Büyük Boy Yükseltici Destek

- Yüksek parçalarda kullanım amaçlı trapez diş yükseltici destek
- Gövde statik boyalı. Altı köşede bulunan Ø12mm delik
  Referans Nr. 1555-1560-1565-1570-1575 ürünlerle kullanıldığında farklı kullanım avantajı sağlar.

Product Nr. 1530 King Size Lifter Support

- This is a trapese thread lifting support having the purpose of using with High Pieces.
- Body and statical painting. It provides different usage advantages
  when Ø12mm hole is used with 1555-1560-1565-1570-1575 reference numbered products taking place.





Trapez Diş Yükseltici Destek

Trapeze Thread Lifter Support

Referans Nr.	H / h	d	g	k	kgf	(kg)
1550-100	100-140	Tr30x6	49	18	6000	2.05
1550-140	140-200	Tr30x6	49	18	6000	2.45
1550-200	200-320	Tr30x6	49	22	4000	3.90
1550-320	320-550	Tr30x6	49	22	2500	5.15

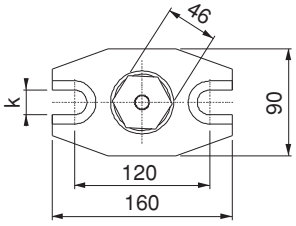


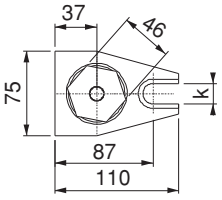
Ürün Nr. 1550 Büyük Boy Yükseltici Destek

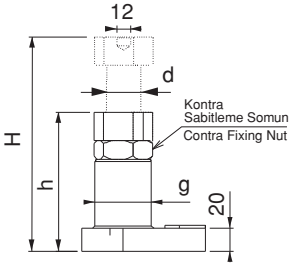
- Yüksek parçalarda kullanım amaçlı trapez diş yükseltici destek
- Gövde statik boyalı. Altı köşede bulunan Ø12mm delik
  Referans Nr. 1555-1560-1565-1570-1575 ürünlerle kullanıldığında farklı kullanım avantajı sağlar.

Product Nr. 1530 King Size Lifter Support

- This is a trapese thread lifting support having the purpose of using with High Pieces.
- Body and statical painting.It provides different usage advantages
  when Ø12mm hole is used with 1555-1560-1565-1570-1575 reference numbered products taking place.









Radüslü Destek
Rad-top Support

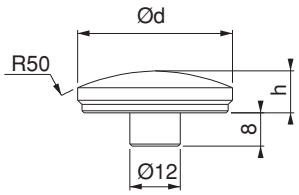
Referans Nr.	h	Ø d	(g)
1555	10	37	75

Bu ürünler Nr. 1510-1517-1530-1550 ürünler ile kullanılır

These products are used with the product Nos 1510-1517-1530-1550 taking place.

Ürün Nr. 1555 Trapez Diş Yükseltici Radüslü Destek
- Açılı yüzeylerde kullanım kolaylığı sağlar
- Siyah Kaplama

Product Nr. 1555 Trapeze Thread Lifter Rad-top Support
- This part provides usage convenience on angled surfaces
- Black Coating



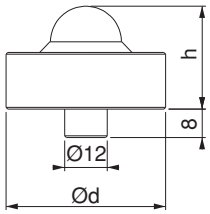


Bilyalı Destek
Ball Support

Referans Nr.	h	Ø d	Kgf	(g)
1560	25	45	3000	220

Ürün Nr. 1560 Trapez Diş Yükseltici Bilyalı Destek
- Bozuk yüzeylerde kullanım kolaylığı sağlar
- Siyah Kaplama

Product Nr. 1560 Trapeze Thread Lifter Ball Support
- This part provides usage convenience on irregular surfaces
- Black Coating



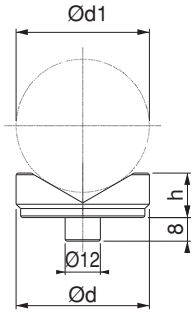


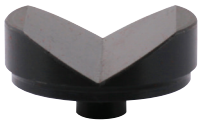
V-Yatak
V-Clamping Block

Referans Nr.	h	Ø d	Ø d1 min	Ø d1 max	(g)
1565	15	45	10	50	130

Ürün Nr. 1565 Trapez Diş Yükseltici V-Yatak
- Silindirik parçalarda V yatak desteği
- Siyah Kaplama

Product Nr. 1565 Trapeze Thread Lifter V-Clamping Block
- V clamping block support for cylindrical pieces
- Black Coating



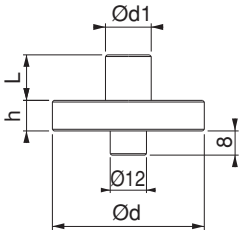


Pimli Destek
Pin Support

Referans Nr.	h	Ø d	Ø d1	L	(g)
1570	12	50	15	20	220

Ürün Nr. 1570 Trapez Diş Yükseltici Pimli Destek
- Şekilli parçalarda araya giderek destek sağlar
- Siyah Kaplama

Product Nr. 1570 Trapeze Thread Lifter Pin Support
- This part provides support for formed pieces by entering in between
- Black Coating



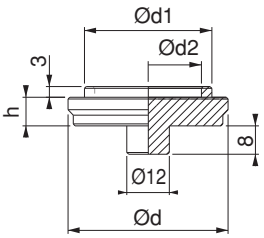


Ara Merkezleme Vasatı
Intermediary Centering Mean

Referans Nr.	h	Ø d	Ø d1	Ø d2	(g)
1575	8	45	35.8	30	105

Ürün Nr. 1575 TDY Ara Merkezleme Vasatı
- Trapez diş yükselticiler üst üste kullanıldığında ara merkezleme vasatı olarak kullanılır
- Siyah Kaplama

Product Nr. 1575 TDY Intermediary Centering Mean
- This part is used as Intermediary Centering Mean when used with Trapeze Thread Lifters
- Black Coating





Pistonlu Tek Dokunuş Destek

Work Supports With Cam Handle

Referans Nr.	H	S	M1	D	L	W	R	A	H2	M	H1	P
1588-05001	24	5	M 5x0.8 Derinlik / Depth 8	10	52	25	40	14	14	M4	19	15
1588-06001	29	6	M 6x1 Derinlik / Depth 10	12	58	30	50	16	18	M5	22	18
1588-08001	37	8	M 8x1.25 Derinlik / Depth 15	16	75	38	63	19	23	M6	25	24
1588-10001	42	10	M10x1.5 Derinlik / Depth 15	19	85	45	80	24	26	M8	30	28

Referans Nr.	L1	L2	L3	Kam Kolları / Parça Numarası Cam Handles / Part Number	Kabul Edilebilir Yük Allowable Oper. Load (N)*	Destek Kapasitesi Support Capacity (kN)	Piston Yay Kuvveti Piston Spring Force (N)	Kilitleme Mekanizması Locking Mechanism	(g)
1588-05001	36	8	8	QLCA-04	80	0.5	0 ~ 6	Spiral Kam / Kam Açısı: 4° Spiral Cam / Cam Angle: 4°	213
1588-06001	39	9.5	10	QLCA-05	100	0.7	0 ~ 6		335
1588-08001	51	12	12	QLCA-06	150	0.9	0 ~ 7		738
1588-10001	56	14.5	15	QLCA-08	200	1.2	1 ~ 11		1110

* Kolu kullanabilmek için kabul edilebilir yük / * Allowable load to operate the handle

Ürün Nr. 1588 Pistonlu Tek Dokunuş Destek

Gövde
- S45C çelik
- Siyah oksit kaplama

Piston
- SK95 çelik
- Sertleştirilmiş
- Siyah oksit kaplama

Kilitleme Pimi
- S45C çelik
- Sertleştirilmiş
- Siyah oksit kaplama

Kol
- SCM440 çelik
- Sertleştirilmiş
- Siyah oksit kaplama

Product Nr. 1588 Work Supports With Cam Handle

Body
- S45C steel
- Black oxide finish

Piston
- SK95 steel
- Quenched and tempered
- Black oxide finish

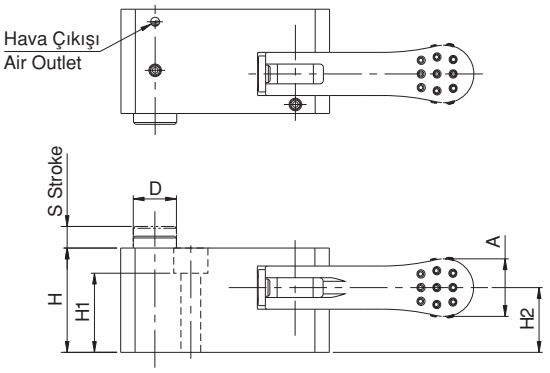
Locking Pin
- S45C steel
- Quenched and tempered
- Black oxide finish

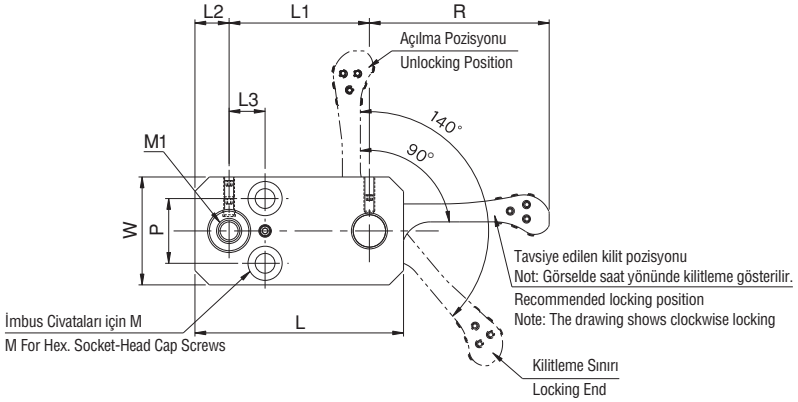
Handle
- SCM440 steel
- Quenched and tempered
- Black oxide finish



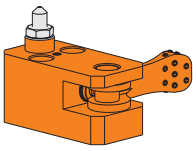
Not
- Destek ucunu milin içinden civata yerine takınca hasarı önlemek için mili sıkıştırıp sabitleyin.

Note
- When you attach a support tip to the tapped hole through the shaft, tighten the shaft and fix it to prevent damage.



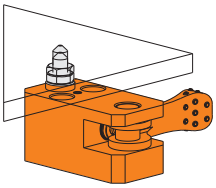


Kullanım Şekli / How To Use



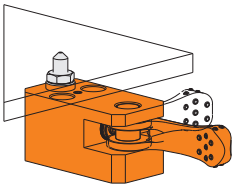
1. Açık
İşparçası yüklenmemiş

1. Unlocked
No workpiece loaded



2. İşparçası Yükleme
Bir işparçası yüklendiğinde piston alçalır.

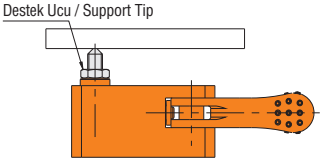
2. Workpiece Loading
Load a workpiece, and the piston lowers.



3. Kilitleme
Pistonu kilitlemek için kolu çevirin.

3. Locking
Turn the handle to lock the piston.

Kol Kilitleme Pozisyonunu Ayarlama
Adjusting Handle Locking Position



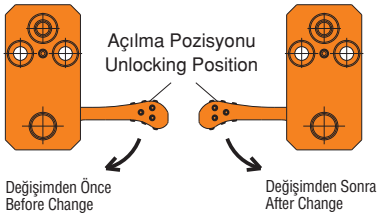
Gövdedeki projeksiyon miktarı S torkunun yarısı olunca kol önerilen kilitleme pozisyonuna gelir. Uygulamanızı desktek ucu iş parçası ile bu pozisyonda temas edecek şekilde tasarlayın.

When the projection amount from the body is 1/2 of the stroke S, the handle comes to the recommended locking position. Design your application as the support tip contacts the workpiece at this position.

Kilitleme Yönünü Değiştirme
Changing Locking Direction

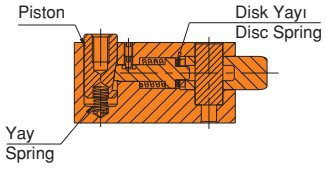
Tespit pimini çıkarmak için imbus civatalarını gevşetin. Kolu başaşağı döndürüp yeniden takın.

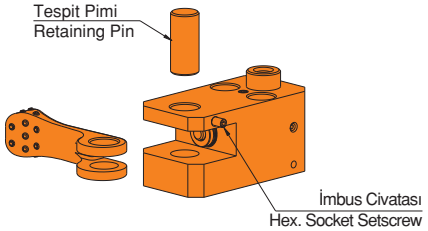
Loosen the hex. socket setscrew to remove the retaining pin. Turn the handle upside down and put it in position again.



Özellikler / Features

Cihazın içindeki disk yayı gevşek kilitlemeyi önler.
The built-in disc spring prevents loosened locking.





Basamaklı Destek

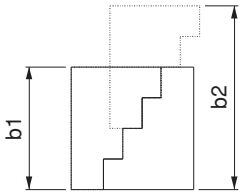
Stepped Support

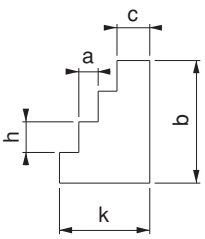
Referans Nr.	h	a	c	k	b	L	b1	b2	(g)
1580-050	13	8	13	37	52	50	52	78	460
1580-060	16	10	17	47	64	60	64	96	860
1580-070	19	13	18	57	76	70	76	114	1420

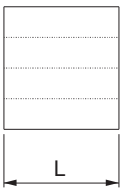


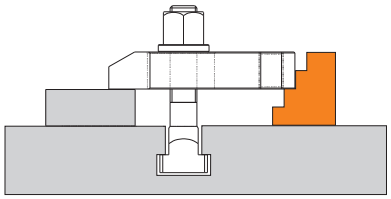
Ürün Nr. 1580 Basamaklı Destek
• Siyah Kaplama

Product Nr. 1580 Stepped Support
• Black Coating









Merdiven Diş Kombine Destek

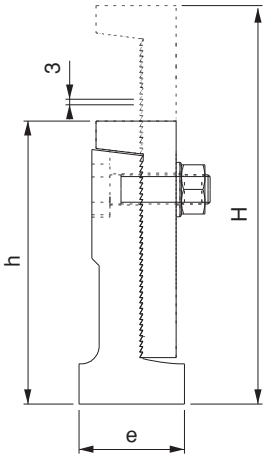
Serrated Thread Combined Support

Referans Nr.	h-H	e	kgf	(g)
1585-050	110-152	48x48	4000	1120
1585-060	155-221	60x58	5000	2710
1585-080	220-340	80x78	6000	6560



Ürün Nr. 1585 Merdiven Diş Kombine Destek
• Yükseltme aralığı (hatve) 3mm'dir
• Siyah Kaplama

Product Nr. 1585 Serrated Thread Combined Support
• Lifting gap (screw pitch) is 3 milimeters
• Black Coating





Referans Nr.	H	S	D	D1	M	L	W	H1	D2	L1	L2	L3	M1
1588-08040	40	4	25	16	M 8x1.25 12 Derin / Deep	80	40	31	32	22	23.5	8	M 8x1.25
1588-10050	50	5	32	20	M10x1.5 15 Derin / Deep	95	50	39	40	25	28	9	M10x1.5
1588-12060	60	6	38	24	M12x1.75 18 Derin / Deep	115	60	47	50	32	35.5	12	M12x1.75

Referans Nr.	H2	d	P	P1	L4	M2	Kaldırma Kuvveti (N) Lifting Force (N)	Kabul Edilebilir Civata Torku Allowable Screw Torque (N•m)	Yük Kapasite Load Capacity (N)	(kg)
1588-08040	18	5.5	40	25	10	M4x0.7	700	1	8,000	0.82
1588-10050	23	6.5	50	30			800	1.5	12,800	1.52
1588-12060	28	9	60	40	15	M5x0.8	900	2	18,500	2.67

Ürün Nr. 1588 Ayarlanabilir Yükseltici Destek

Gövde
- S45C çelik
- Siyah oksit kaplama

Mil
- S45C çelik
- Sertleştirilmiş
- Siyah oksit kaplama

Piston & Kilitleme Pimi
- SK95 çelik
- Sertleştirilmiş
- Siyah oksit kaplama

Tokmak
- FC200 döküm
- Krom Kaplama

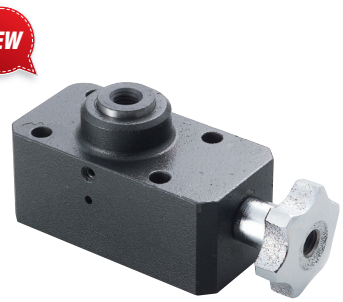
Product Nr. 1588 Extendable Work Supports

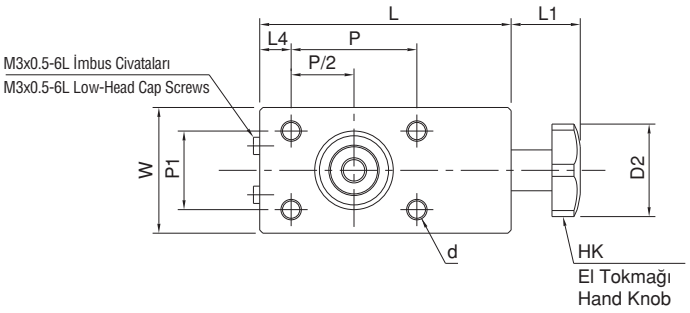
Body
- S45C steel
- Black oxide finish

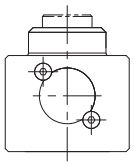
Spindle
- S45C steel
- Quenched and tempered
- Black oxide finish

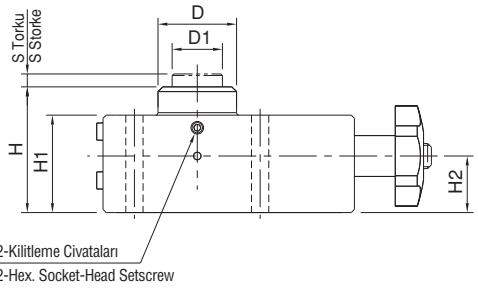
Piston & Locking Pin
- SK95 steel
- Quenched and tempered
- Black oxide finish

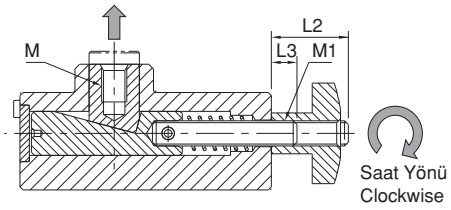
Knob
- FC200 cast iron
- Chrome plated











Sabitleme pimini kaldırmak için tokmağı saat yönünde döndürün.
Sabitleme pimini indirmek için tokmağı saat yönünün tersine döndürüp sabitleme pimini itin.

Turn the hand knob clockwise to raise the locking pin.
Turn the hand knob counterclockwise and push the locking pin to lower the locking pin.

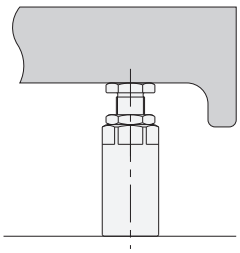
Kullanım Şekli / How To Use

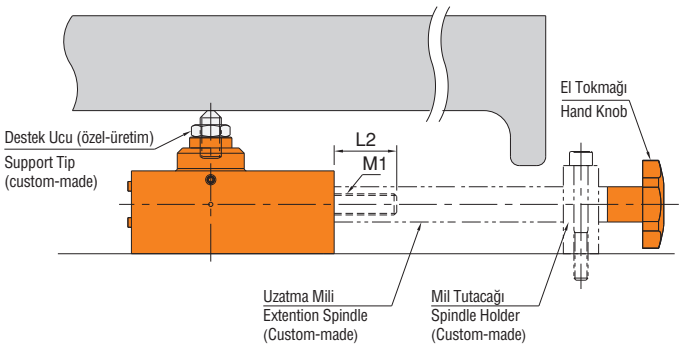
Geleneksel Metod
- Anahtarı kullanarak ağır yükseklik ayarı
- Kısıtlı yerleşme alanı

Conventional Method
- Cumbersome height adjustment with a wrench
- Limited positioning area

Uzatılabilir İş Desteği Metodu
- El Tokmağı kullanarak kolay yükseklik ayarı
- Esnek yerleşme alanı

Extendable Work Support Method
- Easy height adjustment with a hand knob
- Flexible positioning





- Uzatma mili takmak parçanın yüksekliğini kolayca değiştirmeyi sağlar.
- Yukarıdaki tabloda belirtildiği gibi bağlantı için kullanılan uzatma mili için bir civata deliği sağlayın.

- Connecting an extention spindle allows adjusting the part height with ease.
- Provide a tapped hole for the extention spindle for connection, as specified in chart above.

Referans Nr.	H	M1	D	L	W	W1	L1	M	Dp	L2	H1	H2	d
1588-PTNS112	57	M12x1.75 Derin / Depth 24	26	90	62	32	32	M8	50	35	48	40	6
1588-PTNS116	72	M16x2.00 Derin / Depth 32	33	115	75	35	42	M10	60	42	61	50	8

Referans Nr.	P	L3	H3	Kabul Edilebilir Sıkma Torku (N.m)* Allowable Tightening Torque (N.m)*	Destek Kapasitesi Support Capacity (kN)*	Piston Yay Kuvveti Piston Spring Force (N)	(kg)
1588-PTNS112	36	35	12	40	5	15~30	2.4
1588-PTNS116	48	45	16	80	10	15~35	4.8

NEW



* Darbeli Anahtarla kullanmak için kabul edilebilir sıkma torku ve destek kapasitesinin %50'sinden azını kullanın.
* To operate with an impact wrench, use less than 50% of the allowable tightening torque and support capacity.

Ürün Nr. 1588 Pistonlu Ayarlı Destek

Gövde
- S50C çelik
- Siyah Oksit Kaplama

Altıgen Başlık / Sabitleme Mili
- SCM435 çelik
- Sertleştirilmiş
- Siyah Oksit Kaplama

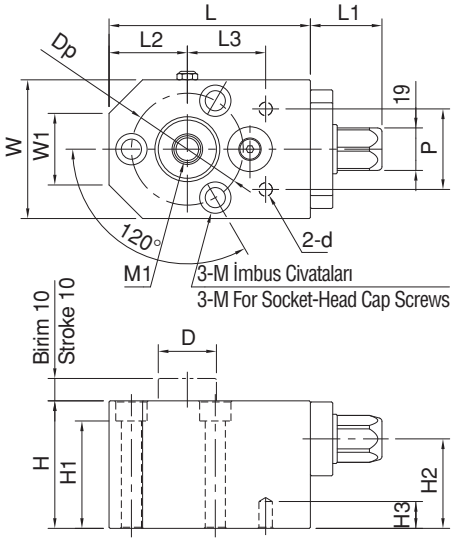
Piston
- SK95 çelik
- Sertleştirilmiş
- Siyah Oksit Kaplama

Product Nr. 1588 Nutrunner Work Supports

Body
- S50C steel
- Black oxide finished

Hex. Head / Locking Shaft
- SCM435 steel
- Quenched and tempered
- Black oxide finished

Piston
- SK95 steel
- Quenched and tempered
- Black oxide finished



Not
- Bu iş desteği bir darbeli ahantar ile kullanılabilir. Darbeli anahtar torku ayarlayabilmelidir.
- Pitonun civata deliğine bir destek ucu bağlarken hasarı önlemek için pistonun sıkı kalmasını sağlayın.

Note
- This work support can be operated with an impact wrench. Be sure to use an impact wrench that can set the torque.
- When attaching a support tip to the tapped hole of the piston, keep the piston tightened to prevent damage.

Kilit Nokta

İşparçasının titrmesini ve sapmasını önler

Sağlanan Ürünler

PTNS1-12:
2 paralel pim, Ø6 (h7)x20L
Civata delikleri için 1 THP12 Koruyucu Tıpa

PTNS1-16:
2 paralel pim, Ø8 (h7)x25L
Civata delikleri için 1 THP16 Koruyucu Tıpa

Key Point

Prevent workpiece vibration and deflection.

Supplied With

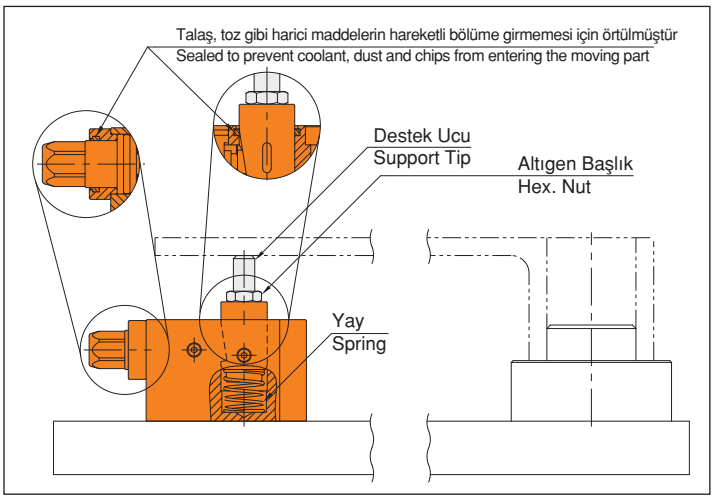
PTNS1-12:
2 of parallel pin, Ø6 (h7)x20L
1 of THP12 Protection Plugs
For Tapped Holes

PTNS1-16:
2 of parallel pin, Ø8 (h7)x25L
1 of THP16 Protection Plugs
For Tapped Holes

Kullanım Şekli / How To Use

- Otomatik bir üretim ağında bir somun sıkma aletiyle kullanıma idealdir.
- Bu iş desteği manuel bir şekilde de sıkılabilir.

- Ideal for use with a nut runner for automated production line.
- This work support can be also tightened manually.



- Piston bir işparçası koyunca alçalır. Altıgen başlığı döndürerek pistonu kilitleyin.
- İşparçasının titreyip sapmasını önleyin.

- Load a workpiece, and the piston lowers. Turn the hex. head to lock the piston.
- Prevent workpiece vibration and deflection.

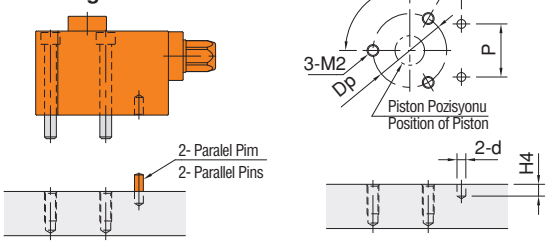
Özellikler
- Yüksek destek kapasitesi ağır işleme makinalarının kullamını mümkün kılar.

Referans
- Civata delikleri için THP 12 ve THP16 Koruyucu Tıpalar
- PTRC1 Uzatma Birimi

Features
- High support capacity allows heavy duty machining.

Reference
- THP12 THP16 Protection plugs for tapped holes
- PTRC1 Extension Units

Monte Deliği Boyutları
Mounting Hole Dimension



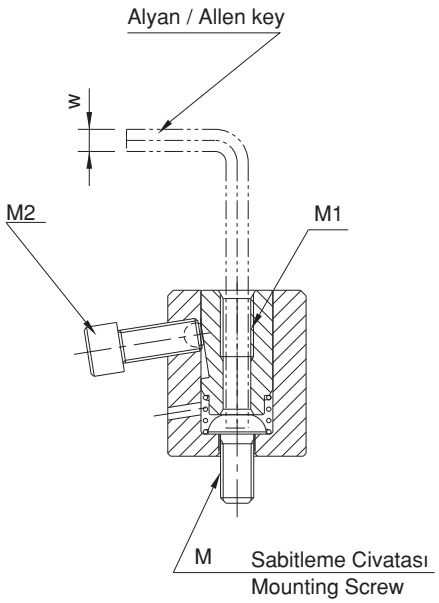
Referans Nr.	M2	Dp	d (+0.1 0)	P (±0.05)	L3 (+0.1 0)	H4
PTNS1-12	M8x1.25	50	6	36	35	9
PTNS1-16	M10x1.50	60	8	48	45	10

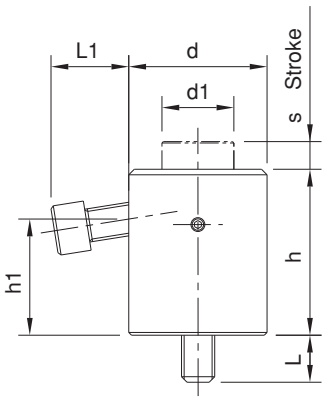
Referans Nr.	h	s	M1	d1	d	M	L	w	h1	L1	M2	İzin Verilen Vida Torku Allowable Screw Torque(Nm)	Destek Kapasitesi Support Capacity (kgf)	Piston Yay Kuvveti Piston Spring Force (N)	(g)
1588-060	33	6	M6x12	14	28	M6	10	4	22	14.1	M6x16	7.5	400	10~22	150
1588-080	42	10	M8x16	19	35	M8	15	5	28.5	18.8	M8x20	14	600	10~27	300
1588-100	50	10	M10x20	22	42	M10	14	6	34	23.8	M10x25	18	750	14~28	540
1588-120	60	10	M12x24	26	50	M12	17	8	42	28.5	M12x30	22	900	15~30	865
1588-160	70	10	M16x32	33	60	M16	22	10	47	26.5	M12x30	25	900	15~35	1.390

Ürün Nr. 1588 Ayarlı Destek
• Siyah kaplama

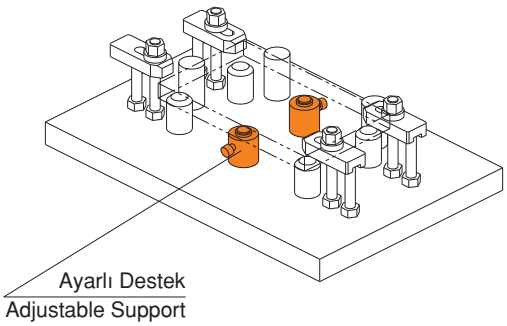
Product Nr. 1588 Adjustable Support
• Black coating

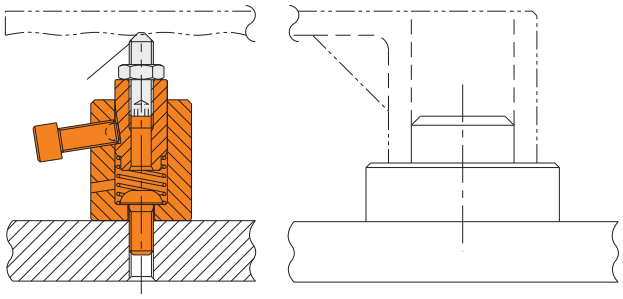






Uygulama Örneği / Application Example



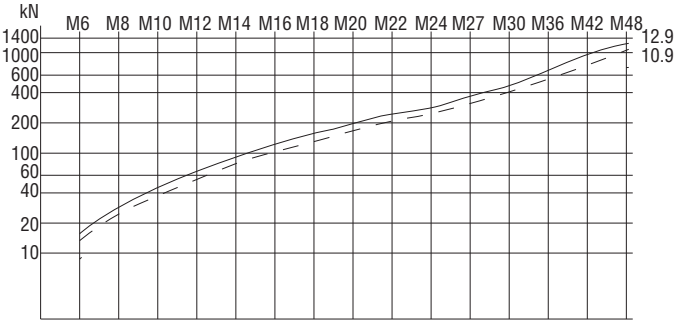



ER-EL
1630-2424200
ER-EL
1690-20250
ER-EL
1690-20160
ER-EL
1690-20100
ER-EL
1670-20180

Civata Kalite ve Tork Değerleri

Bolt Quality and Torque Values

	Kalite Dayanım Sınıfları Quality Strength Classes		
	10	10.9	12.9
DIN 787 	-	-	X
DIN 6379 	-	X	-
DIN 6330B DIN 6331 Nr. 1830 	X	-	-
Sembol gerilme mukavemeti [N/mm^2] Nominal tensile strength [N/mm^2]	1000	1000	1200
Minimum akma noktası [N/mm2] Minimum yield point [N/mm2]	-	900	1080



Standart Anahtar İle Öngerilme Kuvveti
Pre-stress Force With Standard Spanner

Çizelge Özelliklerinin Açıklanması:

• **İzin Verilen Civata Yükü :** Maksimum gerilim yükü ve vida hesabı alınarak vurgu yapıldı. Aktif kuvvetler, akma noktası, sadece güvenlik için %80 kullanılır.

• **İzin Verilen Ön Gerilme Kuvveti :** Yük, vida ve somun uygulamasında, tablodaki rakamların sürtünmeye karşılık, itme yüzeyleri ve parçanın μ = 0,14 sürtünme kat sayısı geçerlidir.

• **İzin Verilen Ön Gerilme Kuvveti Yağlı Hesaplama :** Yük, vida ve somun uygulamasında, parçanın μ = 0,1sürtünme kat sayısı hesaplanmalıdır.

Explanation Of Table Characteristics:

• **Permissible Bolt Load:** is the maximum tension load, the screw can be stressed with talcing into account all active forces. The yield point is only utilized to 80% for safety.

• **Permissible Pre-stress Force:** is the load, the screw can be pre-stressed at most, when tightening the matching nut. Figures of table are valid for a friction of μ = 0,14 in thrust faces and thread, corresponding to the friction of greased medium faces.

• **Allowed pretension with oil calculation:** At an application with screws and nuts, the load must be calculated with a μ = 0,1 frictional factor of the workpiece.

Civata ve Somun İçin Mukavemet 10.9 ve 12.9 Kalite ve Momentleri / Strength Figures And Torques For Bolts And Nuts:

Diş / Threads		Kalite Quality	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M36	M42	M48
Hatve / Pitch of thread	mm		1	1.25	1.50	1.75	2	2	2.50	2.50	2.50	3	3	3.50	4	4.50	5
Somun / Nuts																	
Sertlik / Hardeness DIN 6330 / 6331 / 6334	HRC	10	28-32														
Test Kuvveti (AS x Sp) Test force DIN EN 20898-2	kN	10	20.9	38.1	60	88	121	165	203	260	321	374	486	595	866	-	-
"T" Pabuç DIN 508 / Nr. 1710		**Nuts for T-Slots DIN 508 / Nr. 1710**															
Ölçü / Size			M6x8	M8x10	M10x12	M12x14	-	M16x18	-	M20x22	-	M24x28	-	M30x36	M36x42	M42x48	M48x54
Sertlik / Hardeness	HRC		22 - 30														
Test Kuvveti / Test Force	kN		16	29	46	67	-	128	-	196	-	282	-	448	653	653	653
Civata / Bolts																	
Sertlik / Hardeness	HRC	10.9	32 - 39														
		12.9	39 -44														

Sıkma Verileri / Tightening Data																	
Minimum Kırılma Kuvveti Minimum Breaking Force (AS x Rm)	kN	10.9 12.9	21 (24)	38 (45)	60 71	88 103	(120) (140)	(163) 192	(200) (234)	(255) 299	(315) (370)	(367) 431	(477) (560)	(583) (684)	(850) (997)	(1165) (1367)	(1531) (1797)
İzin verilen civata yükü max. Verim noktası % 80 / Permissible bolt load max. 80% of yield point	kN	10.9 12.9	14 17	27 32	43 51	63 74	86 101	118 138	144 169	184 215	228 266	265 310	345 404	421 493	614 719	843 986	1107 1296
(X Sp AS) Test kuvveti DIN EN ISO 898, bölüm 1 / Test force (AS x Sp) to DIN EN ISO 898, part 1	kN	10.9 12.9	17 (20)	30 (35)	48 56	70 82	(96) (112)	(130) 152	(159) (186)	(203) 238	(252) (294)	(293) 342	(381) (445)	(466) (544)	(678) (792)	(930) (1087)	(1222) (1428)
İzin verilen ön gerilme kuvveti max. Verim % 90 Nokta ve sürtünme μ = 0,14 / Permissible pre-stress force max. 90% of yield Point and friction μ = 0,14	kN	10.9 12.9	13 15	25 29	38 44	55 65	77 91	107 125	130 152	167 196	208 243	240 281	315 369	384 449	561 657	773 904	1018 1191
Gerilme öncesi müsade edilen tork değeri Kuvvet ve sürtünme μ = 0,14 / Required torque for permissible pre-stress Force and friction μ = 0,14	Nm	10.9 12.9	14 17	36 43	67 79	120 141	191 223	302 354	405 474	580 679	772 903	994 1163	1455 1703	1930 2258	3378 3953	5415 6337	8162 9571
Müsade edilen kol uzunluğu ön gerilme kuvveti / Required length for lever to achieve permissible pre-stress force	mm	10.9 12.9	42 51	90 110	175 210	300 360	450 550	700 830	920 1100	1200 1470	1560 1860	- -	- -	- -	- -	- -	- -
Standart anahtar ile tork değeri elde etmek mümkündür / Possible torque to obtain with standard spanner, resulting	Nm	-	60	80	90	100	110	125	140	150	170	185	225	240	300	330	410
Öngerilme kuvveti / Prestress force	kN	-	54	53	48	43	43	43	43	42	42	43	45	43	45	46	50
Bu öngerilme kuvveti ile tehlikesi var / With this pre-stress force there is danger of		10.9 12.9	Kırılma breakage		kalıcı deformasyon	permanent deformation						hareket kuvvetinin başlangıcında bağlama ünitesinin gevşemesi loosening of clamping unit at start of motive force					

As = Sembolik kesit mm^2
As = Nominal cross section in mm^2

Sp = Min. N / mm^2 cinsinden sıkma kuvveti
Sp = min. Clamping force in N/mm^2

Rm = Min. N/mm^2 yük faktörü
Rm = min. load factor in N/mm^2

μ = sürtünme
μ = friction

Referans Nr.	dx	x L	b	a	e	k	Sıkma Verileri Tightening Data Nm	kN	(g)
1590-0606025		x25	15						8
1590-0606040	M6x6	x40	28	5.7	10	4	17	17	11
1590-0606063		x63	40						15
1590-0808032		x32	22						13
1590-0808050	M8x8	x50	35	7.7	12	6	43	32	16
1590-0808080		x80	50						20
1590-1010040		x40	23						35
1590-1010063	M10x10	x63	45	9.7	15	6	79	51	45
1590-1010080		x80	50						60
1590-1010100		x100	60						70
1590-1012050		x50	35						50
1590-1012063		x63	40						60
1590-1012080		x80	55						65
1590-1012100	M10x12	x100	60	11.7	18	7	79	51	75
1590-1012125		x125	75						90
1590-1012160		x160	90						105
1590-1012200		x200	120						120
1590-1212050		x50	35						65
1590-1212063		x63	40						70
1590-1212080		x80	55						80
1590-1212100	M12x12	x100	65	11.7	18	7	141	74	100
1590-1212125		x125	75						110
1590-1212160		x160	100						140
1590-1212200		x200	120						160
1590-1214050		x50	35						80
1590-1214063		x63	45						90
1590-1214080		x80	55						100
1590-1214100	M12x14	x100	65	13.7	22	8	141	74	110
1590-1214125		x125	75						135
1590-1214160		x160	100						160
1590-1214200		x200	120						180
1590-1416063		x63	45						115
1590-1416080		x80	55						140
1590-1416100		x100	65						160
1590-1416125	M14x16	x125	75	15.7	25	9	223	101	180
1590-1416160		x160	100						220
1590-1416200		x200	120						255
1590-1416250		x250	150						300
1590-1616063		x63	45						140
1590-1616080		x80	55						160
1590-1616100		x100	65						190
1590-1616125	M16x16	x125	85	15.7	25	9	354	138	225
1590-1616160		x160	100						270
1590-1616200		x200	120						315
1590-1616250		x250	150						380
1590-1618063		x63	45						170
1590-1618080		x80	55						185
1590-1618100		x100	65						220
1590-1618125	M16x18	x125	85	17.7	28	10	354	138	245
1590-1618160		x160	100						295
1590-1618200		x200	120						340
1590-1618250		x250	150						405
1590-1820080		x80	55						260
1590-1820100		x100	65						290
1590-1820125		x125	85						340
1590-1820160	M18x20	x160	110	19.7	32	12	474	169	390
1590-1820200		x200	125						455
1590-1820250		x250	150						535
1590-1820315		x315	190						650
1590-2020080		x80	55						300
1590-2020100		x100	65						330
1590-2020125		x125	85						380
1590-2020160	M20x20	x160	110	19.7	32	12	679	215	450
1590-2020200		x200	125						535
1590-2020250		x250	160						635
1590-2020315		x315	190						760
1590-2022080		x80	55						345
1590-2022100		x100	65						380
1590-2022125		x125	85						435
1590-2022160	M20x22	x160	110	21.7	35	14	679	215	500
1590-2022200		x200	125						590
1590-2022250		x250	150						695
1590-2022315		x315	190						820

Referans Nr.	dx	x L	b	a	e	k	Sıkma Verileri Tightening Data Nm	kN	(g)
1590-2224080		x80	55						465
1590-2224100		x100	65						515
1590-2224125		x125	85						580
1590-2224160	M22x24	x160	110	23.7	40	16	903	266	660
1590-2224200		x200	125						775
1590-2224250		x250	150						805
1590-2224315		x315	190						1050
1590-2424100		x100	70						550
1590-2424125		x125	85						630
1590-2424160		x160	110						725
1590-2424200	M24x24	x200	125	23.7	40	16	1163	310	850
1590-2424250		x250	150						990
1590-2424315		x315	190						1180
1590-2424400		x400	240						1410
1590-2428100		x100	70						660
1590-2428125		x125	85						730
1590-2428160		x160	110						820
1590-2428200	M24x28	x200	125	27.7	44	18	1163	310	950
1590-2428250		x250	150						1090
1590-2428315		x315	190						1300
1590-2428400		x400	240						1530
1590-2428500		x500	290						1800
1590-3036125		x125	80						1280
1590-3036160		x160	110						1440
1590-3036200	M30x36	x200	135	35.6	54	22	2258	493	1620
1590-3036250		x250	150						1880
1590-3036315		x315	200						2150
1590-3036500		x500	300						3010
1590-3642160		x160	100						2260
1590-3642250	M36x42	x250	175	41.6	65	26	3953	719	2890
1590-3642400		x400	250						4010
1590-3642600		x600	340						5900
1590-4248160		x160	100						3550
1590-4248250	M42x48	x250	175	47.6	75	30	6337	986	4530
1590-4248400		x400	250						6160

DIN 787

Ürün Nr. 1590 T-Ayaklı Saplama

- Kalite 12.9
- Siyah kaplama

Product Nr. 1590 T-Slot Bolt

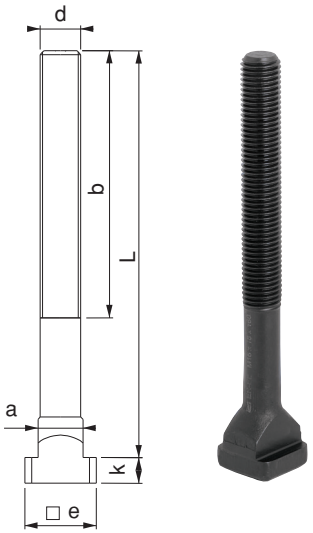
- Quality 12.9
- Black coating



Loctite 8150

Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.





Somunlu Pullu T-Ayaklı Saplama

T-Slot Bolt with Nut and Washer

Referans Nr.	dx	x L	b	a	e	k	Sıkma Verileri Tightening Data Nm	kN	(g)
1610-0606025	M6x6	x25	15	5.7	10	4	17	17	19
1610-0606040		x40	28						25
1610-0606063		x63	40						36
1610-0808032	M8x8	x32	22	7.7	12	6	43	32	39
1610-0808050		x50	35						45
1610-0808080		x80	50						56
1610-1010040	M10x10	x40	23	9.7	15	6	79	51	65
1610-1010063		x63	45						80
1610-1010080		x80	50						90
1610-1010100		x100	60						110
1610-1012050	M10x12	x50	35	11.7	18	7	79	51	85
1610-1012063		x63	40						95
1610-1012080		x80	55						100
1610-1012100		x100	60						110
1610-1012125		x125	75						125
1610-1012160		x160	90						140
1610-1012200		x200	120						160
1610-1212050	M12x12	x50	35	11.7	18	7	141	74	120
1610-1212063		x63	40						128
1610-1212080		x80	55						140
1610-1212100		x100	65						160
1610-1212125		x125	75						170
1610-1212160		x160	100						195
1610-1212200		x200	120						220
1610-1214050	M12x14	x50	35	13.7	22	8	141	74	140
1610-1214063		x63	45						150
1610-1214080		x80	55						155
1610-1214100		x100	65						175
1610-1214125		x125	75						195
1610-1214160		x160	100						220
1610-1214200		x200	120						240
1610-1416063	M14x16	x63	45	15.7	25	9	223	101	200
1610-1416080		x80	55						230
1610-1416100		x100	65						245
1610-1416125		x125	75						270
1610-1416160		x160	100						310
1610-1416200		x200	120						340
1610-1416250		x250	150						390
1610-1616063	M16x16	x63	45	15.7	25	9	354	138	260
1610-1616080		x80	55						285
1610-1616100		x100	65						310
1610-1616125		x125	85						345
1610-1616160		x160	100						385
1610-1616200		x200	120						435
1610-1616250		x250	150						505
1610-1618063	M16x18	x63	45	17.7	28	10	354	138	290
1610-1618080		x80	55						305
1610-1618100		x100	65						340
1610-1618125		x125	85						370
1610-1618160		x160	100						415
1610-1618200		x200	120						460
1610-1618250		x250	150						525
1610-1820080	M18x20	x80	55	19.7	32	12	474	169	405
1610-1820100		x100	65						435
1610-1820125		x125	85						480
1610-1820160		x160	110						535
1610-1820200		x200	125						610
1610-1820250		x250	150						680
1610-1820315		x315	190						790
1610-2020080	M20x20	x80	55	19.7	32	12	679	215	480
1610-2020100		x100	65						515
1610-2020125		x125	85						570
1610-2020160		x160	110						635
1610-2020200		x200	125						725
1610-2020250		x250	160						820
1610-2020315		x315	190						950
1610-2022080	M20x22	x80	55	21.7	35	14	679	215	530
1610-2022100		x100	65						565
1610-2022125		x125	85						620
1610-2022160		x160	110						690
1610-2022200		x200	125						775
1610-2022250		x250	150						880
1610-2022315		x315	190						1050

Referans Nr.	dx	x L	b	a	e	k	Sıkma Verileri Tightening Data Nm	kN	(g)
1610-2224080	M22x24	x80	55	23.7	40	16	903	266	700
1610-2224100		x100	65						740
1610-2224125		x125	85						805
1610-2224160		x160	110						890
1610-2224200		x200	125						1000
1610-2224250		x250	150						1115
1610-2224315		x315	190						1280
1610-2424100	M24x24	x100	70	23.7	40	16	1163	310	885
1610-2424125		x125	85						970
1610-2424160		x160	110						1060
1610-2424200		x200	125						1180
1610-2424250		x250	150						1320
1610-2424315		x315	190						1515
1610-2424400		x400	240						1750
1610-2428100	M24x28	x100	70	27.7	44	18	1163	310	1000
1610-2428125		x125	85						1065
1610-2428160		x160	110						1150
1610-2428200		x200	125						1280
1610-2428250		x250	150						1425
1610-2428315		x315	190						1640
1610-2428400		x400	240						1870
1610-2428500		x500	290						2170
1610-3036125	M30x36	x125	80	35.6	54	22	2258	493	1900
1610-3036160		x160	110						2065
1610-3036200		x200	135						2250
1610-3036250		x250	150						2500
1610-3036315		x315	200						2770
1610-3036500		x500	300						3630
1610-3642160	M36x42	x160	100	41.6	65	26	3953	719	3310
1610-3642250		x250	175						3930
1610-3642400		x400	250						5010
1610-3642600		x600	340						6900
1610-4248160	M42x48	x160	100	47.6	75	30	6337	986	4600
1610-4248250		x250	175						5600
1610-4248400		x400	250						7200

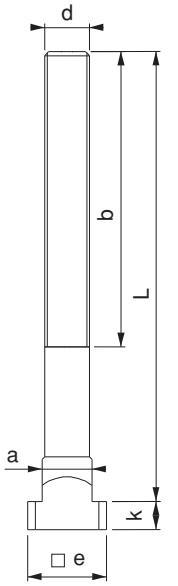
DIN 787

Ürün Nr. 1610 Somunlu Pullu T-Ayaklı Saplama

- Kalite 12.9
- Siyah kaplama

Product Nr. 1610 T-Slot Bolt with Nut and Washer

- Quality 12.9
- Black coating





Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.



Loctite 8150

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.

Kombine T-Ayaklı Saplama

Combined T-Slot Bolt

Referans Nr.	dx a xL	a	e	k	h-H	e1	e2	c	s	f	sw	Sıkma Verileri Tightening Data Nm	kN	(g)
1630-2022200	M20x22x200	21.7	35	14	25-75	49	69	92	12	30	30	679	215	1635
1630-2022250	M20x22x250	21.7	35	14	70-120	49	69	92	12	30	30	679	215	1720
1630-2424200	M24x24x200	23.7	40	16	25-75	53	74	92	12	30	36	1163	310	2075
1630-2424250	M24x24x250	23.7	40	16	70-120	53	74	92	12	30	36	1163	310	2250
1630-2428200	M24x28x200	27.7	44	18	25-75	53	74	92	12	30	36	1163	310	2180
1630-2428250	M24x28x250	27.7	44	18	70-120	53	74	92	12	30	36	1163	310	2340
1630-3036200	M30x36x200	35.6	54	22	25-75	68	88	94	14	30	46	2258	493	3660
1630-3036250	M30x36x250	35.6	54	22	70-120	68	88	94	14	30	46	2258	493	3910



Ürün Nr. 1630 Kombine T-Ayaklı Saplama

- Ağır preslerde, büyük kalıplarda çalışma esnasında vibrasyondan kaynaklanan olabilecek gevşemeyi somunun kontra sıkma yapısından dolayı önler
- Kalite 12.9
- Siyah kaplama

Product Nr. 1630 Combined T-Slot Bolt

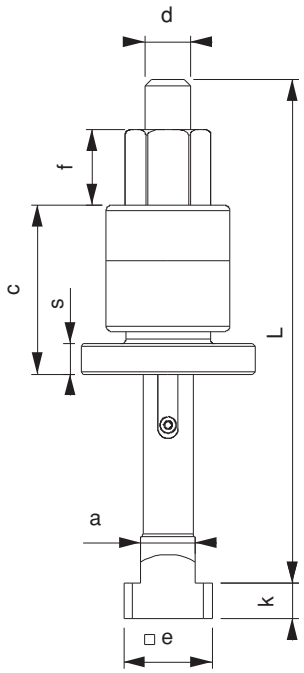
- Because of it's contra tightening structure, it prevents loosening which may be generated by the vibration during working with heavy presses and big moulds.
- Quality 12.9
- Black coating

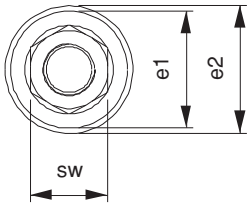
Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

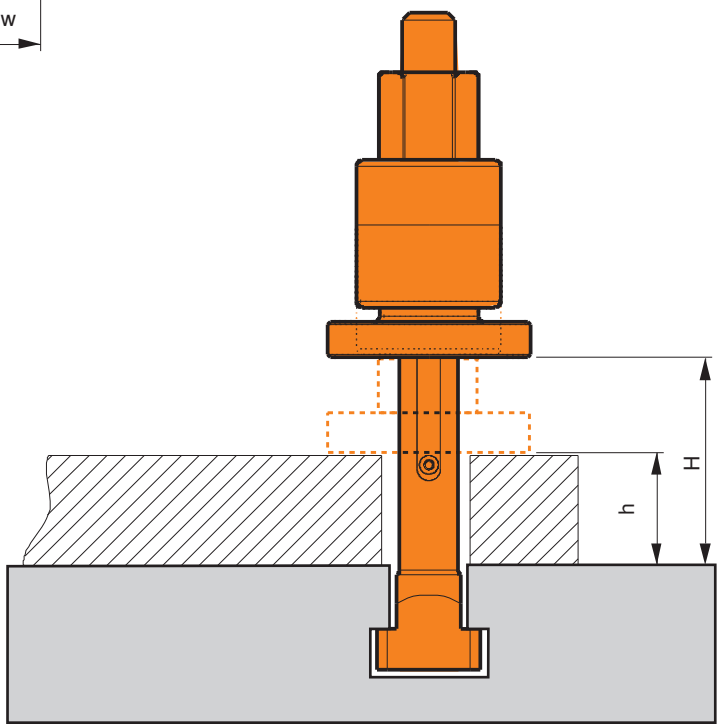
Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.



Loctite 8150



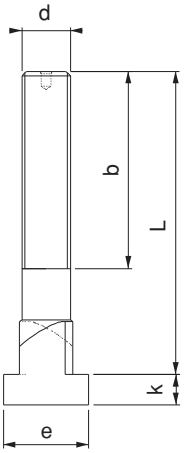




Dereceli T-Ayaklı Saplama

Graded T-Slot Bolt

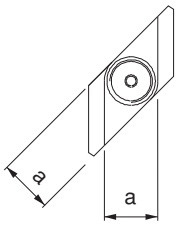
Referans Nr.	dx	x L	b	a	e	k	Sıkma Verileri Tightening Data Nm	kN	(g)
1650-1214050		x50	35						70
1650-1214080	M12x14	x80	55	13.7	22	8	141	74	100
1650-1214125		x125	75						120
1650-1618063		x63	45						160
1650-1618100	M16x18	x100	65	17.7	28	10	354	138	220
1650-1618160		x160	100						280
1650-2022080		x80	55						330
1650-2022125	M20x22	x125	85	21.7	35	14	679	215	430
1650-2022200		x200	120						570
1650-2428100		x100	70						650
1650-2428125	M24x28	x125	85	27.7	44	18	1163	310	770
1650-2428250		x250	150						1150





Ürün Nr. 1650 Dereceli T-Ayaklı Saplama
- T-Kanal pleytlerde üstten T-Kanala girip bağlama özelliği vardır
- Kalite 12.9
- Siyah kaplama

Product Nr. 1650 Graded T-Slot Bolt
- In T-Slot plates it has the feature of making the coupling by entering T-Slot the top.
- Quality 12.9
- Black coating





Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.



Loctite 8150

Anahtar Ağızlı Saplama

Wrench Mouth Stud

Referans Nr.	d	L	b	b1	m	sw	Sıkma Verileri Tightening Data Nm	kN	(g)
1670-12130	M12	130	65	24	14	14	120	63	160
1670-12160		160	90						185
1670-14130	M14	130	65	28	15	15	191	86	216
1670-14160		160	90						246
1670-16140	M16	140	70	32	16	17	302	118	310
1670-16160		160	95						340
1670-18150	M18	150	70	35	19	19	405	144	395
1670-18180		180	95						450
1670-20150	M20	150	70	40	22	22	580	184	520
1670-20180		180	95						575
1670-22150	M22	150	70	40	22	24	772	228	610
1670-22180		180	95						705
1670-24170	M24	170	75	47	22	27	994	265	875
1670-24205		205	105						990
1670-24250		250	140						1125
1670-30250	M30	250	135	55	32	36	1930	421	1950
1670-30315		315	195						2260





Ürün Nr. 1670 Anahtar Ağızlı Saplama
- Kullanım alanı; Enjeksiyon makinalarında ve M12-14-16-18-20-22-24-30 diş açılmış pleytlerde kullanlır.
- Kalite 10.9
- Siyah kaplama

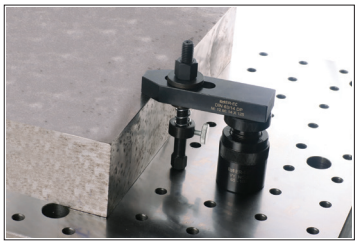
Product Nr. 1670 Wrench Mouth Stud
- Area of Use: This stud is used in injection machines and in plates with M12-14-16-18-20-22-24-30 threads
- Quality 10.9
- Black coating

Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.



Loctite 8150



Referans Nr.	d x L	b1	b	Sıkma Verileri Tightening Data Nm	kN	(g)
1690-08040	M8 x40	11	20	36	27	10
1690-08063	x63		40			15
1690-08080	x80		50			20
1690-08100	x100		63			30
1690-08125	x125		75			35
1690-08160	x160		100			45
1690-10050	M10 x50	13	25	67	43	20
1690-10063	x63		32			25
1690-10080	x80		50			35
1690-10100	x100		63			45
1690-10125	x125		75			55
1690-10160	x160		100			70
1690-10200	x200		125			95
1690-12050	M12 x50	15	25	120	63	35
1690-12063	x63		32			40
1690-12080	x80		50			55
1690-12100	x100		63			70
1690-12125	x125		75			90
1690-12160	x160		100			115
1690-12200	x200		125			140
1690-14063	M14 x63	17	32	191	86	60
1690-14080	x80		50			75
1690-14100	x100		63			95
1690-14125	x125		75			120
1690-14160	x160		100			150
1690-14200	x200		125			195
1690-14250	x250		160			240
1690-16063	M16 x63	19	32	302	118	85
1690-16080	x80		50			105
1690-16100	x100		63			130
1690-16125	x125		75			160
1690-16160	x160		100			205
1690-16200	x200		125			260
1690-16250	x250		160			325
1690-16315	x315		180			405
1690-16500	x500		315			650
1690-18080	M18 x80	23	50	405	144	130
1690-18100	x100		60			160
1690-18125	x125		75			200
1690-18160	x160		100			260
1690-18200	x200		125			320
1690-18250	x250		150			400
1690-18315	x315		180			510
1690-20080	M20 x80	27	32	580	184	155
1690-20100	x100		60			200
1690-20125	x125		70			250
1690-20160	x160		100			330
1690-20200	x200		125			400
1690-20250	x250		160			510
1690-20315	x315		200			640
1690-20400	x400		250			815
1690-20500	x500		315			1020
1690-22100	M22 x100	31	45	772	228	250
1690-22125	x125		70			305
1690-22160	x160		100			400
1690-22200	x200		125			500
1690-22250	x250		160			620
1690-22315	x315		180			780
1690-22400	x400		250			1010
1690-24100	M24 x100	35	45	994	265	290
1690-24125	x125		70			365
1690-24160	x160		100			470
1690-24200	x200		125			580
1690-24250	x250		160			730
1690-24315	x315		200			920
1690-24400	x400		250			1170
1690-24500	x500		315			1470
1690-24630	x630		315			1860
1690-30125	M30 x125	43	56	1930	421	570
1690-30200	x200		125			910
1690-30250	x250		160			1150
1690-30315	x315		200			1435
1690-30500	x500		315			2315
1690-30700	x700		400			3215
1690-301000	x1000		400			4700

Referans Nr.	d x L	b1	b	Sıkma Verileri Tightening Data Nm	kN	(g)
1690-36160	M36 x160	51	80	3378	614	1100
1690-36200	x200		125			1340
1690-36250	x250		160			1710
1690-36315	x315		200			2150
1690-36400	x400		250			2700
1690-36500	x500		315			3450
1690-36700	x700		400			4750
1690-42315	M42 x315	59	200	5415	843	2950
1690-42400	x400		250			3750
1690-42500	x500		315			4690

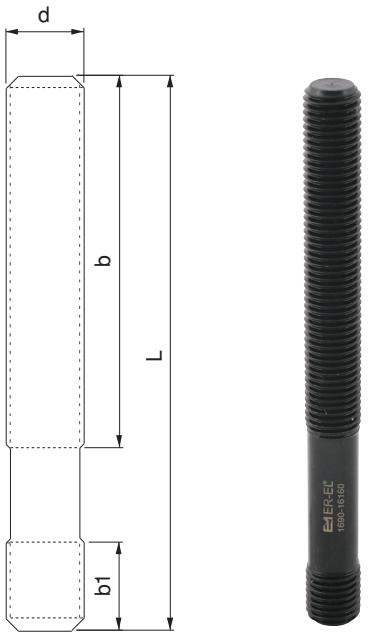
DIN 6379

Ürün Nr. 1690 Düz Saplama

- Kalite 10.9
- Siyah kaplama

Product Nr. 1690 Straight Stud

- Quality 10.9
- Black coating



Not: 150 °C üzerindeki ortamlarda sıkma işlemi yapılırken dişlerin üzerine Loctite 8150 kullanılır.

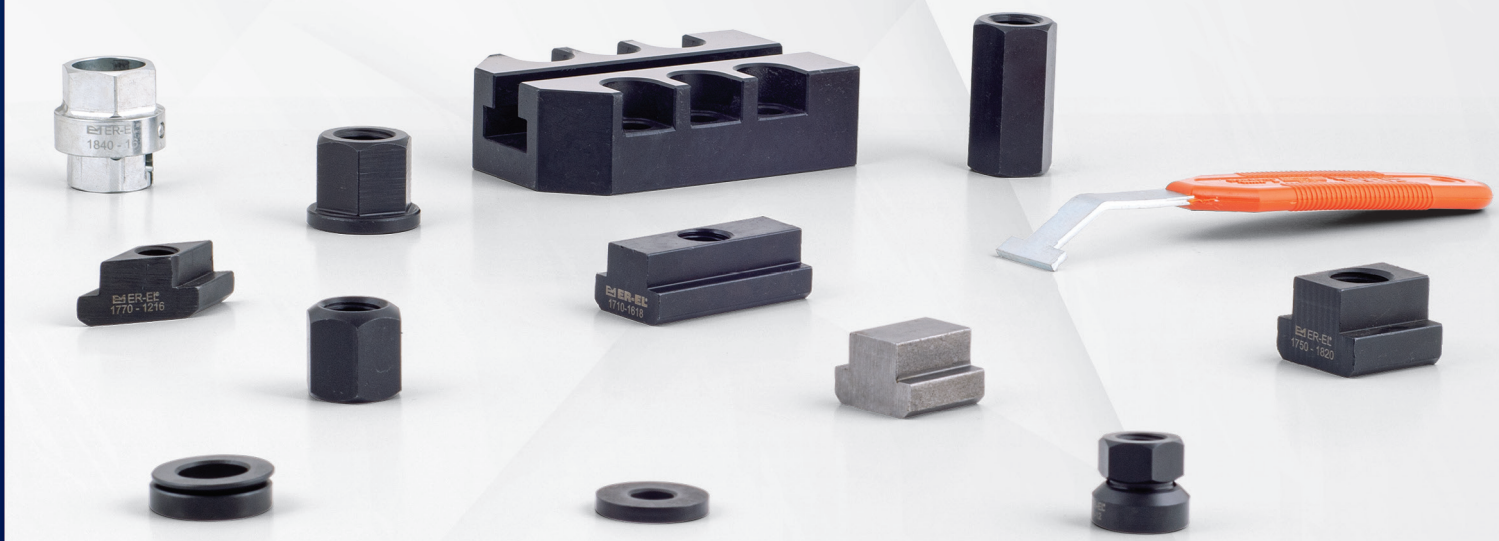
Note: Environments on the 150 °C when clamping action on the thread Loctite 8150 is used.



Loctite 8150

SOMUN, PUL, AKSESUARLAR

NUT, WASHER, ACCESSORIES

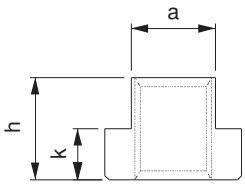


Uzun T-Pabuç

Long T-Nut

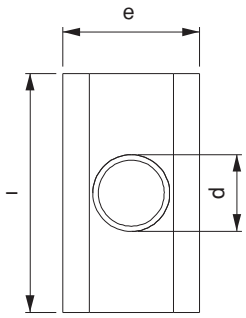
Referans Nr.	dx	a	e	l	h	k	(g)
1710-0608	M6x8	7.7	13	26	10	6	14
1710-0810	M8x10	9.7	15	30	12	6	25
1710-1012	M10x12	11.7	18	36	14	7	49
1710-1214	M12x14	13.7	22	44	16	8	82
1710-1416	M14x16	15.7	25	50	18	9	120
1710-1618	M16x18	17.7	28	56	20	10	165
1710-1820	M18x20	19.7	32	64	24	12	260
1710-2022	M20x22	21.7	35	70	28	14	365
1710-2224	M22x24	23.7	40	80	32	16	535
1710-2428	M24x28	27.7	44	88	36	18	745
1710-3036	M30x36	35.6	54	108	44	22	1390





Ürün Nr. 1710 Uzun T-Pabuç
- Hassas makina pleytlerinde T-Kanalı korur
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

Product Nr. 1710 Long T-Nut
- This clamp protects T-Slot in sensitive machine plates
- Hardened
- Black coating
- Quality 10

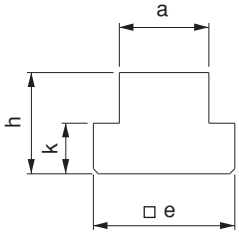


Deliksiz T-Pabuç

T-Nut without Hole

Referans Nr.	a	a	e	h	k	(g)
1730-06	6	5.7	10	8	4	4
1730-08	8	7.7	13	10	6	10
1730-10	10	9.7	15	12	6	16
1730-12	12	11.7	18	14	7	27
1730-14	14	13.7	22	16	8	50
1730-16	16	15.7	25	18	9	70
1730-18	18	17.7	28	20	10	95
1730-20	20	19.7	32	24	12	150
1730-22	22	21.7	35	28	14	210
1730-24	24	23.7	40	32	16	310
1730-28	28	27.7	44	36	18	430
1730-36	36	35.6	54	44	22	800
1730-42	42	41.6	65	52	26	1400



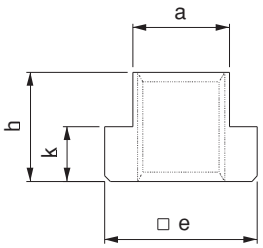


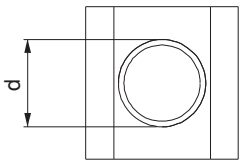
Ürün Nr. 1730 Deliksiz T-Pabuç
- İsteğe göre delik delme diş çekme uygulanabilir

Product Nr. 1730 T-Nut without Hole
- Arbitrary thread cutting can be applied

Referans Nr.	dx	a	e	h	k	(g)
1750-0506	M5x6	5.7	10	8	4	4
1750-0608	M6x8	7.7	13	10	6	10
1750-0810	M8x10	9.7	15	12	6	12
1750-0812 1750-1012	M8x12* M10x12	11.7	18	14	7	22 20
1750-0814 1750-1014 1750-1214	M8x14* M10x14* M12x14	13.7	22	16	8	40 37 30
1750-0816 1750-1016 1750-1216 1750-1416	M8x16* M10x16* M12x16* M14x16	15.7	25	18	9	60 55 55 45
1750-0818 1750-1018 1750-1218 1750-1418 1750-1618	M8x18* M10x18* M12x18* M14x18* M16x18	17.7	28	20	10	90 87 80 75 65
1750-1620 1750-1820	M16x20* M18x20	19.7	32	24	12	115 105
1750-1622 1750-1822 1750-2022	M16x22* M18x22* M20x22	21.7	35	28	14	170 160 150
1750-1624 1750-2024 1750-2224	M16x24* M20x24* M22x24	23.7	40	32	16	260 240 220
1750-1628 1750-2028 1750-2228 1750-2428	M16x28* M20x28* M22x28* M24x28	27.7	44	36	18	375 350 330 330
1750-2436 1750-3036	M24x36* M30x36	35.6	54	44	22	665 585
1750-3642	M36x42	41.6	65	52	26	1025
1750-4248	M42x48	47.6	75	60	30	1600







DIN 508

Ürün Nr. 1750 T-Pabuç

- T-Pabucun mukavemeti için dişli kısmının tümüne vidalama yapılması gerekir
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

Product Nr. 1750 T-Nut

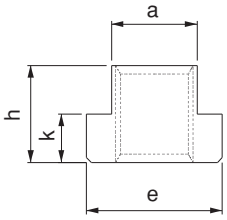
- Screwing must be done on the entire thread part for the endurance of T-Nut
- Hardened
- Black coating
- Quality 10

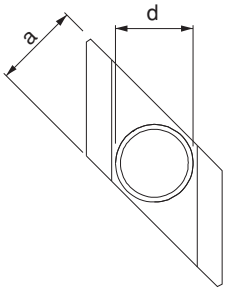
Dereceli T-Pabuç

Graded T-Nut

Referans Nr.	dx	a	e	h	k	(g)
1770-0810	M8x10	9.7	15	12	6	10
1770-1012	M10x12	11.7	18	14	7	15
1770-1014 1770-1214	M10x14* M12x14	13.7	22	16	8	30 25
1770-1416	M14x16	15.7	25	18	9	40
1770-1018 1770-1618	M10x18* M16x18	17.7	28	20	10	70 60
1770-1620 1770-1820	M16x20* M18x20	19.7	32	24	12	95 90
1770-1622 1770-2022	M16x22* M20x22	21.7	35	28	14	135 125
1770-1628 1770-2028 1770-2428	M16x28* M20x28* M24x28	27.7	44	36	18	330 295 265







Ürün Nr. 1770 Dereceli T-Pabuç

- T-Kanal pleytlerde üstten T-Kanala girip bağlama özelliği vardır
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

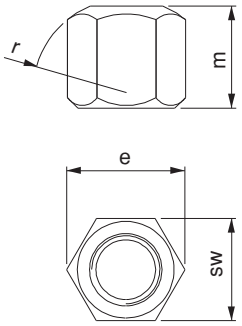
Product Nr. 1770 Graded T-Nut

- It has the feature of making the coupling by entering T-Slot plates from the top
- Hardened
- Black coating
- Quality 10

Takviyeli Somun

Hexagon Nut

Referans Nr.		sw	e	m	r	(g)
1790-06	M6	10	11.5	9	9	5
1790-08	M8	13	15	12	12	9
1790-10	M10	17	19.6	15	15	20
1790-12	M12	19	21.9	18	17	25
1790-14	M14	22	25.4	21	20	40
1790-16	M16	24	27.7	24	22	55
1790-18	M18	27	31.2	27	24	80
1790-20	M20	30	34.6	30	27	110
1790-22	M22	32	36.9	33	30	130
1790-24	M24	36	41.5	36	32	190
1790-30	M30	46	53.1	45	41	400
1790-36	M36	55	63.5	54	50	680
1790-42	M42	65	75	63	58	1150





DIN 6330B

Ürün Nr. 1790 Takviyeli Somun

- Düz yüzey DIN 6340 pul ile kullanılır
- Radüslü yüzey DIN 6319D ve DIN 6319G pullar ile kullanılır
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

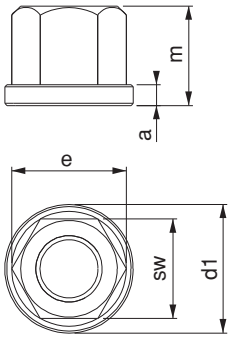
Product Nr. 1790 Hexagon Nut

- Flat surface is used with DIN 6340 Washer
- This nut is used with Rad-top surface DIN 6319D and DIN 6319G washers
- Hardened
- Black Coating
- Quality 10

Pullu Somun

Nut with Washer

Referans Nr.		sw	e	m	a	d1	(g)
1810-08	M8	13	14.7	12	3.5	18	12
1810-10	M10	17	19.2	15	4	22	25
1810-12	M12	19	21.5	18	4	25	30
1810-14	M14	22	24.9	21	4.5	28	50
1810-16	M16	24	27.2	24	5	31	65
1810-18	M18	27	30.6	27	5	34	90
1810-20	M20	30	34	30	6	37	130
1810-22	M22	32	36.3	33	6	40	155
1810-24	M24	36	40.8	36	6	45	220
1810-30	M30	46	52.3	45	8	58	465
1810-36	M36	55	62	54	10	68	500
1810-42	M42	65	75	63	12	80	1340





DIN 6331

Ürün Nr. 1810 Pullu Somun

- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

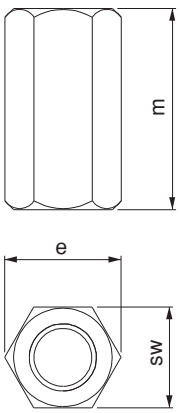
Product Nr. 1810 Nut with Washer

- Hardened
- Black Coating
- Quality 10

Uzatma Somun

Extension Nut

Referans Nr.		sw	e	m	(g)
1830-06	M6	10	11.7	18	8
1830-08	M8	13	15	24	19
1830-10	M10	17	19.6	30	40
1830-12	M12	19	21.6	36	55
1830-14	M14	22	25.4	42	90
1830-16	M16	24	27.7	48	115
1830-18	M18	27	31.2	54	165
1830-20	M20	30	34.6	60	230
1830-22	M22	32	36.9	66	245
1830-24	M24	36	41.5	72	400
1830-30	M30	46	53.1	90	840
1830-36	M36	55	63.5	108	1430
1830-42	M42	65	75	126	2330





DIN 6334

Ürün Nr. 1830 Uzatma Somun

- DIN 787 T-Ayaklı saplama ve DIN 6379 düz saplamalarda uzatma amaçlı kullanılır
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10

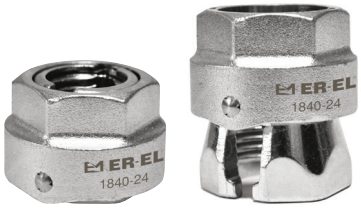
Product Nr. 1830 Extension Nut

- It is used in DIN 787 T-Studs and DIN 6379 Straight Studs as extension
- Hardened
- Black Coating
- Quality 10

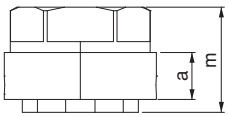
Hızlı Somun

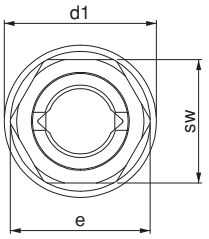
Quick Nut

Referans Nr.	metrik	a	d1	e	m	sw	(g)
1840-16	M16	11.5	34	30.7	27.5	27	105
1840-20	M20	14	44	38.8	33	34	210
1840-24	M24	18.5	50.4	46	35	41	365



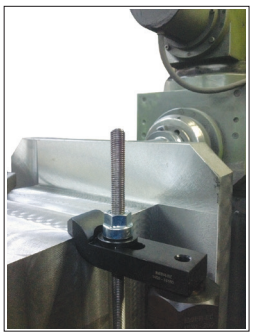
Ürün Nr. 1840 Hızlı Somun
- Somun açık konumda uzun dişlerde hızlı ilerleme kolaylığı sağlar.
- Sertleştirilmiş
- Çinko Kaplama
- Kalite 10





Product Nr. 1840 Quick Nut
- Enables fast sliding on long threads, with nut at open position.
- Hardened
- Zinc Coating
- Quality 10

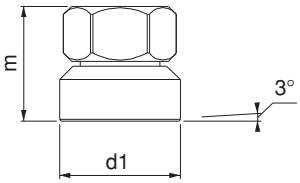




Oynar Başlı Pullu Somun

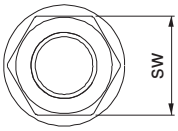
Ball Head Nut

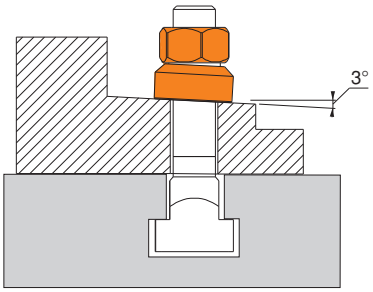
Referans Nr.		sw	d1	m	(g)
1850-08	M8	13	17	14	10
1850-10	M10	17	21	18	30
1850-12	M12	19	24	22	40
1850-16	M16	24	30	28	70
1850-20	M20	30	36	35	140
1850-24	M24	36	44	43	260





Ürün Nr. 1850 Oynar Başlı Pullu Somun
- Açılı yüzeylerde pulun kendi içindeki hareketinden dolayı kullanım avantajı sağlar
- Sertleştirilmiş
- Siyah kaplama
- Kalite 10



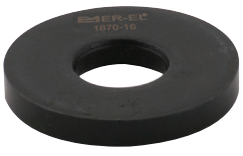


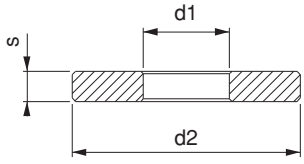
Product Nr. 1850 Ball Head Nut
- It provides advantage for using on angled surfaces due to the movement of the washer within itself
- Hardened
- Black Coating
- Quality 10

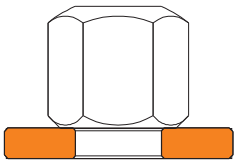
Pul

Washer

Referans Nr.	metrik	whitworth	d1	d2	s	(g)
1870-06	M6	1/4	6.4	17	3	6
1870-08	M8	5/16	8.4	23	4	10
1870-10	M10	3/8	10.5	28	4	16
1870-12	M12	1/2	13	35	5	30
1870-14	M14	-	15	40	5	40
1870-16	M16	5/8	17	45	6	60
1870-18	M18	-	19	45	6	60
1870-20	M20	3/4	21	50	6	70
1870-22	M22	7/8	23	50	8	90
1870-24	M24	7/8	25	60	8	140
1870-30	M30	11/8	31	68	10	215
1870-36	M36	11/4	38	80	12	360
1870-42	M42	11/2	44	98	15	640







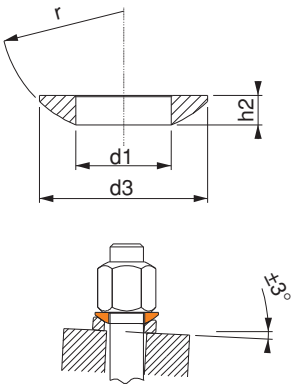
DIN 6340
Ürün Nr. 1870 Pul
- Sertleştirilmiş
- Siyah kaplama

DIN 6340
Product Nr. 1870 Washer
- Hardened
- Black Coating

Radüslü Pul

Rad-top Washer

Referans Nr.		d1	d3	h2	r	(g)
1890-06	M6	6.4	12	2.3	9	1.5
1890-08	M8	8.4	17	3.2	12	2.5
1890-10	M10	10.5	21	4.0	15	5
1890-12	M12	13	24	4.6	17	7
1890-14	M14	15	28	5.0	22	10
1890-16	M16	17	30	5.3	22	15
1890-20	M20	21	36	6.3	27	20
1890-24	M24	25	44	8.2	32	40
1890-30	M30	31	56	11.2	41	95
1890-36	M36	37	68	14.0	50	190
1890-42	M42	43	78	17.0	58	297





DIN 6319C

Ürün Nr. 1890 Radüslü Pul

- DIN 6319D DIN 6319G pullar ile açılı yüzeylerde kullanılır
- Sertleştirilmiş
- Siyah kaplama

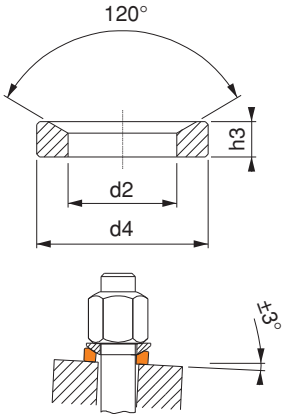
Product Nr. 1890 Rad-top Washer

- This washer is used with DIN 6319G washers on angled surfaces
- Hardened
- Black Coating

Dereceli Pul

Graded Washer

Referans Nr.		max. KN	d2	d4	h3	(g)
1910-06	M6	9	7.1	12	2.8	2
1910-08	M8	17	9.6	17	3.5	4
1910-10	M10	26	12	21	4.2	6.5
1910-12	M12	38	14.2	24	5	10
1910-14	M14	53	16.5	28	5.6	10
1910-16	M16	73	19	30	6.2	15
1910-20	M20	117	23.2	36	7.5	25
1910-24	M24	168	28	44	9.5	55
1910-30	M30	269	35	56	12	120
1910-36	M36	394	42	68	15	220
1910-42	M42	542	49	78	18	365





DIN 6319D

Ürün Nr. 1910 Dereceli Pul

- DIN 6319C radüslü pul ile açılı yüzeylerde kullanılır
- Sertleştirilmiş
- Siyah kaplama

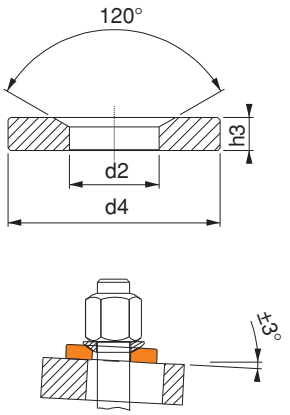
Product Nr. 1910 Graded Washer

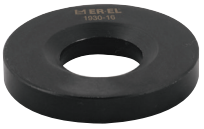
- This washer is used with DIN 6319C rad-top washers on angled surfaces
- Hardened
- Black Coating

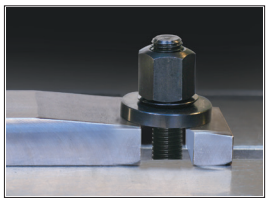
Dereceli Pul

Graded Washer

Referans Nr.		d2	d4	h3	(g)
1930-06	M6	7.1	17	4	5.5
1930-08	M8	9.6	24	5	13
1930-10	M10	12	30	5	19
1930-12	M12	14.2	36	6	32
1930-14	M14	16.5	40	6	45
1930-16	M16	19	44	7	65
1930-20	M20	23.2	50	8	90
1930-24	M24	28	59	10	150
1930-30	M30	35	68	10	180
1930-36	M36	42	79	12	285
1930-42	M42	49	100	15	640







DIN 6319G

Ürün Nr. 1930 Dereceli Pul

- DIN 6319C radüslü pul ile açılı yüzeylerde kullanılır
- DIN 6319D ye göre daha büyük çaplı deliklerde kullanılır
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 1930 Graded Washer

- This washer is used with DIN 6319C rad-top washers on angled surfaces
- According to DIN 6319D, it is used in the holes with bigger diameter
- Hardened
- Black Coating

T-Kanal Temizleyici

T-Slot Scraper

Referans Nr.	a	(g)
1950-1214	12-14	25
1950-1618	16-18	45
1950-2022	20-22	45
1950-2428	24-28	70





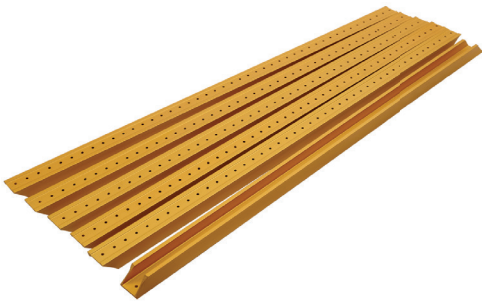
Ürün Nr. 1950 T-Kanal Temizleyici
• T-Kanalları temizlemek için kullanılır

Product Nr. 1950 T-Slot Scraper
• This scraper is used to clean T-Slots

T-Kanal Koruyucu

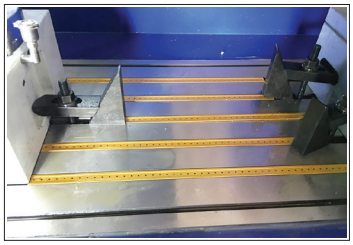
Milling T-Slot Cover

Referans Nr	Genişlik Width (mm)	Boy Length (mm)	Miktar Quantity
1955-T010	10	300	6
1955-T012	12	400	6
1955-T014	14	400	6
1955-T016	16	400	6
1955-T018	18	450	6
1955-T181	18	1000	5
1955-T205	20	500	10
1955-T020	20	1000	5
1955-T022	22	1000	5
1955-T024	24	1000	5
1955-T028	28	1000	5
1955-T036	36	1000	5

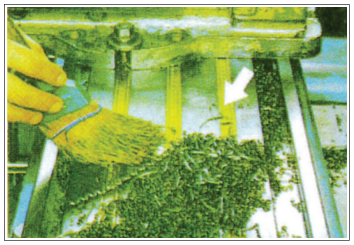


Ürün Nr. 1955 T-Kanal Koruyucu
• T-Kanal aralarını gereksiz talaş dolmasını kirlenmesini önler.
T-Kanalınızı korur ve temizliğini kolaylaştırır.
• Malzeme: Alüminyum

Product Nr. 1955 Milling T-Slot Cover
• It prevents unnecessary shavings filling and become dirty.
It is used to clean T-Slots.
• Material: Aluminum







Modüler T-Blok

Modular T-Block

Referans Nr.	a	(g)
1960-110	14-16-18-20	1160

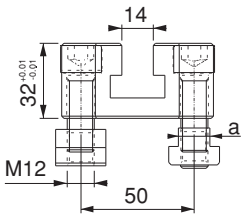


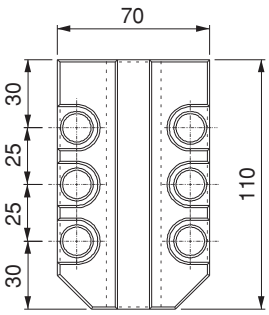
Ürün Nr. 1960 Modüler T-Blok
- Sertleştirilmiş
- Siyah kaplama

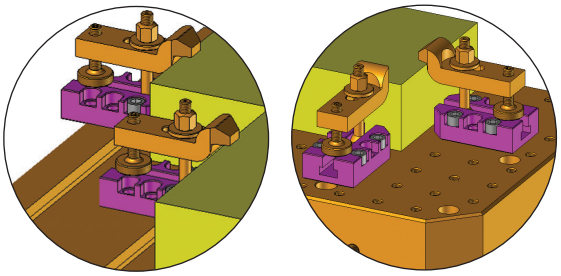
Tezgah pleytine bağlanacak iş parçasının orantısız duruşunda pleytin uygun bir yerine sabitlenerek iş parçasını bağlamada kolaylık sağlar.

Product Nr. 1960 Modular T-Block
- Hardened
- Black coating

It provides convenience to fix the work piece on a suitable place of the plateduring the non-proportional stopping of the work piece to be applied on the plate of the bench







Pabuç Kaldırma Yaylı Pul

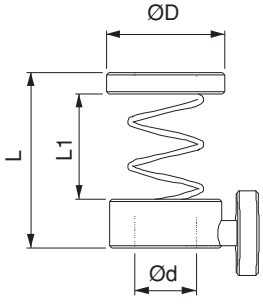
for Lifting the Washer

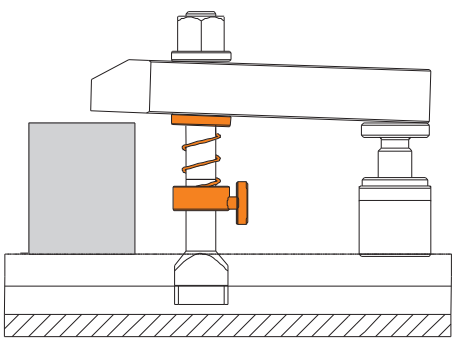
Referans Nr.		Ø D	Ø d	L	L1	(g)
1970-10	M10	27	10.5	35	20	65
1970-12	M12	27	12.5	40	33	70
1970-14	M14	28	14.5	40	30	60
1970-16	M16	37	16.5	45	30	110
1970-18	M18	37	18.5	45	40	115
1970-20	M20	37	21	45	42	105
1970-22	M22	37	23	45	45	120
1970-24	M24	45	25	50	45	170



Ürün Nr. 1970 Pabuç Kaldırma Yaylı Pul
- Bağlama ve sökme işleminde pabucu dengeli şekilde kaldırarak çalışma kolaylığı sağlar
- Siyah kaplama

Product Nr. 1970 Springed Washer for Lifting the Washer
- This washer provides convenience of using in coupling and dismantling processes by lifting the clamp evenly
- Black coating





SETLER

SETS

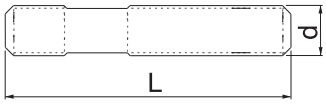


Vidalı Yükselticili Bağlama Set

Screwed Coupling Set with Lifter

Referans Nr.	a		(kg)	d x L — DIN 6379
1990-1012	M10x12	265x255	6.44	M10x80-100-160-200
1990-1214	M12x14	305x255	8.72	M12x80-100-160-200
1990-1416	M14x16	435-255	12.98	M14x80-100-160-200
1990-1618	M16x18	435-255	16.30	M16x80-100-160-200
1990-1820	M18x20	495x255	17.82	M18x80-100-160-200
1990-2022	M20x22	540x255	23.10	M20x100-125-160-200





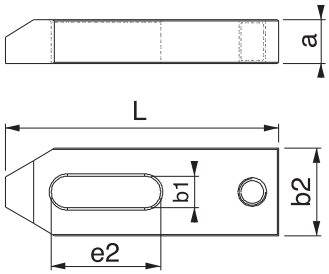
Ürün Nr. 1990 Vidalı Yükselticili Bağlama Set

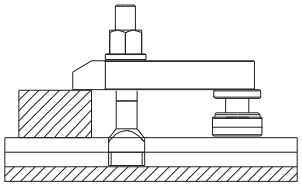
- Tabla üzerine iş parçası ve aparatların hızlı ve güvenli bir şekilde bağlanması için çelik mamülden üretilmiş parçalardan oluşan bağlama seti

Product Nr. 1990 Screwed Coupling Set with Lifter

- This is the coupling set produced from steel product in order to couple the work piece or apparatuses on the table in a rapid and safe way.

Nr.	L	b1		a	e2	b2
1330	80	11	M10	15	30	30
1330 1330	100 125	14.5	M12-M14	20	40	40
1330 1330	125 160	18.5	M16-M18	25	45 65	50
1330 1330	160 200	22.5	M20-M22	30	60 80	60



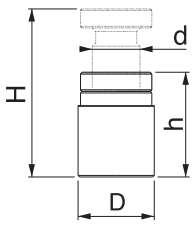


a	DIN 508	DIN 6330 B	Nr 1830	DIN 6331	DIN 6340
12	M10	M10	M10	M10	M10
14	M12	M12	M12	M12	M12
16	M14	M14	M14	M14	M14
18	M16	M16	M16	M16	M16
20	M18	M18	M18	M18	M18
22	M20	M20	M20	M20	M20



Nr.	a
1950	12-14 16-18 20-22

Nr.	h	H	d	D
1510	23	30	M16	34
1510	40	60	M16	34
1510	70	100	Tr 30x4	50
1510	100	140	Tr 30x4	50



Ürün: 52 Parça Vida Yükselticili İş Bağlama Set

- 6 adet DIN 508 T-Pabuç (M20x22'de 4 adet)
- 16 adet DIN 6379 saplama
- 6 adet DIN 6330B takviyeli somun
- 4 adet DIN 6331 pullu somun
- 2 adet Nr. 1830 uzatma somun
- 4 adet DIN 6340 kalın pul
- 4 adet Nr. 1330 destek delikli pabuç
- 8 adet Nr. 1510 vida diş yükseltici destek
- 1 adet Nr. 1950 T-Kanal temizleyici
- 1 adet statik boyalı çelik set
- Not: M20 VBS'de somun ve pul 4'er adet
  M10-12 VBS'de 1510 yükseltici 6 adet konulmaktadır.

Product: 52 piece set of Screwed Coupling Set with Lifter

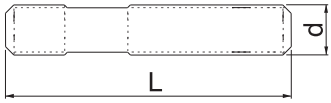
- 6 pieces of DIN 508 T-Nut (M20x22 4 piece)
- 16 pieces of DIN 6379 Stud
- 6 pieces of DIN 6330B Supported Nut
- 4 pieces of DIN 6331 Nut with Washer
- 2 pieces of No. 1830 Extension Nut
- 4 pieces of DIN 6340 Thick Washer
- 4 pieces of No. 1330 Clamp with Support Hole
- 8 pieces of No. 1510 Screw Thread Lifter Support
- 1 piece of No. 1950 T-Slot Scraper
- 1 piece of Steel Set with Statical Paint
- Note: 1990-2022= Hexagon nut and washer = 4 pcs
  1990-1012 and 1990-1214= 1510 support 6 pcs

Merdiven Yükselticili Bağlama Set

Coupling Set with Serrated Hell Block

Referans Nr.	dx a		(kg)	DIN 6379 d x L
2010-1012	M10x12	330x255	7.27	M10x80-100-160-200
2010-1214	M12x14	380x255	9.26	M12x80-100-160-200
2010-1416	M14x16	435x255	12.29	M14x80-100-160-200
2010-1618	M16x18	435x255	15.62	M16x80-100-160-200
2010-1820	M18x20	495x255	18.00	M18x80-100-160-200





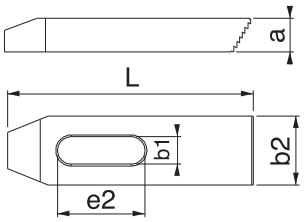
Ürün Nr. 2010 Merdiven Yükselticili Bağlama Set

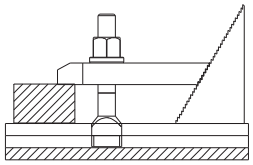
• Tabla üzerine iş parçası ve aparatların hızlı ve güvenli bir şekilde bağlanması için çelik mamülden üretilmiş parçalardan oluşan bağlama seti.

Product Nr. 2010 Coupling Set with Serrated Hell Block

• This is the coupling set produced from steel product in order to couple the work piece or apparatuses on the table in a rapid and safe way.

Nr.	L	b1		a	e2	b2
1290	80 100	11	M10	15	30 45	30
1290	100 125	14.5	M12-M14	20	45 55	40
1290	125 160	18.5	M16-M18	25	65 65	50



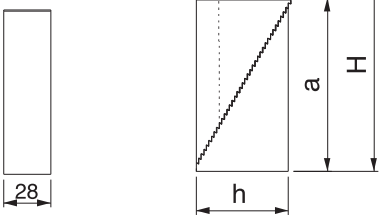


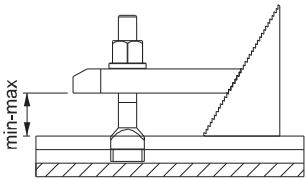
a	DIN 508	DIN 6330 B	Nr 1830	DIN 6331	DIN 6340
12 14 16 18 20	M10 M12 M14 M16 M18	M10 M12 M14 M16 M18	M10 M12 M14 M16 M18	M10 M12 M14 M16 M18	M10 M12 M14 M16 M18



Nr.	a
1950	12-14 16-18 20-22

Nr.	h-H	a	min-max
1310	37-85	57	0-40
1310	48-112	73	0-60
1310	58-139	90	0-75
1310	66-165	108	0-90





Ürün: 52 Parça Merdiven Destekli İş Bağlama Set

- 6 adet DIN 508 T-Pabuç
- 16 adet DIN 6379 saplama
- 6 adet DIN 6330B takviyeli somun
- 4 adet DIN 6331 pullu somun
- 2 adet 1830 uzatma somun
- 4 adet DIN 6340 kalın pul
- 4 adet Nr.1290 merdiven pabuç
- 8 adet Nr. 1310 merdiven diş destek
- 1 adet Nr. 1950 T-Kanal temizleyici
- 1 adet statik boyalı çelik set

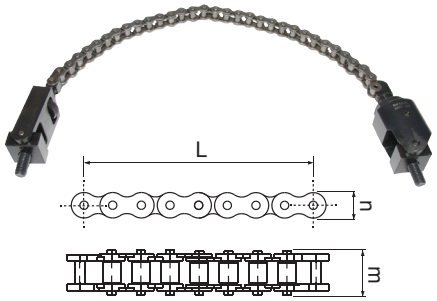
Product: 52 piece set of Coupling Set with Serrated Hell Block

- 6 pieces of DIN 508 T-Nut (M20x22 4 piece)
- 16 pieces of DIN 6379 Stud
- 6 pieces of DIN 6330B Supported Nut
- 4 pieces of DIN 6331 Nut with Washer
- 2 pieces of No. 1830 Extension Nut
- 4 pieces of DIN 6340 Thick Washer
- 4 pieces of No. 1290 Serrated Clamp
- 8 pieces of No. 1310 Clamp with Support Hole
- 1 piece of No. 1950 T-Slot Scraper
- 1 piece of Steel Set with Statical Paint

Zincirli Sıkma

Fixture Chain

Referans Nr.		a	Tork Torqe Nm	Sıkma Kuvveti Clamping Force kgf	L	m	n	(g)
2020-120125	M12	14-16-18	45	1500	125	20	15	1414
2020-120250	M12		45	1500	250	20	15	1528
2020-120500	M12		45	1500	500	20	15	1755
2020-121000	M12		45	1500	1000	20	15	2210
2020-160125	M16	18-20-22-24	90	4000	125	33	21	3495
2020-160250	M16		90	4000	250	33	21	3810
2020-160500	M16		90	4000	500	33	21	4480
2020-161000	M16		90	4000	1000	33	21	5820



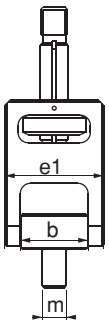
Ürün Nr. 2020 Zincirli Sıkma
- Silindir ve oval iş parçalarının bağlanabilmesi için tasarlanmıştır.
- Sertleştirilmiş
- Siyah kaplama

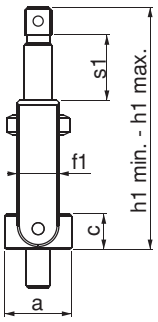
Product Nr. 2020 Fixture Chain
- It is designed for clamping of cylinder and oval workpieces.
- Hardened
- Black coating

Ayar Ünitesi

Setting Unit

Referans Nr.	a	a	b	c	e1	f1	h1 min	h1 max	m	s1	Sıkma Kuvveti Clamping Force kgf	(g)
2020-12125	14-16-18	36	36	18	49	21	96	125	M12	35	1500	580
2020-16162	18-20-22-24	37	44	25	64	29	117	162	M16	45	4000	1275







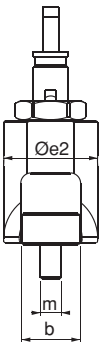
Ürün Nr. 2020 Ayar Ünitesi
- Sertleştirilmiş
- Siyah kaplama

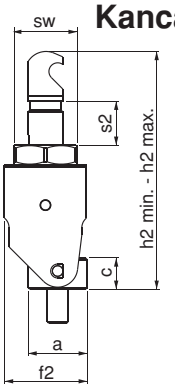
Product Nr. 2020 Setting Unit
- Hardened
- Black coating

Kanca Ünitesi

Hook Unit

Referans Nr.	a	a	b	c	e2	f2	h2 min	h2 max	m	s2	sw	Tork Torqe Nm	Sıkma Kuvveti Clamping Force kgf	(g)
2020-12127	14-16-18	36	36	18	54	49	111	127	M12	16	36	45	1500	945
2020-16170	18-20-22-24	37	44	25	70	62	140	170	M16	30	46	90	4000	1890

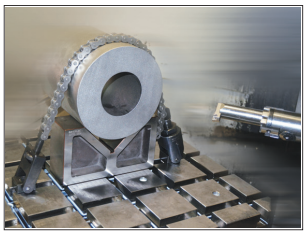






Ürün Nr. 2020 Kanca Ünitesi
- Sertleştirilmiş
- Siyah kaplama

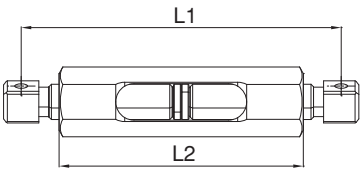
Product Nr. 2020 Hook Unit
- Hardened
- Black coating



Zincir Soketi

Chain Socket

Referans Nr.	L1	L2	(g)
2020-127	127-173	97	350
2020-164	164-225	126	800





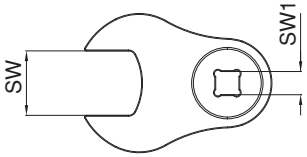
Ürün Nr. 2020 Zincir Soketi
- Zincir burkulmalarını önlemek için kullanılır
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2020 Chain Socket
- Used to prevent chain buckling.
- Hardened
- Black coating

Tork Anahtarı Soketi

Torque Wrench Socket

Referans Nr.	SW	SW1	(g)
2020-36	36	1/2	320
2020-46	46	1/2	520





Ürün Nr. 2020 Tork Anahtarı Soketi
- Tork anahtarı için kullanılır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2020 Torque Wrench Socket
- Used to for torque wrench.
- Hardened
- Black coating

YANDAN BAĞLAMA PABUÇLAR

SIDE CLAMPS



Dereceli Yandan Bağlama Set

Graded side Wrench Set

Referans Nr.	a	c	L	b	n	k	k1	k2	L1	d	d1	d2	sw	sıkma kuvveti clamping force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(g)
2030-14	14	5	90	23	47	47	26	26	65	M12	M12	M12	10	2000	35	3490
2030-16	16															3670
2030-18	18	5	95	28	57	52	26	26	65	M12	M12	M12	10	2000	35	5000
2030-20	20															5355
2030-22	22															5720
2030-24	24															6190
2030-28	28															6650

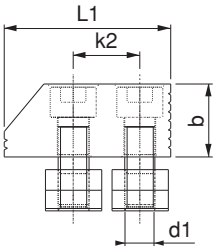


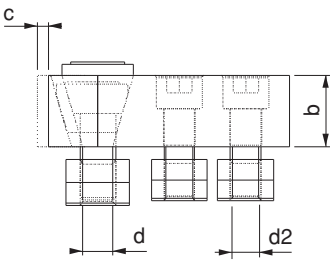
Ürün Nr. 2030 Dereceli Yandan Bağlama Set

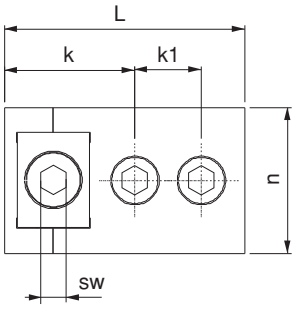
- İş parçasını dayama yönünde sıktığında parçanın özgün yapısını değişikliğe sebep vermez
- Sertleştirilmiş
- Siyah kaplama
- Plastik kutuda set

Product Nr. 2030 Graded side Wrench Set

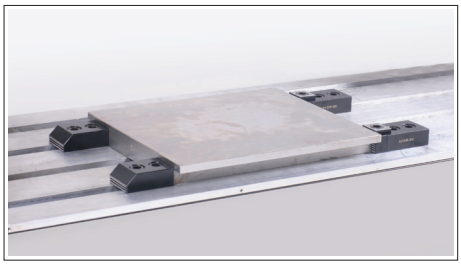
- When the product clamps the work piece in the direction of rest, it does not cause alteration in the genuine structure of the piece.
- Hardened
- Black coating
- Set is in the plastic box







Set İçindekiler / The set consists of						
Parça Part						
Adet Quantity	2	2	10	10	1	1



Dereceli Yandan Bağlama Gövde

Graded side Wrench Body

Referans Nr.	a
2035-14	14
2035-16	16
2035-18	18
2035-20	20
2035-22	22
2035-24	24
2035-28	28



Dereceli Yandan Bağlama Dayama

Graded side Wrench Pluggable

Referans Nr.	a
2040-14	14
2040-16	16
2040-18	18
2040-20	20
2040-22	22
2040-24	24
2040-28	28

Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilmektedir.

Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.



Dereceli Yandan Bağlama (Paralelli) Set

Graded side Wrench Set (With Parallel)

Referans Nr.	a	c	L	L1	L2	L3	b	b1 ±0.01	n	k	k1	k2	d	d1	d2	sw	sıkma kuvveti clamping force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(g)
2050-14	14	5	110	90	85	65	41	18	47	47	26	26	M12	M12	M12	6	1000	15	5920
2050-16	16																		6210
2050-18	18	5	115	95	85	65	46	18	57	52	26	26	M12	M12	M12	8	1250	20	8090
2050-20	20																		8440
2050-22	22																		8825
2050-24	24																		10080
2050-28	28																		10750

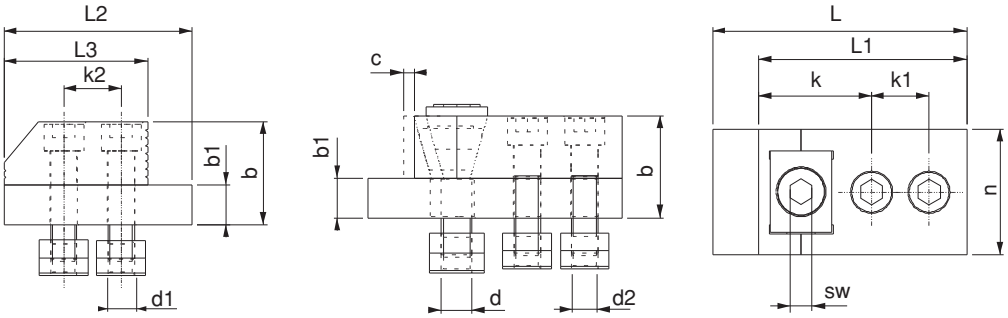


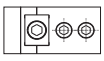
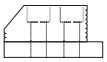
Ürün Nr. 2050 Dereceli Yandan Bağlama (Paralelli) Set

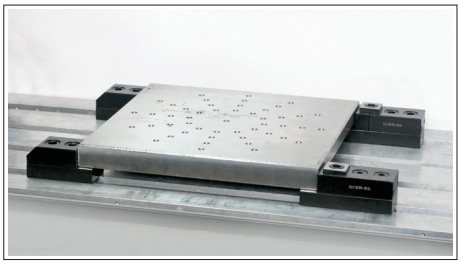
- İş parçasını dayama yönünde sıktığında parçanın özgün yapısını değişikliğe sebep vermez. Paralelli oluşundan dolayı işlenen parçaya delik işlemi uygulanabilir.
- Sertleştirilmiş
- Siyah kaplama
- Plastik kutuda set

Product Nr. 2050 Graded side Wrench Set (With Parallel)

- When the product clamps the work piece in the direction of rest, it does not cause alteration in the genuine structure of the piece. Because of being with parallel, hole process can be applied on the machined piece.
- Hardened
- Black coating
- Set is in the plastic box



Set İçindekiler / The set consists of						
Parça Part						
Adet Quantity	2	2	10	10	2	1



Dereceli Yandan Bağlama (Paralelli) Gövde

Graded side Wrench (Parallel) Body

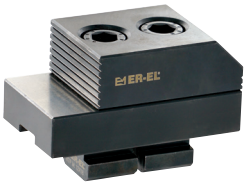
Referans Nr.	a
2055-14	14
2055-16	16
2055-18	18
2055-20	20
2055-22	22
2055-24	24
2055-28	28



Dereceli Yandan Bağlama (Paralelli) Dayama

Graded side Wrench (Parallel) Pluggable

Referans Nr.	a
2060-14	14
2060-16	16
2060-18	18
2060-20	20
2060-22	22
2060-24	24
2060-28	28



Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilmektedir.

Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.

Kızaklı Yandan Bağlama Set

Sliding Side Wrench Set

Referans Nr.	a	c	L	b	b1	n	n1	n2	k	k1	k2	sw	ı	h	h1	d	d1	sıkma kuvveti clamping force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(g)
2070-14	14	10	142	24	8	37	12.5	18.5	65	54	26	6	65	23	10	M12	M12	850	15	3575
2070-16	16																			3710
2070-18	18	14	145	28	10	48	12.5	18.5	74	56	26	8	65	28	11	M12	M12	1000	35	5215
2070-20	20																			5400
2070-22	22																			5610

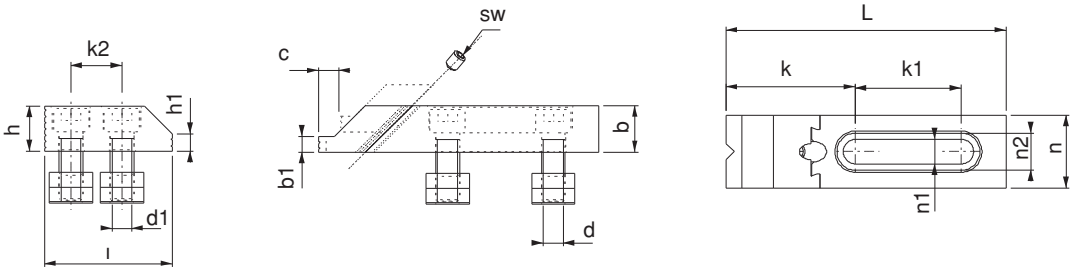
Ürün Nr. 2070 Kızaklı Yandan Bağlama Set

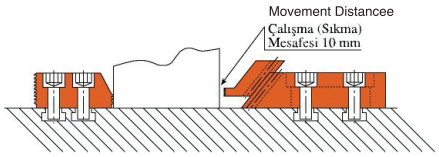
- Hareketli çenenin kızaklı yapısından dolayı iş parçasını dayama ve pleyt yönüne sıkar. Çenenin geniş hareketi iş parçasını bağlama ve sökmede kolaylık sağlar.
- DIN 650 T-Kanala uyumludur
- Çene Sertlik : Sertleştirilmiş
- Siyah kaplama
- Plastik kutuda set

Product Nr. 2070 Sliding Side Wrench Set

- Because of the sliding structure df the moving jaw it clamps the work piece in the direction of resting and plate. Wide movement of the jaw provides convenience in coupling and dismantling of the workpiece.
- It is in compliance with DIN 650 T-Slot
- Hardness of jaw: Hardened
- Black coating
- Set is in the plastic box

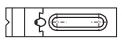






Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilmektedir.

Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.

Set İçindekiler / The set consists of						
Parça Part						
Adet Quantity	2	2	8	8	2	1



Kızaklı Yandan Bağlama Gövde

Sliding Side Wrench Body

Referans Nr.	a
2075-14	14
2075-16	16
2075-18	18
2075-20	20
2075-22	22
2075-24	24
2075-28	28



Kızaklı Yandan Bağlama Dayama

Sliding Side Wrench Pluggable

Referans Nr.	a
2040-14	14
2040-16	16
2040-18	18
2040-20	20
2040-22	22
2040-24	24
2040-28	28



Yandan Bağlama Set

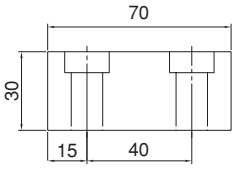
Side Wrench Set

Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
2070-MBS701214	14	2500	60	3.14
2070-MBS701216	16	2500	60	3.14
2070-MBS701218	18	2500	60	3.14
2070-MBS701220	20	2500	60	3.14

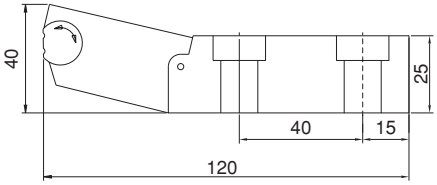


Ürün Nr. 2070 Yandan Bağlama Set
- Mafsallı tasarımıyla düz olmayan yüzeylerde dahi mevcut yüzey şeklini alarak emniyetli bağlama yapar.

Product Nr. 2070 Side Wrench Set
- With its articulated design, it makes safe bonding even on uneven surfaces by taking the existing surface shape.



Genişlik / Width 40 mm.



Genişlik / Width 40 mm.



Yandan Bağlama Gövde

Side Press Body

Referans Nr.	a	(kg)
2070-MS701114	14	0.87
2070-MS701116	16	0.87
2070-MS701118	18	0.87
2070-MS701120	20	0.87



Ürün Nr. 2070 Yandan Bağlama Gövde
- Mafsallı tasarımıyla düz olmayan yüzeylerde dahi mevcut yüzey şeklini alarak emniyetli bağlama yapar.

Product Nr. 2070 Side Press Body
- With its articulated design, it makes safe bonding even on uneven surfaces by taking the existing surface shape.

Yandan Bağlama Dayama

Side Press Stopper

Referans Nr.	a	(kg)
2070-MD702114	14	0.65
2070-MD702116	16	0.65
2070-MD702118	18	0.65
2070-MD702120	20	0.65



Ürün Nr. 2070 Yandan Bağlama Dayama
Product Nr. 2070 Side Press Stopper

Yandan Bağlama (Paralelli) Set

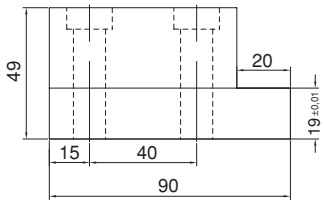
Side Wrench Set (With Parallel)

Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
2070-MBS801114	14	2500	60	6.15
2070-MBS801116	16	2500	60	6.15
2070-MBS801118	18	2500	60	6.15
2070-MBS801120	20	2500	60	6.15

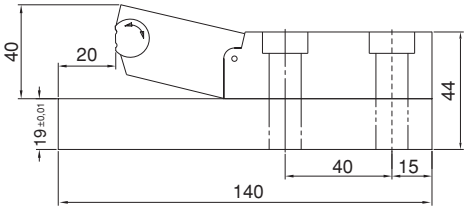


Ürün Nr. 2070 Yandan Bağlama (Paralelli) Set
- Mafsallı tasarımıyla düz olmayan yüzeylerde dahi mevcut yüzey şeklini alarak emniyetli bağlama yapar.

Product Nr. 2070 Side Wrench Set (With Parallel)
- With its articulated design, it makes safe bonding even on uneven surfaces by taking the existing surface shape.



Genişlik / Width 40 mm.



Genişlik / Width 40 mm.



Yandan Bağlama Gövde

Side Press Body

Referans Nr.	a	(kg)
2070-MS801214	14	1.86
2070-MS801216	16	1.86
2070-MS801218	18	1.86
2070-MS801220	20	1.86



Ürün Nr. 2070 Yandan Bağlama Gövde
- Mafsallı tasarımıyla düz olmayan yüzeylerde dahi mevcut yüzey şeklini alarak emniyetli bağlama yapar.

Product Nr. 2070 Side Press Body
- With its articulated design, it makes safe bonding even on uneven surfaces by taking the existing surface shape.

Yandan Bağlama Dayama

Side Press Stopper

Referans Nr.	a	(kg)
2070-MD802214	14	1.18
2070-MD802216	16	1.18
2070-MD802218	18	1.18
2070-MD802220	20	1.18



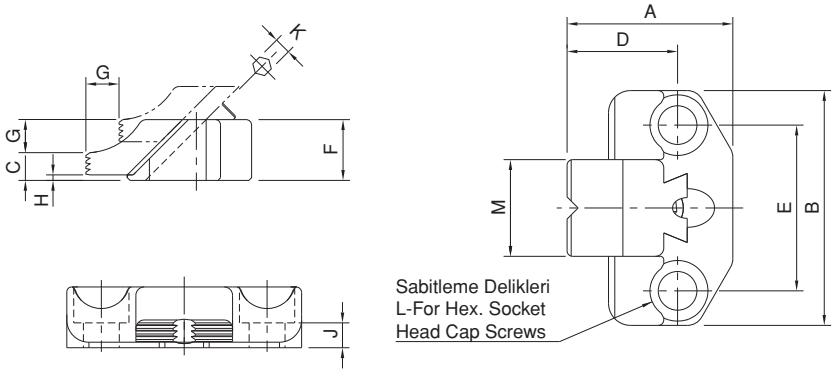
Ürün Nr. 2070 Yandan Bağlama Dayama
Product Nr. 2070 Side Press Stopper

Referans Nr.	A	B	C	D	E	F	G	H	J	K	L	M	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(g)
2072-08016	39.5	65	7.5	25	45	16	7	1.5	7	4	M8	25	400	8	160
2072-12022	60	85	10	40	60	22	12	2	9	6	M12	35	900	26	450
2072-16030	77	100	14	50	70	30	14	2	13	8	M16	40	1700	60	900

Ürün Nr. 2072 Yandan Bağlama
• Siyah Kaplama

Product Nr. 2072 Side Clamps
• Black Coating





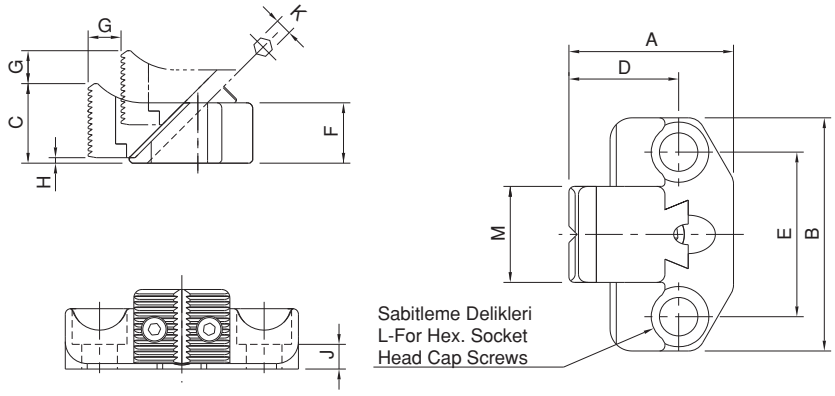
Yandan Bağlama
Side Clamps

Referans Nr.	A	B	C	D	E	F	G	H	J	K	L	M	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(g)
2073-08016	39.5	65	19.5	25	45	16	7	1.5	7	4	M8	25	400	8	180
2073-12022	60	85	29	40	60	22	12	2	9	6	M12	35	900	26	500
2073-16030	77	100	38	50	70	30	14	2	13	8	M16	40	1700	60	1010

Ürün Nr. 2073 Yandan Bağlama
• Çene Sertlik: Sertleştirilmiş
• Siyah Kaplama

Product Nr. 2073 Side Clamps
• Hardness of jaw: Hardened
• Black Coating





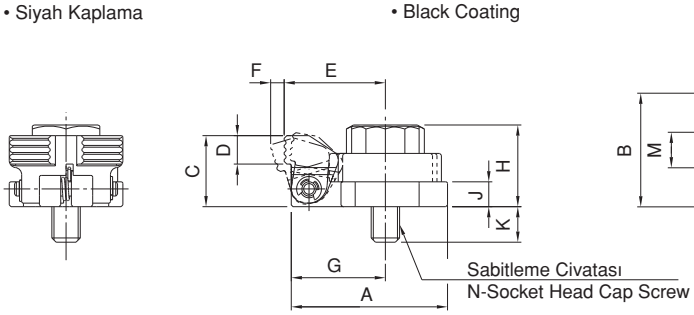
Referans Nr.	A	B	C	D	E	F	G	H	J	K	L	M	N
2077-08001	44	32	20	8	28.5	4	26.5	23	7	15	19	10	M8x1.25
2077-10001	54	40	25	10	35	5	33	29	9	16	24	12	M10x1.5
2077-12001	62	46	30	12	39.5	5.5	37.5	35	11	17	27	14	M12x1.75

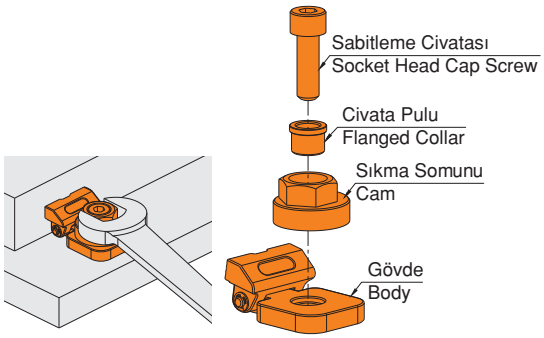
Referans Nr.	P	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(g)
2077-08001	6	350	45	160
2077-10001	8	550	55	310
2077-12001	10	700	70	490



Ürün Nr. 2077 Yandan Bağlama
- Siyah Kaplama

Product Nr. 2077 Side Clamps
- Black Coating





Kullanım Şekli / How To Use
- Önce parçayı sabitleyip sonra anahtar ile sıkma işlemi yapılır.
- Secure the body and the flanged collar with a socket head cap screw, and then turn the the cam with a wrench to clamp a workpiece.

Referans Nr.	a	A	H	L	S	Sıkma Kuvveti Clamping Force Kgf	(g)
2080-014	14	61	57	108	5	1500	1850
2080-016	16	61	57	108	5	1500	1850
2080-018	18	61	57	108	5	1500	1850
2080-020	20	61	57	108	5	1500	1850
2080-022	22	61	57	108	5	1500	1850
2080-024	24	61	57	108	5	1500	1850
2080-028	28	61	57	108	5	1500	1850



Ürün Nr. 2080 Yandan Bağlama
- Vida kaldırması ile dikey ve yatay sıkma kuvveti sağlamakta.

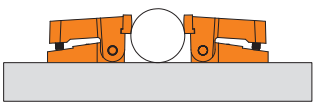
Gövde
- Statik Boya

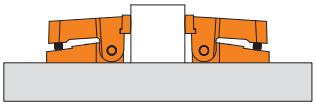
Çene
- Sertleştirilmiş

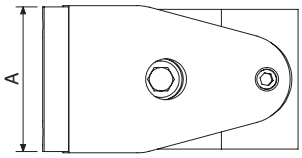
Product Nr. 2080 Side Clamps
- Vertical down thust and horizontal clamping force available simultaneously with the operation of leverage screw

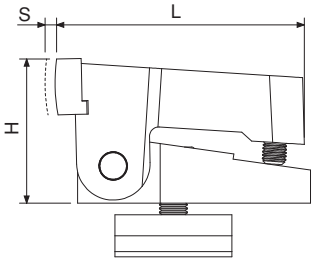
Body
- Statical Painting

Jaw
- Hardened









Kollu Yandan Bağlama Set

Armed Side Press Set

Referans Nr.	a	c	b	k1	k2	k3	k4	L	h	h1	d	d1	sıkma kuvveti clamping force Kgf	(g)
2090-14	14	3.5	30	95	99	26	26	65	28	10	M12	M12	3500	7925
2090-16	16													8490
2090-18	18													4610
2090-20	20													8850
2090-22	22													9030
2090-24	24													9490
2090-28	28													9800



Ürün Nr. 2090 Kollu Yandan Bağlama Set

- Ürünün eksantrik çalışma sistemi saat yönünde sıkıldığında iş parçasını dayama ve pleyt yönüne özel dizayn anahtarı ile yüksek kuvvette sıkar.

1-Kollu yandan sıkma pabucun eksantrik hareketi 3.5 mm'dir.
2-Ürün iş parçasına 1.5 - 2 mm yakınlaştırılır.
3-10 mm alyan ile imbus civataları sabitlenir.
4-Ürünü anahtarı ile saat yönünde çevirerek iş parçasını sabitleme işlemi gerçekleştirilir.

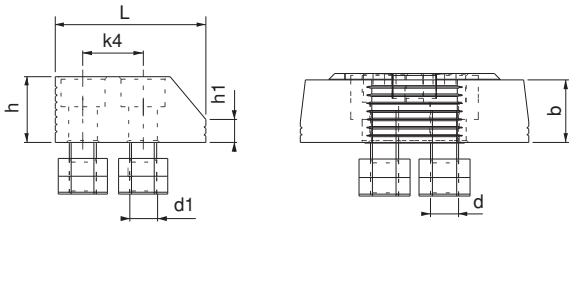
- DIN 650 T-Kanala uyumludur
- Somun Sertlik : Sertleştirilmiş
- Siyah kaplama
- Plastik kutuda set

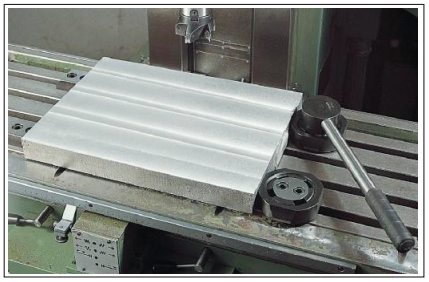
Product Nr. 2090 Armed Side Press Set

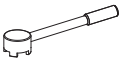
- When the eccentric working system of the product is tightened clockwise, it clamps the work piece with high force in the direction of resting and plate with it's special designed wrench.

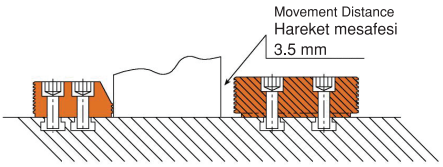
1-Eccentric movement of Armed Side Clamp 3.5 mm.
2-It brings the product 1.5 - 2mm close to the work piece
3-imbus bolts are fixed with 10mm allen.
4-Fixing of the work piece is implemented by turning the product clockwise with the wrench.

- It is in compliance with DIN 650 T-Slot
- Hardness of nut: Hardened
- Black coating
- Set is in the plastic box





Set İçindekiler / The set consists of							
Parça Part							
Adet Quantity	2	2	1	8	8	1	1



Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilmektedir.

Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.

Kollu Yandan Bağlama Gövde

Armed Side Press Body

Referans Nr.	a
2090-114	14
2090-116	16
2090-118	18
2090-120	20
2090-122	22
2090-124	24
2090-128	28



Kollu Yandan Bağlama Dayama

Armed Side Press Pluggable

Referans Nr.	a
2040-14	14
2040-16	16
2040-18	18
2040-20	20
2040-22	22
2040-24	24
2040-28	28



Not: Sabit dayamanın dereceli tarafı ince parçalar, düz tarafı ise kalın parçalarda kullanılmak üzere iki farklı şekilde kullanılabilmektedir.

Note: Fixed rest can be used as two different ways: Graded side is used for thin pieces and the Straight side is used with thick pieces.

Referans Nr.	a	a1	a2	b	b1	c	h min-max	L	sw	Nm	F1 Sıkma kuvveti Clamping force Kgf	F2 Sıkma kuvveti Clamping force Kgf	(kg)
2095-571	14-16-18	37	37	57	19	8	78-98	185	10	30	2250	350	3.68
2095-761	20-22-24-28	37	45	76	26	11	98-118	240	14	55	3000	450	7.66

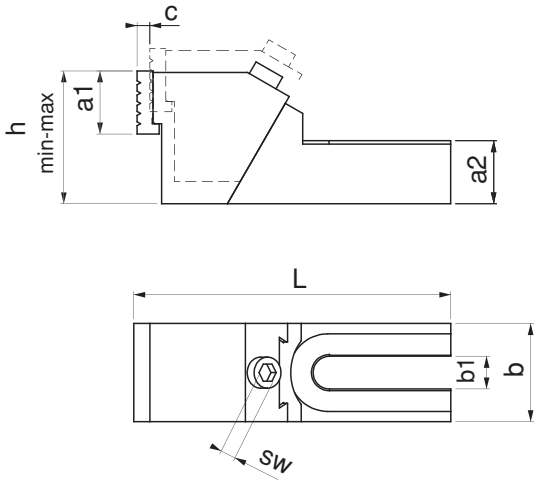
Ürün Nr. 2095 Blok Yandan Bağlama

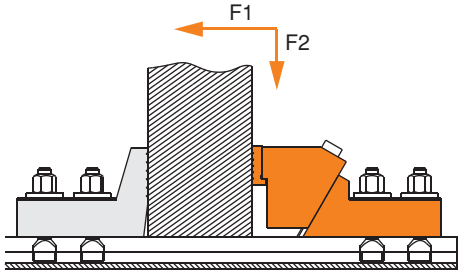
- İş parçasını dayama ve pleyt yönüne sıkar özellikle yüksek iş parçaları için tasarlanmıştır
- Çene Sertlik: Sertleştirilmiş
- Siyah kaplama

Product Nr. 2095 Block Side Press

- It clamps the workpieces in clamp rest direction and plate direction, it is designed especially for high workpieces.
- Hardness of jaw: Hardened
- Black coating







Blok Yandan Bağlama

Block Side Press

Referans Nr.	a	a1	a2	b	b1	c	h min-max	L	sw	Nm	F1 Sıkma kuvveti Clamping force Kgf	F2 Sıkma kuvveti Clamping force Kgf	(kg)
2095-572	14-16-18	37	37	57	19	8	78-98	185	10	30	2250	350	3.6
2095-762	20-22-24-28	37	45	76	26	11	98-118	240	14	55	3000	450	6.7

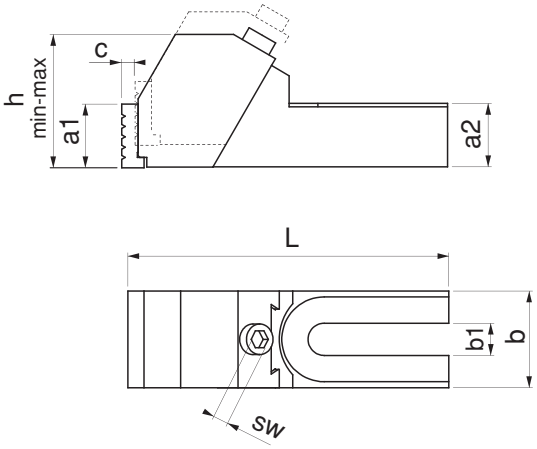
Ürün Nr. 2095 Blok Yandan Bağlama

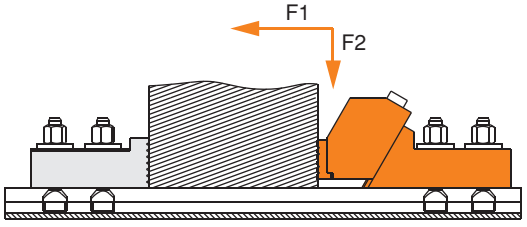
- İş parçasını dayama ve pleyt yönüne sıkar büyük plakaların bağlanabilmesi için tasarlanmıştır
- Çene Sertlik: Sertleştirilmiş
- Siyah kaplama

Product Nr. 2095 Block Side Press

- It clamps the workpieces in clamp rest direction and plate direction, it is designed for clamping big plates.
- Hardness of jaw: Hardened
- Black coating







Blok Yandan Bağlama Dayaması

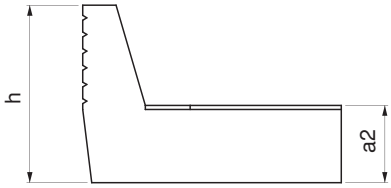
Block Stopper Side Press

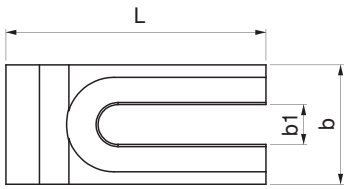
Referans Nr.	a	a2	b	b1	h	L	(kg)
2098-571	14-16-18	37	57	19	85	124	2.025
2098-761	20-22-24-28	45	76	26	105	154	4.185

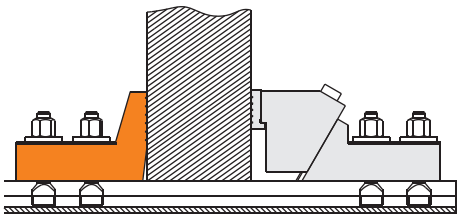


Ürün Nr. 2098 Blok Yandan Bağlama Dayaması
- 2095-571 ve 761 pabuçlar için dayama olarak tasarlanmıştır.
- Siyah kaplama

Product Nr. 2098 Block Stopper Side Press
- It is designed as clamp rest for clamps 2095-571 and 761.
- Black coating







Blok Yandan Bağlama Dayaması

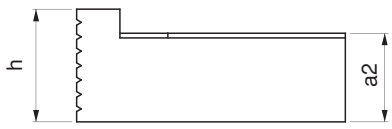
Block Stopper Side Press

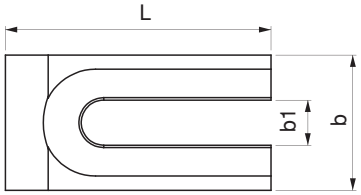
Referans Nr.	a	a2	b	b1	h	L	(kg)
2098-572	14-16-18	37	57	19	47	112	2.800
2098-762	20-22-24-28	45	76	26	49	140	4.185

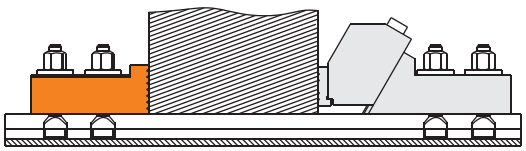
Ürün Nr. 2098 Blok Yandan Bağlama Dayaması
- 2095-572 ve 762 pabuçlar için dayama olarak tasarlanmıştır.
- Siyah kaplama

Product Nr. 2098 Block Stopper Side Press
- It is designed as clamp rest for clamps 2095-572 and 762.
- Black coating





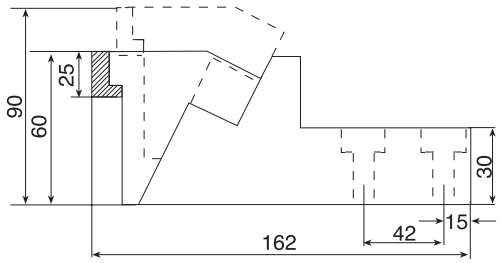




Blok Yandan Bağlama
Block Side Press

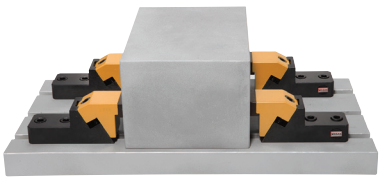
Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
2105-MYB404114	14	3000	55	2.80
2105-MYB404116	16	3000	55	2.80
2105-MYB404118	18	3000	55	2.80
2105-MYB404120	20	3000	55	2.80
2105-MYB404122	22	3000	55	2.80
2105-MYB404124	24	3000	55	2.80

Ürün Nr. 2105 Blok Yandan Bağlama
Product Nr. 2105 Block Side Press



Genişlik / Width 54 mm.

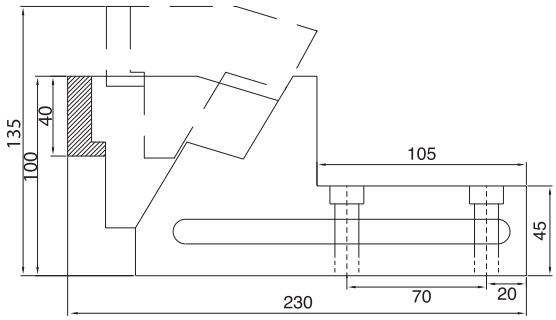




Blok Yandan Bağlama
Block Side Press

Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
2105-MYB901120	20	3000	55	6.85
2105-MYB901122	22	3000	55	6.85
2105-MYB901124	24	3000	55	6.85
2105-MYB901128	28	3000	55	6.85

Ürün Nr. 2105 Blok Yandan Bağlama
Product Nr. 2105 Block Side Press



Genişlik / Width 68 mm.

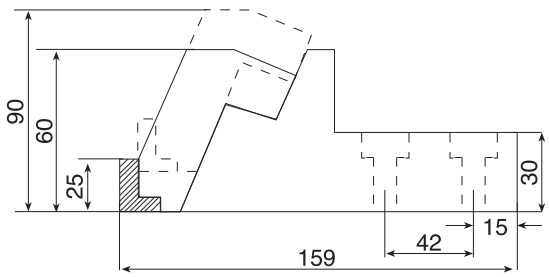




Blok Yandan Bağlama
Block Side Press

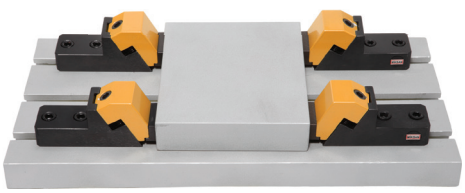
Referans Nr.	a	Sıkma Kuvveti Clamping Force (Kgf)	Nm	(kg)
2105-MYB303114	14	3000	55	2.80
2105-MYB303116	16	3000	55	2.80
2105-MYB303118	18	3000	55	2.80
2105-MYB303120	20	3000	55	2.80
2105-MYB303122	22	3000	55	2.80
2105-MYB303124	24	3000	55	2.80

Ürün Nr. 2105 Blok Yandan Bağlama
Product Nr. 2105 Block Side Press



Genişlik / Width 54 mm.





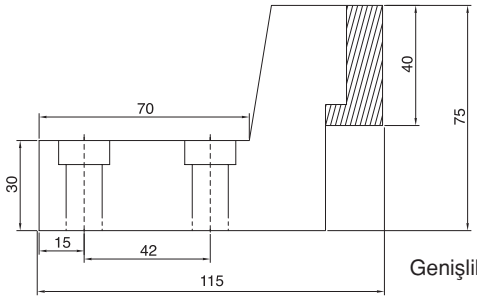
Blok Yandan Bağlama Dayaması

Block Stopper Side Press

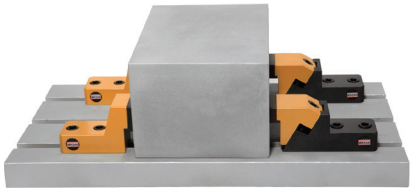
Referans Nr.	a	(kg)
2105-MD404214	14	1.86
2105-MD404216	16	1.86
2105-MD404218	18	1.86
2105-MD404220	20	1.86
2105-MD404222	22	1.86
2105-MD404224	24	1.86



Ürün Nr. 2105 Blok Yandan Bağlama Dayaması
Product Nr. 2105 Block Stopper Side Press



Genişlik / Width 54 mm.



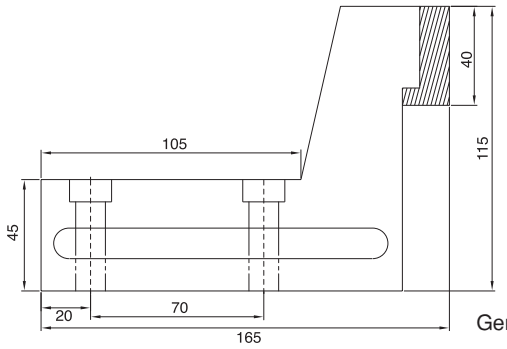
Blok Yandan Bağlama Dayaması

Block Stopper Side Press

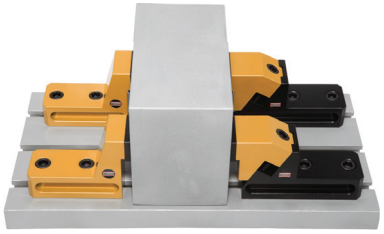
Referans Nr.	a	(kg)
2105-MD902120	20	4.50
2105-MD902122	22	4.50
2105-MD902124	24	4.50
2105-MD902128	28	4.50



Ürün Nr. 2105 Blok Yandan Bağlama Dayaması
Product Nr. 2105 Block Stopper Side Press



Genişlik / Width 68 mm.



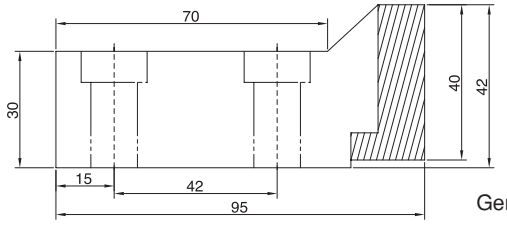
Blok Yandan Bağlama Dayaması

Block Stopper Side Press

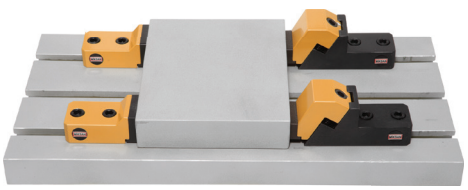
Referans Nr.	a	(kg)
2105-MD303214	14	1.17
2105-MD303216	16	1.17
2105-MD303218	18	1.17
2105-MD303220	20	1.17
2105-MD303222	22	1.17
2105-MD303224	24	1.17



Ürün Nr. 2105 Blok Yandan Bağlama Dayaması
Product Nr. 2105 Block Stopper Side Press



Genişlik / Width 54 mm.

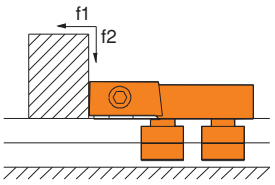


Çift Çeneli Yandan Bağlama Pabucu

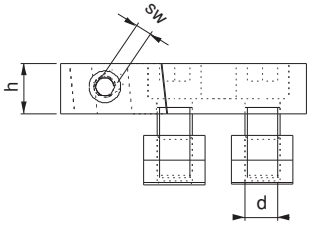
Side Press Clamp with Double Claw

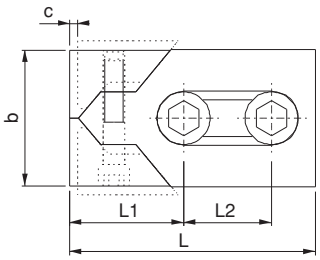
Referans Nr.	a	c	h	b	L	L1	L2	sw	d	Sıkma Kuvveti Clamping Force f1 Kgf	f2 Kgf	(g)
2110-12	12	3	20	40	80	39	26	6	M10	1600	60	415
2110-14	14									2200	90	425
2110-16	16	4	25	50	100	46	34	8	M14	3200	120	785
2110-18	18									3600	140	810
2110-20	20									3600	140	850
2110-22	22	5	28.5	78	140	65	50	10	M20	3600	140	2275
2110-24	24									3600	140	2360
2110-28	28									4000	160	2500





Ürün Nr. 2110 Çift Çeneli Yandan Bağlama
- İş parçasını dayama ve pleyt yönünde sıkar, pabucun yapısından dolayı kuvvetli sıkma yapar.
- Sertleştirilmiş
- Siyah kaplama





Product Nr. 2110 Side Press Clamp with Double Claw
- Product clamps the work piece in the direction of rest and plate. It achieves powerful clamping because of the clamp's structure.
- Hardened
- Black coating

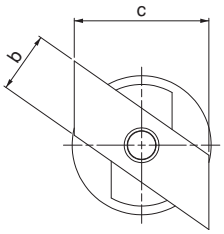
Silindir Dayama

Cylinder Pluggable

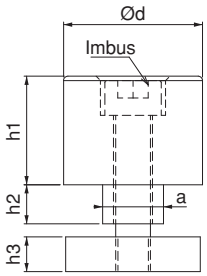
Referans Nr.	a	a h6	b -0.6	c DIN 650	d ±0.01	h1 ±0.01	h1 ±0.02	h2	h3	ISO 4762	(g)
2120-1425	14	0-0.011	14	24	32	25	-	9	8	M8x35	200
2120-1450	14	0-0.011	14	24	32	-	50	9	8	M8x60	355
2120-1825	18	0-0.011	18	30	40	25	-	15	10	M10x40	360
2120-1850	18	0-0.011	18	30	40	-	50	15	10	M10x65	600
2120-2225	22	0-0.013	22	38	40	25	-	15	14	M10x50	410
2120-2250	22	0-0.013	22	38	40	-	50	15	14	M10x75	650

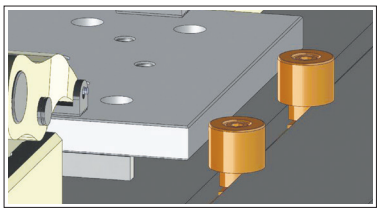


Ürün Nr. 2120 Silindir Dayama
- Sertleştirilmiş
- Siyah Kaplama



Product Nr. 2120 Cylinder Pluggable
- Hardened
- Black coating





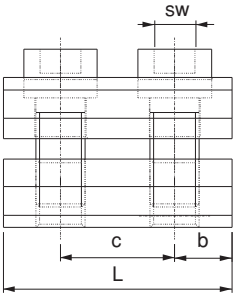
Dayama

Clamp Rest

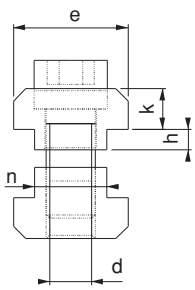
Referans Nr.	a	n	e	c	d	b	h	k	L	sw	(g)
2130-12	12	11.7	18	18	M8	9	3	7	36	6	100
2130-14	14	13.7	22	22	M8	11	4	8	44	6	180
2130-16	16	15.7	25	25	M12	12.5	5	9	50	10	270
2130-18	18	17.7	28	28	M12	14	5	10	56	10	355
2130-20	20	19.7	32	32	M16	16	5	12	64	14	570
2130-22	22	21.7	35	35	M16	17.5	6	14	70	14	770
2130-24	24	23.7	40	40	M20	20	6	16	80	17	1180
2130-28	28	27.7	44	44	M20	22	6	18	88	17	1560



Ürün Nr. 2130 Dayama
- Dayama referans alma, uzunlamasına ve enlemesine kullanılır.
- Sertleştirilmiş
- Siyah kaplama



Product Nr. 2130 Clamp Rest
- Clamp Rest is used for reference taking, longidutional and cross-wise.
- Hardened
- Black coating



Referans Nr.	Stopersiz Kullanım In Use Without Slip Stopper		Stoperli Kullanım In Use With Slip Stopper		(kg)
	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N-m)	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N-m)	
2135-1260	2900	38	6900	90	2.4

M12 civata için 4 adet pul dahildir.
4 washers for M12 bolts are included.



Ürün Nr. 2135 Yandan Bağlama
Gövde
- Malzeme: Dökme Demir
- Siyah kaplama

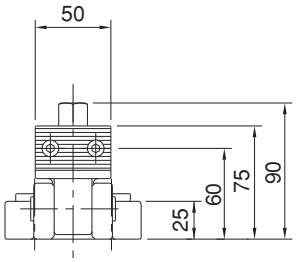
Çene
- Sertleştirilmiş
- Siyah Kaplama

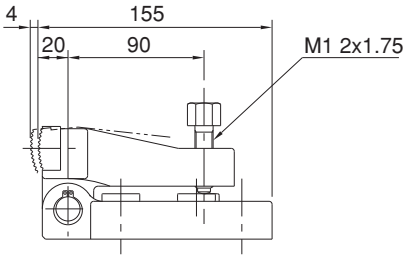
Civata
- Sertlik: İndüksiyon
- Siyah Kaplama

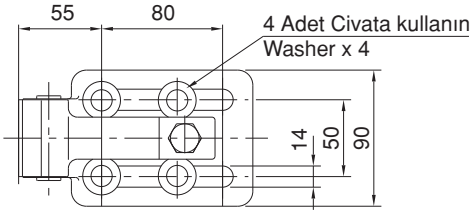
Product Nr. 2135 Side Clamps
Body
- Material: Cast Iron
- Black coating

Jaw
- Hardened
- Black coating

Bolt
- Hardness: Induction
- Black coating







Referans Nr.	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(kg)
2137-16060	5800	150	2.9

M12 ve M16 vidalar için 2 adet dereceli pul dahildir.
2 spherical washers for both M12 and M16 screws are included.



Ürün Nr. 2137 Yandan Bağlama
Gövde
- Malzeme: Dökme Demir
- Siyah kaplama

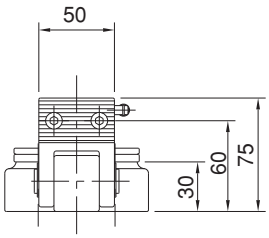
Çene
- Sertleştirilmiş
- Siyah Kaplama

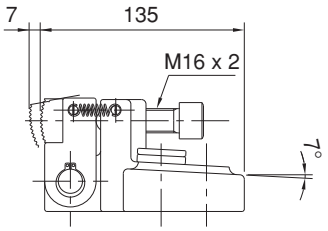
Civata
- Sertlik: İndüksiyon
- Siyah Kaplama

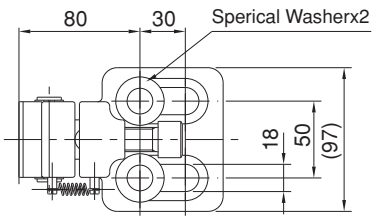
Product Nr. 2137 Side Clamps
Body
- Material: Cast Iron
- Black coating

Jaw
- Hardened
- Black coating

Bolt
- Hardness: Induction
- Black coating







Referans Nr.	W1	W2	H1	H2	M	P1	H4	L4	W	L3	H5	d	L5	P
2139-32150	45	15	27	18	M4x0.7	30	18	13	75	20	8	6.6	3	60
2139-40200	60	20	33	22	M5x0.8	40	22	17	100	26	10	8.6	4	80

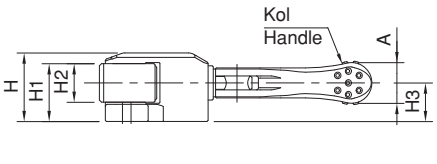
Referans Nr.	H	L	L2	R	L1	H3	M1
2139-32150	32	51	48	63	51.5	18	M4x0.7
2139-40200	40	67	63	80	67	22	M5x0.8

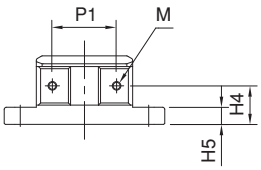
Referans Nr.	A	Sıkma Torku Clamping Stroke	Çalışma Yükü Operating Load (N)	Sıkma Kuvveti Clamping Force Kgf	(g)
2139-32150	19	1.6	150	200	620
2139-40200	24	2.2	200	300	1360

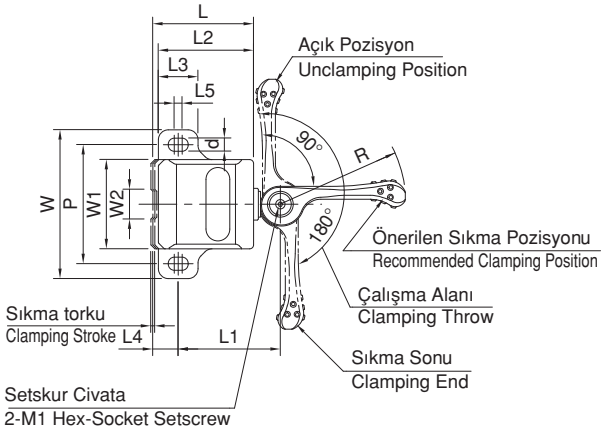


Ürün Nr. 2139 Tek Dokunuş Yandan Bağlama
• Siyah kaplama

Product Nr. 2139 Cam Edge Clamps
• Black coating

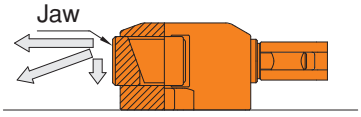






Özellikler
- Kol ile tek dokunuşta sıkma.
- Finiş işlerde mükemmel bağlama.
- Parçanın kalkmaması için çeneyi aşağı ve ileri iter.

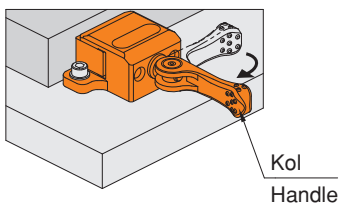
Features
- The cam handle allows fast clamping in single operation.
- Precision-ground jaw is perfect for clamping the workpiece on its finished surface.
- In clamping, the jaw provides downward force to prevent part lift.

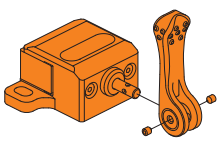


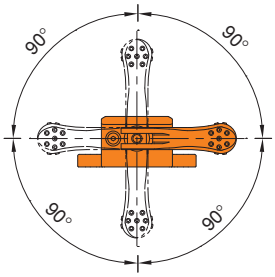
Kol Konumunu Değiştirme
90 derece 4 opsiyonlu kullanım

Changing Handle Position
The handle shaft has 4 countersinks which are provided every 90° for 4 options of handle position

Kullanım Şekli
How To Use







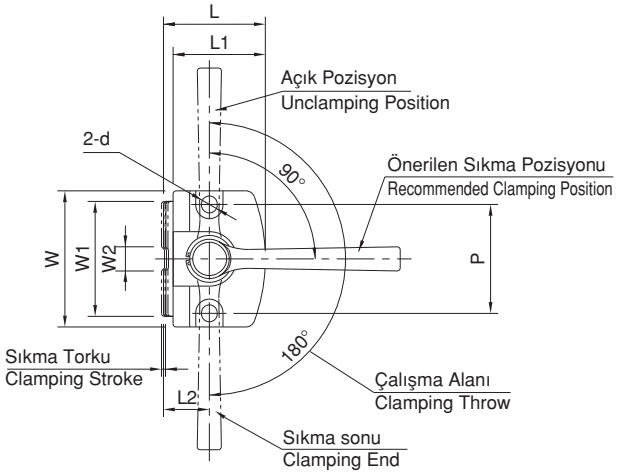
Referans Nr.	Sıkma Torku Clamping Stroke	W1	W2	H3	H4	L2	W	L	H2	d	P	H5	L1
2141-00010	1	38	8	6	3	15	45	33.5	10	5.2	36	5	30.5
2141-00015	2	60	12	9	5	22	70	50	15	8.2	55	7	46

Referans Nr.	H	D	H1	R	A	W3	M1	İzin Verilen Tork Allowable Screw Torque (N m)	Sıkma Kuvveti Clamping Force Kgf	(g)
2141-00010	30	13	20	63	12	6	M4x0.7	10	400	85
2141-00015	46	19	30	100	18	10	M5x0.8	27	600	290

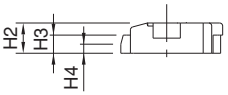
Ürün Nr. 2141 Yandan Bağlama
Gövde
• Siyah kaplama
Çene
• Sertleştirilmiş
• Siyah Kaplama

Product Nr. 2141 Side Clamps
Body
• Black coating
Jaw
• Hardened
• Black coating

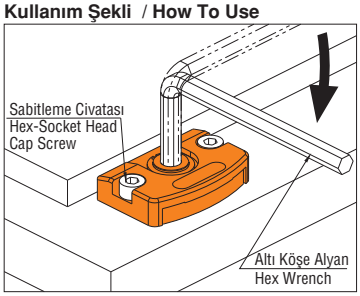








Kullanım Şekli / How To Use

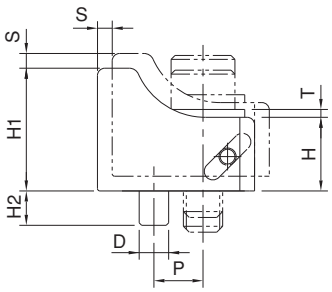


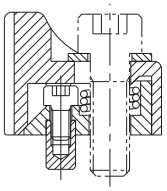
Referans Nr.	S	W	W1	H1	L1	P	D (h7)	H2	M	L	H	T	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(g)
2143-08015	3	25	10	25	21.5	10	6	7	M8	32	15	1.6	700	25	115
2143-10019	4	30	11	32	26	12	6	7	M10	40	19	2	850	50	225
2143-12023	5	35	12	38	33	16	8	10	M12	50	23	2.3	2000	90	390
2143-16025	6	40	14	45	40	20	10	10	M16	60	25	3.2	3000	150	640



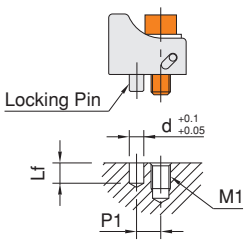
Ürün Nr. 2143 Yandan Bağlama
• Sertleştirilmiş
• Siyah Kaplama

Product Nr. 2143 Side Clamps
• Hardened
• Black coating

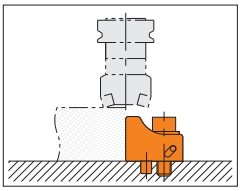




Kurulum ve Kullanım Şekli / How To Use and Install

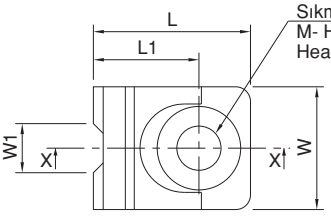


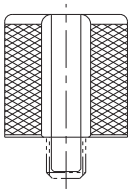
Nr.	M1	d	Lf	P1
CP107-08015	M 8	6	8	10
CP107-10019	M10			12
CP107-12023	M12	8	11	16
CP107-16025	M16	10		20



Üst tarafta görüldüğü gibi sabitlemek için bir pim, bir civata deliği gerekli.

Drill a cap-screw hole and a locking-pin hole as specified on the up.



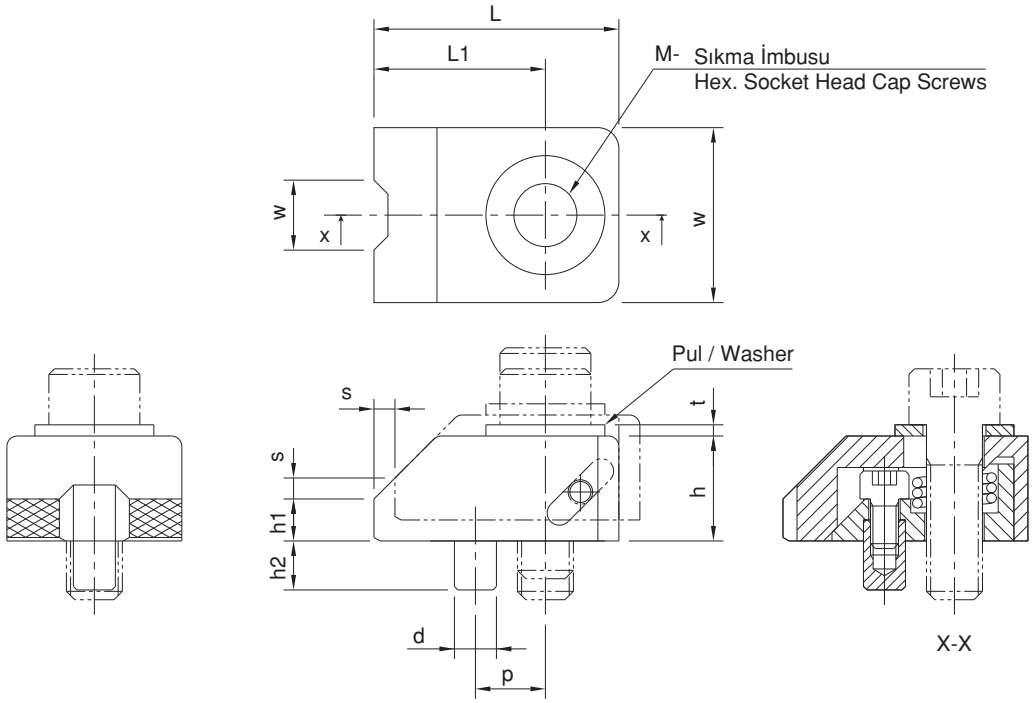


Referans Nr.	s	w	w1	h1	L1	P	d (h7)	h2	M	L	h	t	Sıkma Kuvveti Clamping Force (N)	İzin Verilen Vida Torku Allowable Screw Torque (N•m)	(g)
2144-08015	3	25	10	6	24.5	10	6	7	M8	35	15	1.6	7.000	25	100
2144-10019	4	30	11	8	29	12	6	7	M10	43	19	2	8.500	50	185
2144-12023	5	35	12	9	37	16	8	10	M12	54	23	2.3	20.000	90	320
2144-16025	6	40	14	10	45	20	10	10	M16	65	25	3.2	30.000	150	520

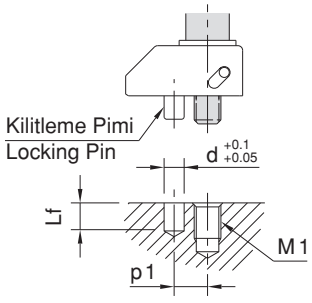
Ürün Nr. 2144 Yandan Bağlama
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2144 Side Clamp
- Hardened
- Black coating

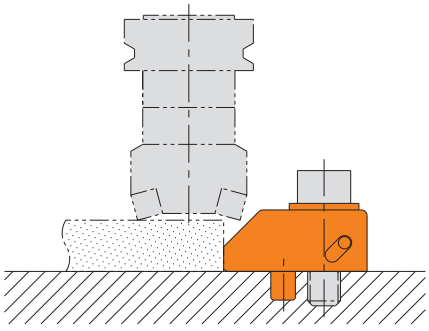




Uygulama Örneği / Application Example



Referans Nr.	M1	d	Lf	p1
2144-08015	M 8	6	8	10
2144-10019	M10	6	8	12
2144-12023	M12	8	11	16
2144-16025	M16	10	11	20



Kanal İçi Yandan Bağlama

In-Slot Side Clamp

Referans Nr.	a	s1	m	sw	L	h	k	n	b	Sıkma Kuvveti Clamping Force kgf	(g)
2150-08	8	1.4	5	4	23	9.5	6	7.7	13	310	25
2150-10	10	1.4	5	4	23	14	6	9.7	15	310	35
2150-12	12	1.2	7	5	28	15	7	11.7	18	340	60
2150-14	14	1.7	7	7	30	22	8	13.7	22	800	95
2150-16	16	1.7	10	8	30	22	9	15.7	25	1500	130
2150-18	18	2	10	8	35	28	10	17.7	28	1500	190
2150-20	20	2.5	13	10	40	32	12	19.7	32	2000	290
2150-22	22	2.5	13	12	45	38	14	21.7	35	2000	390

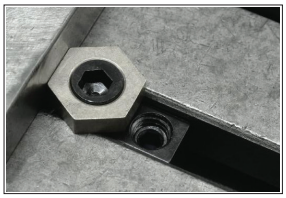


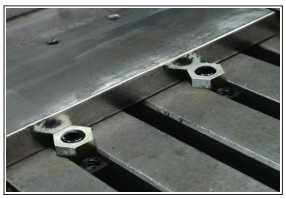
Ürün Nr. 2150 Kanal İçi Yandan Bağlama

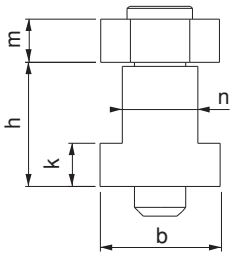
- Ürünün T-Gövdesi tamamıyla tezgah kanalına girer. Sadece ürünün eksantrik başlığı tabla yüzeyinde kaldığı için ince parçalarda sıkma kolaylığı sağlar.
- DIN 650 T-Kanala uyumludur
- Sertleştirilmiş
- Siyah kaplama

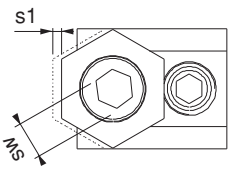
Product Nr. 2150 In-slot Side Clamp

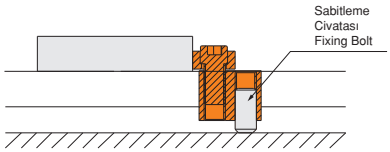
- T-Slot of the product enters in the slot of the bench completely. Since only the eccentric headpiece remains on the surface of the table, this provides easy clampings of the thin pieces.
- It is in compliance with DIN 650 T-Slot
- Hardened
- Black coating











Yandan Bağlama Pençe Pabuç

Jaw Clamp

Referans Nr.	a	c	n min	n max	x	L	b	m1	sw	Sıkma Kuvveti Clamping Force f1 kgf	Sıkma Kuvveti Clamping Force f2 kgf	(g)
2170-12	12	2	2	6	4	46	21	10	5	500	60	120
2170-14	14	2.5	2.5	7.5	5	51	26	10	6	550	70	200
2170-16	16	3	2.5	8.5	6	61	27.5	12	6	800	90	290
2170-18	18	3	2	8	6	67	35	13	8	900	100	420
2170-20	20	4	2.5	11	8.5	78	38	13	10	1200	140	640
2170-22	22	4.5	2.5	12	9.5	87	39	16.5	10	1600	190	830

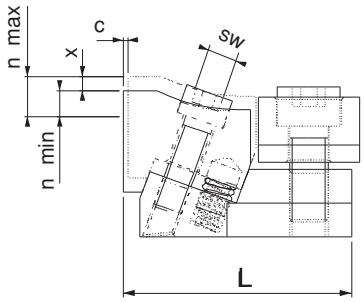


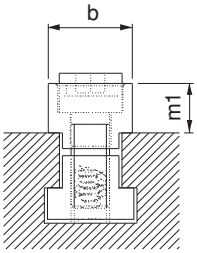
Ürün Nr. 2170 Yandan Bağlama Pençe Pabuç

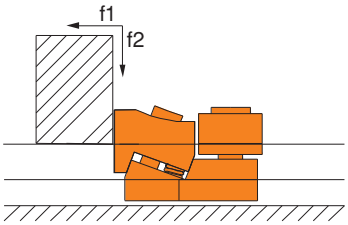
- İş parçasını dayama ve pleyt yönüne sıkar
- T-Kanal içinde çalışması yükseklik avantajı sağlar
- DIN 650 T-Kanala uyumludur
- Sertleştirilmiş
- Siyah kaplama

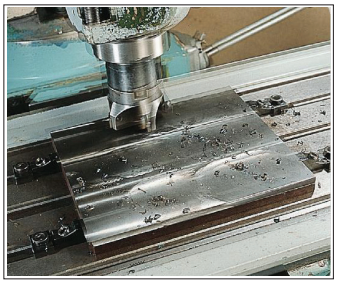
Product Nr. 2170 Jaw Clamp

- This product clamps the workpiece in the direction of resting and plate
- It's working in T-Slot provides height advantage
- It is in compliance with DIN 650 T-Slot
- Hardened
- Black coating









Çift Açılır Yandan Bağlama

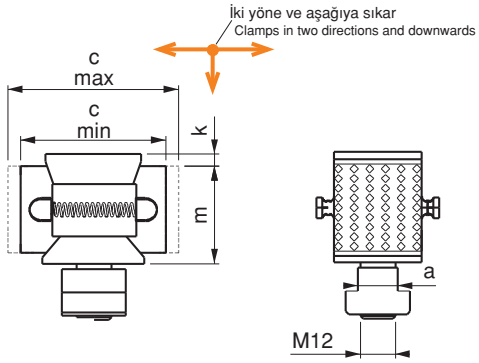
Side Press with Double Opening

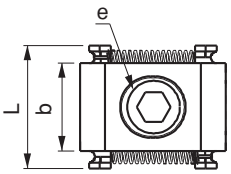
Referans Nr.	c min	c max	a	m	k	b	L	e DIN 912	Nm	Sıkma Kuvveti Clamping Force kgf	(g)
2190-5055	50	55	14-16-18-20-22	35	4	30	42	M12	35	1750	390

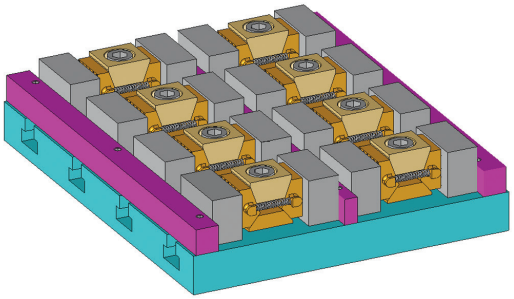


Ürün Nr. 2190 Çift Açılır Yandan Bağlama
- Bir noktadan iki yöne ve pleyt yönüne doğru sıkma işlemi yapar.
- M12 diş pleytlerde ve (a) 14-16-18-20-22 T-Kanal ölçülerinde kullanılır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2190 Side Press with Double Opening
- This product makes press process from one point to two directions and towards the direction of the plate.
- It is used in M12 thread plates and (a) 14-16-18-20-22 T-Slot measurings
- Hardened
- Black coating







Çift Açılır Yandan Bağlama

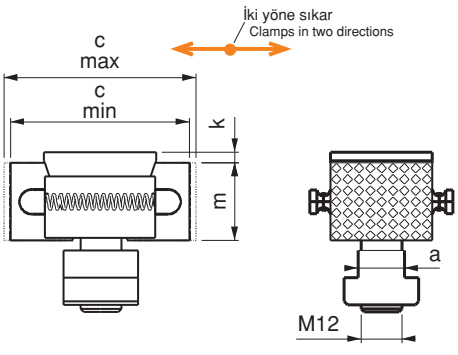
Side Press with Double Opening

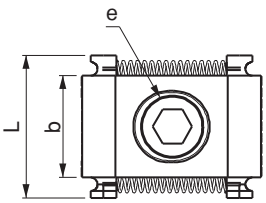
Referans Nr.	c min	c max	a	m	k	b	L	e DIN 912	Nm	Sıkma Kuvveti Clamping Force kgf	(g)
2210-4954	49	54	14-16-18-20-22	23	4	30	42	M12	55	1500	280

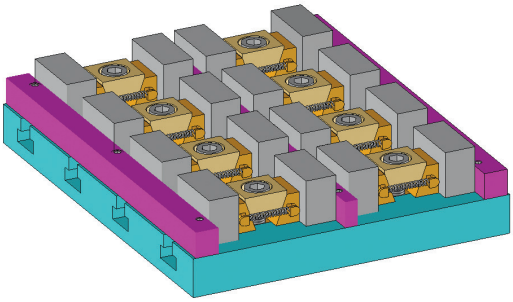


Ürün Nr. 2210 Çift Açılır Yandan Bağlama
- Bir noktadan iki yöne sıkma işlemi yapar.
- M12 diş pleytlerde ve (a) 14-16-18-20-22 T-Kanal ölçülerinde kullanılır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2210 Side Press with Double Opening
- This product makes press process from one point to two directions.
- It is used in M12 thread plates and (a) 14-16-18-20-22 T-Slot measurings
- Hardened
- Black coating





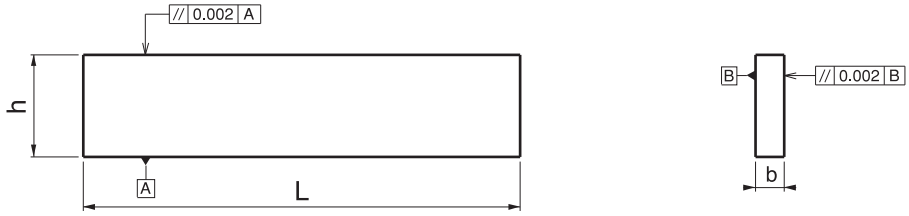


Referans Nr.	h x b x L	tolerans tolerance h	tolerans tolerance b	(kg)	Adet Piece
2230-028	14x10x150	±0.01	±0.01	10.8	2
	16x10x150				2
	18x10x150				2
	20x10x150				2
	22x10x150				2
	24x10x150				2
	26x10x150				2
	28x10x150				2
	30x10x150				2
	32x10x150				2
	35x10x150				2
	40x10x150				2
	45x10x150				2
	50x10x150				2



Ürün Nr. 2230 Paralel Set-28
• Ürün iş parçalarının paralel bağlanmasında ve hassas işlenmesinde altlık olarak kullanılır.
• 28 parça
• Sertleştirilmiş
• Ahşap kutuda set

Product Nr. 2230 Parallel Set-28
• This product is used for parallel coupling of the workpieces and as the base for sensitive machinings of the work pieces.
• 28 pieces.
• Hardened
• Set is in the wooden box



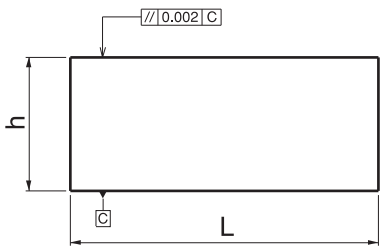
Paralel Set
Parallel Set

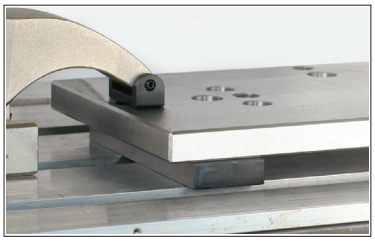
Referans Nr.	h x b x L	tolerans tolerance h	tolerans tolerance b	(kg)	Adet Piece
2250-016	20x6x100	±0.01	±0.01	10.6	2
	23x8x100				2
	28x10x100				2
	36x12x150				2
	42x14x150				2
	48x16x150				2
	58x18x150				2
	65x22x150				2



Ürün Nr. 2250 Paralel Set-16
• Ürün iş parçalarının paralel bağlanmasında ve hassas işlenmesinde altlık olarak kullanılır.
• 16 parça
• Sertleştirilmiş
• Ahşap kutuda set

Product Nr. 2250 Parallel Set-16
• This product is used for parallel coupling of the workpieces and as the base for sensitive machinings of the work pieces.
• 16 pieces.
• Hardened
• Set is in the wooden box

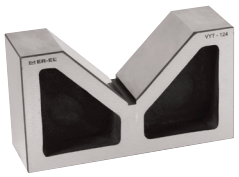




V-Yatak

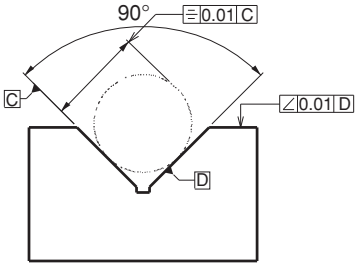
V-Clamping Block

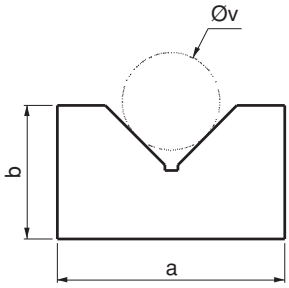
Referans Nr.	a	b	c	Øv min	Øv max	(g)
2270-140	140	82	40	20	110	1980
2270-204	204	115	66	15	150	6150



Ürün Nr. 2270 V-Yatak
- Malzeme : Döküm
- Silindir parçaların paralel bağlanmasında ve hassas işlenmesinde altlık olarak kullanılır.
- İkili takım

Product Nr. 2270 V-Clamping Block
- Material: Casting
- This product is used in parallel couplings of cylindrical pieces and it is also used as the base for sensitive machinings of the workpieces.
- Set of two pieces







XV-Yatak

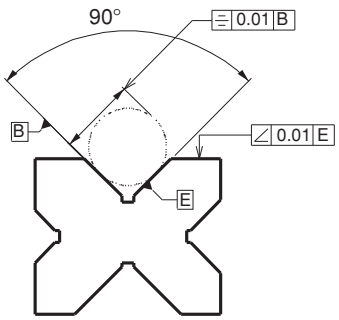
XV-Clamping Block

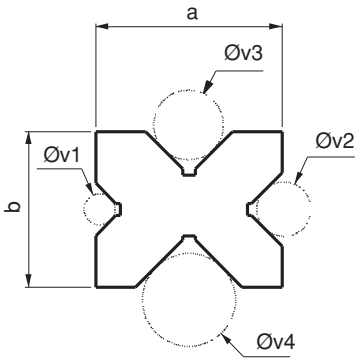
Referans Nr.	a	b	c	Øv1 min	Øv1 max	Øv2 min	Øv2 max	Øv3 min	Øv3 max	Øv4 min	Øv4 max	(g)
2290-120	120	100	60	12	40	12	60	12	75	12	90	2840
2290-150	152	132	74	15	80	15	95	15	110	15	120	4975



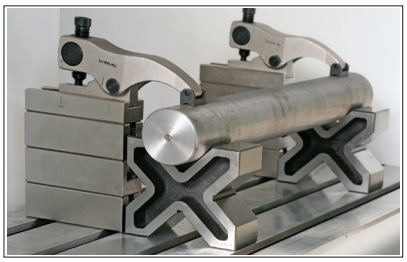
Ürün Nr. 2290 XV-Yatak
- Malzeme : Döküm
- Silindir parçaların paralel bağlanmasında hassas işlenmesinde altlık olarak kullanılır, X formunda olmasından dolayı 4 ayrı yüzeyi kullanma avantajı sağlar.
- İkili takım

Product Nr. 2290 XV-Clamping Block
- Material: Casting
- This product is used in parallel couplings of cylindrical pieces and it is also used as the base for sensitive machinings of the workpieces. It provides using advantage in 4 different surfaces because of being in X form.
- Set of two pieces









CNC 5 Eksen Parça Bağlama Aparatı

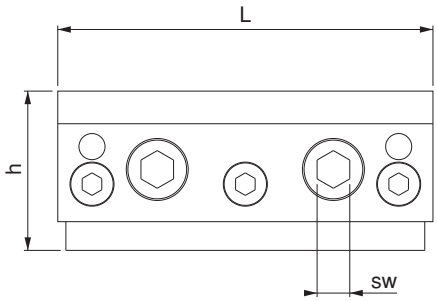
CNC 5 Axis Clamping Parts Apparatus

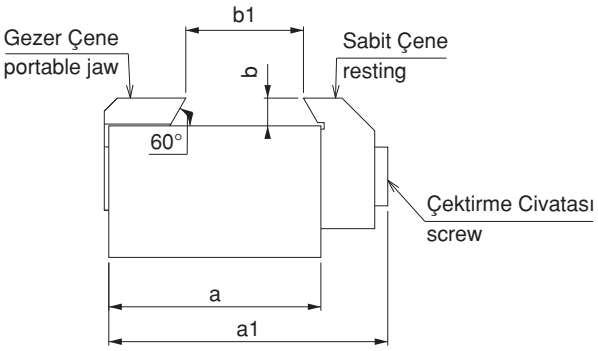
Referans Nr.	L	h	a	a1	b	b1	sw	(g)
2295-090	90	39	55	73	7	21-35	8	1480
2295-115	115	49	65	82.5	8.5	31-42	10	2690
2295-130	130	56	75	98	10	37-48	12	4160



Ürün Nr. 2295 CNC 5 Eksen Parça Bağlama Aparatı
- İş parçasına kırlangıç yuva açılarak aparata bağlanır.
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2295 CNC 5 Axis Clamping Parts Apparatus
- Apparatus is connected at workpiece, swallow nest opening.
- Hardened
- Black coating





CNC 5 Eksen Parça Bağlama Takozu

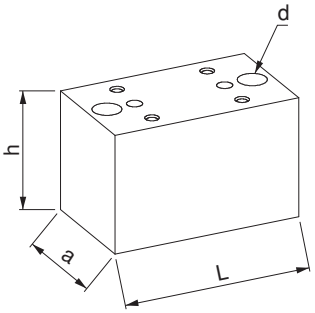
CNC 5 Axis Clamping Parts Wedge

Referans Nr.	a	h	L	d	(g)
2297-090	55	58	87	M10	2110
2297-115	65	68	110	M12	3750
2297-130	75	80	126.5	M12	5830



Ürün Nr. 2297 CNC 5 Eksen Parça Bağlama Takozu
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2297 CNC 5 Axis Clamping Parts Wedge
- Hardened
- Black coating



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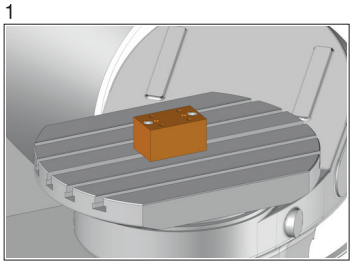

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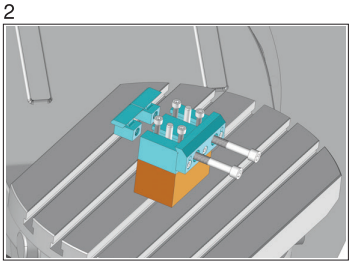

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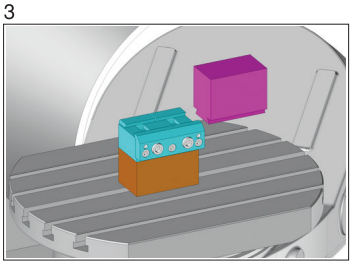

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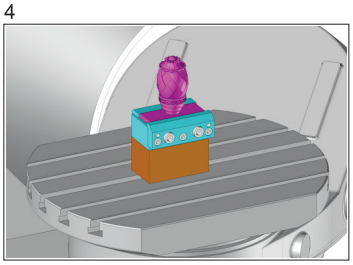
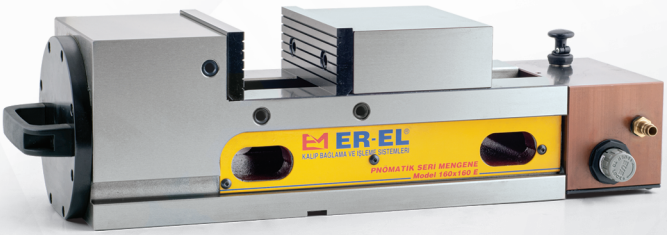
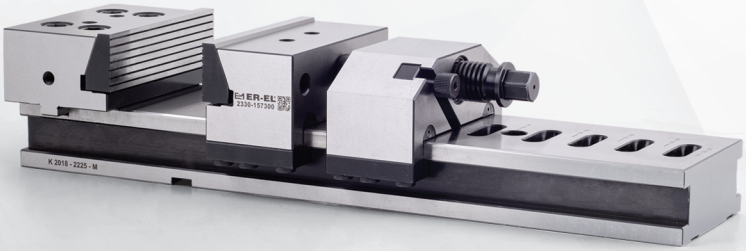
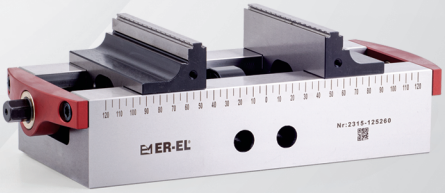


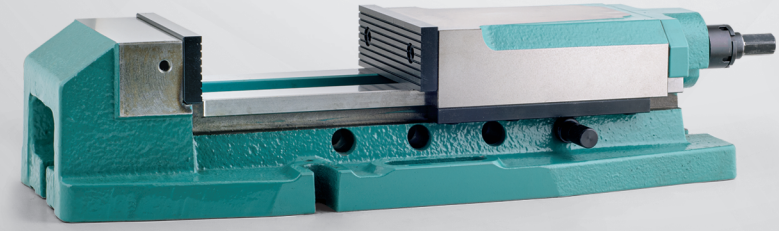
MENGENELER

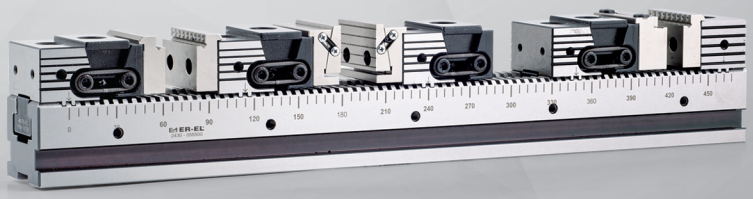
VICES

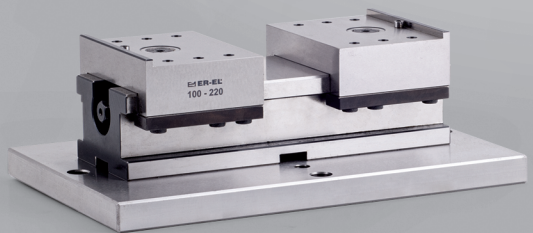


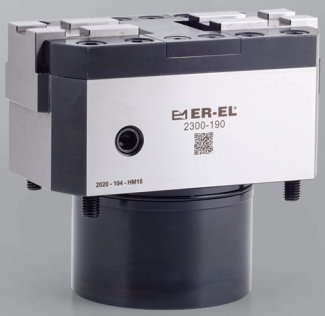












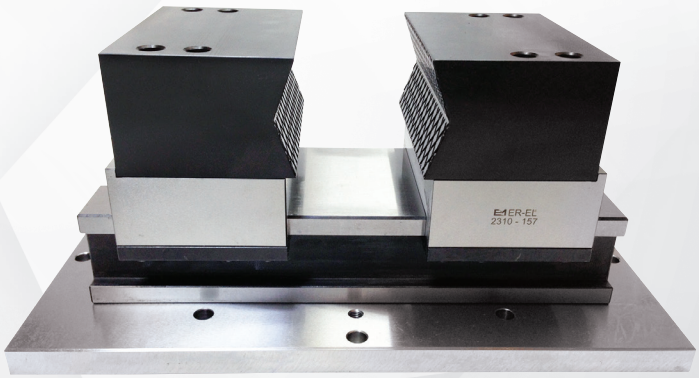
MEKANİK ÇELİK MENGENE UYGULAMASI

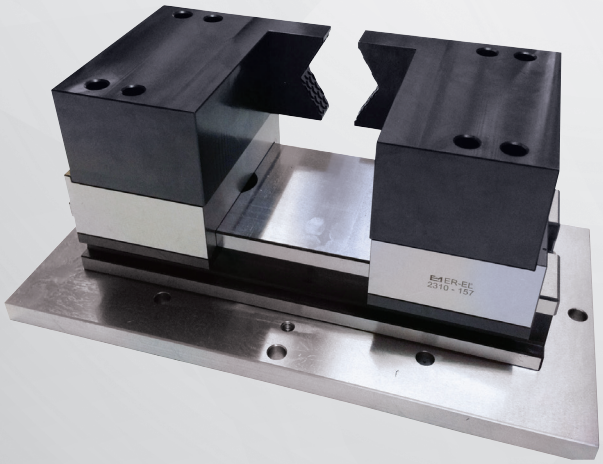
MECHANICAL STEEL VICE APPLICATION

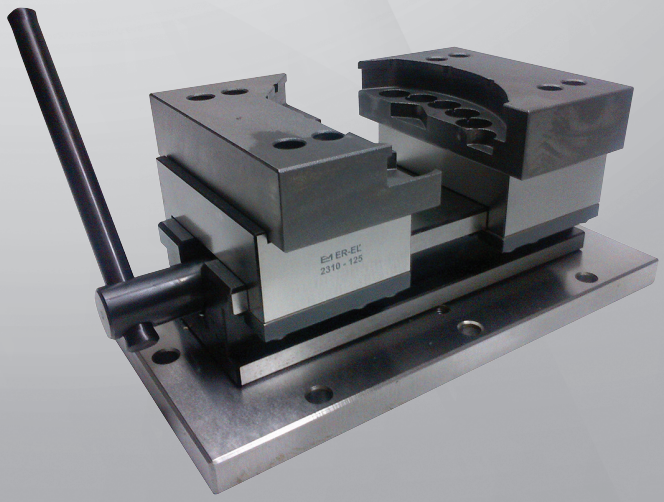


MENGENE UYGULAMALARI

VISE APPLICATIONS



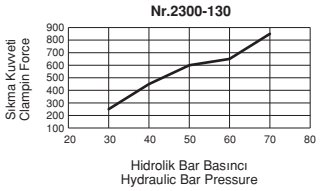


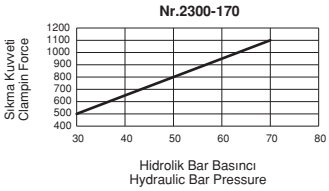


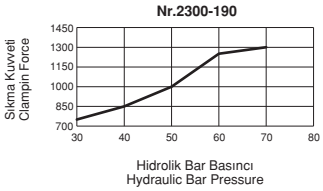
Hidrolik Çift Açılır Mengene

Hydraulic Centering Vice

Referans Nr.	A min-max	Strok	B	C	D	E	F	ØG	H	K	K1	N	N1	S	S1	M	Q1	Q2	(kg)
2300-130	142-162	10x2	90	83	60	130	10	86	143	9	22	76	64	106	60	M8	11	6	8.50
2300-170	170-210	20x2	100	96	78	170	12	98	174	11	30	136	74	106	80	M10	11	8	14
2300-190	202-242	20x2	125	101	80	190	16	121	181	11	36	144	96	110	100	M12	13	8	21







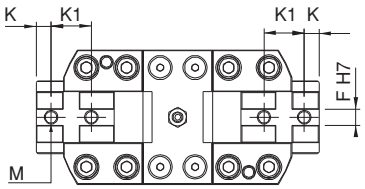


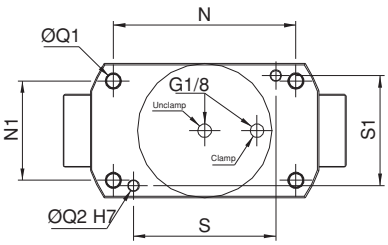
Ürün Nr. 2300 Hidrolik Çift Açılır Mengene

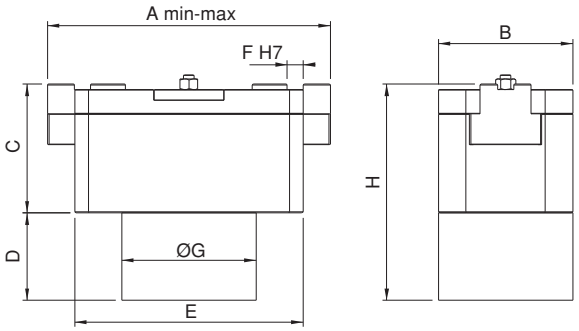
- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir. Diğer özelliği ise yumuşak çenelere işlenecek parçanın formu uygulanabilinir. (1-2-3 şekillerde görüldüğü gibi.)
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Sistem hidrolik çalışır
- Yağ gidiş - Yağ dönüş
- Siyah Kaplama

Product Nr. 2300 Hydraulic Centering Vice

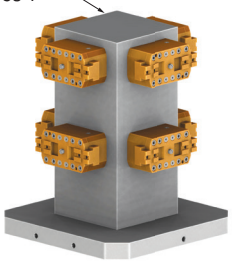
- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diameter measurements as it implements this process without changing the center. It"s other characteristic is to apply the form of the piece to be machined with soft claws (as seen in Figures: 1-2 and 3).
- Entire moving surface is sensitevely grinded and hardened.
- Hydraulic system works
- Oil inlet - Oil outlet
- Black coating

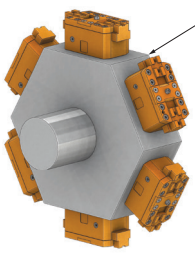


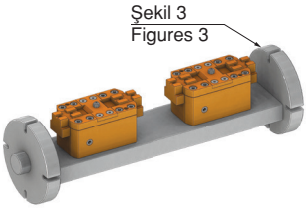




Şekil 1
Figures 1







Pnömatik Çift Açılır Mengene

Pneumatic Centering Vice

Referans Nr.	A min-max	Strok	Pneumatic Bar	Sıkma Kuvveti Clamping Force kgf	(kg)
2307-0188	0-188	8.5x2	6	750	18.5

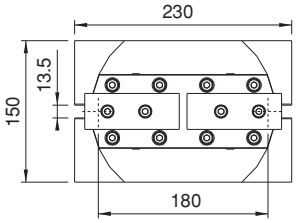


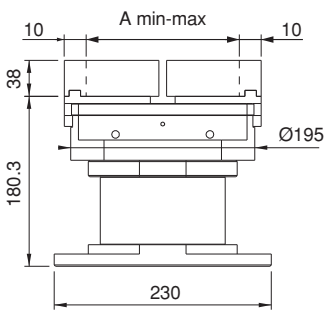
Ürün Nr. 2307 Pnömatik Çift Açılır Mengene

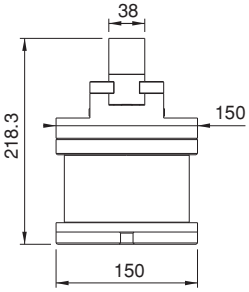
- Sistem pnömatik çalışır.

Product Nr. 2307 Pneumatic Centering Vice

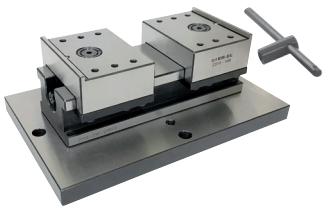
- Pneumatic system works







Referans Nr.	a	L	c	açılır opens 2 x mm	iş bağlama kapasitesi Work Piece Coupling Capacity (mm)	b	b1	b2 ±0,02	b3	p1	p2	s1	s2	Sıkma Kuvveti Clamping Force kgf	Tork Değeri Allowable Screw Torque (N-m)	sw	(kg)
2310-060	60	120	90	20	120	23.5	70.5	67.5	91	174	124	150	100	800	45	9	7
2310-078	78	180	130	30	180	33	97	93	126	224	124	200	100	1500	110	12	14
2310-100	100	220	154	38	220	35	99	95	130	274	174	250	150	1500	110	12	22
2310-125	125	260	174	47	260	38	108	103	141	324	174	300	150	2000	190	14	35
2310-157	157	350	208	75	350	46	123	118	164	424	224	400	200	2200	210	17	65

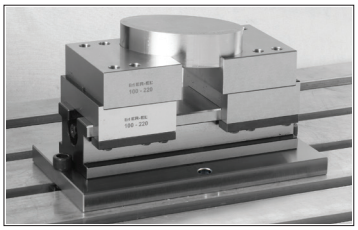


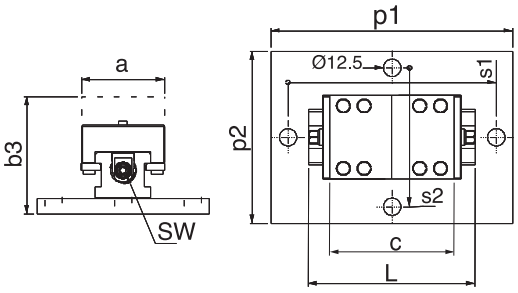
Ürün Nr. 2310 Çift Açılır Çelik Mengene

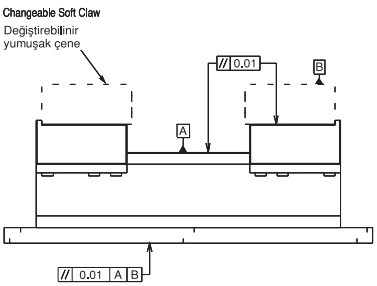
• Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır.
Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir.
Diğer özelliği ise yumuşak çenelere işlenecek parçanın formu uygulanabilinir (1-2-3-4-5-6 şekillerde görüldüğü gibi.)
• Kullanım alanı: CNC ve mekanik frezeler, taşlama, matkap gibi çeşitli sanayi makinalarında kullanılır.
• Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
• Çeneleri ayrı olarak satın almanız gerekir.
• Siyah Kaplama

Product Nr. 2310 Steel Vice with Double Opening

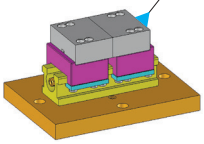
• This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diameter measurements as it implements this process without changing the center. It"s other characteristic is to apply the form of the piece to be machined with soft claws (as seen in Figures: 1-2-3-4-5 and 6).
• Area of Using: This product is used in various industry machines such as CNC and mechanical milling machines, grinding and auger.
• Entire moving surface is sensitevely grinded and hardened.
• You need to purchase jaws separate.
• Black coating



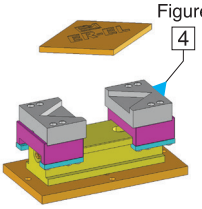




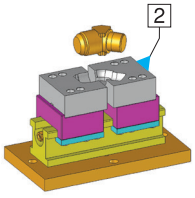
Şekil
Figure
1



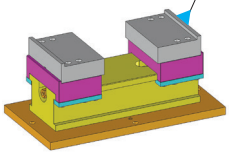
Şekil
Figure
4

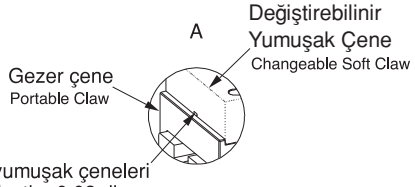


Şekil
Figure
2



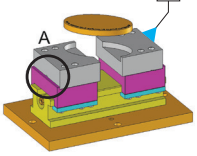
Şekil
Figure
5



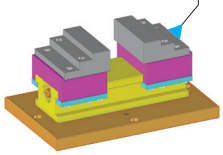


Gezer çene kaması yumuşak çeneleri söküp takma hassasiyeti ±0.02 dir
Demounting and mounting of portable jaw wedge soft claws is ±0.02.

Şekil
Figure
3



Şekil
Figure
6



Çift Açılır 5-Eksen Mengene

Double Opening 5-Axis Vice

Referans Nr.	a	L	c/2	açılır opens 2 x mm	b1	b2 ±0,02	p1	p2	s1	Sıkma Kuvveti Clamping Force kgf	Tork Değeri Allowable Screw Torque (N-m)	sw	(kg)
2315-060	60	120	90	20	117.5	114.5	174	56	150	800	45	9	4.1
2315-078	78	180	130	30	159	155	224	73.5	200	1500	110	12	10
2315-100	100	220	154	38	159	155	274	95	250	1500	110	12	17.2

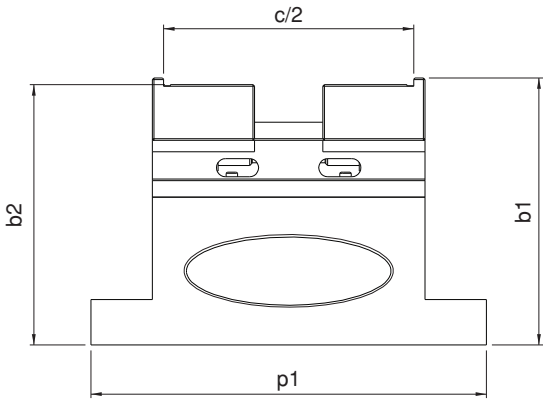


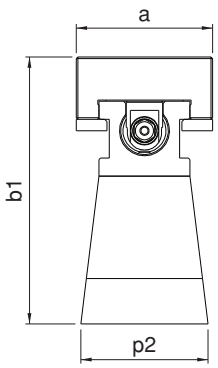
Ürün Nr. 2315 Çift Açılır 5-Eksen Mengene

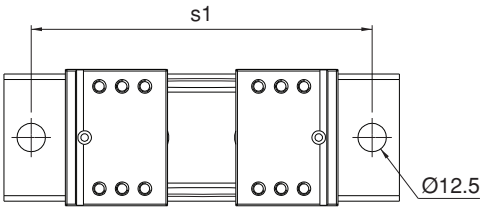
- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir.
- Kullanım alanı: CNC ve CNC 5-Eksen sanayi makinalarında kullanılır.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Çeneleri ayrı olarak satın almanız gerekir.
- Siyah Kaplama

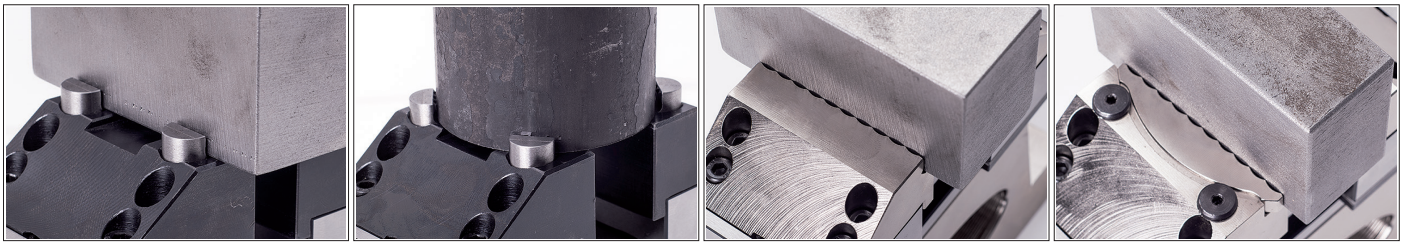
Product Nr. 2315 Double Opening 5-Axis Vice

- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diameter measurements as it implements this process without changing the center.
- Area of Using: This product is used in various industry machines such as CNC and CNC 5-Axis mechanical milling machines,
- Entire moving surface is sensitevely grinded and hardened.
- You need to purchase jaws separate.
- Black coating





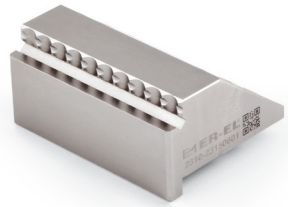




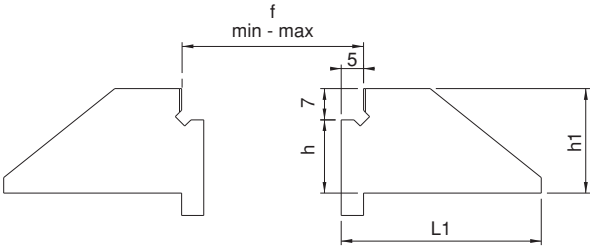
Çift Açılır 5-Eksen Mengene Çene Çeşitleri

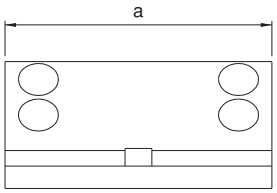
Double Opening 5-Axis Vice Jaw Types

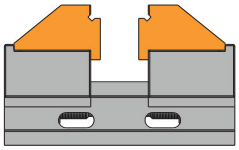
Referans Nr.	f min-max	h	h1	L1	a
2310-23150601	10-50	16.5	23.5	45	60
2310-23150781	10-70	26	33	65	78
2310-23151001	10-86	28	35	77	100
2310-23151251	10-104	31	38	87	125
2310-23151571	10-160	39	46	104	157



- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating





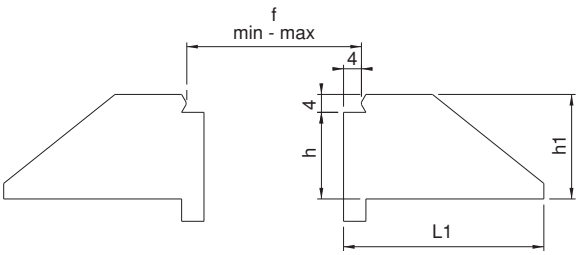


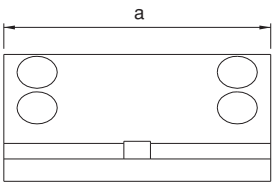
Nr.2310 ve Nr.2315 Kodlu Ürünlere Uyumludur.

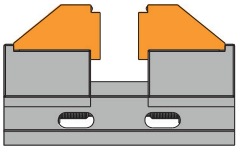
Referans Nr.	f min-max	h	h1	L1	a
2310-23150602	8-48	20.5	23.5	45	60
2310-23150782	8-68	29	33	65	78
2310-23151002	8-84	31	35	77	100
2310-23151252	8-102	34	38	87	125
2310-23151572	8-158	46	46	104	157



- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating

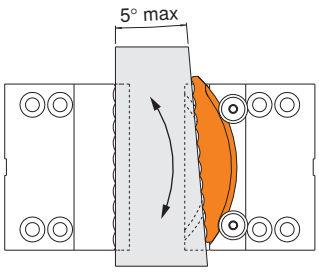






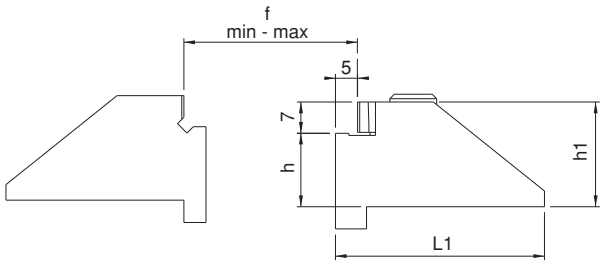
Nr.2310 ve Nr.2315 Kodlu Ürünlere Uyumludur.

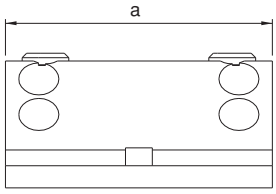
Referans Nr.	f min-max	h	h1	L1	a
2310-23150603	10-50	16.5	23.5	47	60
2310-23150783	10-70	26	33	67	78
2310-23151003	10-86	28	35	79	100

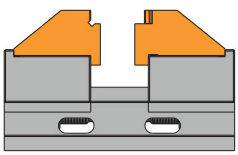




- Sertleştirilmiş
- Nikel Kaplama
- Hardened
- Nickel Coating





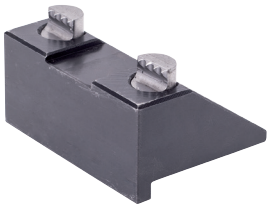


Nr.2310 ve Nr.2315 Kodlu Ürünlere Uyumludur.

Çift Açılır 5-Eksen Mengene Çene Çeşitleri

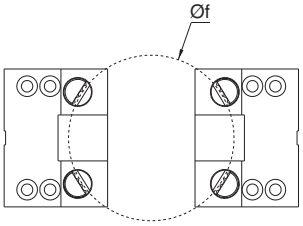
Double Opening 5-Axis Vice Jaw Types

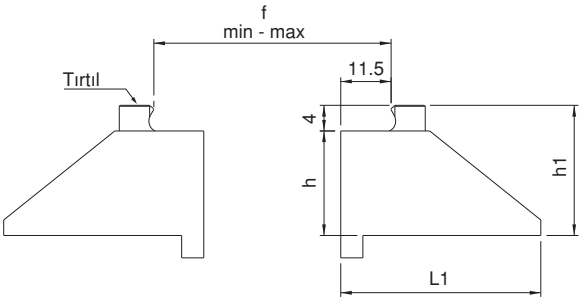
Referans Nr.	f min-max ●	f min-max ■	h	h1	L1	a
2310-23150604	46-72	23-63	23.5	27.5	45	60
2310-23150784	59-95	23-83	33	37	65	78
2310-23151004	77-124	23-99	35	39	77	100

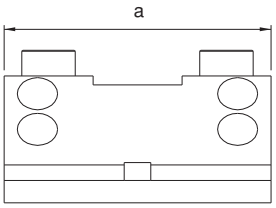


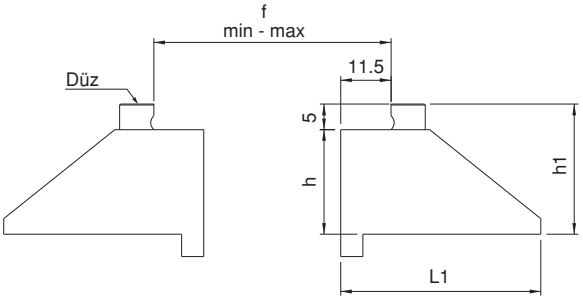
- Satın almadan önce çene özelliğini belirtiniz. (Tırtıl veya Düz)
- Sertleştirilmiş
- Siyah Kaplama

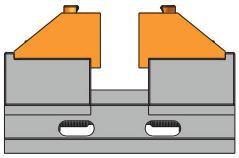
- You should specify the jaw feature before make purchase.(Serrated or Straight)
- Hardened
- Black Coating











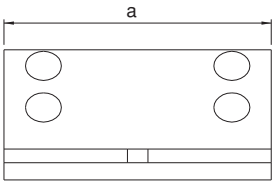
Nr.2310 ve Nr.2315 Kodlu Ürünlere Uyumludur.

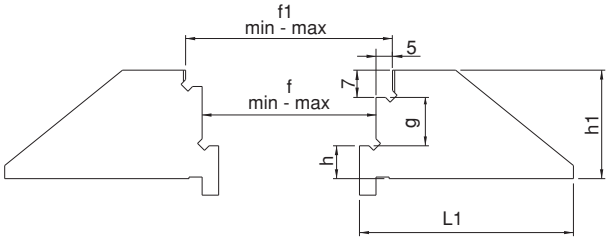
Referans Nr.	f min-max	f1 min-max	h	h1	g	L1	a
2310-23150605	10-50	20-60	7	23.5	9.5	45	60
2310-23150785	10-70	20-80	10	33	16	65	78
2310-23151005	10-86	20-96	10	35	18	77	100
2310-23151255	10-104	20-114	10	38	21	87	125
2310-23151575	10-160	20-170	10	46	29	104	157

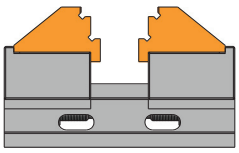


- Sertleştirilmiş
- Nikel Kaplama

- Hardened
- Nickel Coating



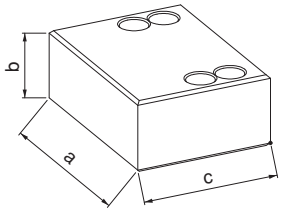




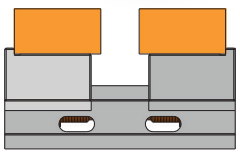
Nr.2310 ve Nr.2315 Kodlu Ürünlere Uyumludur.

Referans Nr.	a	b	c
2310-23150606	60	23.5	45
2310-23150786	78	33	65
2310-23151006	100	35	77
2310-23151256	125	38	87
2310-23151576	157	46	104

Yumuşak Çene
Soft Jaw





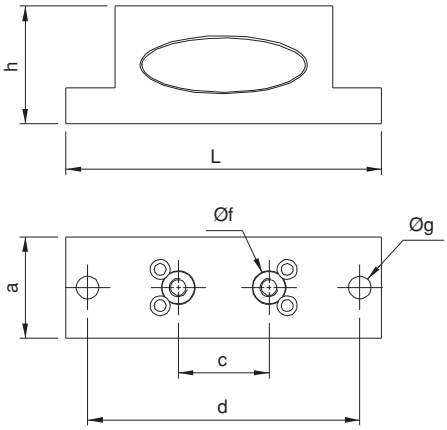


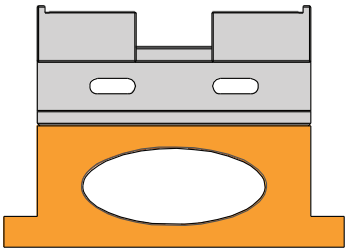
Nr.2310 ve Nr.2315 Kodlu Ürünlere Uyumludur.

Referans Nr.	a	h	L	c	Øf H7	d	Øg	(kg)
2315-060P	56	65	174	50	18	150	12.5	2.4
2315-078P	74	80	224	100	18	200	12.5	4.9
2315-100P	96	80	274	100	18	250	12.5	8.7



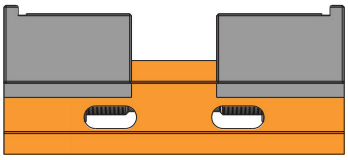
Alt Yükseltme Plakası
Lower Raising Plate





Referans Nr.
2310-2315-060AG
2310-2315078AG
2310-2315100AG
2310-2315125AG
2310-2315157AG

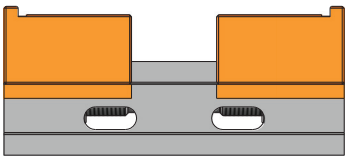
Alt Gövde
Sub-body

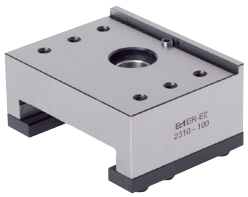




Referans Nr.
2310-2315060GÇ
2310-2315078GÇ
2310-2315100GÇ
2310-2315125GÇ
2310-2315157GÇ

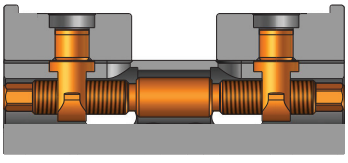
Gezer Çene
Portable Jaw





Referans Nr.
2310-2315060M
2310-2315078M
2310-2315100M
2310-2315125M
2310-2315157M

Mil
Pin





5-EKSEN MENGENE
5-AXIS VICE

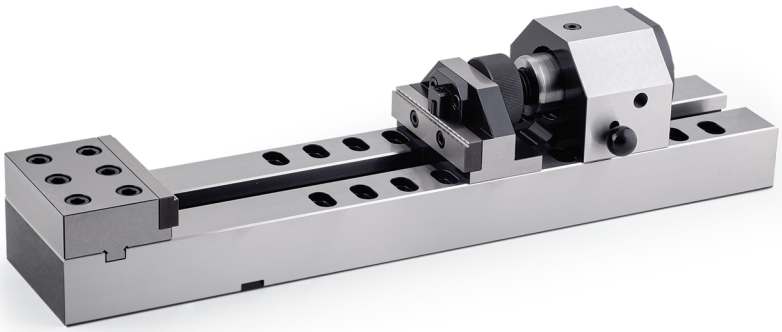
Tırnaklı çenelerin 3mm yerden parçayı bağlama avantajıyla malzemenin 5 yüzeyini işleme olanağı sağlamaktır. Kompak yapısı ile idael bir kullanıma sahiptir. Aynı zamanda kolay bir şekilde çeneleri 180° ters çevirerek parça bağlama kapasitesini arttırabilirsiniz.

5-face-machining of workpieces possible Ideal handling by compact ness The clamping jaws can be turned 180° and thereby enable a higher clamping capacity.



- 5 yüzey işleme
- Minimum malzeme hurdası
- Ön Presleme teknolojisi sayesinde düşük sıkma kuvvetiyle bile mükemmel tutma performansı
- ER-EL Ponit Clamp kombinasyonuyla yüksek tekrarlama doğruluğu
- Kolay ve esnek bir kullanım

- 5-face-machining
- Minimal scrap
- Highest holding power at low actuation forces through form-closure clamping
- High repeatability in combination with ER-EL Point Clamp
- Easy and flexibel application



ÖN ŞEKİLLENDİRME MENGENESİ
PRE-FORM VICE

Ön şekillendirme mengenesi sayesinde malzemelerinize tırnaklar açarak kütlesel malzemeleriniz 5-Eksen megenede daha mükkemmel tutma performansı sağlar. Yüksek tutma gücü gerektiren iş parçaları için ön şekillendirme mengenesi önerilir. 6mm den 355mm'ye kadar sıkma aralığına sahiptir.

For workpieces needed higher holding power ist recommended Pre-Form Vice. Clamping range is 6-355 mm.

ER-EL POINT CLAMP

Dikey işleme, yatay işleme merkezlerinde 3-4-5 eksenli CNC Makinalarında ve divizörler de kullanılabilinir. Kurulum süresini azaltıp Saniyeler içinde ER-EL Point Clamp ile yüksek hassasiyette mengeneleriniz ve mengene yönlerini değiştirebilir. Ayrıca aparatlarınızı değişimlerini de sağlayabilirsiniz. Nr.2315-052 ER-EL Point Clamp ile 046-077-097 Mengenelerin adaptasyonunu sağlar. Nr.2315-096 ER-EL Point Clamp ile 125'lik mengene çeşitlerinin adaptasyonunu sağlayabilir. Ayrıca Nr.2315-096 Point Clamp üzerine, Nr.2315-5296 ER-EL Point Clamp merkez değiştirme adaptörünü kullanarak 046-077-097 mengeneleride bağlamak için modülerlik sağlayabilirsiniz.

Kombinasyon:

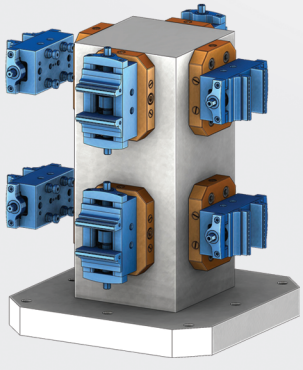
Nr.2315-052 ile Nr.2315-046
Nr.2315-052 ile Nr.2315-077
Nr.2315-052 ile Nr.2315-097
Nr.2315-096 ile Nr.2315-125
Nr.2315-096 ile Nr.2315-5296

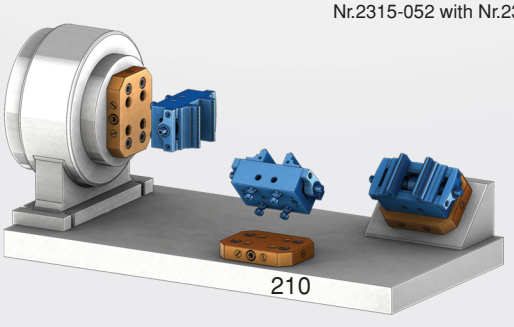


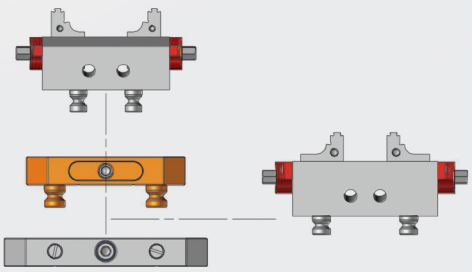
Application for horizontal machining center, vertical machining center, 3-4-5 axis CNC machines and CNC-Divisor. With ER-EL Point Clamp you can change your precision vices and the direction of the vices in a few seconds. Device change is also possible.

Combinations:

Nr.2315-052 with Nr.2315-046
Nr.2315-052 with Nr.2315-077
Nr.2315-052 with Nr.2315-097
Nr.2315-096 with Nr.2315-125
Nr.2315-096 with Nr.2315-5296







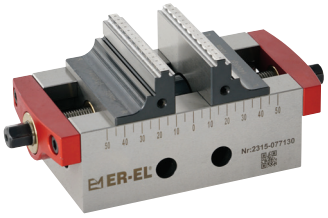
Referans Nr.	a	h	L	c	c1	c2	b	b1	b2	e	e1	i	d	Kombinasyon Combination	Kombinasyon Combination	Sıkma Kuvveti Clamping Force Kgf	Nm	sw	(kg)
2315-046120	77	77	120	6-63	45-100	39-95	27	3	13	100	25	M5	52	2315-08	2315-052	1000	50	12	3.00
2315-046160	77	77	160	6-103	45-140	39-135	27	3	13	100	25	M5	52	2315-08	2315-052	1000	50	12	3.90
2315-077105	77	77	105	6-40	72-85	66-80	27	3	13	80	27	M6	52	2315-08	2315-052	1400	70	12	3.30
2315-077130	77	77	130	6-65	72-110	66-105	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	3.50
2315-077160	77	77	160	6-95	72-140	66-135	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	4.40
2315-077180	77	77	180	6-115	72-160	66-155	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	4.80
2315-077210	77	77	210	6-145	72-190	66-185	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	5.50
2315-097105	97	77	105	6-40	72-85	66-80	27	3	13	80	27	M6	52	2315-08	2315-052	1400	70	12	6.50
2315-097130	97	77	130	6-65	72-110	66-105	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	6.70
2315-097160	97	77	160	6-95	72-140	66-135	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	7.60
2315-097180	97	77	180	6-115	72-160	66-155	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	8.00
2315-097210	97	77	210	6-145	72-190	66-185	27	3	13	100	27	M6	52	2315-08	2315-052	1400	70	12	8.70
2315-125160	125	92	160	6-70	92-138	86-130	32	3	13	100	35	M8	96	2315-10	2315-096	2000	100	14	9.50
2315-125210	125	92	210	6-120	92-188	86-180	32	3	13	100	35	M8	96	2315-10	2315-096	2000	100	14	11.50
2315-125260	125	92	260	6-170	92-238	86-230	32	3	13	150	35	M8	96	2315-10	2315-096	2000	100	14	13.70
2315-125310	125	92	310	6-220	92-288	86-280	32	3	13	150	35	M8	96	2315-10	2315-096	2000	100	14	15.80
2315-125360	125	92	360	6-270	92-338	86-330	32	3	13	150	35	M8	96	2315-10	2315-096	2000	100	14	17.50

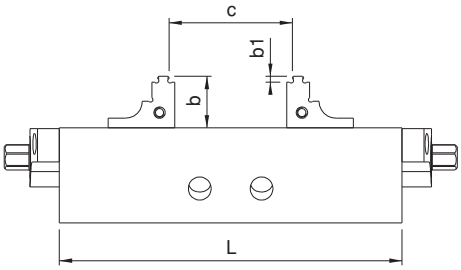
Ürün Nr. 2315 5-Eksen Mengene

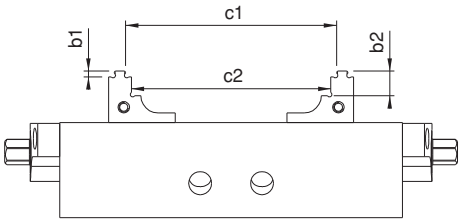
- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir.
- Kullanım alanı: CNC ve CNC 5-Eksen sanayi makinalarında kullanılır.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Tırnaklı çenelerin 3mm yerden parçayı bağlama avantajıyla malzemenin 5 yüzeyini işleme olanağı sağlamaktır. Kompak yapısı ile idael bir kullanıma sahiptir. Aynı zamanda kolay bir şekilde çeneleri 180° ters çevirerek parça bağlama kapasitesini arttırabilirsiniz.
- Siyah Kaplama

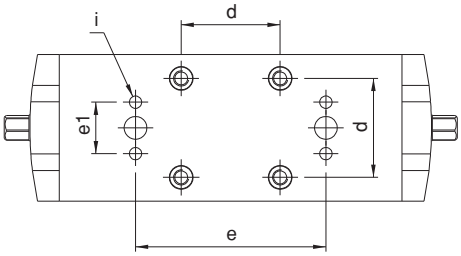
Product Nr. 2315 5-Axis Vice

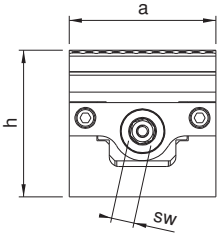
- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diametermeasurements as it implements this process without changing the center.
- Area of Using: This product is used in various industry machines such as CNC and CNC 5-Axis mechanical milling machines,
- Entire moving surface is sensitively grinded and hardened.
- 5-face-machining of workpieces possible Ideal handling by compact ness The clamping jaws can be turned 180° and thereby enable a higher clamping capacity.
- Black coating

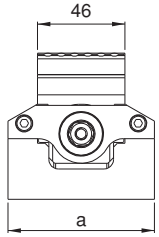




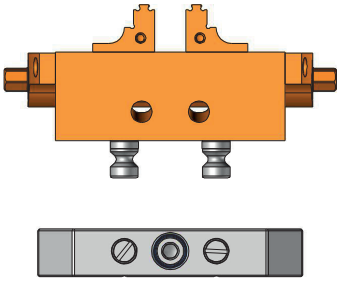








Nr.2315-046120
Nr.2315-046160



Referans Nr.	a	L	h	b	b1	b2	c	sw	d	Kombinasyon Combination	Nm	(kg)
2315-052	116	150	27	100	50	-	52	8	12	2315-08	30	2.9
2315-096	156	192	27	150	50	100	96	8	12	2315-10	30	5.5



Ürün Nr. 2316 ER-EL Point Clamp

• Dikey işleme, yatay işleme merkezlerinde 3-4-5 eksenli CNC Makinalarında ve divizörler de kullanılabilinir. Kurulum süresini azaltıp Saniyeler içinde ER-EL Point Clamp ile yüksek hassasiyette mengeneleriniz ve mengene yönlerini değiştirebilir. Ayrıca aparatlarınızı değişimlerini de sağlayabilirsiniz. Nr.2315-052 ER-EL Point Clamp ile 046-077-097 Mengenelerin adaptasyonunu sağlar. Nr.2315-096 ER-EL Point Clamp ile 125'lik mengene çeşitlerinin adaptasyonunu sağlayabilir.

Kombinasyon:

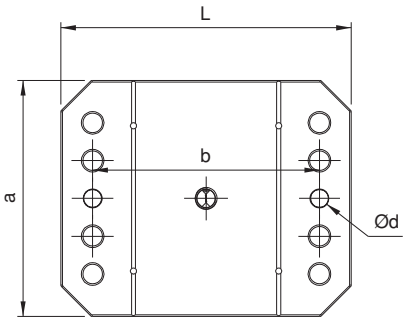
Nr.2315-052 ile Nr.2315-046
Nr.2315-052 ile Nr.2315-077
Nr.2315-052 ile Nr.2315-097

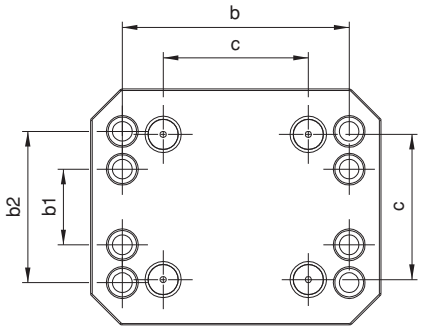
Product Nr. 2316 ER-EL Point Clamp

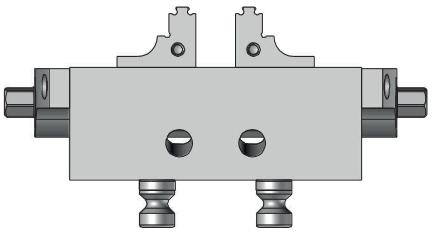
• Application for horizontal machining center, vertical machining center, 3-4-5 axis CNC machines and CNC-Divisor. With ER-EL Point Clamp you can change your precision vices and the direction of the vices in a few seconds.

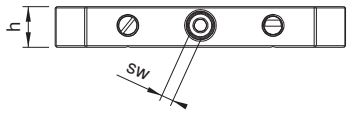
Combinations:

Nr.2315-052 with Nr.2315-046
Nr.2315-052 with Nr.2315-077
Nr.2315-052 with Nr.2315-097











Point Clamp ER40 Tutucu

Point Clamp ER40 Holder

Referans Nr.	c	d	d1	d2	L	L1	(kg)
2315-052ER40	52	116	63	30	100	90	3,1
2315-096ER40	96	156	63	30	100	90	5,7

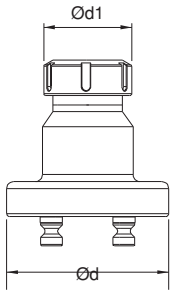


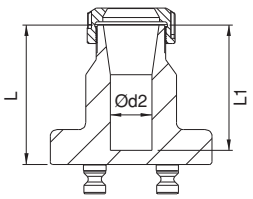
Ürün Nr. 2315 Point Clamp ER40 Tutucu

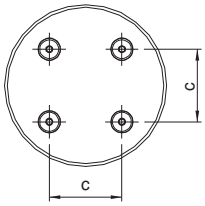
• Point Clamp ER40 Tutucu ile silindir tipi parçalarınızı Pens sistemi ile bağlama yaparak Point Clamp İsteminde hızlı değişimler sağlayabilirsiniz.

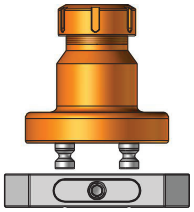
Product Nr. 2315 Point Clamp ER40 Holder

• Clamping your Point Clamp ER40 holder to clip systems gives you the opportunity to make swift changes.









Çektirme Civatası

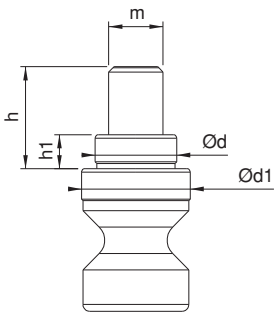
Pull Stud

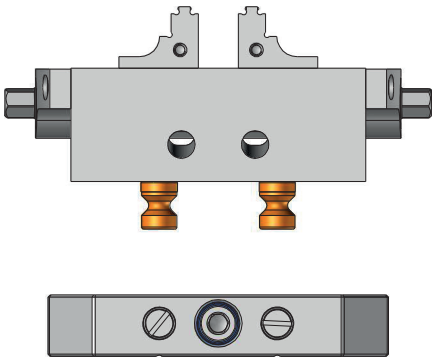
Referans Nr.	m	h	h1	d	d1	Kombinasyon Combination	(g)
2315-08	M8	15	5	12	16	2315-052	35
2315-10	M10	15	5	16	20	2315-096	50



Ürün Nr. 2316 Çektirme Civatası

Product Nr. 2316 Pull Stud





Çektirme Civatası (Faturalı)

Puller Bolt With (Stopper)

Referans Nr.	m	h	h1	d	d1	d2	Kombinasyon Combination	(g)
2315-08F	M8	20	5	12	23	45	2315-052	110
2315-10F	M10	20	5	16	27	52	2315-096	150

NEW

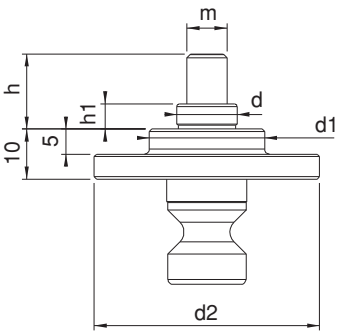


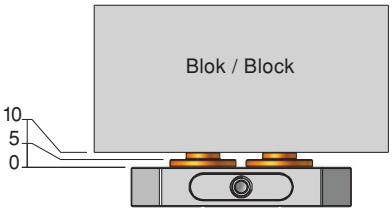
Ürün Nr. 2315 Çektirme Civatası (Faturalı)

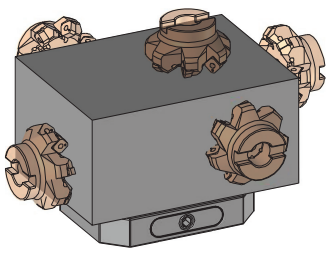
- Blok tipi parçalarınızı Çektirme Civatası (Faturalı) ile Point Clamp İsteminde bağlama yaparak iş parçalarınızın beş yüzeyini de işleme olanağı sağlar.

Product Nr. 2315 Puller Bolt With (Stopper)

- Clamping your block type tools to Point Clamp Systems with your Puller Bolt (with Stopper) gives you the opportunity to use all five sides of your work piece.







ER-EL Point Clamp Merkez Değiştirme Adaptörü

ER-EL Point Clamp Center Change Adapter

Referans Nr.	a	L	h	c	c1	sw	Nm	Kombinasyon Combination	(kg)
2315-5296	116	150	27	52	96	8	30	2315-096	2.90



Ürün Nr. 2315 ER-EL Point Clamp Merkez Değiştirme Adaptörü

- Nr.2315-096 Point Clamp üzerine, Nr.2315-5296 ER-EL Point Clamp merkez değiştirme adaptörünü kullanarak 046-077-097 mengeneleride bağlamak için modülerlik sağlayabilirsiniz.

Kombinasyon:

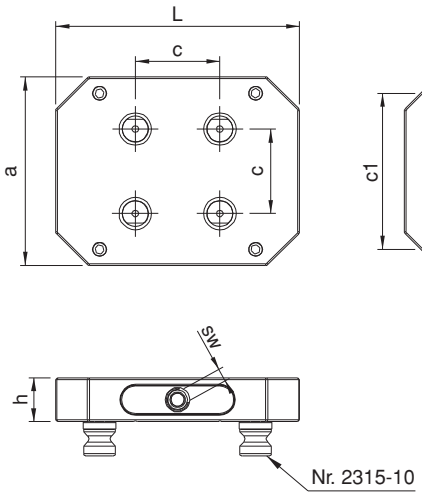
Nr.2315-096 ile Nr.2315-125
Nr.2315-096 ile Nr.2315-5296

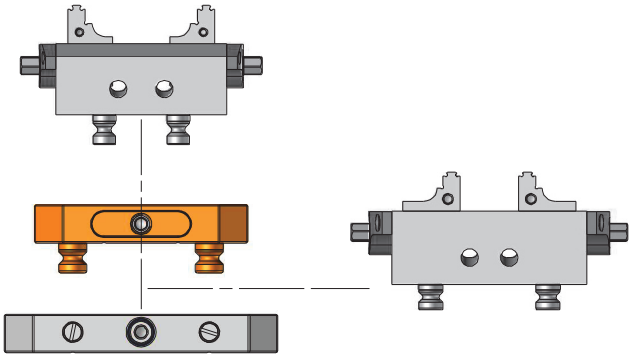
Product Nr. 2315 ER-EL Point Clamp Center Change Adapter

- Device change is also possible.

Combinations:

Nr.2315-096 with Nr.2315-125
Nr.2315-096 with Nr.2315-5296





5-Eksen Mengene Yükseltmesi

5-Axis Vice Bottom Support

Referans Nr.	h	a	L	b	g	c	f Kombinasyon Combination	Kombinasyon Combination	d	e	(kg)
2315-04680	80	97	226	200	12,5	52	2315-08	2315-046	100	18	6.8
2315-07780	80	97	226	200	12,5	52	2315-08	2315-077	100	18	7
2315-09780	80	117	226	200	12,5	52	2315-08	2315-097	100	18	8.6
2315-12580	80	145	278	250	12,5	96	2315-10	*2315-125	150	18	13.3
2315-12581	80	145	380	350	12,5	96	2315-10	**2315-125	150	18	21.3



Ürün Nr. 2315 5- Eksen Mengene Yükseltmesi

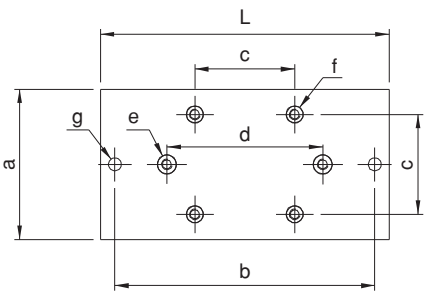
Product Nr. 2315 5-Axis Vice Bottom Support

Kombinasyon:

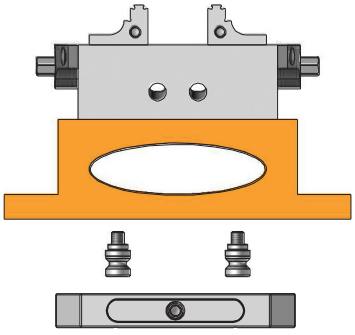
Nr.2315-12580 5-Eksen mengene yükseltmesi,
*Nr.2315-125160 ve Nr.2315-125210 kodlu mengenede kullanılır.
Nr.2315-12581 5-Eksen mengene yükseltmesi,
**Nr.2315-125260, Nr.2315-125310 ve Nr.2315-125360 kodlu mengenede kullanılır.

Combinations:

Nr.2315-12580 is needed for the vice
*Nr.2315-125160 and Nr.2315-125210
Nr.2315-12581 is needed for the vice
**Nr.2315-125260, Nr.2315-125310 and Nr.2315-125360







Referans Nr.	a	b	L	(kg)
2315-340	125	340	620	44

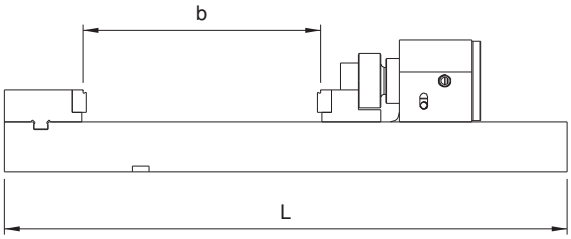


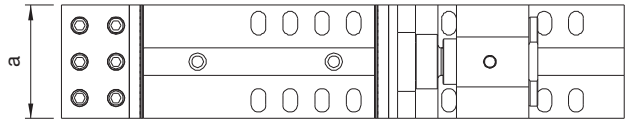
Ürün Nr. 2315 Ön Şekillendirme Mengenesi

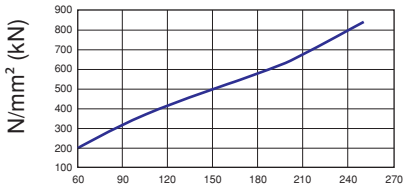
- Ön şekillendirme mengenesi sayesinde malzemelerinize tırnaklar açarak kütlesel malzemeleriniz 5-Eksen megenede daha mükemmel tutma performansı sağlar. Yüksek tutma gücü gerektiren iş parçaları için ön şekillendirme mengenesi önerilir. 6mm den 355mm'ye kadar sıkma aralığına sahiptir.
- Pompa ünitesi dahil, arabalı set olarak satılmaktadır.
- Sadece mengene olarakta talep edebilirsiniz.

Product Nr. 2315 Pre-Form Vice

- Thanks to the pre-forming vise, it can engrave impressions on your mass materials and provide better holding performance in the 5-Axis vise. Pre-Form Vice is recommended for workpieces that require high holding power. Its clamping range is from 6mm to 355mm.
- It is sold as a car set including the pump unit.
- You can request it as Just Vice.







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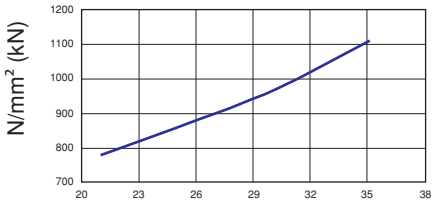

HRC

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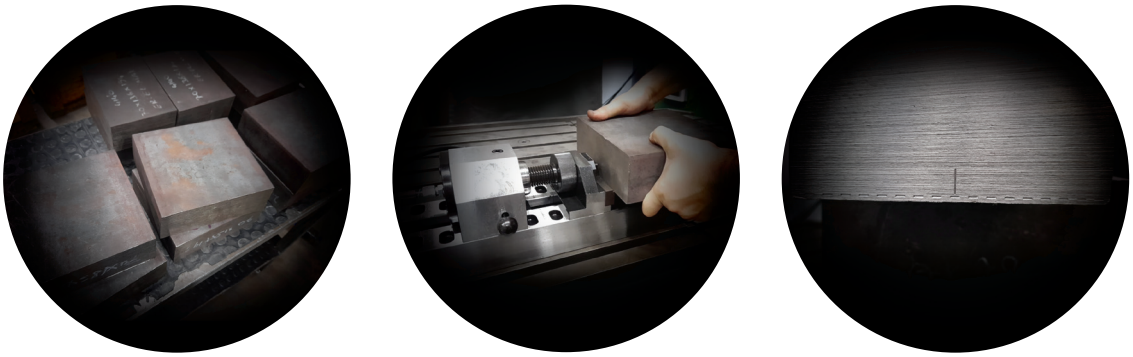

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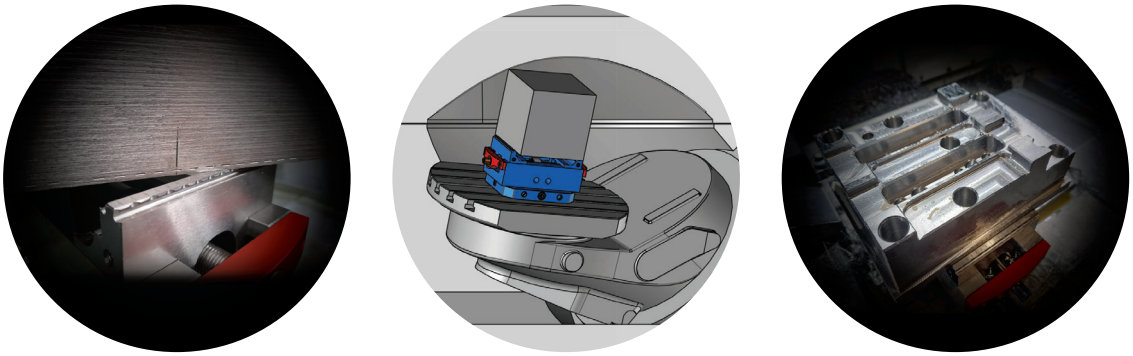


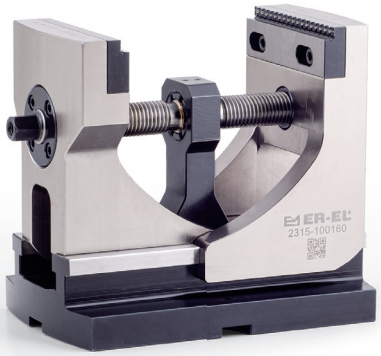
Referans Nr.	a	a1	h	L	c	c1	b	e	d	Sıkma Kuvveti Clamping Force Kgf	Nm	sw	Kombinasyon Combination	Kombinasyon Combination	(kg)
2315-100160	100	125	175	220	30-160	7	22	200	96	3000	130	14	2315-10	2315-096	13.70
2315-130225	130	155	175	285	30-225	7	22	250	96	3000	130	14	2315-10	2315-096	20.50

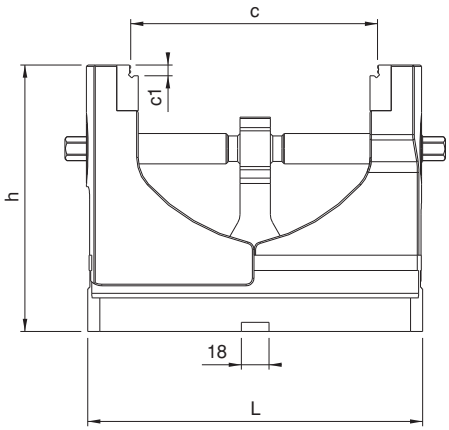
Ürün Nr. 2315 Yüksek 5-Eksen Mengene

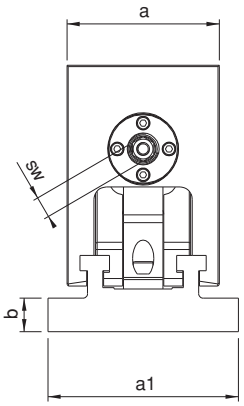
- Ürün işlem yapılacak malzemeyi sabitlerken aynı zamanda da merkezleme yapmaktadır. Bu sistemin avantajı özellikle dış çap ölçüleri değişken malzemelerde merkez değişmeden işlem yapılabilir.
- Kullanım alanı: CNC ve CNC 5-Eksen sanayi makinalarında kullanılır.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.
- Siyah Kaplama

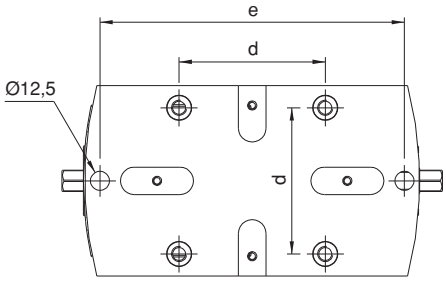
Product Nr. 2315 High 5-Axis Vice

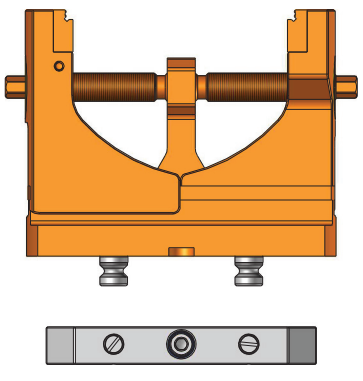
- This product fixes the material to be processes and at the same time it makes centering. The advantage of this system specially shows itself when making machinings of the materials having different outer diametermeasurements as it implements this process without changing the center.
- Area of Using: This product is used in various industry machines such as CNC and CNC 5-Axis mechanical milling machines,
- Entire moving surface is sensitevely grinded and hardened.
- Black coating









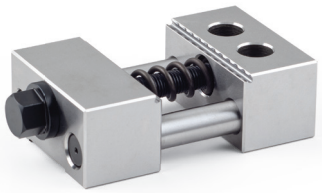


Eksen Mengene (Tek Yön)

Axis Vice (One Sided)

Referans Nr.	a	h	c	L	d	sw	Sıkma Kuvveti Clamping Force Kgf	(kg)
2315-040	77	40	6-40	114	27	17	1000	2

NEW

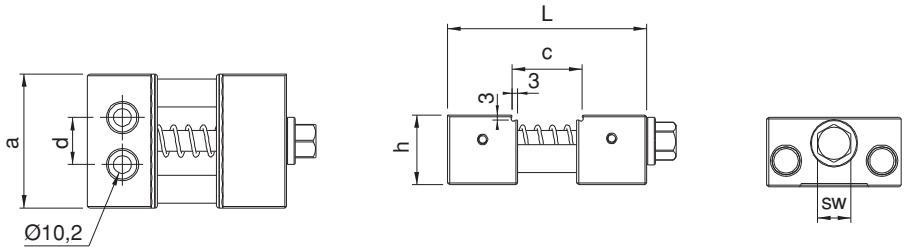


Ürün Nr. 2315 Kompak Mengene (Tek Yön)

- Pratik kullanımı ve minyatür yapısından dolayı dar olan alanlarda çoklu iş parçası bağlamak için avantaj sağlar.

Product Nr. 2315 Axis Vice (One Sided)

- Due to its practical use and miniature build, it gives you the opportunity to clamp your multi-work pieces even in small spaces.



Eksen Mengene (Çift Yön)

Axis Vice (Two Sided)

Referans Nr.	a	h	c	L	d	sw	Sıkma Kuvveti Clamping Force Kgf	(kg)
2315-080	77	40	6-40	188	27	17	1000	3

NEW

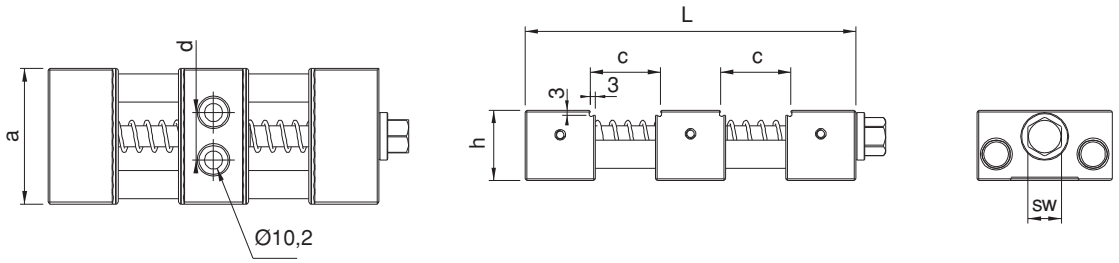


Ürün Nr. 2315 Kompak Mengene (Çift Yön)

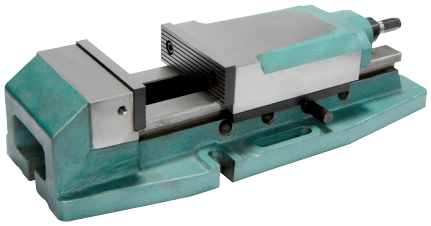
- Pratik kullanımı minyatür yapısından dolayı dar olan alanlarda çoklu iş parçası bağlamak için avantaj sağlayan, yapısı ile beraber iki iş parçası da bağlama olanağı sağlamaktadır.
- En önelimli özelliği parça ölçülerinde fark olsa bile sıkma işlemini sağlamaktadır.

Product Nr. 2315 Axis Vice (Two Sided)

- In addition to its practical use and miniature build, it gives you the opportunity to clamp your multi-work pieces even in small spaces, it also provides you the opportunity to clamp two work pieces.
- Its best feature is that you can clamp to different size pieces at the same time.

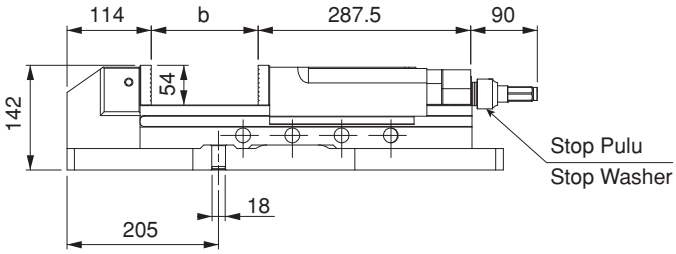


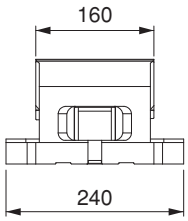
Referans Nr.	b	Sıkma Kuvveti Clamping Force kgf	(kg)
2320-160200	0-200	4500	60

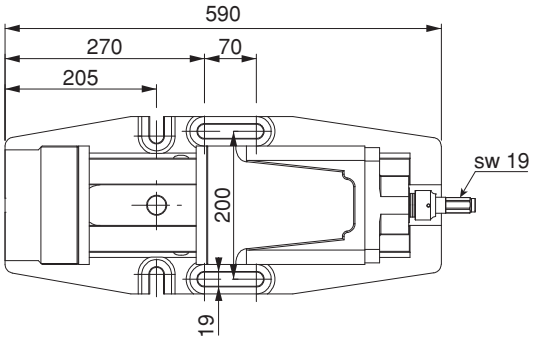


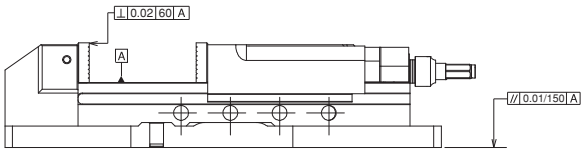
Ürün Nr. 2320 Hidrolik Mengene
- Kullanım alanı: CNC ve mekanik frezeler, matkap tezgahları, çeşitli sanayi makinaları.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

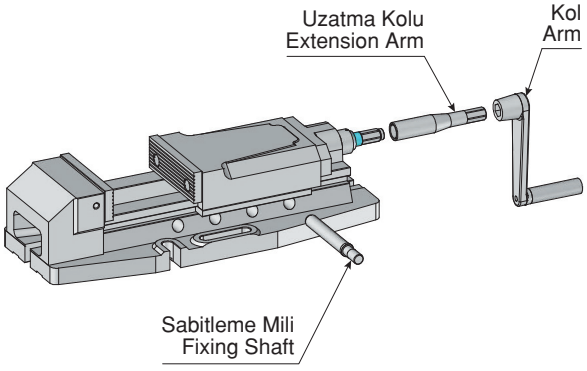
Product Nr. 2320 Hydraulic Vice
- Area of Using: CNC and mechanical milling machines, drilling machines, various industrial machines
- Entire moving surface is sensitevely grinded and hardened.







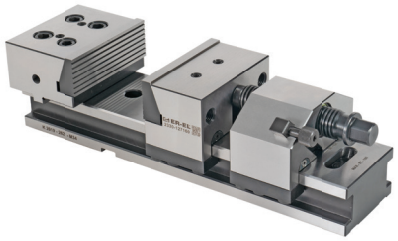




Mekanik Çelik Mengene

Mechanical Steel Vice

Referans Nr.	a	b	c	L	d	e	f	h	ı	n	s	Sıkma Kuvveti Clamping Force kgf	Tork Değeri Allowable Screw Torque (N-m)	(kg)
2330-127160	127	0-160	60	422	99	78	160	115	125	55	200	4500	170	28
2330-157200	157	0-200	60	462	99	78	160	115	150	55	200	4500	170	46
2330-157300	157	0-300	60	562	99	78	160	115	150	55	250	4500	170	51
2330-197300	197	0-300	60	562	99	78	160	115	150	55	250	4500	170	66
2330-197400	197	0-400	60	662	99	78	160	115	150	55	350	4500	170	73
2330-197500	197	0-500	60	762	99	78	160	115	150	55	250/250	4500	170	80
2330-197600	197	0-600	60	862	99	78	160	115	150	55	250-250	4500	170	86

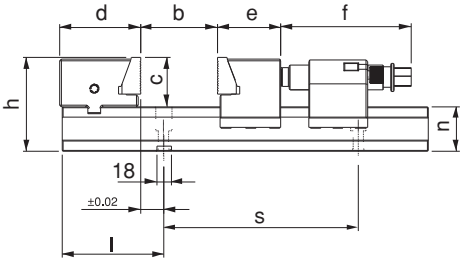


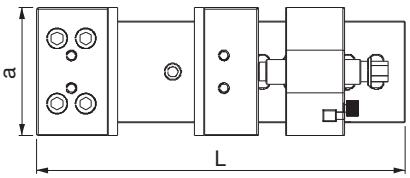
Ürün Nr. 2330 Mekanik Çelik Mengene

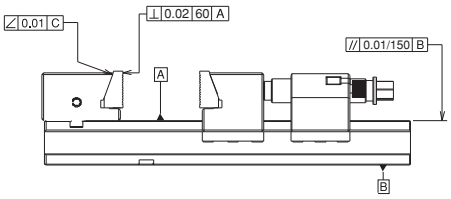
- Mekanik çelik mengene sertleştirilmiş ve hassas taşlanmış olarak mükemmel kullanıma sahiptir. Kullanım özelliği işlenecek malzemeyi sabitlerken sabit ve hareketli çenelerde bulunan modüler çeneler yaylı sisteminden dolayı malzemeyi mengene tabanına doğru çeker ve güvenli çalışma sağlar. Kamalı sabitleme özelliğiyle hareketli çene mesafesi hızlı ayarlanabilir, kolay kullanılır.
- Kullanım alanı: CNC ve mekanik frezeler, taşlama ve matkap tezgahları, çeşitli sanayi makinaları
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

Product Nr. 2330 Mechanical Steel Vice

- Mechanical Steel Vice is hardened and it has excellent way of using because of being sensitevely grinded. It"s usage characteristic fixes the material to be machined and at the same time it pulls the material to the base of the vice because of having springed system of modular jaws taking place in the moving jaws. Entire moving surface is sensitevely grinded. With it's wedged fixing characteristic, moving jaw distance can be adjusted rapidly and can be used with convenience.
- Area of Using: CNC and mechanical milling machines, grinding and drilling machines, various industrial machines
- Entire moving surface is sensitevely grinded and hardened.







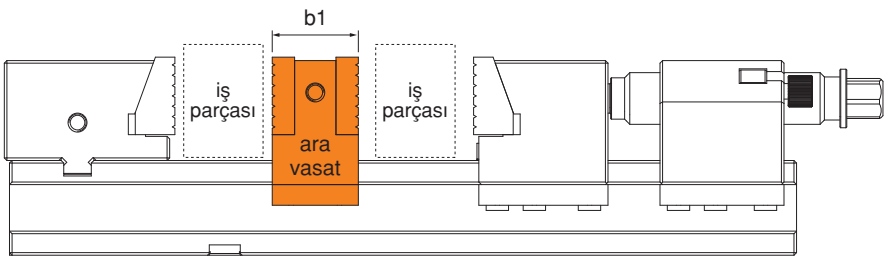
2'li Bağlama İçin Ara Vasat

Medium Part to Connect Two Work Piece

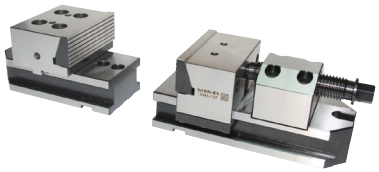
Referans Nr.	b1	(kg)
2330-127	50	3.1
2330-157	50	3.8
2330-197	50	4.7



Not: Çoklu bağlamalar için aravasat
Notes: To be able to clamp several workpieces, intermediate pieces are required.



Referans Nr.	a	L	L1	b1	b	c	h	ı	n	Ød	sıkma kuvveti clamping force kgf	Tork Değeri Allowable Screw Torque (N-m)	(kg)
2345-127	127	202	260	53	0-58	60	115	163.5	55	12.5	4500	170	28

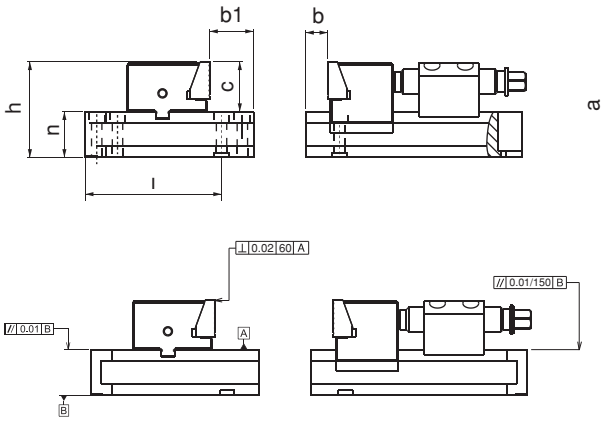


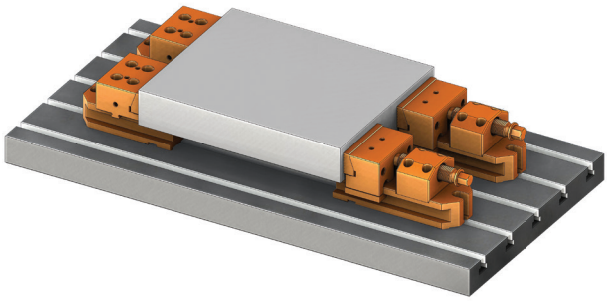
Ürün Nr. 2345 Modüler Mekanik Çelik Mengene

- Ürün çenelarinin hareketli oluşu iş parçasını karşıya ve aşağıya çekerek sıkar. Mengenenin iki parçalı ve paralel oluşu büyük iş parçalarını bağlamada delik diş vs. gibi işlemlerde kolaylık sağlar.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

Product Nr. 2345 Modular Mechanical Steel Vice

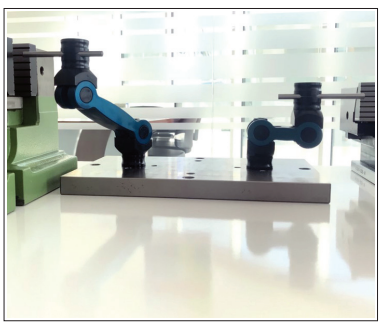
- Because of sliding clamping jaws it clamps the workpieces in opposite direction and down. The vice consists of two parts and it is parallel which provides clamping big tools, threading and similar processes easy.
- Entire moving surface is sensitevely grinded and hardened.



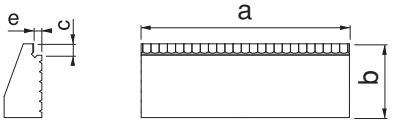


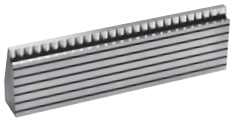


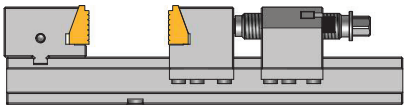




Referans Nr.	a	b	c	d	e	f	(g)
2333-127	127	45	7	-	5	-	760
2333-157	157	45	7	-	5	-	935
2333-197	197	45	7	-	5	-	1180

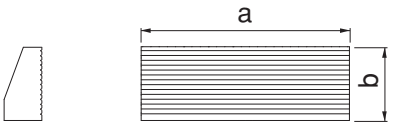




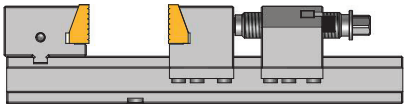


Ürün Nr. 2333 Mekanik Çelik Mengene Faturalı Çene
Product Nr. 2333 Mechanical Steel Vice Jaws with Stopper
• Sertleştirilmiş • Hardened

Referans Nr.	a	b	c	d	e	f	(g)
2334-127	127	45	-	-	-	-	765
2334-157	157	45	-	-	-	-	960
2334-197	197	45	-	-	-	-	1185

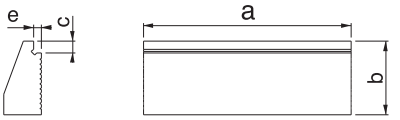




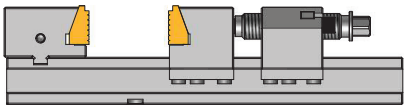


Ürün Nr. 2334 Mekanik Çelik Mengene Düz Çene
Product Nr. 2334 Mechanical Steel Vice with Straight Jaw
• Sertleştirilmiş • Hardened

Referans Nr.	a	b	c	d	e	f	(g)
2335-127	127	45	7	-	5	-	760
2335-157	157	45	7	-	5	-	935
2335-197	197	45	7	-	5	-	1180

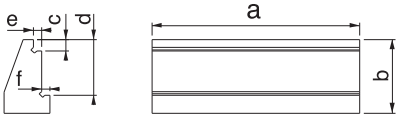




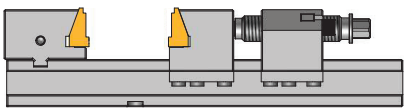


Ürün Nr. 2335 Mekanik Çelik Mengene Faturalı Çene
Product Nr. 2335 Mechanical Steel Vice Jaws with Stopper
• Sertleştirilmiş • Hardened

Referans Nr.	a	b	c	d	e	f	(g)
2340-127	127	45	7	34	5	5	950
2340-157	157	45	7	34	5	5	1010
2340-197	197	45	7	34	5	5	1290

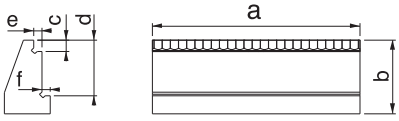




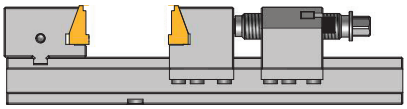


Ürün Nr. 2340 Mekanik Çelik Mengene Faturalı Çene
Product Nr. 2340 Mechanical Steel Vice Jaws with Stopper
• Sertleştirilmiş • Hardened

Referans Nr.	a	b	c	d	e	f	(g)
2336-127	127	45	7	34	5	5	950
2336-157	157	45	7	34	5	5	1010
2336-197	197	45	7	34	5	5	1290





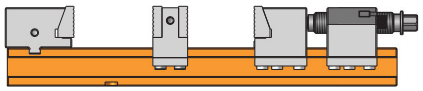


Ürün Nr. 2340 Mekanik Çelik Mengene Faturalı Çene
Product Nr. 2340 Mechanical Steel Vice Jaws with Stopper
• Sertleştirilmiş • Hardened

Referans Nr.
2330-127160AG
2330-157200AG
2330-157300AG
2330-197300AG
2330-197400AG
2330-197500AG
2330-197600AG

Ürün Nr. 2330 Alt Gövde
Product Nr. 2330 Sub-body

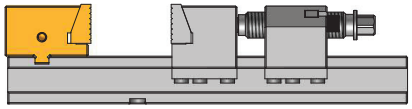
Not: Çoklu bağlamalar için aravasat
Notes: To be able to clamp several workpieces, intermediate pieces are required.





Referans Nr.
2330-127SÇ
2330-157SÇ
2330-197SÇ

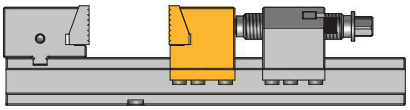
Ürün Nr. 2330 Sabit Çene
Product Nr. 2330 Fixed Jaw

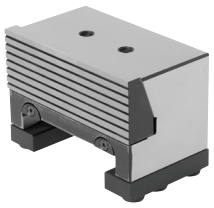




Referans Nr.
2330-127GÇ
2330-157GÇ
2330-197GÇ

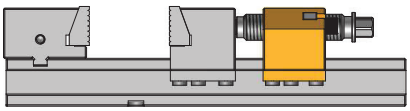
Ürün Nr. 2330 Gezer Çene
Product Nr. 2330 Portable Jaw

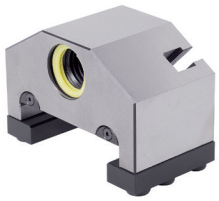




Referans Nr.
2330-127GS
2330-157GS
2330-197GS

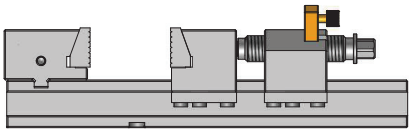
Ürün Nr. 2330 Gezer Somun
Product Nr. 2330 Portable nut





Referans Nr.
2330-127SK
2330-157SK
2330-197SK

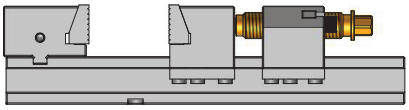
Ürün Nr. 2330 Stop Kaması
Product Nr. 2330 Wedge of Stop





Referans Nr.
2330-127157197M

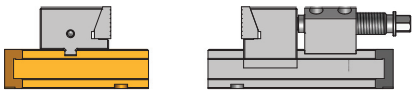
Ürün Nr. 2330 Mil
Product Nr. 2330 Pin





Referans Nr.
2345-127SAG

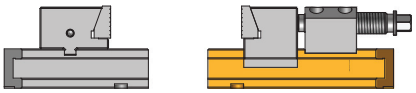
Ürün Nr. 2345 Sabit Alt Gövde
Product Nr. 2345 Fixed Sub-body

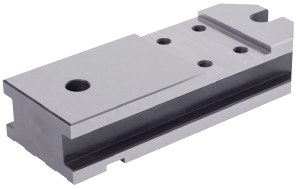




Referans Nr.
2345-127GAG

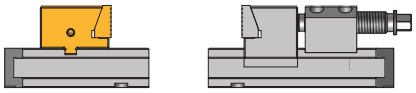
Ürün Nr. 2345 Gezer Alt Gövde
Product Nr. 2345 Portable Sub-body





Referans Nr.
2345-127SÇ

Ürün Nr. 2345 Sabit Çene
Product Nr. 2345 Fixed Jaw





Referans Nr.
2345-127GÇ

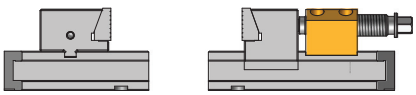
Ürün Nr. 2345 Gezer Çene
Product Nr. 2345 Portable Jaw





Referans Nr.
2345-127SS

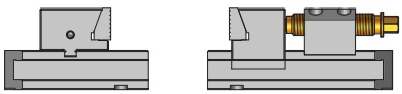
Ürün Nr. 2345 Sabit Somun
Product Nr. 2345 Fixed Nut





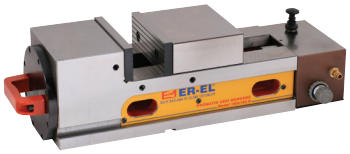
Referans Nr.
2330-127157197M

Ürün Nr. 2330 Mil
Product Nr. 2330 Pin





Referans Nr.	a	b	c	k	L	d	e	h	ı	n ±0.01	sıkma kuvveti clamping force kgf	haraket mesafesi Moving Distance Torque	(kg)
2350-160E	160	160	58	310	530	130	145	160	190	105	2000	4	62

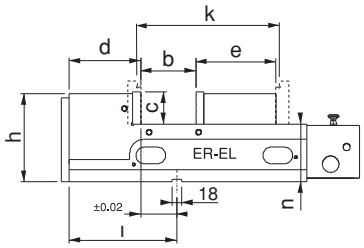


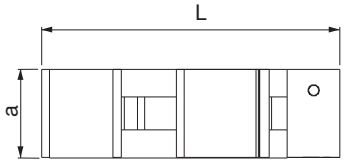
Ürün Nr. 2350 Pnömatik Mengene 160E

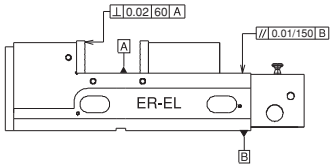
• 6 Bar hava ile çalışır. Pnömatik yapısından dolayı sıkma-açma işlemlerinde hız kazandırır.
• 2000 kgf sıkma kuvvetiyle iş parçasını sabitler. İsteğe bağlı bar ayar butonuyla sıkma kuvveti ayarlanabilir.
• Kullanım alanı: CNC ve mekanik frezeler, matkap tezgahları, çeşitli sanayi makinaları.
• Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

Product Nr. 2350 Pneumatic Vice 160E

• It works with 6 Bar Air. It provides speed in clamping-opening processes because of it's pneumatic structure.
• It fixes the workpiece with it's 2000 kgf clamping force. Clamping force can be adjusted with it arbitrary bar adjustment button.
• Area of Using: CNC and mechanical milling machines, drilling machines, various industrial machines
• Entire moving surface is sensitevely grinded and hardened.







• "k" ölçüsüne yedek çenelerle ulaşılır. Yedek çeneler takıma dahil değildir.

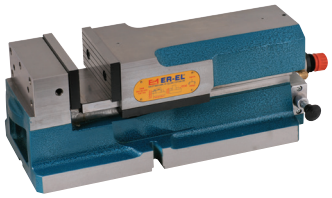
• "k" measurement is reached by the spare jaws. The spare jaws are not included in the set.



Pnömatik Mengene

Pneumatic Vice

Referans Nr.	a	a1	b	c	k	L	d	e	h	ı	n ±0.01	sıkma kuvveti clamping force kgf	haraket mesafesi Moving Distance Torque	(kg)
2370-051	130	188	60	58	135	327	64	209	160	-	105	1100	4	37
2370-052	130	185	140	63	225	400	69	300	160	173	105	2200	4	44
2370-053	160	201	200	63	300	485	93	353	166	170	105	3300	4	63
2370-054	200	240	250	63	360	530	93	410	166	185	105	4100	4	81

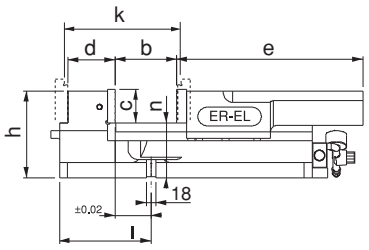


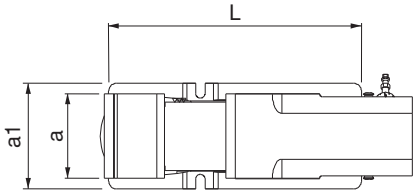
Ürün Nr. 2370 Pnömatik Mengene B

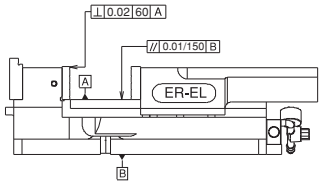
• 6 Bar hava ile çalışır. Pnömatik yapısından dolayı sıkma-açma işlemlerinde hız kazandırır.
• 1100 kgf ile 4100 kgf sıkma kuvvetiyle iş parçasını sabitler. İsteğe bağlı bar ayar butonuyla sıkma kuvveti ayarlanabilir.
• Kullanım alanı: CNC ve mekanik frezeler, matkap tezgahları, çeşitli sanayi makinaları.
• Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

Product Nr. 2370 Pneumatic Vice B

• It works with 6 Bar Air. It provides speed in clamping-opening processes because of it's pneumatic structure.
• It fixes the workpiece with it's 1100 kgf and 4100 kgf clamping force. Clamping force can be adjusted with it arbitrary bar adjustment button.
• Area of Using: CNC and mechanical milling machines, drilling machines, various industrial machines
• Entire moving surface is sensitevely grinded and hardened.



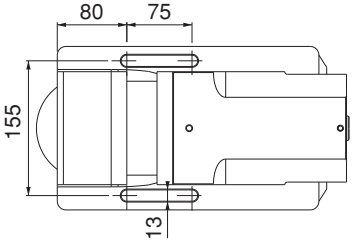




• "k" ölçüsüne yedek çenelerle ulaşılır. Yedek çeneler takıma dahil değildir.

• "k" measurement is reached by the spare jaws. The spare jaws are not included in the set.

2370-051 Detay / Detail



Referans Nr.	a	H min. - max.	L	ØD	S min. - max.	B	M	(g)
2377-12512	12	85-125	90	6	30-50	37	M10	780
2377-12514	14	85-125	90	6	30-50	37	M10	780
2377-12516	16	85-125	90	6	30-50	37	M10	780
2377-12518	18	85-125	90	6	30-50	37	M10	780
2377-16512	12	85-165	90	6	50-95	37	M10	865
2377-16514	14	85-165	90	6	50-95	37	M10	865
2377-16516	16	85-165	90	6	50-95	37	M10	865
2377-16518	18	85-165	90	6	50-95	37	M10	865

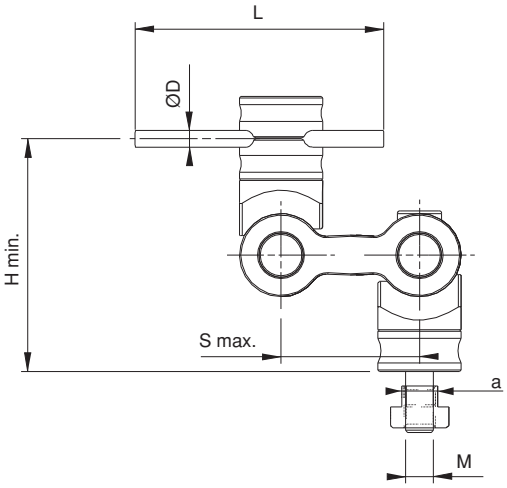


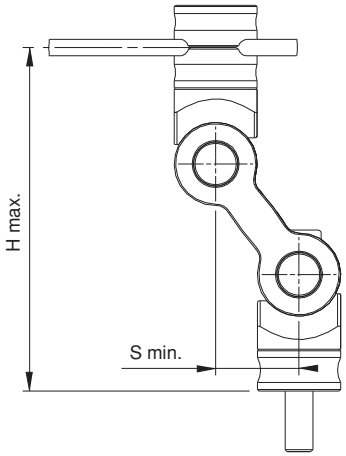
Ürün Nr. 2377 5D Dayama

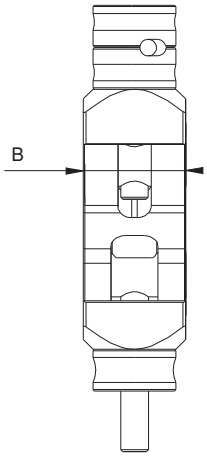
- 5 Eksen ayarlama özelliği ile makinalarda ve montaj çalışmalarında hızlı ve esnek şekilde kolay kullanım olanağı sağlar.

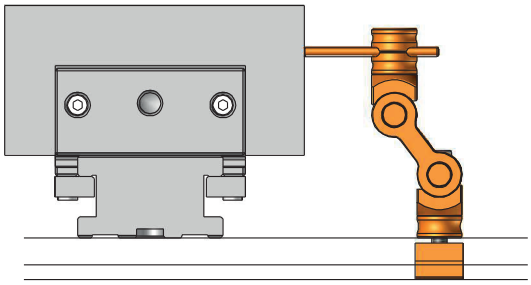
Ürün Nr. 2377 5D Pluggable

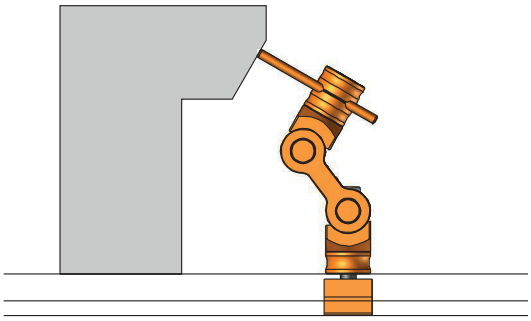
- With its 5 axis adjustment feature, it provides fast and flexible usage in machines and assembly works.







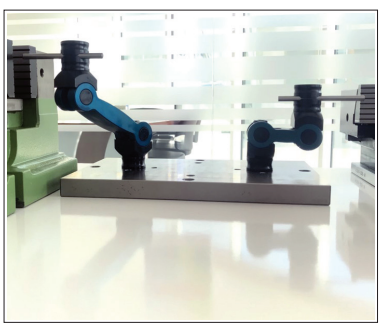




Uygulama Örnekleri / Example Application







HİDROLİK FİKSTÜR UYGULAMALARI

HYDRAULIC FIXTURE APPLICATIONS









Hassas Delik İşleme Aparatı

Precision Hole Making Tool

Referans Nr.	d	d1	h	h1	L	(kg)
2385-130	48	32	91	60	151	3.05

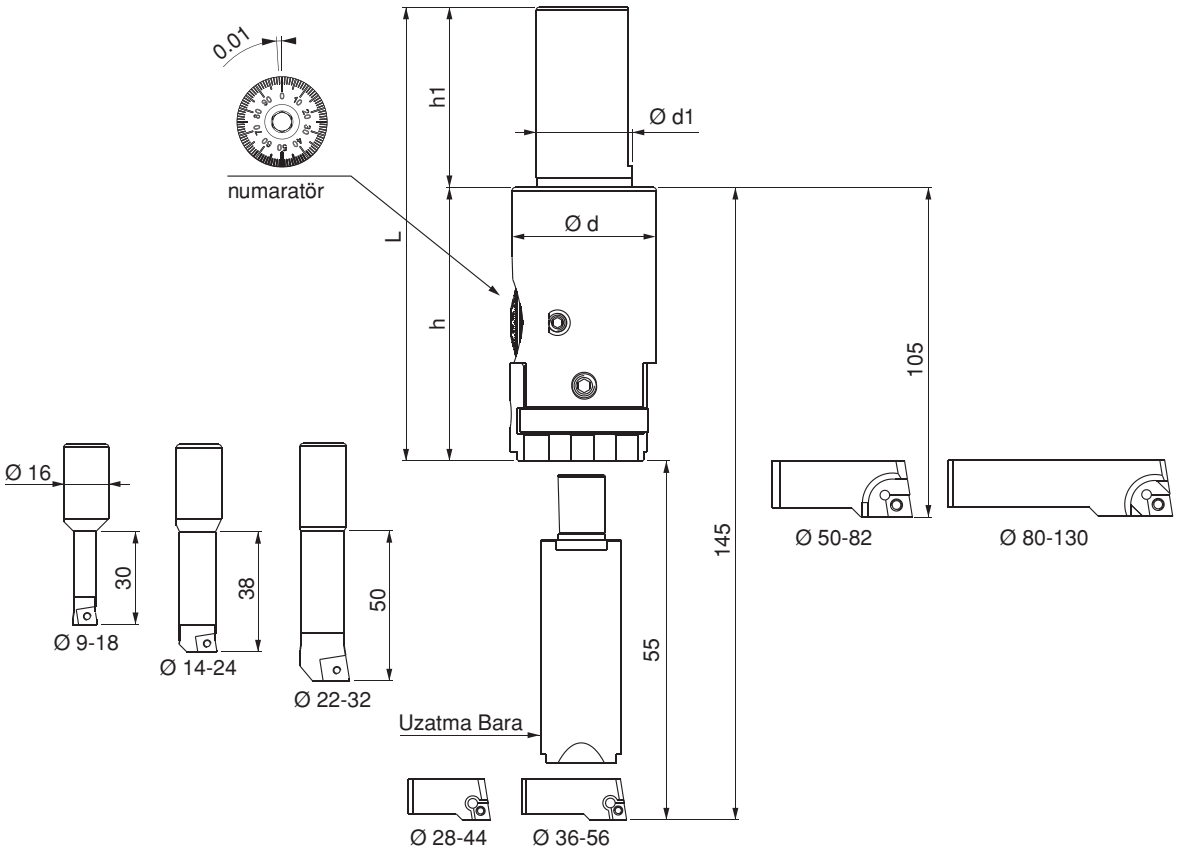


Ürün Nr. 2385 Hassas Delik İşleme Aparatı

- Ürün 0.01 işleme hassasiyetli olup 9mm'den 130mm çapa 145 mm derinliğe işlem yapabilir değiştirilebilir bara ve kartuş özelliği ile mükemmel kullanıma sahiptir.

Product Nr. 2385 Precision Hole Making Tool

- It works with 0.01 sensitivity in diameter 9-130 mm and 145 mm depth. Because of replaceable function kater and cartouche it is perfect in using.



Not:
Ø 52 den sonra gövdeyle 105 mm uzatma barayla 145 mm derinliğe ulaşır.

Note; from diameter 52: It reachs 105 mm depth with its slot and 145 mm depth with its extended kater

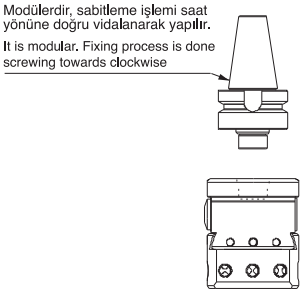
Referans Nr.	Cinsi Type	Uç Tipi Type of Inserts	Devir Rotation	İlerleme Progress	ap
2386-00918	09-18 Bara	CCMT 06	2700 d/dk.	F 75	0.1 - 0.5 mm
2386-01424	14-24 Bara	CCMT 06	2500 d/dk.	F 75	0.1 - 0.5 mm
2386-02232	22-32 Bara	CCMT 09	2000 d/dk.	F 50	0.1 - 1 mm
2386-02844	28-44 Kartuş	CCMT 06	1800 d/dk.	F 60	0.1 - 1 mm
2386-03656	36-56 Kartuş	CCMT 06	1500 d/dk.	F 65	0.1 - 1.5 mm
2386-05082	50-82 Kartuş	CCMT 09	1500 d/dk.	F 70	0.1 - 2 mm
2386-80130	80-130 Kartuş	CCMT 09	360 d/dk.	F 75	2 mm
2386-00055	Uzatma Bara	-	400 d/dk.	F 75	1.5 mm

Referans Nr.	J x M	k	h	h1	e	L	L1	L2	(g)
2390-010	ISO30-M12	83	99	35	18	85	128	26	6030
2390-015	ISO40-M16								6555
2390-020	ISO50-M24								9110
2390-025	BT40 -M16					95			6900
2390-030	BT50 - M24								9840
2390-035	SK40- M16								6750
2390-040	SK50- M24								8970
2390-045	MK4 - M16					132			6180
2390-050	MK4 Kamalı								6880
2390-055	MK5 - M20								7785
2390-060	MK5 Kamalı								7450



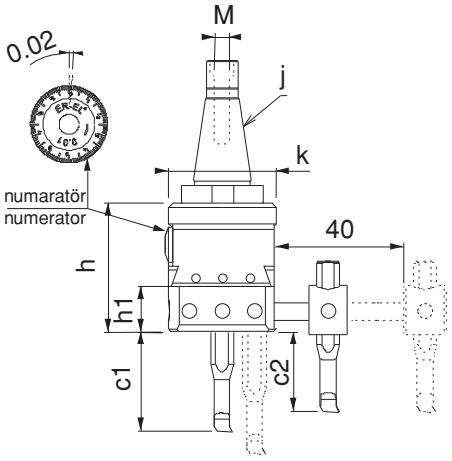
Ürün Nr. 2390 Delik İşleme Aparatı

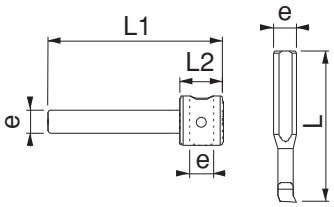
• Ürün 0.02 işleme hassasiyetli olup 18mm'den 210mm'ye kadar işlem yapabilir.
Modüler sistem oluşu kullanım için kolaylık sağlar.
Tutucu değiştirilerek CNC ve Mekanik tezgahlarda kullanım avantajı sağlar.
Ürün, 4 ad. delik barası, 1 ad. T-Kanal temizleyici ile ahşap kutudadır.
Değiştirilebilir Tutucular:
ISO-30-40-50 BT40-50 SK40-50 MK4-5 ile kullanım imkanı.



Product Nr. 2390 Hole Machining Apparatus

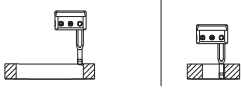
• Product has 0.02 machining sensitivity and it can implement processes from 18mm to 210mm.
It's modular system structure provides convenience in using.
It provides the possibility of using in CNC and Mechanical benches by changing the holder.
The product takes place in a wooden box with it's 4 hole bar, 1 T-Slot scraper.
Changeable Holders:
Possibility to be used with ISO30-40-50 BT 40-50 SK40-50 MK4-5.





Referans Nr.	L	L1	e	Kesici uç tipi Cutting Edge type	(g)
2395-1	85	-	18	DCMT 07	112
2395-2	95	-	18	DCMT 07	130
2395-3	132	-	18	DCMT 07	200
2395-4	-	128	18	-	360

Ø min	Ø max	c1	devir dk. Revolution per minute
18	95	50	400-450
18	95	63	400-450
20	100	100	170-220

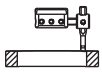




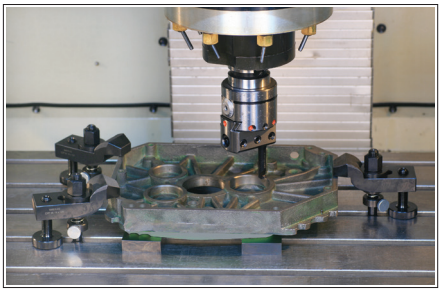
• Ürünün kızağındaki alt deliklerine baraları takarak 18mm'den 100mm çapa kadar büyütme 0-100mm kadar derinliğe inebilir.

• It is possible to have enlargement from 18mm to 100mm by attaching bars to the bottom holes taking place in the slide of the product and it can go down to depth up to 0-100mm.

Ø min	Ø max	c2	devir dk. Revolution per minute
95	210	55	90-170
95	210	65	90-170







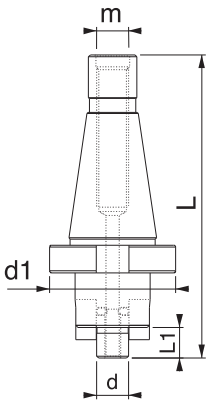
• Ürünün kızağındaki yan deliğe ara vasatı takarak, şekilde görüldüğü gibi 95mm'den - 210mm çapa kadar büyütme, 0-65mm kadar derinliğe inebilir

• By applying intermediary means to the side hole of the product's slide, it is possible to have enlargement from 95mm to 210mm and it can go down to depth up to 0-65mm as seen in the figure.

Freze Tarama Başlığı Tutucusu

Milling Machine Hatching Headpiece Holder

Referans Nr.	ISO	d	d1	L	L1	m	(g)
2410-3016	ISO 30	16	48	125	17	M12	665
2410-3022	ISO 30	22	48	125	19	M12	760
2410-3027	ISO 30	27	48	125	21	M12	790
2410-3032	ISO 30	32	63.5	125	22	M12	1020
2410-4016	ISO 40	16	63.5	153	17	M16	1170
2410-4027	ISO 40	27	63.5	153	19	M16	1360
2410-4040	ISO 40	40	73.5	153	27	M16	1795
2410-5016	ISO 50	16	98	195	17	M24	3250
2410-5022	ISO 50	22	98	195	19	M24	3350
2410-5032	ISO 50	32	98	195	24	M24	3590





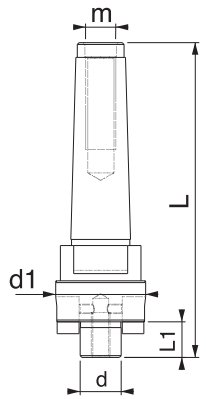
Ürün Nr. 2410 ISO 30-40-50
Freze Tarama Kafa Tutucusu
- Sertleştirilmiş
- Hassas taşlama

Product Nr. 2410 ISO 30-40-50
Milling Machine Hatching Headpiece Holder
- Hardened
- Sensitive Grinding

Freze Tarama Başlığı Tutucusu

Milling Machine Hatching Headpiece Holder

Referans Nr.	MK	d	d1	L	L1	m	(g)
2415-0416	MK 4	16	40	168	17	M16	945
2415-0422	MK 4	22	48	168	19	M16	1010
2415-0427	MK 4	27	53	168	21	M16	1135
2415-0432	MK 4	32	63.5	168	24	M16	1255
2415-0516	MK 5	16	63.5	208	17	M20	2145
2415-0522	MK 5	22	63.5	208	19	M20	2375
2415-0527	MK 5	27	63.5	208	21	M20	2360
2415-0532	MK 5	32	63.5	208	24	M20	2500
2415-0540	MK 5	40	73.5	208	27	M20	2700





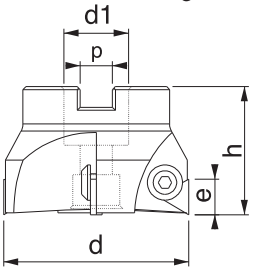
Ürün Nr. 2415 MK4-MK5
Freze Tarama Kafa Tutucusu
- Sertleştirilmiş
- Hassas taşlama

Product Nr. 2415 MK4-MK5
Milling Machine Hatching Headpiece Holder
- Hardened
- Sensitive Grinding

Freze Tarama Başlığı

Milling Machine Hatching Headpiece

Referans Nr.	d	h	d1	p	e		Kesici uç tipi Cutting Edge type	(g)
2420-0804	80	52	32	14.5	22	4	TPKN	800
2420-1005	100	52	32	14.5	22	5	TPKN	1320





Ürün Nr. 2420 Freze Tarama Başlığı
- Sertleştirilmiş
- Siyah kaplama

Product Nr. 2420 Milling Machine Hatching Headpiece
- Hardened
- Black Coating

Referans Nr.	d	Metrik	Alyan Allen
2420-06	40-50-63	M6x0.75	4
2420-08	80-100	M8x1	5



Ürün Nr. 2420 Yedek Baskı Vidası
- Sertleştirilmiş
- Siyah kaplama

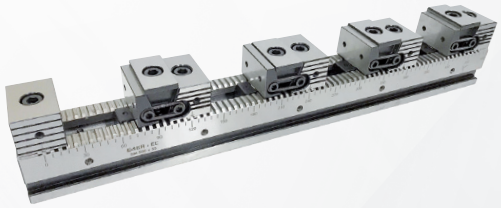
Product Nr. 2420 Spare Press Screw
- Hardened
- Black Coating

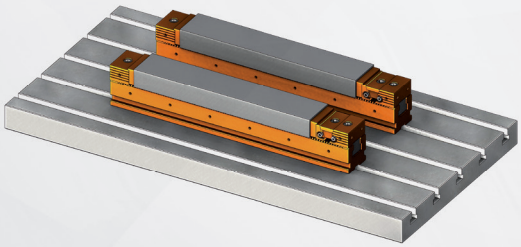
ÇOK ÇENELİ SERİ MENGENELER

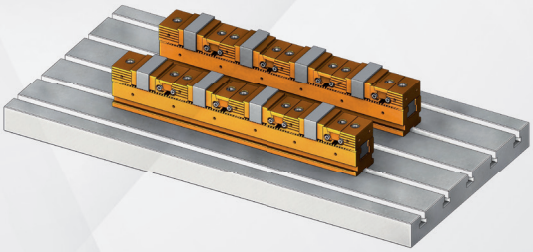
MULTI JAWED WRENCH TOOLING

Çok Çeneli Seri Mengene Tek Yöne Sıkma Şekli

One Direction Clamping of Multi Jawed Wrench Tooling

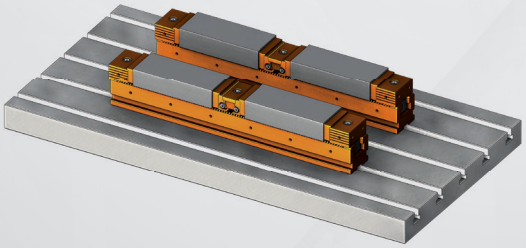


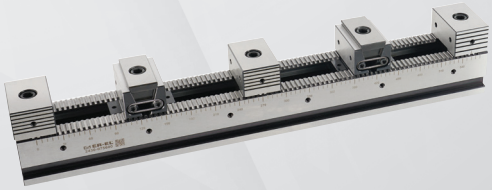


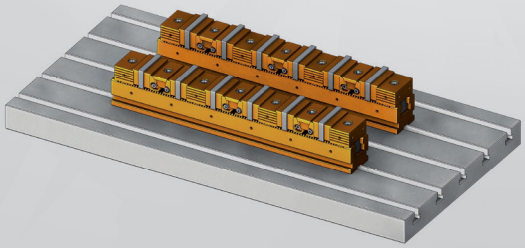


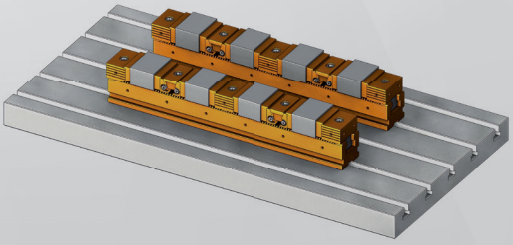
Çok Çeneli Seri Mengene Çift Yöne Sıkma Şekli

Two Direction Clamping of Multi Jawed Wrench Tooling



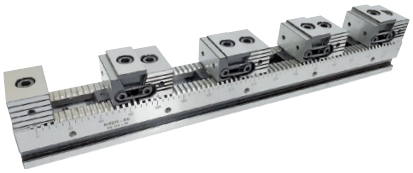




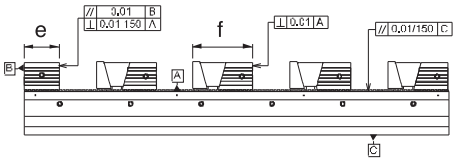


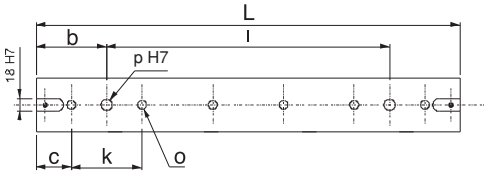
Referans Nr.	L	n	h1	h2	h	o	e	f	b	c	k	ı	p H7	Standart Bağlama Adedi Coupling Piece	Sıkma Kuvveti Clamping Force kgf	Tork Değeri Allowable Screw Torque (N-m)	(kg)
2430-055300	300	55	50	32	72	12.5	36	65	100	50	100	100	18	2	1750	25	9
2430-055500	500	55	50	32	72	12.5	36	65	100	50	100	300	18	4			15
2430-075400	400	75	65	37	102	12.5	48	77	100	50	100	200	18	2	2000	35	20
2430-075600	600	75	65	37	102	12.5	48	77	100	50	100	400	18	4			33
2430-100400	400	100	65	37	102	12.5	48	80	100	50	100	200	18	2	2500	50	27
2430-100600	600	100	65	37	102	12.5	48	80	100	50	100	400	18	3			41

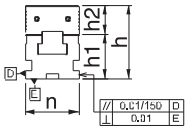
Ürün Nr. 2430 Çok Çeneli Seri Mengene
- Ürüne birden fazla iş bağlama imkanı sağlar. Çeneler modülerdir, istenen ölçüye ayarlanır.
- Gruplara bağlanan yumuşak ayaklara iş parçası formu uygulanabilir.
- Hassas taşlama
- Çeneleri ayrı olarak satın almanız gerekir.



Product Nr. 2430 Multi Jawed Wrench Tooling
- It provides the attachments of more than one workpieces to the product. Jaws are modular and can be adjusted to the desired measurement.
- Form of the workpiece can be applied on the soft legs connected to the groups.
- Sensitive Grinding
- You need to purchase jaws separate.

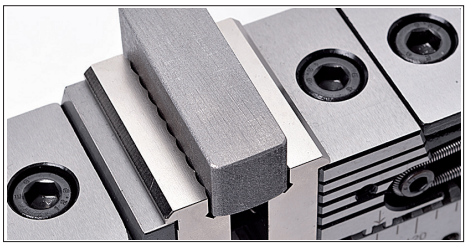


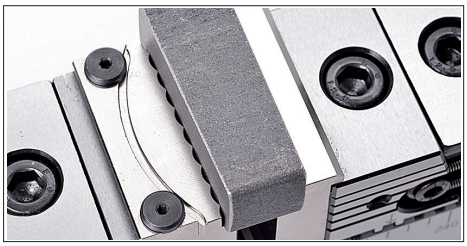


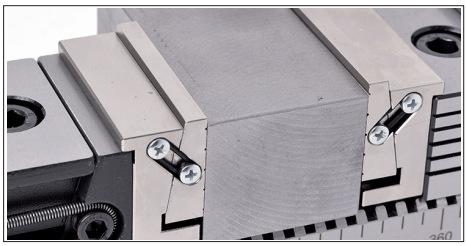


Referans Nr.	GEZER ÇENE İLE İŞ PARÇASI BAĞLAMA ADETLERİ / Numbers of Portable Jaw with Workpiece Couplings				
	1 İş parçası 1 Workpiece	2 İş parçası 2 Workpiece	3 İş parçası 3 Workpiece	4 İş parçası 4 Workpiece	5 İş parçası 5 Workpiece
2430-055300	196mm	65mm	22mm	-	-
2430-055500	394mm	165mm	88mm	50mm	26mm
2430-075400	268mm	95mm	38mm	-	-
2430-075600	472mm	197mm	106mm	60mm	32mm
2430-100400	265mm	93mm	35mm	-	-
2430-100600	469mm	195mm	103mm	57mm	30mm

Not: İş bağlama adetleri ölçülerinde yumuşak ayak dahil değildir. **Note:** It does not include binding units of measure soft feet in business.



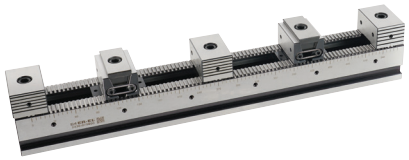


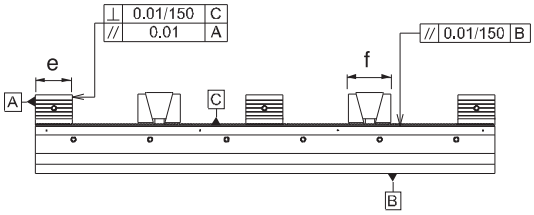


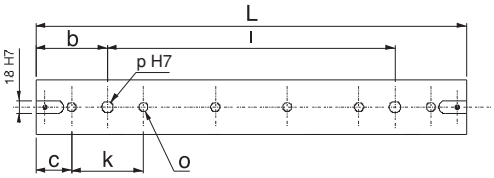
Referans Nr.	L	n	h1	h2	h	o	e	f	b	c	k	ı	p H7	Standart Bağlama Adedi Coupling Piece	Sıkma Kuvveti Clamping Force Kgf	Tork Değeri Allowable Screw Torque (N-m)	(kg)
2435-055300	300	55	50	32	82	12.5	36	45	100	50	100	100	18	2	1750	25	8
2435-055500	500	55	50	32	82	12.5	36	45	100	50	100	300	18	4			14
2435-075400	400	75	65	37	102	12.5	48	52	100	50	100	200	18	2	2000	35	19
2435-075600	600	75	65	37	102	12.5	48	52	100	50	100	400	18	4			32
2435-100400	400	100	65	37	102	12.5	48	52	100	50	100	200	18	2	2500	50	26
2435-100600	600	100	65	37	102	12.5	48	52	100	50	100	400	18	4			40

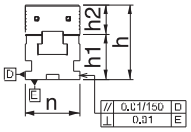
Ürün Nr. 2435 Çok Çeneli Seri Mengene
- Çift açılır bağlama modelidir.
- Çeneleri ayrı olarak satın almanız gerekir.

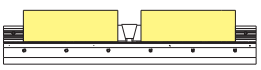
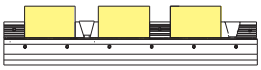
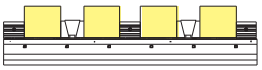
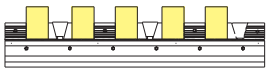
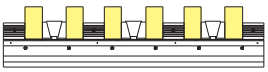
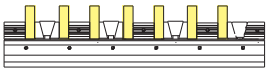
Product Nr. 2435 Multi Jawed Wrench Tooling
- Double opening clamp model.
- You need to purchase jaws separate.





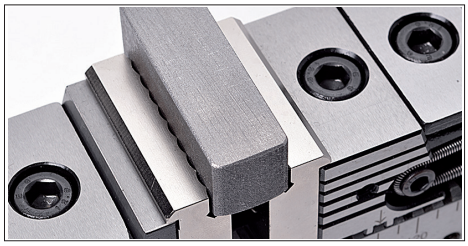


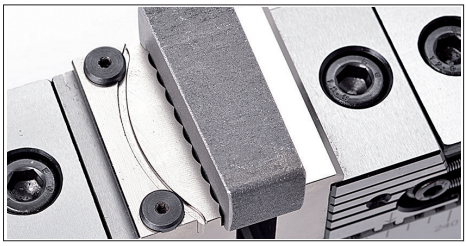


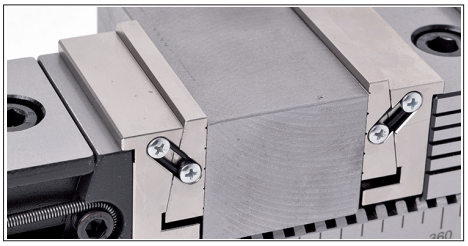
Referans Nr.	ÇİFT AÇILIR ÇENE İLE İŞ PARÇASI BAĞLAMA ADETLERİ / Numbers of Double Opening Jaw with Workpiece Couplings		
	2 İş parçası 2 Workpiece 	3 İş parçası 3 Workpiece 	4 İş parçası 4 Workpiece 
2435-055300	75mm	37mm	16mm
2435-055500	173mm	103mm	66mm
2435-075400	107mm	55mm	28mm
2435-075600	209mm	123mm	79mm
2435-100400	104mm	53mm	26mm
2435-100600	206mm	121mm	77mm
	5 iş parçası 5 Workpiece 	6 iş parçası 6 Workpiece 	7 iş parçası 7 Workpiece 
2435-055300	-	-	-
2435-055500	45mm	30mm	20mm
2435-075400	13mm	-	-
2435-075600	54mm	45mm	24mm
2435-100400	12mm	-	-
2435-100600	52mm	34mm	22mm

Not: İş bağlama adetleri ölçülerinde yumuşak ayak dahil değildir.

Note: It does not include binding units of measure soft feet in business.



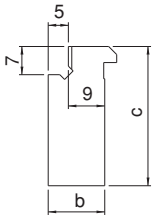


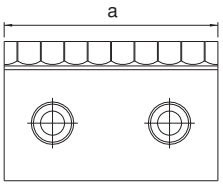


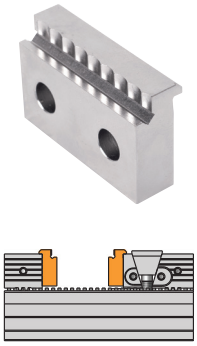
Referans Nr.	a	b	c
2430-24350551	53	14	34
2430-24350751	73	14	39
2430-24351001	98	14	39

• Sertleştirilmiş
• Nikel Kaplama

• Hardened
• Nickel Coating



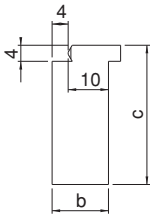


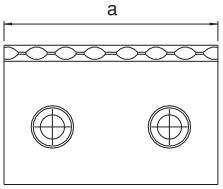


Referans Nr.	a	b	c
2430-24350552	53	14	34
2430-24350752	73	14	39
2430-24351002	98	14	39

• Sertleştirilmiş
• Nikel Kaplama

• Hardened
• Nickel Coating



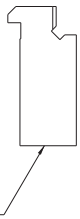




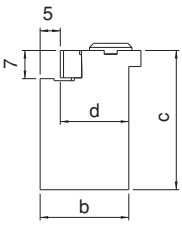
Referans Nr.	a	b	c	d
2430-24350553	53	22	34	17
2430-24350753	73	25	39	20
2430-24351003	98	25	39	20

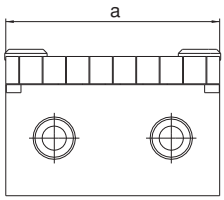
• Sertleştirilmiş
• Nikel Kaplama

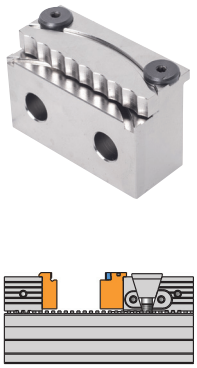
• Hardened
• Nickel Coating



2430-24350551
2430-24350751
2430-24351001



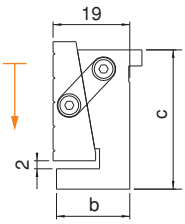


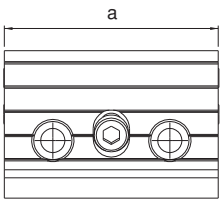


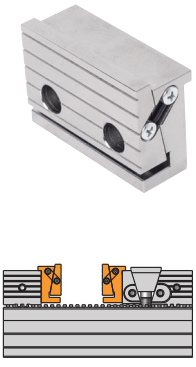
Referans Nr.	a	b	c
2430-24350554	53	19	34
2430-24350754	73	19	39
2430-24351004	98	19	39

• Sertleştirilmiş
• Nikel Kaplama

• Hardened
• Nickel Coating

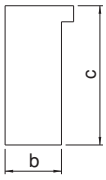


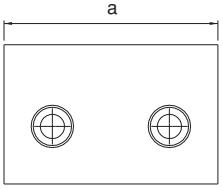


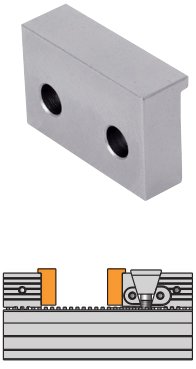


Referans Nr.	a	b	c
2430-24350555	53	14	34
2430-24350755	73	14	39
2430-24351005	98	14	39

Seri Mengene Yumuşak Çene
Serial Vice Soft Jaw

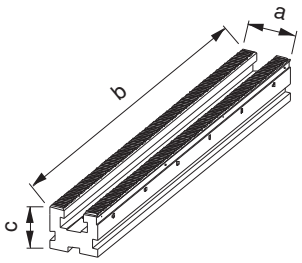




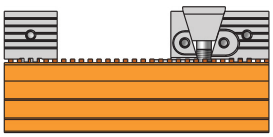


Referans Nr.	a	b	c
2430-2435055300AG	55	300	50
2430-2435055500AG	55	500	50
2430-2435075400AG	75	400	65
2430-2435075600AG	75	600	65
2430-2435100400AG	100	400	65
2430-2435100600AG	100	600	65

Seri Mengene Alt Gövde
Serial Vice Sub-Body

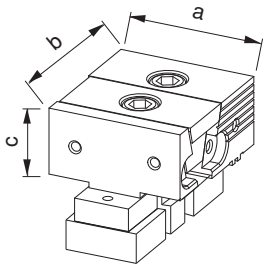




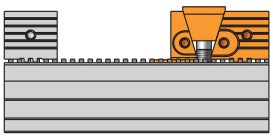


Referans Nr.	a	b	c
2430-2435055GÇ	54	65	32
2430-2435075GÇ	74	77	37
2430-2435100GÇ	99	80	37

Seri Mengene Gezer Çene
Serial Vice Portable Jaw

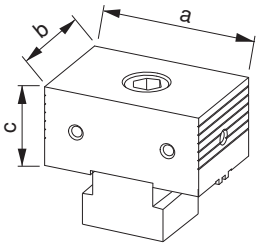


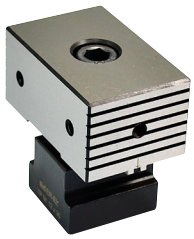


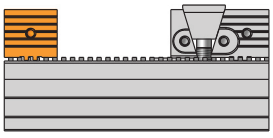


Referans Nr.	a	b	c
2430-2435055DA	54	36	32
2430-2435075DA	74	48	37
2430-2435100DA	99	48	37

Seri Mengene Dayama
Serial Vice Resting

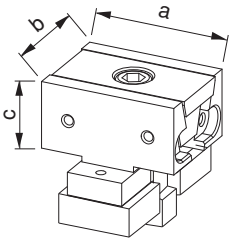




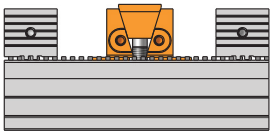


Referans Nr.	a	b	c
2430-2435055ÇA	54	45	32
2430-2435075ÇA	74	52	37
2430-2435100ÇA	99	52	37

Seri Mengene Çift Açılır
Serial Vice Double Opening



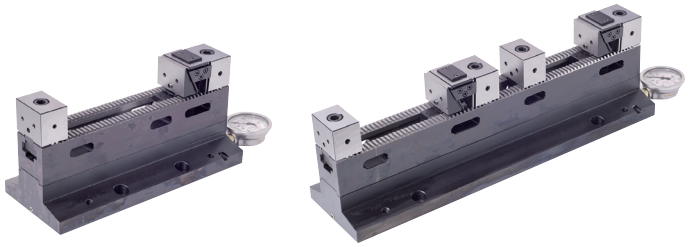


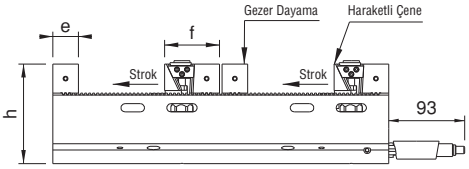


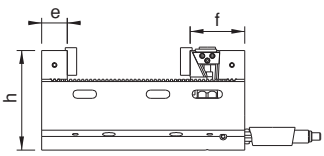
Referans Nr.	L	n	n1	h	h1	h2	o	e	f	a	b	c	k	ı	p H7	Standart bağlama adedi Coupling Piece	Stroke	Sıkma Kuvveti Clamping Force Kgf
2443-055300	300	125	55	148	105	43	12.5	38	81.5	100	50	100	100	200	18	1	8	750
2443-055500	500	125	55	148	105	43	12.5	38	81.5	100	100	150	200	300	18	2	8	750
2443-075400	400	175	75	158	115	43	12.5	48	88	150	50	100	200	300	18	2	8	1100
2443-075600	600	175	75	158	115	43	12.5	48	88	150	100	150	300	400	18	2	8	1100
2443-100400	400	175	100	158	115	43	12.5	48	88	150	50	100	200	300	18	2	8	1100
2443-100600	600	175	100	158	115	43	12.5	48	88	150	100	150	300	400	18	2	8	1100

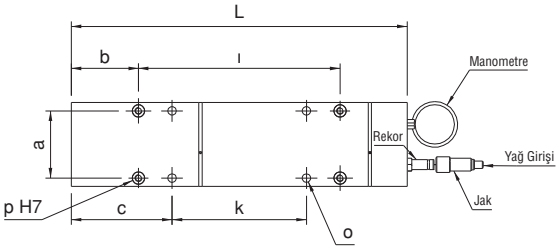
Ürün Nr. 2443 Hidrolik Çok Çeneli Seri Mengene
- Satın almadan önce bağlama adetlerini belirtiniz
- Çeneleri ayrı olarak satın almanız gerekir.

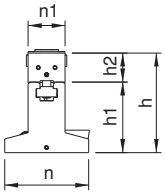
Product Nr. 2443 Hydraulic Multi Jawed Wrench Tooling
- Please, you specify about number of clamping before you make purchase.
- You need to purchase jaws separate.

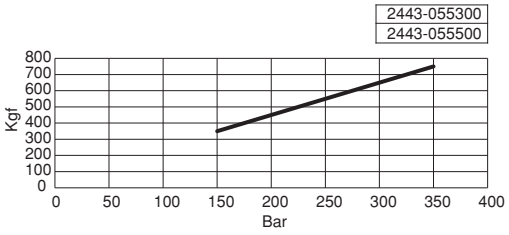


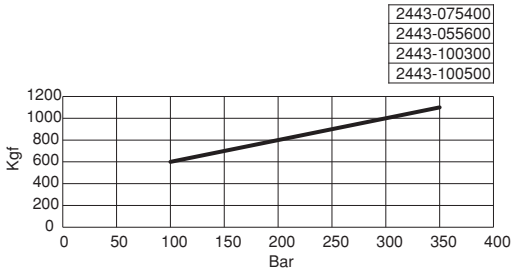








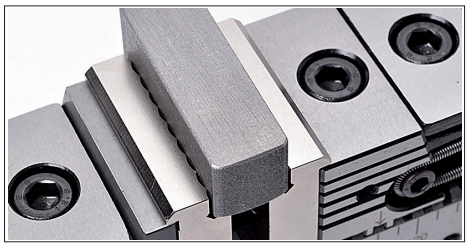


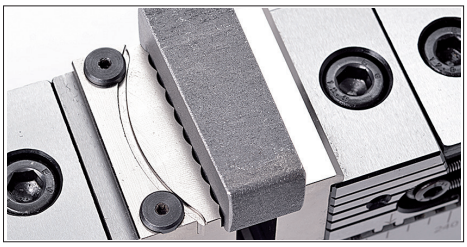


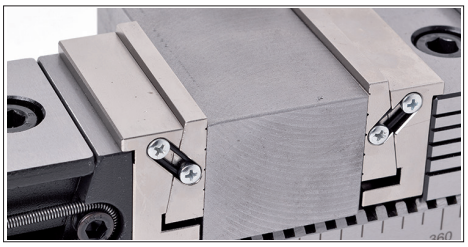
Referans Nr.	GEZER ÇENE İLE İŞ PARÇASI BAĞLAMA ADETLERİ / Numbers of Portable Jaw with Workpiece Couplings		
	1 İş parçası 1 Workpiece	2 İş parçası 2 Workpiece	3 İş parçası 3 Workpiece
2443-055300	182 mm	-	-
2443-055500	-	128 mm	-
2443-075400	-	68 mm	-
2443-075600	-	170 mm	68 mm
2443-100400	-	68 mm	-
2443-100600	-	170 mm	68 mm

Not: İş bağlama adetleri ölçülerinde yumuşak ayak dahil değildir.

Note: It does not include binding units of measure soft feet in business.



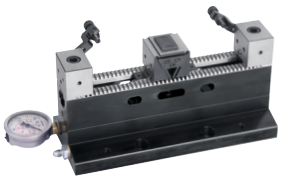


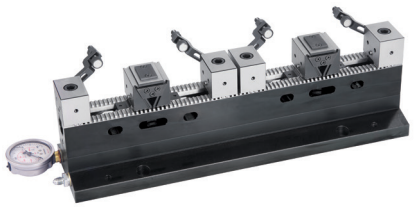


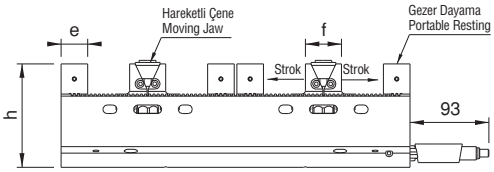
Referans Nr.	L	n	n1	h	h1	h2	o	e	f	a	b	c	k	ı	p H7	Standart Bağlama Adedi Coupling Piece	Stroke	Sıkma Kuvveti Clamping Force Kgf
2445-055300	300	125	55	148	105	43	12.5	38	51.5	100	50	100	100	200	18	2	8x2	750
2445-055500	500	125	55	148	105	43	12.5	38	51.5	100	100	150	200	400	18	4	8x2	750
2445-075400	400	175	75	158	115	43	12.5	48	51.5	150	50	100	200	300	18	2	8x2	1100
2445-075600	600	175	75	158	115	43	12.5	48	51.5	150	100	150	300	500	18	4	8x2	1100
2445-100400	400	175	100	158	115	43	12.5	48	51.5	150	50	100	200	300	18	2	8x2	1100
2445-100600	600	175	100	158	115	43	12.5	48	51.5	150	100	150	300	500	18	4	8x2	1100

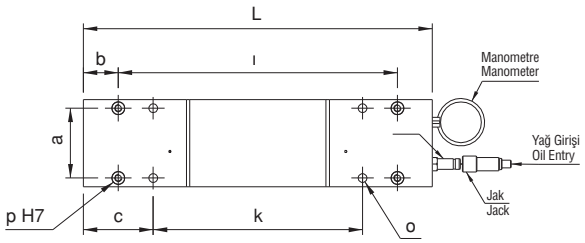
Ürün Nr. 2445 Hidrolik Çok Çeneli Seri Mengene
• Çeneleri ayrı olarak satın almanız gerekir.

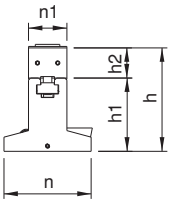
Product Nr. 2445 Hydraulic Multi Jawed Wrench Tooling
• You need to purchase jaws separate.

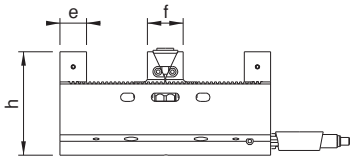


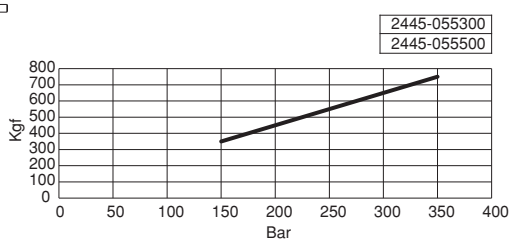


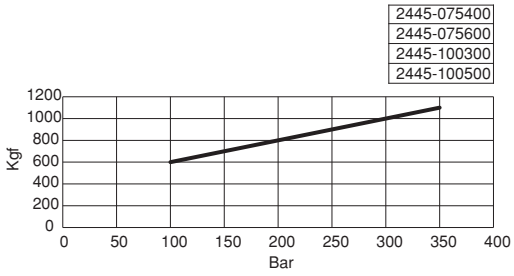




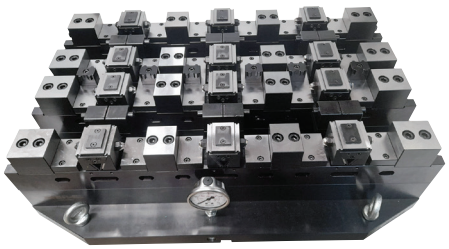






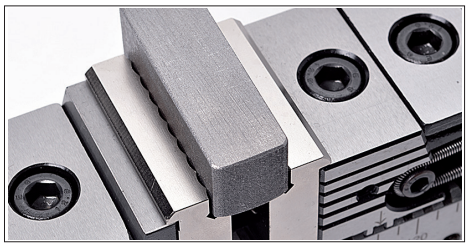


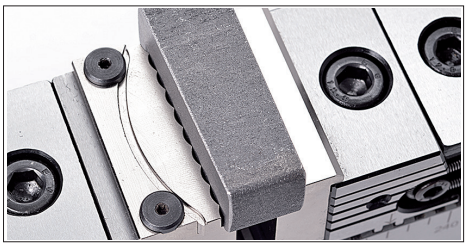
Referans Nr.	ÇİFT AÇILIR ÇENE İLE İŞ PARÇASI BAĞLAMA ADETLERİ Numbers of Double Opening Jaw with Workpiece Couplings	
	2 İş parçası 2 Workpiece	4 İş parçası 4 Workpiece
2445-055300	87 mm	-
2445-055500	-	60 mm
2445-075400	125 mm	-
2445-075600	-	75 mm
2445-100400	125 mm	-
2445-100600	-	75 mm

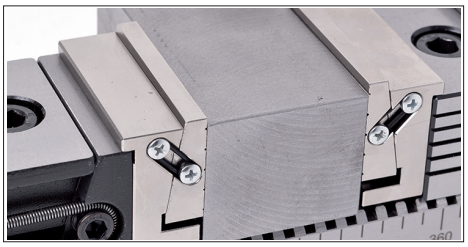


Not: İş bağlama adetleri ölçülerinde yumuşak ayak dahil değildir.

Note: It does not include binding units of measure soft feet in business.



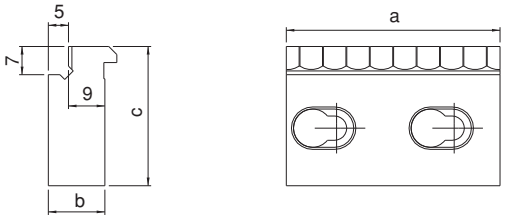


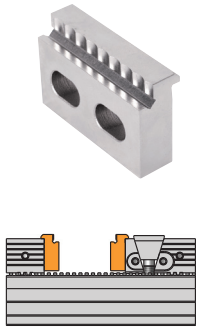


Referans Nr.	a	b	c
2443-24450551	55	14	38
2443-24450751	75	14	38
2443-24451001	100	14	38

• Sertleştirilmiş
• Nikel Kaplama

• Hardened
• Nickel Coating

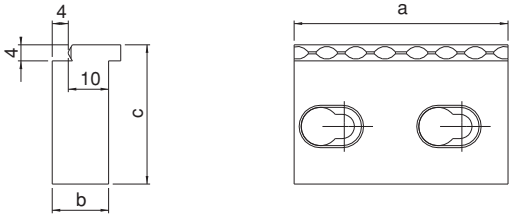


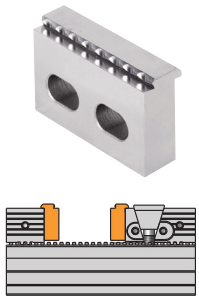


Referans Nr.	a	b	c
2443-24450552	55	14	38
2443-24450752	75	14	38
2443-24451002	100	14	38

• Sertleştirilmiş
• Nikel Kaplama

• Hardened
• Nickel Coating



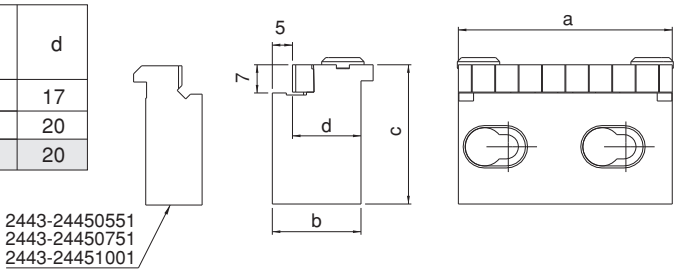


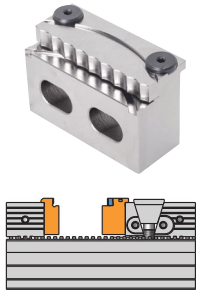
Referans Nr.	a	b	c	d
2443-24450553	55	22	38	17
2443-24450753	75	25	38	20
2443-24451003	100	25	38	20

• Sertleştirilmiş
• Nikel Kaplama

• Hardened
• Nickel Coating

2443-24450551
2443-24450751
2443-24451001

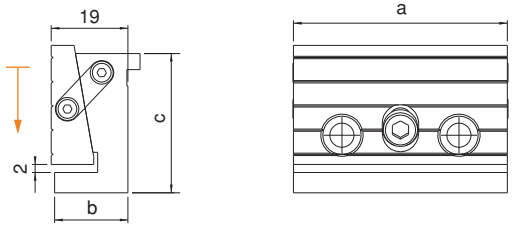


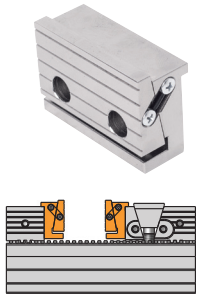


Referans Nr.	a	b	c
2443-24450554	55	19	38
2443-24450754	75	19	38
2443-24451004	100	19	38

• Sertleştirilmiş
• Nikel Kaplama

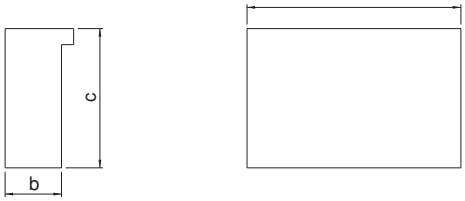
• Hardened
• Nickel Coating

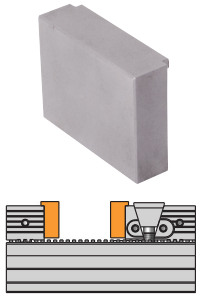




Referans Nr.	a	b	c
2443-24450555	55	14	38
2443-24450755	75	14	38
2443-24451005	100	14	38

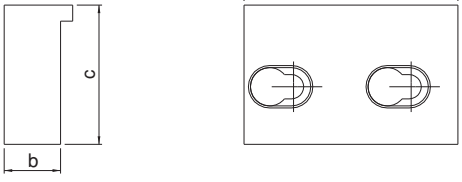
Yumuşak Çene
Soft Jaw

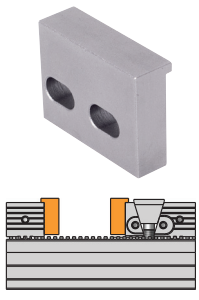




Referans Nr.	a	b	c
2443-24450556	55	14	38
2443-24450756	75	14	38
2443-24451006	100	14	38

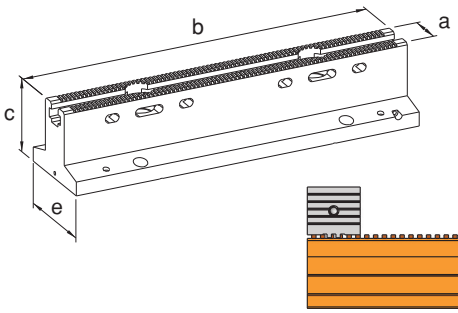
Yumuşak Çene
Soft Jaw





Referans Nr.	a	b	c	e
2443-055300AG	55	300	105	125
2443-055500AG	55	500	105	125
2443-075400AG	75	400	115	175
2443-075600AG	75	600	115	175
2443-100400AG	100	400	115	175
2443-100600AG	100	600	115	175

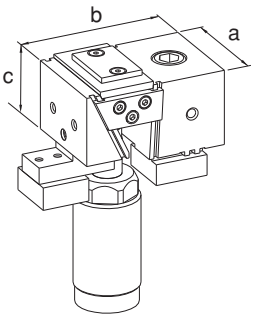
Hidrolik Alt Gövde
Hydraulic Sub-body

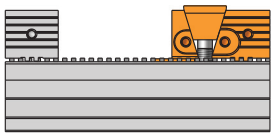




Referans Nr.	a	b	c
2443-055HÇ	55	81.5	43
2443-075HÇ	75	88	43
2443-100HÇ	100	88	43

Hareketli Çene
Moving Jaw

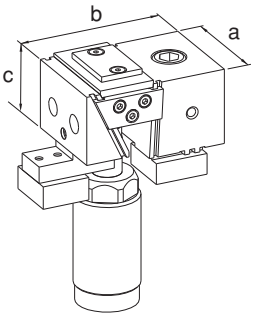


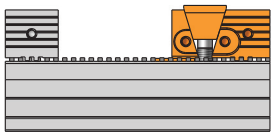




Referans Nr.	a	b	c
2443-055MHÇ	55	81.5	43
2443-075MHÇ	75	88	43
2443-100MHÇ	100	88	43

Manyetik Hareketli Çene
Moving Jaw

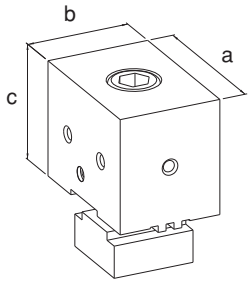


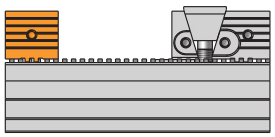


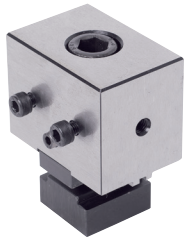


Referans Nr.	a	b	c
2443-2445055GD	55	38	43
2443-2445075GD	75	48	43
2443-2445100GD	100	48	43

Gezer Dayama
Portable Resting

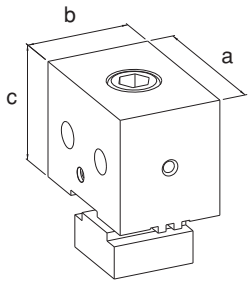


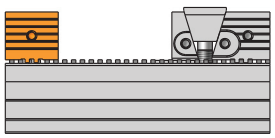




Referans Nr.	a	b	c
2443-2445055MGD	55	38	43
2443-2445075MGD	75	48	43
2443-2445100MGD	100	48	43

Manyetik Gezer Dayama
Magnetic Portable Resting



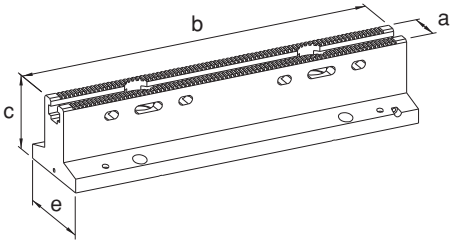


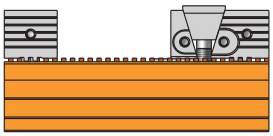


Referans Nr.	a	b	c	e
2445-055300AG	55	300	105	125
2445-055500AG	55	500	105	125
2445-075400AG	75	400	115	175
2445-075600AG	75	600	115	175
2445-100400AG	100	400	115	175
2445-100600AG	100	600	115	175



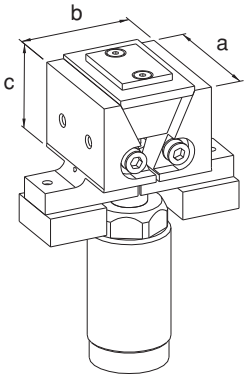
Hidrolik Alt Gövde
Hydraulic Sub-body

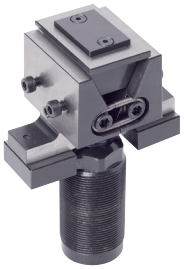


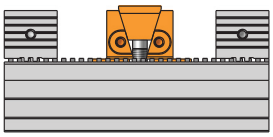


Referans Nr.	a	b	c
2445-055HÇ	55	51.5	43
2445-075HÇ	75	51.5	43
2445-100HÇ	100	51.5	43

Hareketli Çene
Moving Jaw

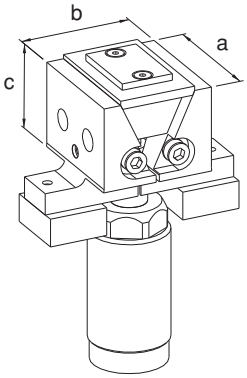


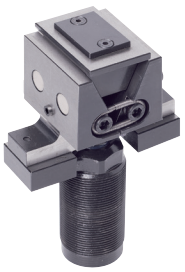


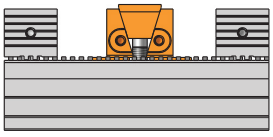


Referans Nr.	a	b	c
2445-055MHÇ	55	51.5	43
2445-075MHÇ	75	51.5	43
2445-100MHÇ	100	51.5	43

Manyetik Hareketli Çene
Magnetic Moving Jaw

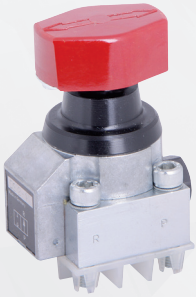


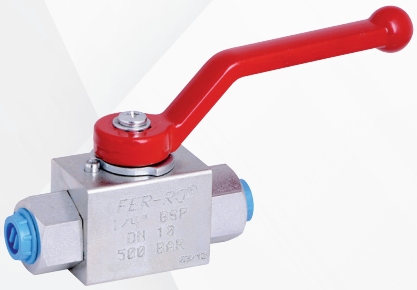




HİDROLİK EKİPMANLAR

HYDRAULIC EQUIPMENTS











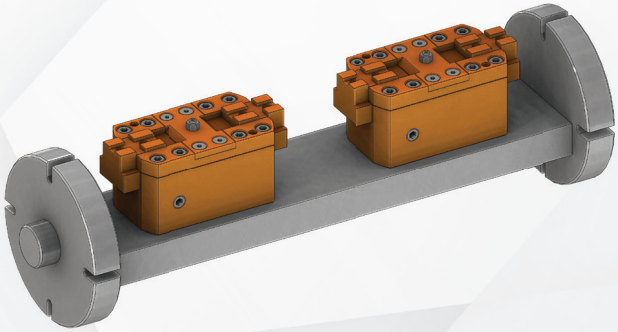


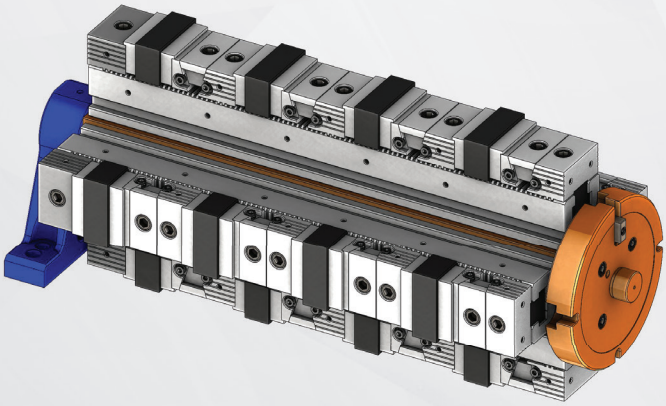


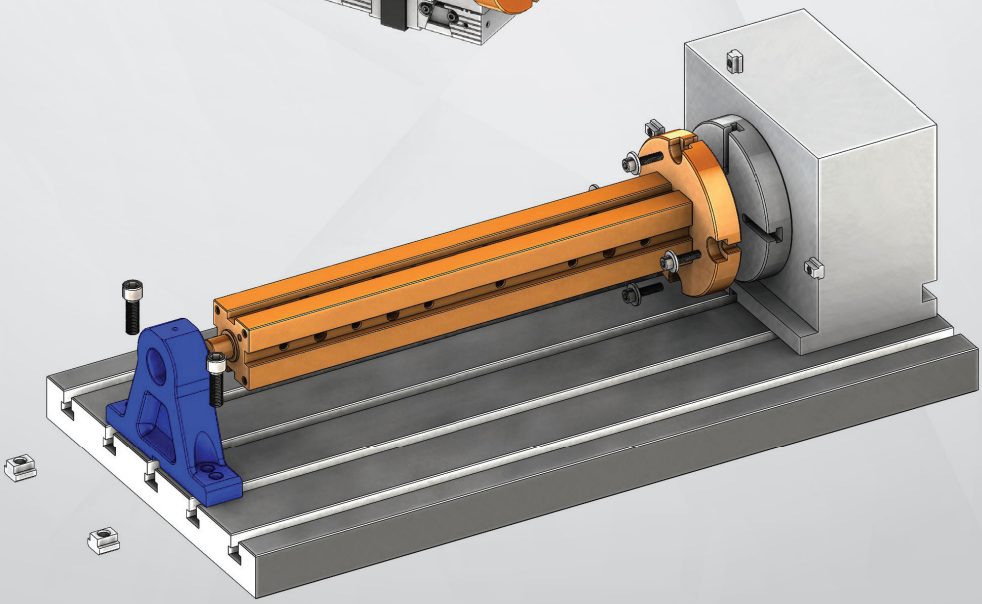


DİVİZÖR KULELERİ

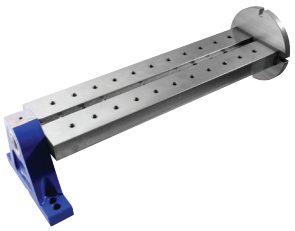
INDEX TABLE TURRETS







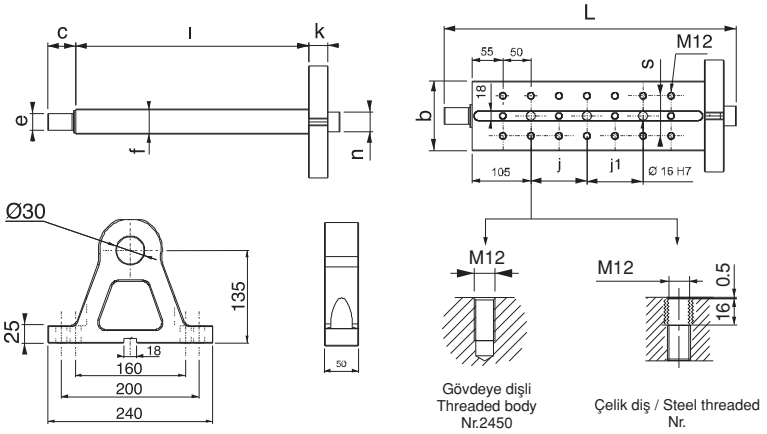
Referans Nr.	L	ı	f	n	b	k	c	e	s	Ø16H7 j	Ø16H7 j1	(kg)
2450-415L	503.5	415	45	-	125	35	31	30	72	100	100	29.25
2450-615L	703.5	615	50	-	160	35	31	30	90	100	300	46.75



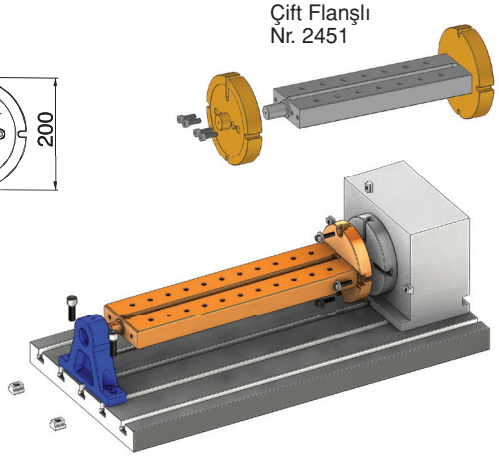
Yatak = Nr.2460

Ürün Nr. 2450 Divizör Kulesi (Dikdörtgen)
- Divizör kulesi dik işleme tezgahlarında divizöre bağlanarak, dördüncü ekseni 360 derece kullanma imkanı sağlar.
- Divizör kulesi üzerine iş parçası direk bağlanabildiği gibi, mengene grupları veya farklı aparatlarda kullanılır.
- Siparişte divizör marka model numurasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.
- Malzeme : Döküm

Product Nr. 2450 Index Table Turret (Rectangular)
- Index Table Turret is connected to the index table of vertical machining benches and this application provides the possibility to use the fourth axis in 360 degrees.
- Workpiece taking place on the Index Table Turret can be applied directly and at the same time it can be used in vice groups and with different apparatuses.
- Please, let the dividing brand, model number in the order.
- The lower plate is available for the center height.
- Material : Casting



Çift Flanşlı
Nr. 2451



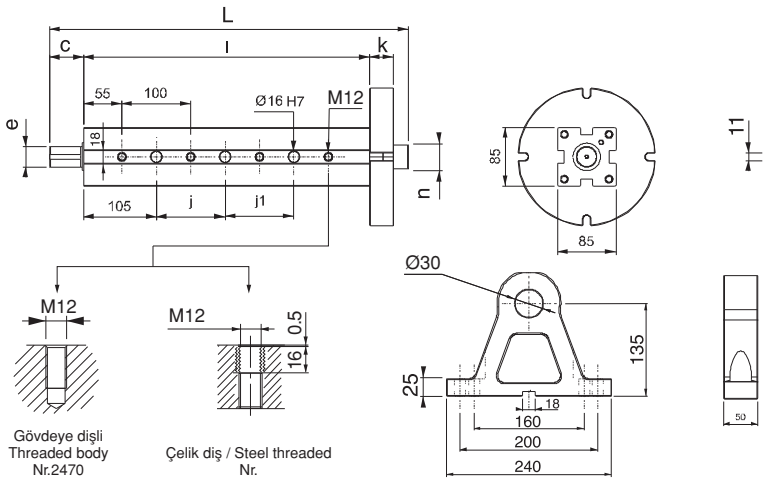
Referans Nr.	L	ı	n	k	e	c	Ø16H7 j	Ø16H7 j1	(kg)
2470-415K	502	415	-	35	30	31	100	100	33
2470-615K	702	615	-	35	30	31	100	300	42



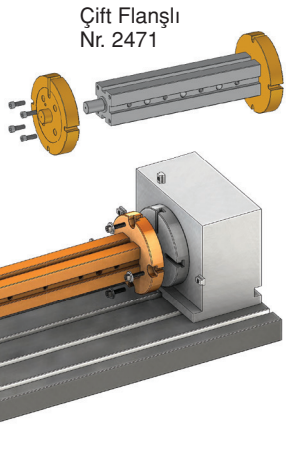
Yatak = Nr.2460

Ürün Nr. 2470 Divizör Kulesi (Kare)
- Divizör kulesi dik işleme tezgahlarında divizöre bağlanarak, dördüncü ekseni 360 derece kullanma imkanı sağlar.
- Divizör kulesi üzerine iş parçası direk bağlanabildiği gibi, mengene grupları veya farklı aparatlarda kullanılır.
- Siparişte divizör marka model numurasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.
- Malzeme : Döküm

Product Nr. 2470 Index Table Turret (Square)
- Index Table Turret is connected to the index table of vertical machining benches and this application provides the possibility to use the fourth axis with 360 degrees.
- Workpiece taking place on the Index Table Turret can be applied directly and at the same time it can be used in vice groups and with different apparatuses.
- Material : Casting



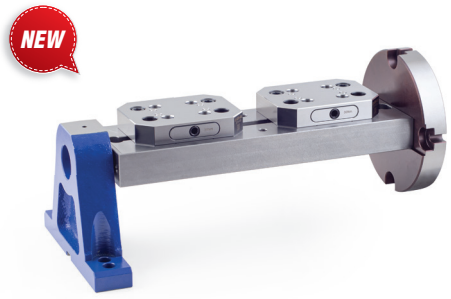
Çift Flanşlı
Nr. 2471



Point Clamp Divizör Kulesi

Point Clamp Index Table Turret

Referans Nr.	L	ı	f	n	b	k	c	Kombinasyon Combination	(kg)
2471-415052	505	415	50	-	160	35	52	2315-052	35,05
2471-415096	505	415	50	-	160	35	52	2315-096	40,25
2471-615052	705	615	50	-	160	35	96	2315-052	55,45
2471-615096	705	615	50	-	160	35	96	2315-096	63,25



Ürün Nr. 2471 Point Clamp Divizör Kulesi

- Point Clamp Divizör kulesi dik isleme tezgahlarında divizöre baglanarak, dördüncü ekseni 360 derece kullanma imkanı sağlamakla beraber Point Clampler sayesinde Nr.2315 Mengene veya farklı aparat gruplarınızın hızlı değişimini sağlayabilirsiniz.
- Sipariste divizör marka model numurasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.

Product Nr. 2471 Point Clamp Index Table Turret

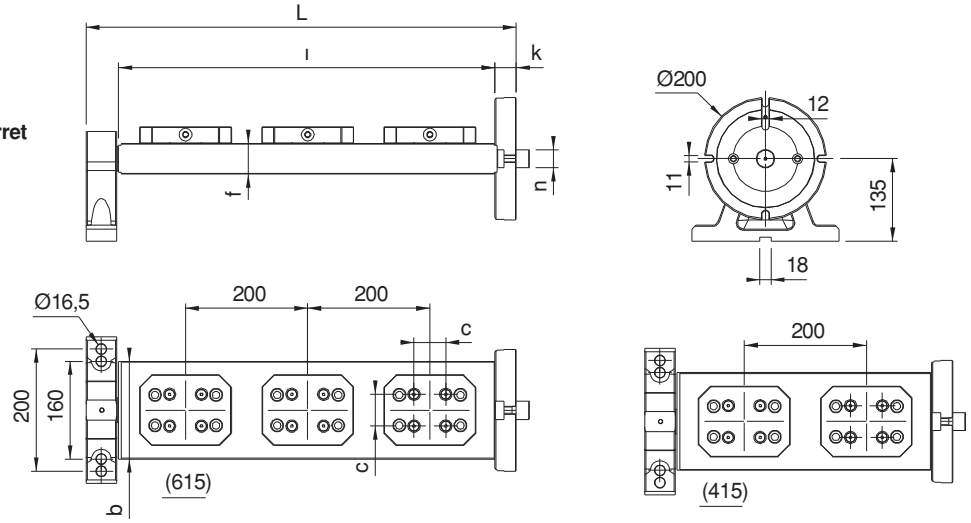
- Point Clamp Index Table Turret can be connected to the Index Table Turret in horizontal clamping machines, providing the possibility of using the fourth axis 360 degrees, and with Point Clamps, it provides an opportunity to quickly change Nr.2315 Vise or different apparatus groups.
- Please indicate the brans and model of the Index Table Turret while purchasing.
- Bottom plates are available for boosting the center.

Not

- Talebe göre merkez değişikliği yapılabilir.

Note

- The center can be changed by request.



Point Clamp Divizör Kulesi (Yekpare)

Point Clamp Index Table Turret (Standalone)

Referans Nr.	L	ı	f	n	b	k	c	(kg)
2472-415052	505	415	54	-	116	35	52	32,5
2472-415096	505	415	54	-	116	35	96	32,5
2472-615052	705	615	54	-	158	35	52	40,5
2472-615096	705	615	54	-	158	35	96	40,5



Ürün Nr. 2471 Point Clamp Divizör Kulesi

- Point Clamp Divizör kulesi dik işleme tezgahlarında divizöre bağlanarak, dördüncü ekseni 360 derece kullanma imkanı sağlamakla beraber Point Clampler sayesinde Nr.2315 Mengene veya farklı aparat gruplarınızın hızlı değişimini sağlayabilirsiniz.
- Point Clamp sistemi direk gövdeye uygulandığından size mesafe kazandırır.
- Sipariste divizör marka model numarasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.

Product Nr. 2471 Point Clamp Index Table Turret (Standalone)

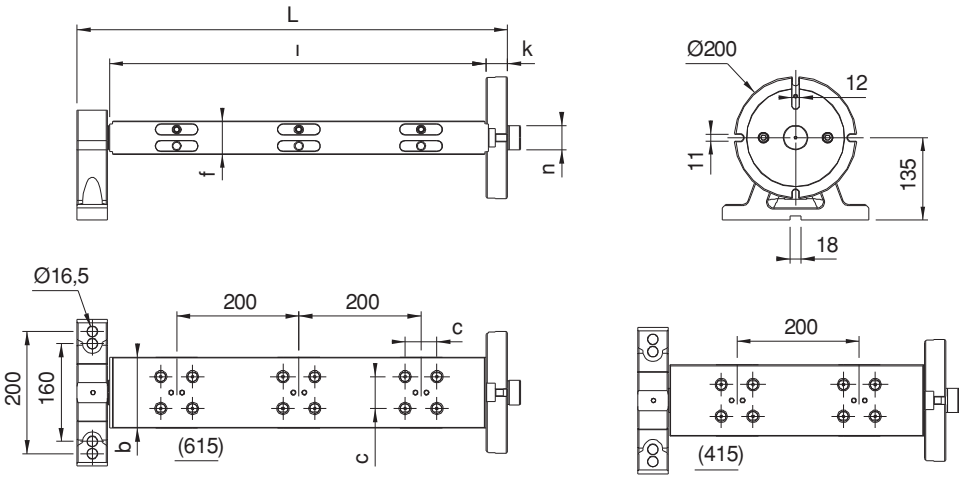
- Point Clamp Index Table Turret can be connected to the Index Table Turret in horizontal clamping machines, providing the possibility of using the fourth axis 360 degrees, and with Point Clamps, it provides an opportunity to quickly change Nr.2315 Vise or different apparatus groups.
- Please indicate the brans and model of the Index Table Turret while purchasing.
- Bottom plates are available for boosting the center.

Not

- Talebe göre merkez değişikliği yapılabilir.

Note

- The center can be changed by request.



Referans Nr.	L	ı	f	n	b	k	⌀	Sıkma Kuvveti Clamping Force Kgf	(kg)
2472-415090	505	415	50	-	125	35	Ø90	2x1250=2500 kgf	30,31
2472-415090	705	615	50	-	160	35	Ø90	4x1250=2500 kgf	32,17



Ürün Nr. 2472 Zero Clamp Divizör Kulesi

- Zero Clamp Divizör kulesi dik isleme tezgahlarında divizöre baglanarak, dördüncü ekseni 360 derece kullanma imkanı sağlamakla beraber Zero Clampler sayesinde Farklı aparat gruplarınızın hızlı değişimini sağlayabilirisiniz.
- Hava bağlantısı sürekli takılı kalması isteniyorsa mutlaka belirtilmeli
- Sipariste divizör marka model numurasını bildiriniz.
- Yatak merkezi yükseklik için alt plakalar mevcuttur.

Ürün Nr. 2472 Point Clamp Index Table Turret

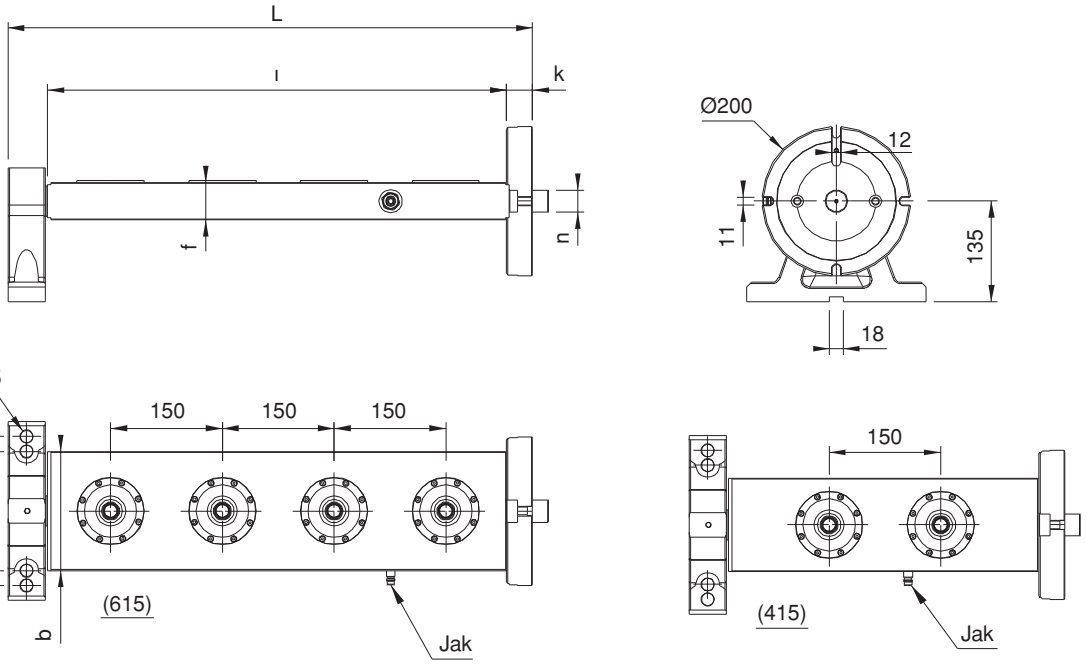
- With the ability to be connected to the divisor tower on vertical machining workbenches, the Zero Clamp Divisor enables the utilization of the fourth axis in a full 360-degree range. Additionally, thanks to the Zero Clamp, you can achieve quick changes between different fixture groups. If it is desired for the air connection to remain continuously attached, it must be explicitly specified.
- Please provide the brand and model number of the divisor in the order.
- Bottom plates are available for bed center height.

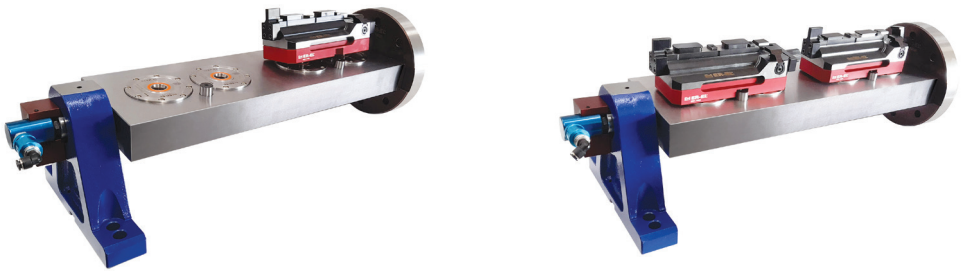
Not

- Talebe göre merkez değişikliği yapılabilir.

Note

- The center can be changed by request.

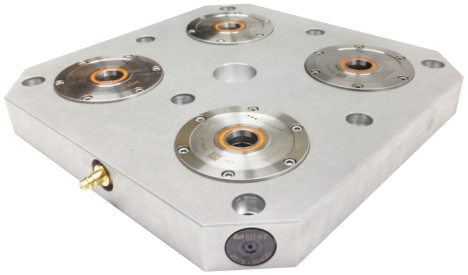




ER-EL Zero Clamp Uygulamalı Tabla

ER-EL Zero Clamp Plate Application

Referans Nr.	a	b	c	d	Zero Clamp adet / pcs.	Ø	Sıkma Kuvveti Clamping Force Kgf	(kg)
2475-50400	50	400	160	200	4	Ø120	4x2500=10000 kgf	24
2475-50500	50	500	200	350	4	Ø120	4x2500=10000 kgf	30
2475-50630	50	630	250	200	6	Ø120	6x2500=15000 kgf	44

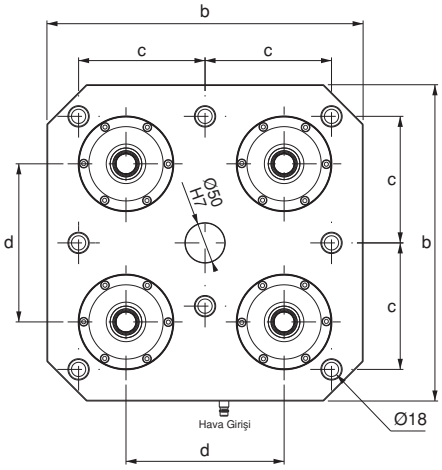


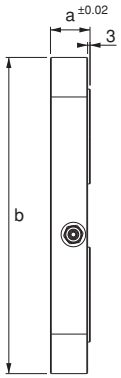
Ürün Nr. 2475 ER-EL Zero Clamp Uygulamalı Tabla

• Malzeme: Alüminyum

Product Nr. 2475 ER-EL Zero Clamp Plate Application

• Material: Aluminium





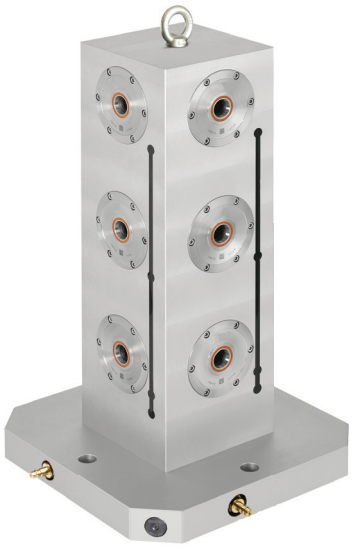
• Ürünün uygulama alanı çizelgede sunulan ile sınırlı değildir. Farklı uygulamalarda yapılabilir.

• Product application area is not limited to the alues given in tables. Various applications are possible.

ER-EL Zero Clamp Uygulamalı Kule

ER-EL Zero Clamp Turret Application

Referans Nr.	a	b	c	d	g	Zero Clamp adet / pcs.	Ø	Sıkma Kuvveti Clamping Force Kgf	(kg)
2480-400200	680	400	200	200	50	12	Ø120	3x2500=7500 kgf	100
2480-500200	680	500	200	350	50	12	Ø120	3x2500=7500 kgf	111
2480-630250	680	630	250	200	50	12	Ø138	3x4000=12000 kgf	178

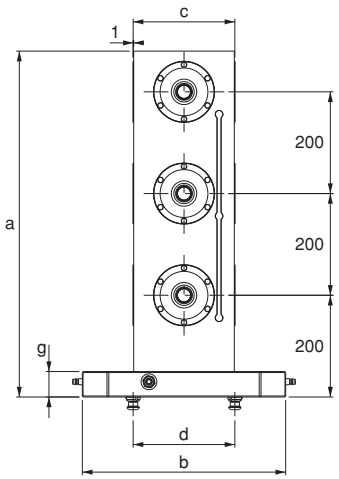


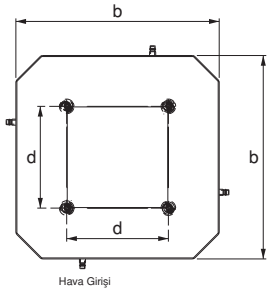
Ürün Nr. 2480 ER-EL Zero Clamp Uygulamalı Kule

• Malzeme: Alüminyum

Product Nr. 2480 ER-EL Zero Clamp Turret Application

• Material: Aluminium





• Ürünün uygulama alanı çizelgede sunulan ile sınırlı değildir. Farklı uygulamalarda yapılabilir.

• Product application area is not limited to the alues given in tables. Various applications are possible.

5-Eksen Zero Clamp Tabla

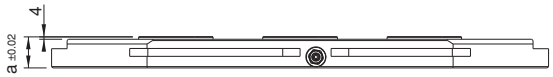
5-Axis Zero Clamp Plate

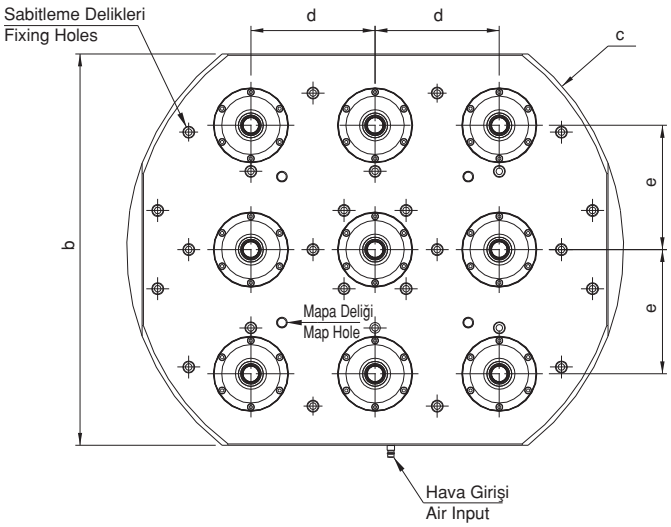
Referans Nr.	a	b	c	d	e		(kg)
2481-50630	50	630	800	200	200	Ø120	60

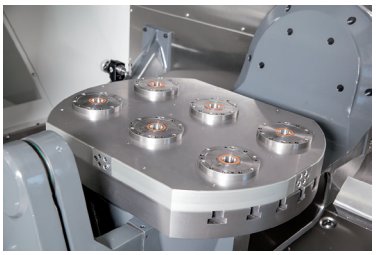


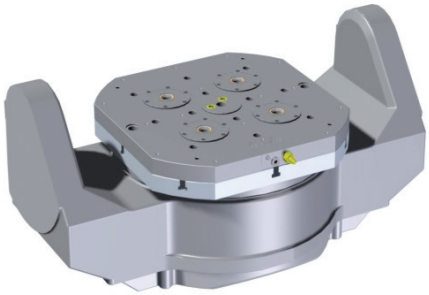
Ürün Nr. 2481 5-Eksen Zero Clamp Tabla
• Malzeme: Alüminyum

Product Nr. 2481 5-Axis Zero Clamp Plate
• Material: Aluminium



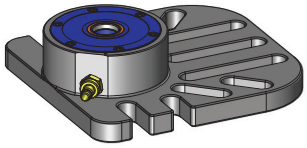






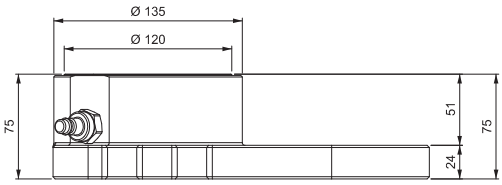


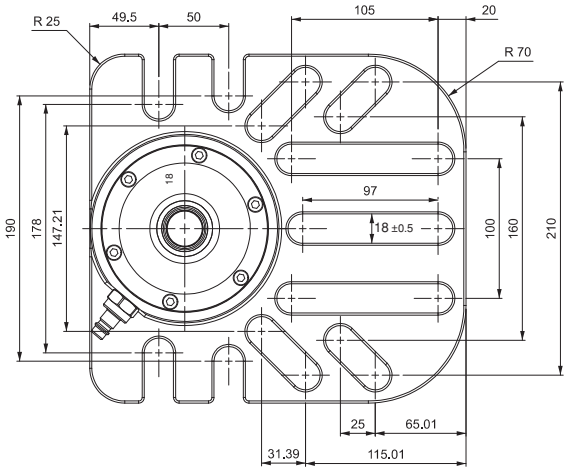
Referans Nr.	Sıkma Kuvveti Clamping Force Kgf	(kg)
2482-0120	2500	13.4



Ürün Nr. 2482 Modüler Zero Clamp
- Siyah Kaplama
- Taşlama

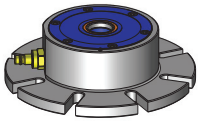
Product Nr. 2482 Modular Zero Clamp
- Black coating
- Stoning





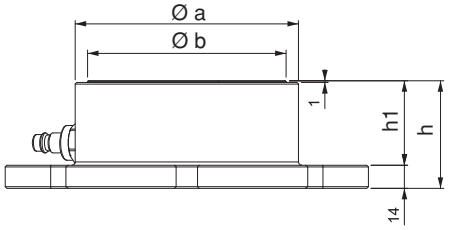
Modüler Zero Clamp
Modular Zero Clamp

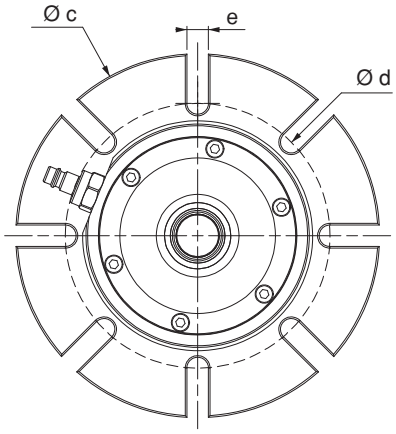
Referans Nr.	a	b	c	d	e	h	h1	Sıkma Kuvveti Clamping Force Kgf	(kg)
2483-0090	105	90	220	160	13	50	36	1250	4.2
2483-0120	135	120	180	130	13	65	51	2500	8.4
2483-0138	160	138	250	200	17	80	61	4000	15.7



Ürün Nr. 2483 Modüler Zero Clamp
- Siyah Kaplama
- Taşlama

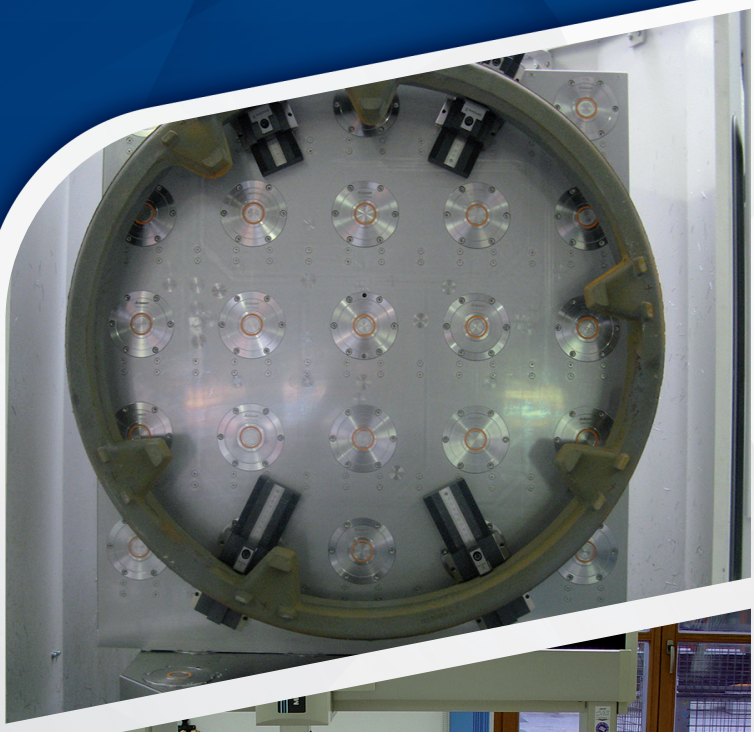
Product Nr. 2483 Modular Zero Clamp
- Black coating
- Stoning

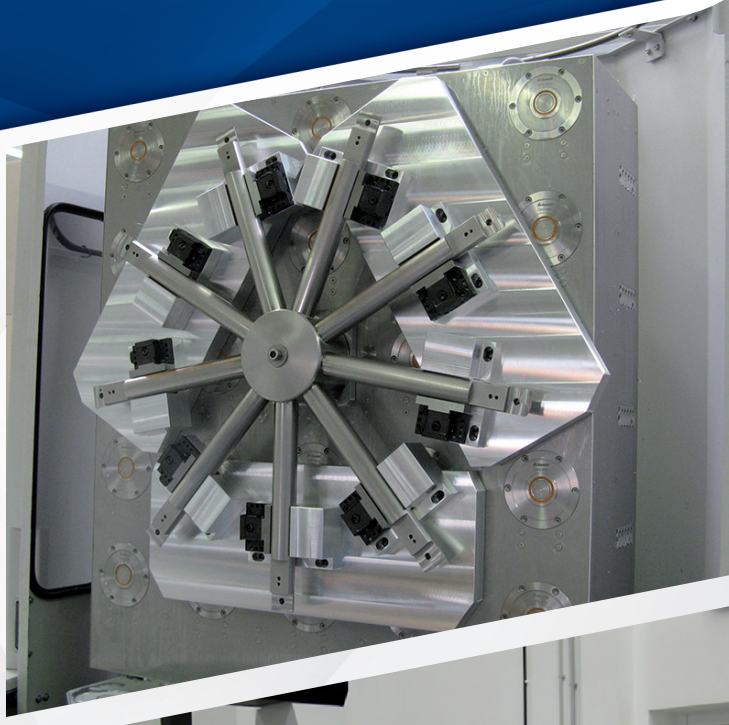




ZERO CLAMP UYGULAMA ÖRNEKLERİ

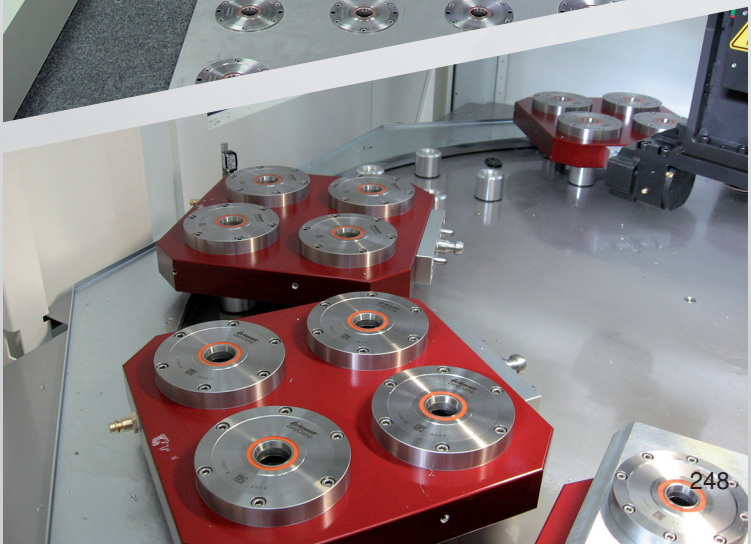
ZERO CLAMP APPLICATION EXAMPLES







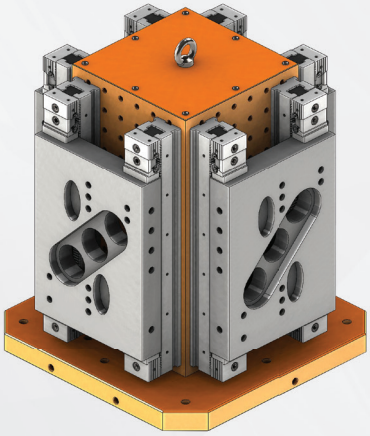


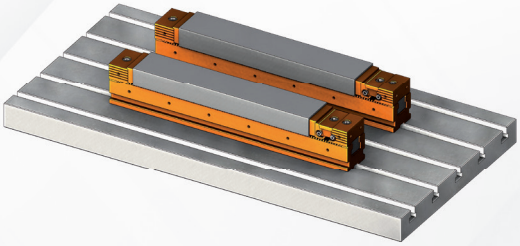


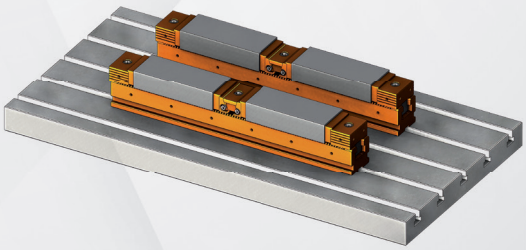


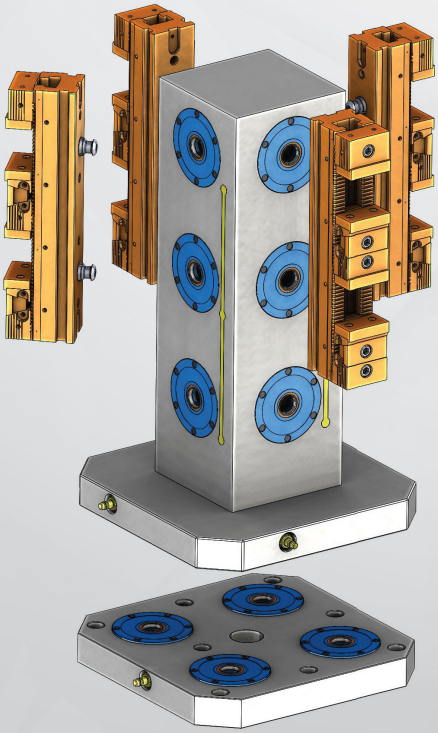
KULE ve SERİ MENGENE UYGULAMALARI

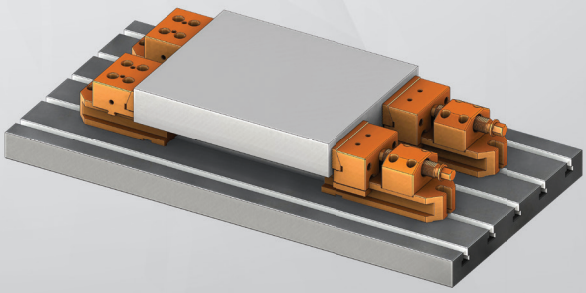
TOWER and MULTI JAWED WRENCH TOOLING APPLICATIONS



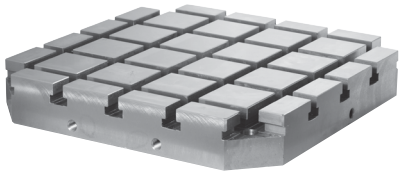






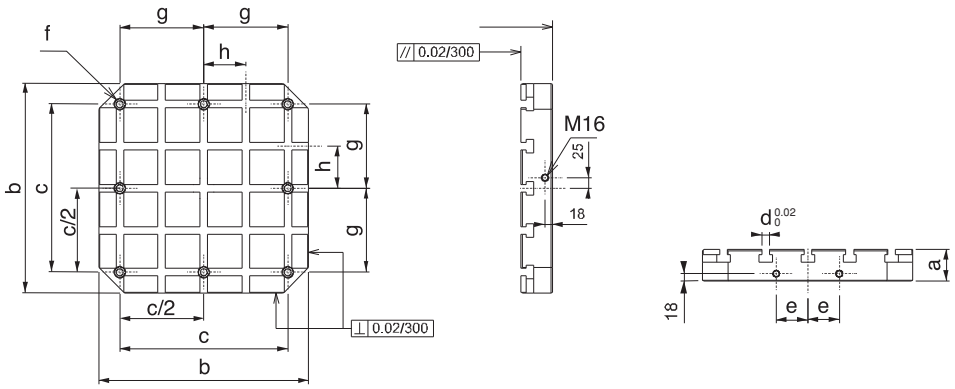


Referans Nr.	a ±0.02	b	c	d	e	f	g	h ±0.02	(kg)
2490-7540014	75	400	320	14	55	18	160	80	71
2490-7550014	75	500	400	14	75	18	200	100	115
2490-7563014	75	630	500	14	100	18	250	125	188
2490-7540018	75	400	320	18	55	18	160	80	65
2490-7550018	75	500	400	18	75	18	200	100	107
2490-7563018	75	630	500	18	100	18	250	125	178



Ürün Nr. 2490 Yatay İşleme Tablası (T-Kanallı)
- Malzeme : Döküm
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüsü 14mm - 18mm DIN 650 standartındadır.

Product Nr. 2490 Horizontal Clamping Pallet (with T-Slot)
- Material : Casting
- It is in compliance with Standard Coupling Equipment.
- T-Slot measurement of 14mm - 18mm is in DIN 650 Standard.

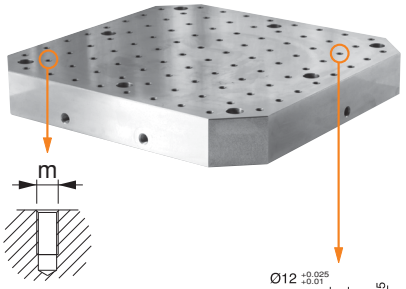


Referans Nr.	a ±0.02	b	c	d	e	m	(kg)
2510-7540012	75	400	320	55	25	M12	80
2510-7550012	75	500	400	75	25	M12	127
2510-7563012	75	630	500	100	40	M12	204
2510-7540016	75	400	320	55	25	M16	79
2510-7550016	75	500	400	75	25	M16	125
2510-7563016	75	630	500	100	40	M16	200

Referans Nr.	a ±0.02	b	c	d	e		(kg)
2520-7540012	75	400	320	55	25	M12	80
2520-7550012	75	500	400	75	25	M12	127
2520-7563012	75	630	500	100	40	M12	204
2520-7540016	75	400	320	55	25	M16	79
2520-7550016	75	500	400	75	25	M16	125
2520-7563016	75	630	500	100	40	M16	200

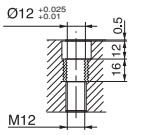
CNC Yatay İşleme Tablası

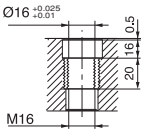
CNC Horizontal Clamping Pallet



Gövdeye dişli
Referans Nr. 2510

Threaded body
Reference No. 2510



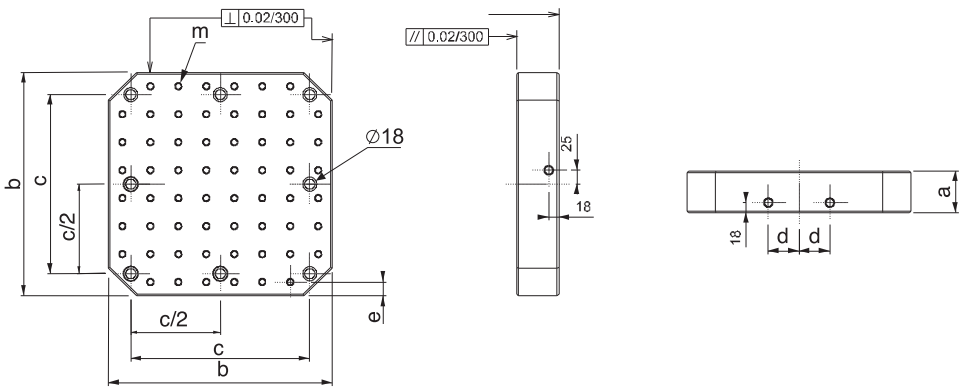


Çelik burçlu
Referans Nr. 2520

Steel bush
Reference No. 2520

Ürün Nr. 2510 - 2520 Yatay İşleme Tablası (Dişli)
- Malzeme : Döküm
- Standart bağlama ekipmanlarına uyumludur.
- Yüzeyinde M12 - M16 diş merkez aralığı 50 ± 0.02
- Nr. 2510 Gövdeye dişli
- Nr. 2520 Çelik burçlu

Product Nr. 2510 - 2520 Horizontal Clamping Pallet (with Grid Threaded)
- Material : Casting
- İt is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Nr. 2510 Threaded body
- Nr. 2520 Steel bush



Referans Nr.	a	b	Ød	c	e	f	t	(kg)
2530-040012	400	600	18	50	-	-	M12	73
2530-050012	500	600	18	50	-	-	M12	112
2530-060012	600	800	18	50	-	-	M12	162
2530-140012	400	800	18	50	-	-	M12	119
2530-145012	450	900	18	50	-	-	M12	151
2530-150012	500	1000	18	50	-	-	M12	173

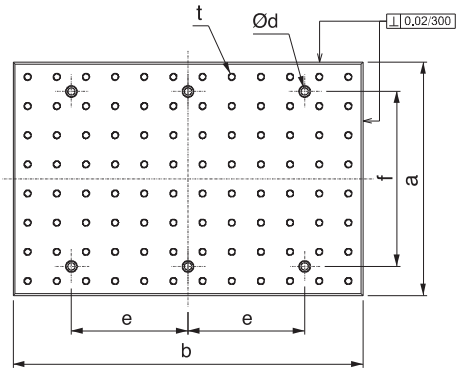
Referans Nr.	a	b	Ød	c	e	f	t	(kg)
2530-040016	400	600	18	50	-	-	M16	87
2530-050016	500	600	18	50	-	-	M16	108
2530-060016	600	800	18	50	-	-	M16	155
2530-140016	400	800	18	50	-	-	M16	115
2530-145016	450	900	18	50	-	-	M16	146
2530-150016	500	1000	18	50	-	-	M16	171

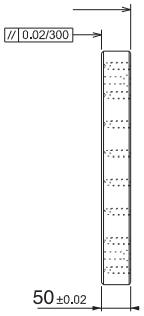
Referans Nr.	a	b	Ød	c	e	f		(kg)
2540-040012	400	600	18	50	-	-	M12	73
2540-050012	500	600	18	50	-	-	M12	112
2540-060012	600	800	18	50	-	-	M12	162
2540-140012	400	800	18	50	-	-	M12	119
2540-145012	450	900	18	50	-	-	M12	151
2540-150012	500	1000	18	50	-	-	M12	173

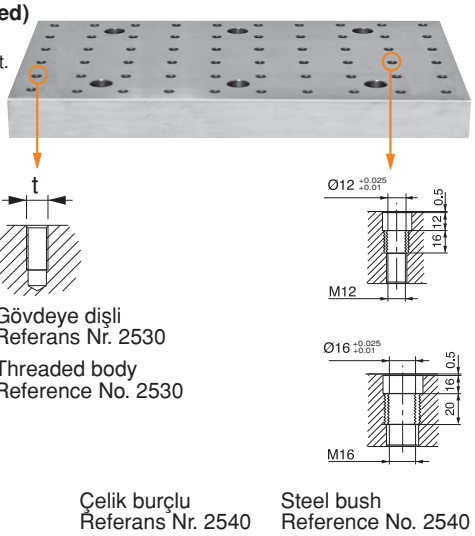
Referans Nr.	a	b	Ød	c	e	f		(kg)
2540-040016	400	600	18	60	-	-	M16	87
2540-050016	500	600	18	60	-	-	M16	108
2540-060016	600	800	18	60	-	-	M16	155
2540-140016	400	800	18	60	-	-	M16	115
2540-145016	450	900	18	60	-	-	M16	146
2540-150016	500	1000	18	60	-	-	M16	171

Ürün Nr. 2530 - 2540
CNC Dik İşleme Pleyti (Dişli)
- Malzeme : Döküm
- Standart bağlama ekipmanlarına uyumludur.
- Yüzeyinde M12-M16 diş Merkez aralığı 50 ±0.02
- Nr. 2530 Gövdeye dişli
- Nr. 2540 Çelik burçlu

Product Nr. 2530 - 2540
CNC Vertical Processing Plate (with Threaded)
- Material : Casting
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Nr. 2530 Threaded body
- Nr. 2540 Steel bush







Gövdeye dişli
Referans Nr. 2530

Threaded body
Reference No. 2530

Çelik burçlu
Referans Nr. 2540

Steel bush
Reference No. 2540

CNC Dik İşleme Pleyti

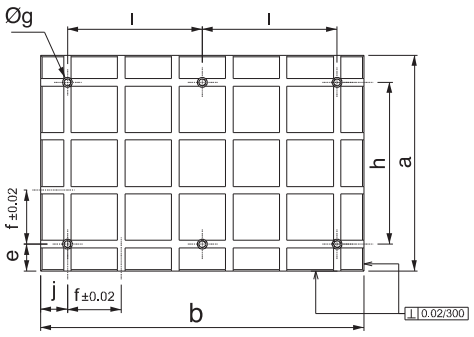
CNC Vertical Processing Plate

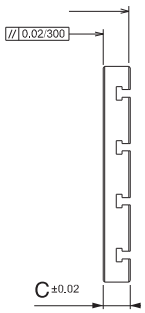
Referans Nr.	a	b	c	d	e	f	Øg	h	ı	j	(kg)
2550-040014	400	600	60	14	50	100	18	-	-	50	90
2550-050014	500	600	60	14	50	100	18	-	-	50	115
2550-060014	600	800	60	14	50	100	18	-	-	50	198
2550-140014	400	800	60	14	50	100	18	-	-	50	120
2550-145014	450	900	60	14	75	100	18	-	-	50	162
2550-150014	500	1000	60	14	50	100	18	-	-	50	199

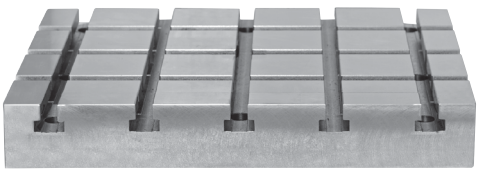
Referans Nr.	a	b	c	d	e	f	Øg	h	ı	j	(kg)
2550-040018	400	600	75	18	50	100	18	-	-	50	108
2550-050018	500	600	75	18	50	100	18	-	-	50	135
2550-060018	600	800	75	18	50	100	18	-	-	50	216
2550-140018	400	800	75	18	50	100	18	-	-	50	143
2550-145018	450	900	75	18	75	100	18	-	-	50	183
2550-150018	500	1000	75	18	50	100	18	-	-	50	225

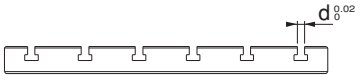
Ürün Nr. 2550 Dik İşleme Pleyti (T-Kanallı)
- Malzeme : Döküm
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüsü 14mm - 18mm DIN 650 standartındadır.

Product Nr. 2550 CNC Vertical Processing Plate (with T-Slot)
- Material : Casting
- It is in compliance with Standard Coupling Equipment.
- T-Slot is in the standard of 14mm - 18mm DIN 650.





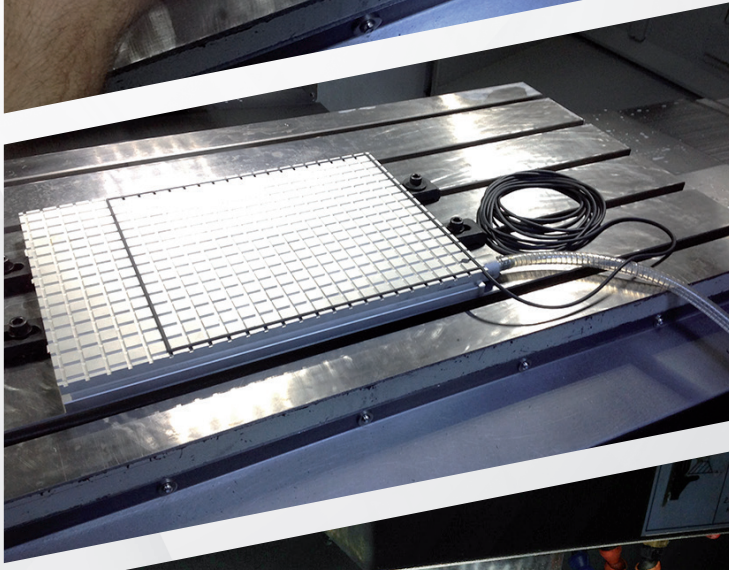




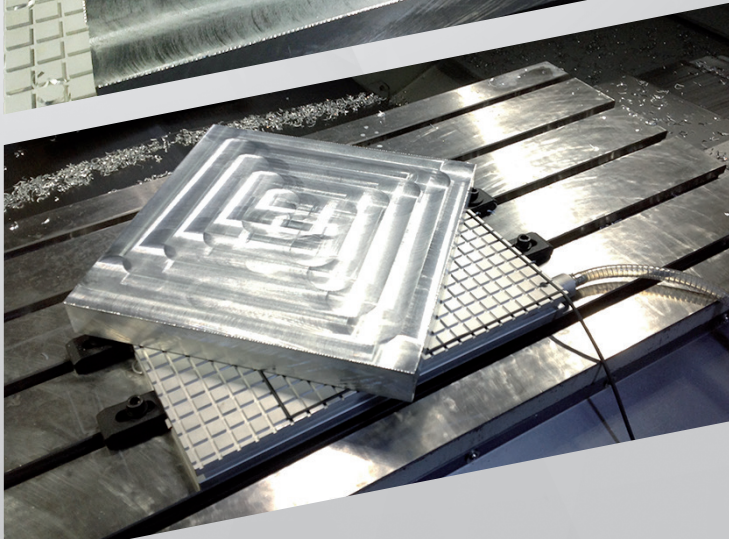
VAKUMLU TABLA UYGULAMALARI

VACUUM PLATE APLICATION





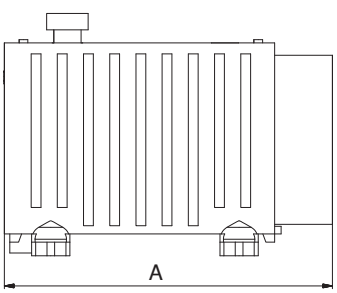


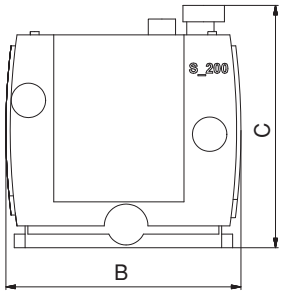
Pompa Ünitesi

Pump Unit

Referans Nr.	m^3/h	Volt	Vakum Gücü End Press.	Kw	Hz	A	B	C	(kg)
2557-022	22	400	150-50 mbar	0.83	50	463	432	602	45.5
2557-045	45	400	150-50 mbar	1.20	50	515	572	743	57
2557-065	65	400	150-50 mbar	2.40	50	515	572	743	72
2557-100	100	400	150-50 mbar	3.85	50	525	620	920	110
2557-150	150	400	150-50 mbar	4.00	50	710	845	1100	200
2557-198	198	400	150-50 mbar	5.50	50	710	845	1100	220
2557-232	232	400	150-50 mbar	7.50	50	710	845	1100	240







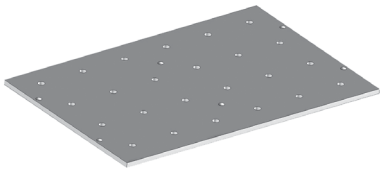
Ürün Nr. 2557 Pompa Ünitesi
• Su ve talaş ayrıştırıcı sistem

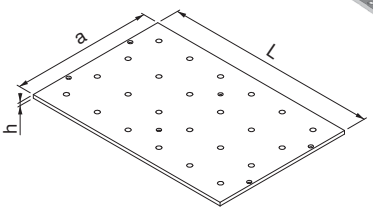
Product Nr. 2557 Pump Unit
• Water and chip parser system

Adaptasyon Tablası

Adaption Plate

Referans Nr.	a	L	h
2560-200300	200	300	10
2560-300400	300	400	10
2560-400400	400	400	10
2560-400600	400	600	10
2560-600900	600	900	10





Ürün Nr. 2560 Adaptasyon Tablası

Product Nr. 2560 Adaption Plate

Mavi Vakum Ped

Blue Vacuum Pad

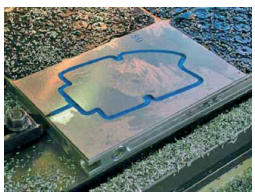
Referans Nr.	
2563-200300	200x300

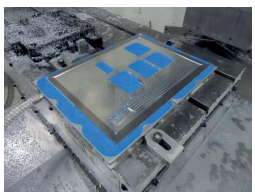


Ürün Nr. 2563 Mavi Vakum Ped

Product Nr. 2563 Blue Vacuum Pad



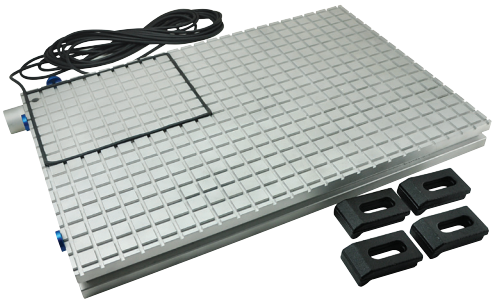




Vakumlu Tabla

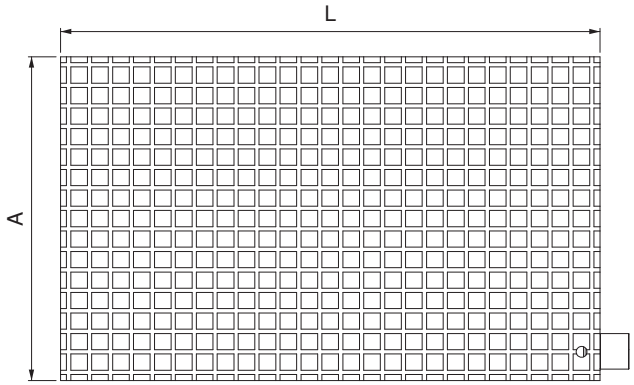
Vacuum Plate

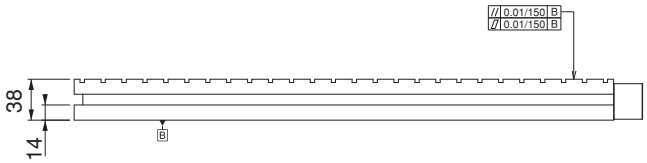
Referans Nr.	A	L	Kare Aralığı Square Range	Pompa Ünitesi / Pump Unit Nr.	Nr.	(kg)
2565-200300	200	300	20	*2557-022	*2567-095969	6.20
2565-300400	300	400	20	*2557-022	*2567-095969	12.30
2565-400400	400	400	20	*2557-022	*2567-082115	16.40
2565-400600	400	600	20	*2557-022	*2567-082115	24.60
2565-600900	600	900	20	*2557-022	*2567-080156	55.40

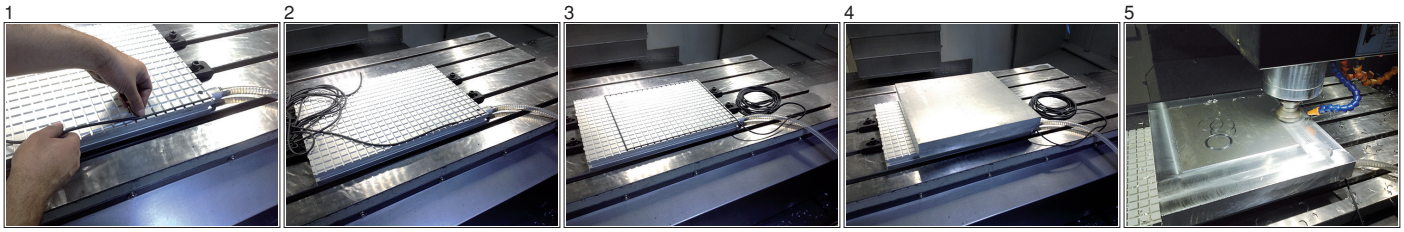


Ürün Nr. 2565 Vakumlu Pleyt
- Malzeme: Alüminyum
- *Pompa ünitesini ayrı olarak satın almanız gerekir.

Product Nr. 2565 Vacuum Plate
- Material : Aluminium
- *You need to purchase Pump unit separate.







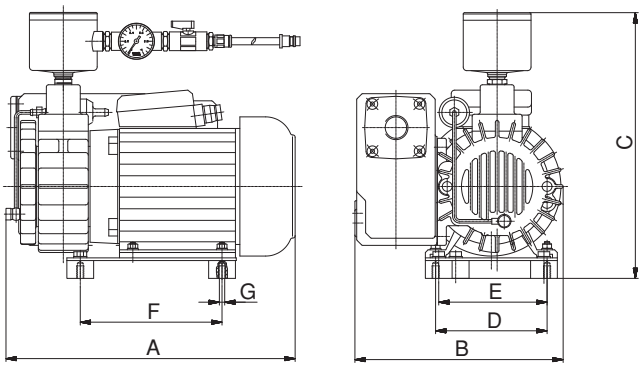
Vakum Pompası

Vacuum Pump

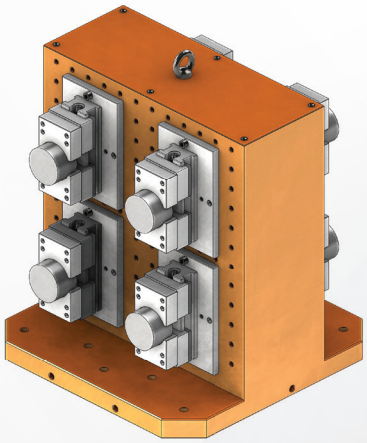
Referans Nr.	m³/h	Volt	Hz	Vakum Gücü End Press.	Kw	RPM	DB	Oil	A	B	C	D	E	F	G	(kg)
2567-095969	10	230	50	20 mbar	0.37	3000 1/min	59	0.3l	301	234	297	100	83	150	M8	24
2567-281548	10	400	50	20 mbar	0.37	3000 1/min	59	0.3l	301	234	297	100	83	150	M8	24
2567-082115	16	230	50	20 mbar	0.55	3000 1/min	60	0.3l	301	234	297	100	83	150	M8	10.3
2567-082116	16	400	50	20 mbar	0.55	3000 1/min	60	0.3l	301	234	297	100	83	150	M8	10.3
2567-080156	21	230	50	20 mbar	0.75	3000 1/min	62	0.5l	401	223	254	131	127	210	M8	22
2567-080078	21	400	50	20 mbar	0.75	3000 1/min	62	0.5l	401	223	254	131	127	210	M8	22

Ürün Nr. 2567 Vakum Pompası
- Kuru sistem

Product Nr. 2567 Vacuum Pump
- Dry system

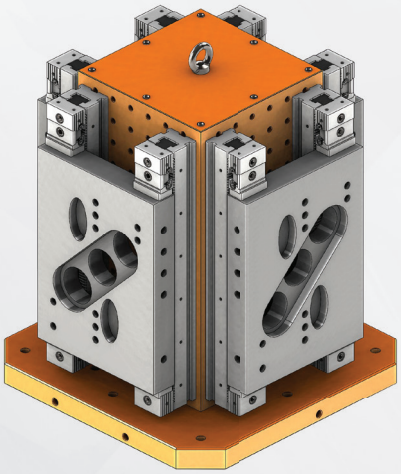


CNC YATAY İŞLEME KULELERİ
CNC HORIZONTAL CLAMPING CUBE



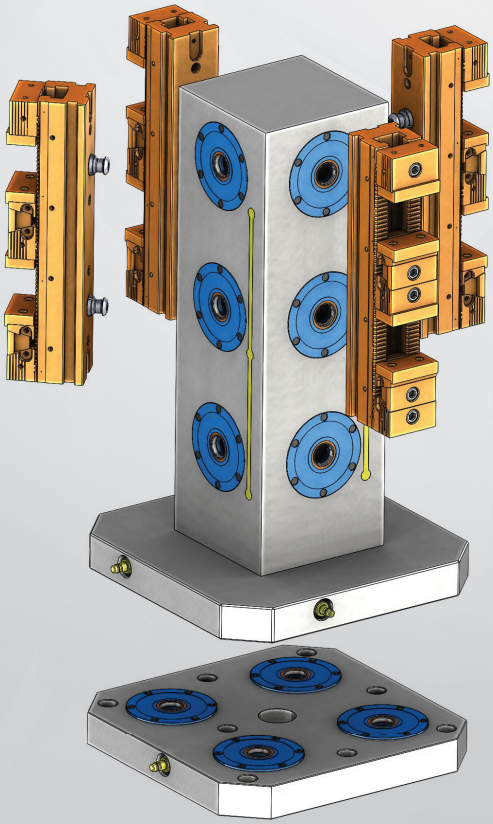
Nr.2670 Dikdörtgen kuleye
Nr.2310 çift açılır mengenelerle
iş parçası bağlama şekli.

Nr.2670 clamping cube
with Nr.2310 vice applications



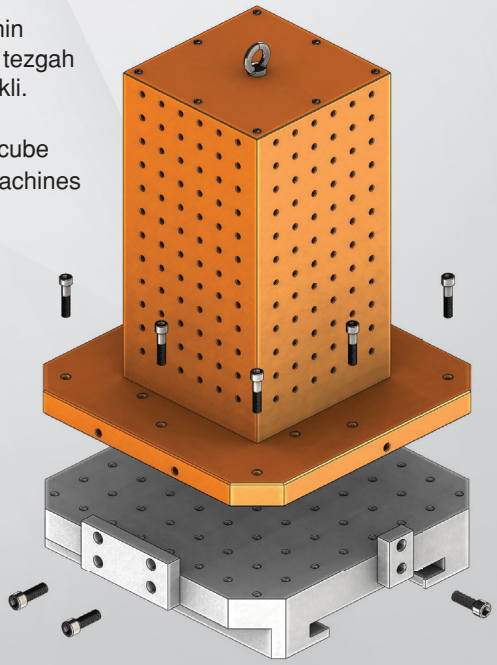
Nr.2650 kare kuleye
Nr.2430 mengenelerle
iş parçası bağlama şekli

Nr.2650 clamping cube
with Nr.2430 vice applications



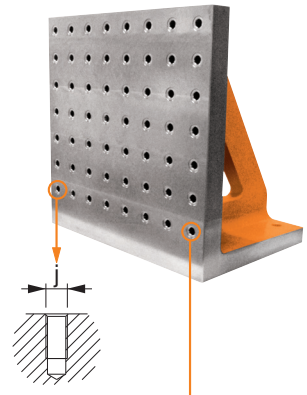
Nr.2650 kare kulenin
CNC yatay işleme tezgah
pleytine montaj şekli.

Nr.2650 clamping cube
CNC Horizontal machines
applications



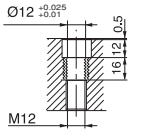
Referans Nr.	a	b	c	d	e	f	g	h	Øı	j	k	s	s1	(kg)
2570-30012	300	300	220	100	250	90	40	30	18	M12	75	25	170	50
2570-40012	400	400	280	160	320	90	40	30	18	M12	75	30	240	88
2570-50012	500	500	345	200	400	90	50	35	18	M12	75	35	300	175
2570-63012	630	630	435	250	500	100	50	40	18	M12	105	40	360	298
2570-30016	300	300	220	100	250	90	40	30	18	M16	75	25	170	45
2570-40016	400	400	280	160	320	90	40	30	18	M16	75	30	240	84
2570-50016	500	500	345	200	400	90	50	35	18	M16	75	35	300	170
2570-63016	630	630	435	250	500	100	50	40	18	M16	105	40	360	293

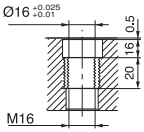
Referans Nr.	a	b	c	d	e	f	g	h	Øı		k	s	s1	(kg)
2575-30012	300	300	220	100	250	90	40	30	18	M12	75	25	170	50
2575-40012	400	400	280	160	320	90	40	30	18	M12	75	30	240	88
2575-50012	500	500	345	200	400	90	50	35	18	M12	75	35	300	175
2575-63012	630	630	435	250	500	100	50	40	18	M12	105	40	360	298
2575-30016	300	300	220	100	250	90	60	30	18	M16	75	25	170	60
2575-40016	400	400	280	160	320	90	60	30	18	M16	75	30	240	111
2575-50016	500	500	345	200	400	90	60	35	18	M16	75	35	300	176
2575-63016	630	630	435	250	500	100	65	40	18	M16	105	40	360	313



Gövdeye dişli
Referans Nr. 2570

Threaded body
Reference No. 2570



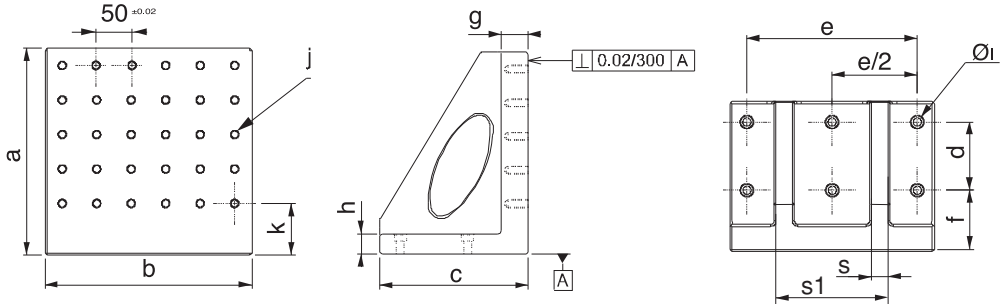


Çelik burçlu
Referans Nr. 2575

Steel bush
Reference No. 2575

Ürün Nr. 2570 - 2575 L Gönye (Dişli)
- Malzeme : Döküm
- CNC yatay ve dik işleme tezgahlarında kullanılır.
- Standart bağlama ekipmanlarına uyumludur.
- Yüzeyinde M12 - M16 diş merkez aralığı 50 ±0.02
- Nr. 2570 Gövdeye dişli
- Nr. 2575 Çelik burçlu

Product Nr. 2570 - 2575 L Setsquare (with Threaded)
- Material : Casting
- It is used in CNC Horizontal end Vertical processing benches.
- İt is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Nr. 2570 Threaded body
- Nr. 2575 Steel bush



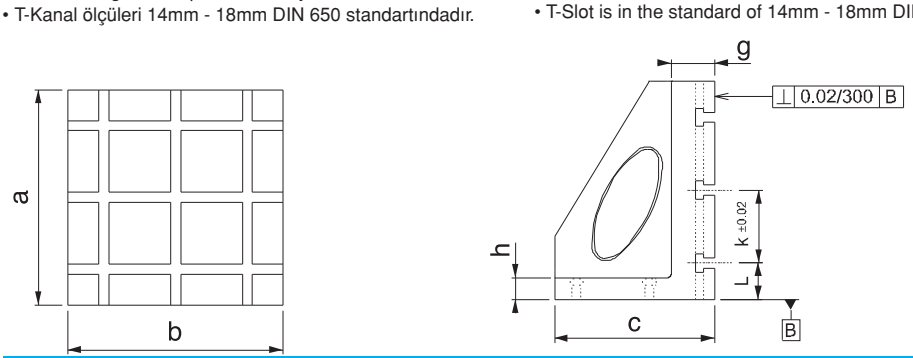
L Gönye
L Setsquare

Referans Nr.	a	b	c	d	e	f	g	h	Øı	j	k	L	s	s1	(kg)
2590-30014	300	300	220	100	250	90	60	30	18	14	100	50	25	170	50
2590-40014	400	400	300	160	320	90	60	30	18	14	100	50	30	240	100
2590-50014	500	500	350	200	400	90	60	35	18	14	100	50	35	300	185
2590-63014	630	630	450	250	500	100	65	40	18	14	125	65	40	360	315
2590-30018	300	300	220	100	250	90	60	30	18	18	100	50	25	170	50
2590-40018	400	400	300	160	320	90	60	30	18	18	100	50	30	240	98
2590-50018	500	500	350	200	400	90	60	35	18	18	100	50	35	300	174
2590-63018	630	630	450	250	500	100	65	40	18	18	125	65	40	360	286



Ürün Nr. 2590 L Gönye (T-Kanallı)
- Malzeme : Döküm
- CNC yatay ve dik işleme tezgahlarında kullanılır.
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüleri 14mm - 18mm DIN 650 standartındadır.

Product Nr. 2590 L Setsquare (with T-Slot)
- Material : Casting
- It is used in CNC Horizontal end Vertical processing benches.
- İt is in compliance with Standard Coupling Equipment.
- T-Slot is in the standard of 14mm - 18mm DIN 650.



Referans Nr.	b	d	c	c1	A min.	A max.	Sıkma Kuvveti Clamping Force Kgf	Nm
2600-400400	400	160	320	-	-	-	5000	135
2600-500500	500	200	400	-	-	-	5000	135
2600-630630	630	250	500	-	-	-	5000	135

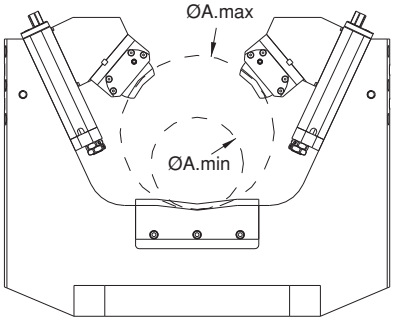


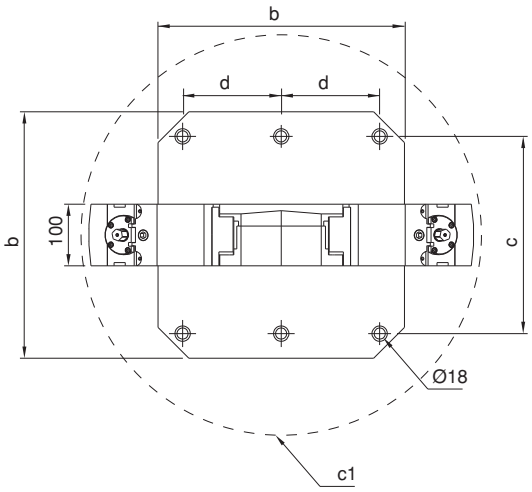
Ürün Nr. 2600 Çatal Kule

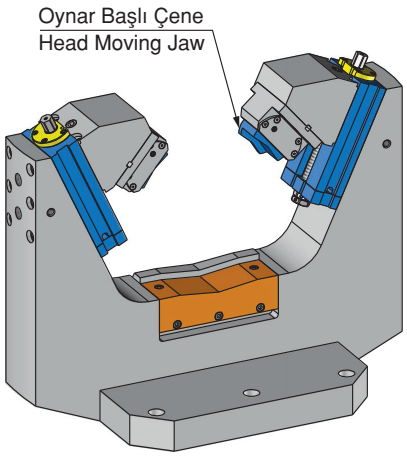
- Kullanım alanı: CNC yatay işleme, Borwekt tezgahlarında silindir parçaların iki yüzeyinide işleme kolaylığı sağlar.
- Hareketli yüzeylerin tamamı hassas taşlanmış ve sertleştirilmiştir.

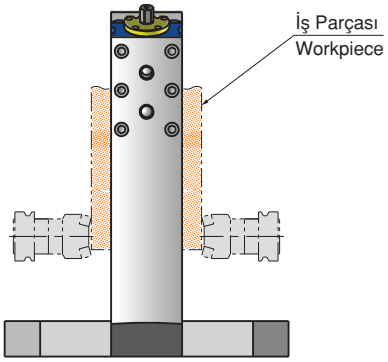
Product Nr. 2600 Fork Tower

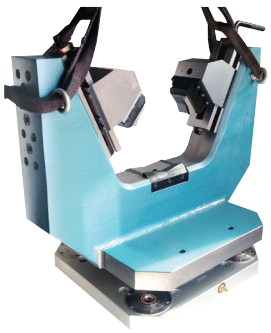
- Application area: Provides better operation on both sides of cylinderic workpieces on cnc horizontal machines and bohrwerks.
- Entire moving surface is sensitevely grinded and hardened.











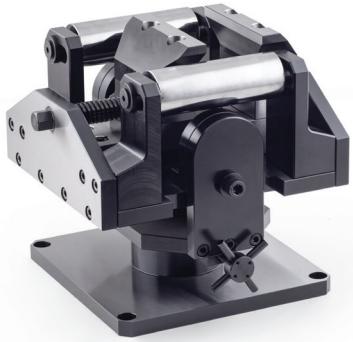




Ekstrüzyon Kalıbı Tesviye Mengenesi

Extrusion Mold Leveling Vice

Referans Nr.	E	H	C min.	C max.	A min.	A max.	Sıkma Kuvveti Clamping Force kgf
2600-160350	250	275	0	130	160	350	2500

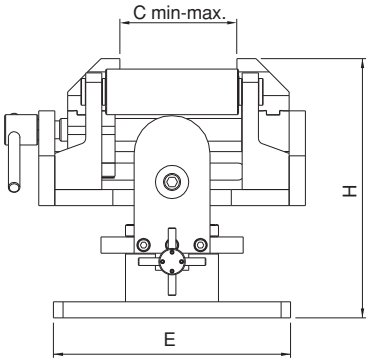


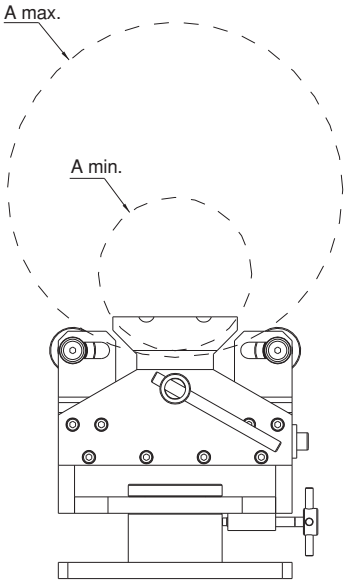
Ürün Nr. 2600 Ekstrüzyon Kalıbı Tesviye Mengenesi

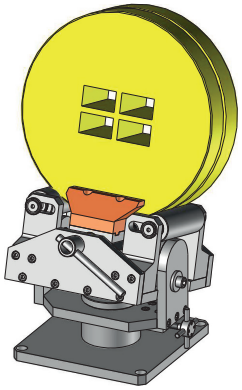
• Özellikler: Ekstrüzyon kalıplarını tesviye ederken operatörün bedensel zorlanmasını önemli ölçüde azaltır. kalıbın kendi ekseninde 360° dönmesi diğer sabit mengenelere göre parçayı döndürme ve her yerine müdahale kolaylığı sağlar.

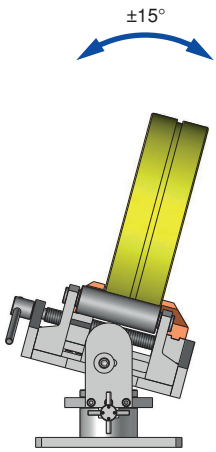
Product Nr. 2600 Extrusion Mold Leveling Vice

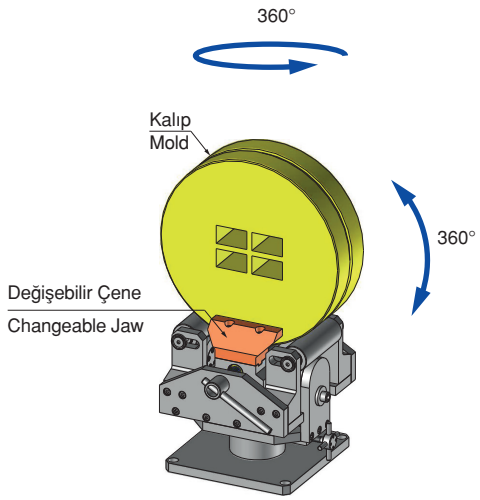
• Specifications: Significantly reduces operator strain when smoothing extrusion mould. The 360° rotation of the mold on its own axis makes it easy to rotate the part and intervene in all parts relative to other fixed vices.









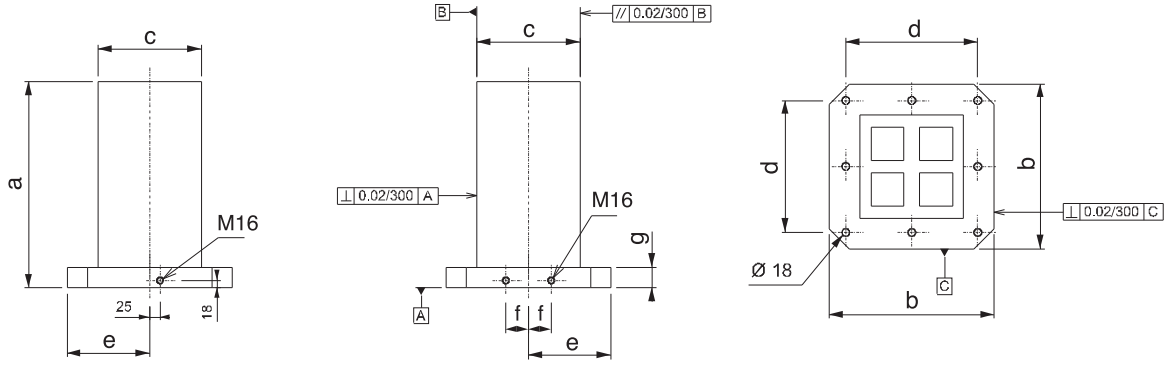


Referans Nr.	a	b	c	d	e	f	g	(kg)
2610-400250	500	400	250	320	200	55	50	180
2610-500300	600	500	300	400	250	75	50	240
2610-630350	700	630	350	500	315	100	50	390



Ürün Nr. 2610 Yatay İşleme Kulesi Kare
- İsteğe göre uygulama yapılabilmesi için yüzeyler deliksizdir.
- Malzeme : Döküm

Product Nr. 2610 Horizontal Processing Cube Square
- Application on the surface according to desired way.
- Material : Casting



CNC Yatay İşleme Kulesi

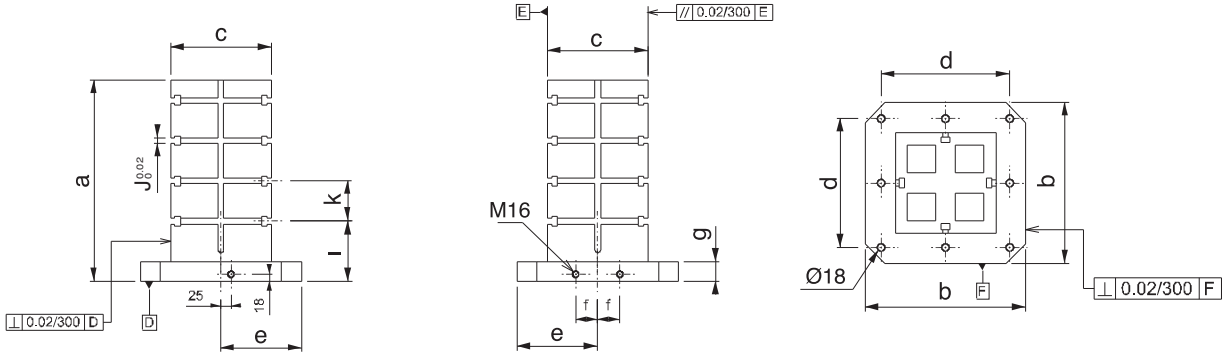
CNC Horizontal Processing Cube

Referans Nr.	a	b	c	d	e	f	g	ı	k	J (0.02 0)	(kg)
2630-40025014	500	400	250	320	200	55	50	150	100	14	165
2630-50030014	600	500	300	400	250	75	50	150	100	14	227
2630-63035014	700	630	350	500	315	100	50	150	125	14	375
2630-40025018	500	400	250	320	200	55	50	150	100	18	155
2630-50030018	600	500	300	400	250	75	50	150	100	18	223
2630-63035018	700	630	350	500	315	100	50	150	125	18	370



Ürün Nr. 2630 Yatay İşleme Kulesi Kare (T-Kanallı)
- Dört yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüsü 14mm - 18mm DIN 650 standartındadır.
- Malzeme : Döküm

Product Nr. 2630 Horizontal Processing Cube Square (with T-Slot)
- Workpiece can be applied on four faces.
- It is in compliance with Standard Coupling Equipment.
- T-Slot is in tha standard of 14mm - 18mm DIN 650.
- Material : Casting



CNC Yatay İşleme Kulesi

CNC Horizontal Processing Cube

Referans Nr.	a	b	c	d	e	f	g	t	(kg)
2650-40025012	500	400	250	320	200	55	50	M12	170
2650-50030012	600	500	300	400	250	75	50	M12	230
2650-63035012	700	630	350	500	315	100	50	M12	380
2650-40025016	500	400	250	320	200	55	50	M16	168
2650-50030016	600	500	300	400	250	75	50	M16	228
2650-63035016	700	630	350	500	315	100	50	M16	376

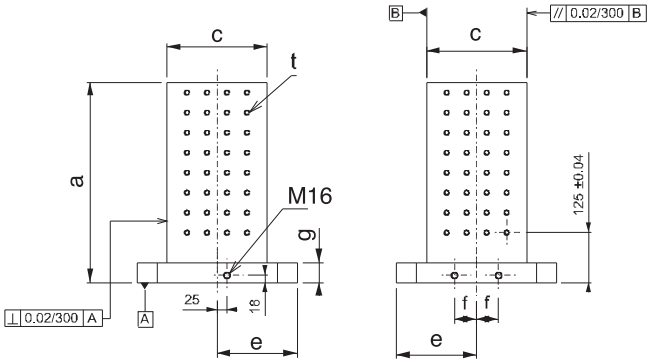


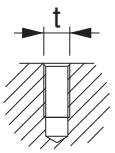
Ürün Nr. 2650 Yatay İşleme Kulesi Kare (Dişli)

- Malzeme : Döküm
- Dört yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- Her yüzeye M12 - M16 diş merkez aralığı 50mm ±0.02
- Gövdeye dişli

Product Nr. 2650 Horizontal Processing Cube Square (with Threaded)

- Material : Casting
- Workpiece can be applied on four faces.
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Threaded body





Gövdeye dişli
Threaded body

CNC Yatay İşleme Kulesi

CNC Horizontal Processing Cube

Referans Nr.	a	b	c	d	e	f	g		(kg)
2660-40025012	500	400	250	320	200	55	50	M12	170
2660-50030012	600	500	300	400	250	75	50	M12	230
2660-63035012	700	630	350	500	315	100	50	M12	380
2660-40025016	500	400	250	320	200	55	50	M16	168
2660-50030016	600	500	300	400	250	75	50	M16	228
2660-63035016	700	630	350	500	315	100	50	M16	376

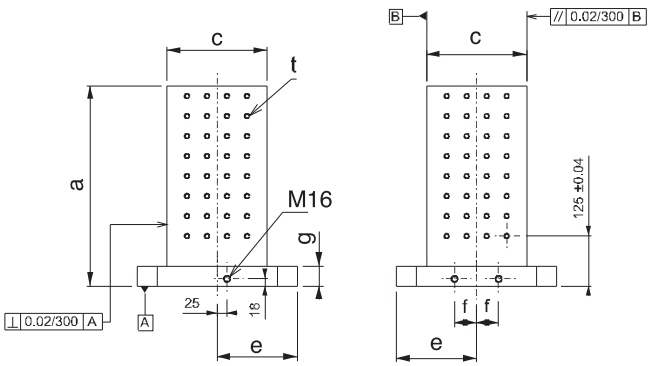


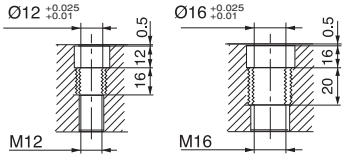
Ürün Nr. 2660 Yatay İşleme Kulesi Kare (Çelik Burçlu)

- Malzeme : Döküm
- Dört yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- Her yüzeye M12 - M16 diş merkez aralığı 50mm ±0.02
- Çelik burçlu

Product Nr. 2660 Horizontal Processing Cube Square (with Steel Bush)

- Material : Casting
- Workpiece can be applied on four faces.
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Steel bush





Çelik burçlu
Steel bush

CNC Yatay İşleme Kulesi

CNC Horizontal Processing Cube

Referans Nr.	a	b	c	d	e	f	g	(kg)
2670-400150	500	400	150	320	200	55	50	175
2670-500200	600	500	200	400	250	75	50	265
2670-630250	700	630	250	500	315	100	50	484

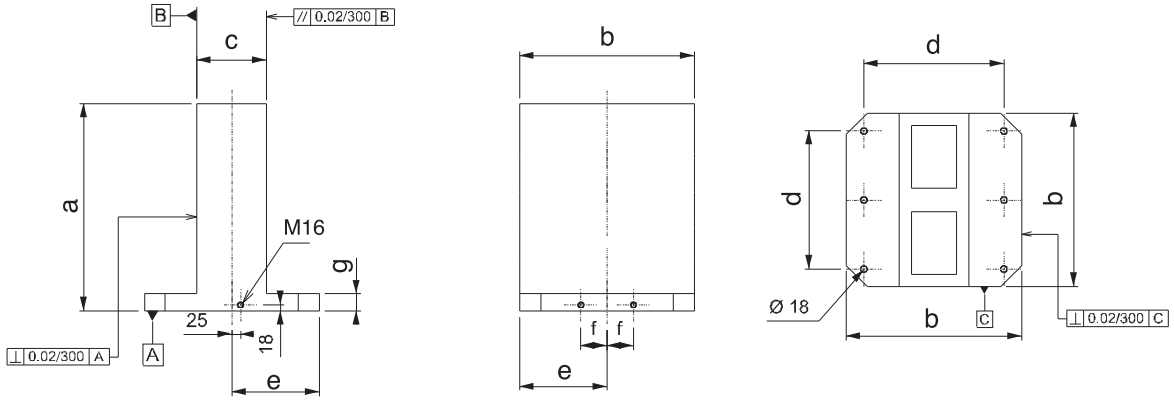


Ürün Nr. 2670 Yatay İşleme Kulesi Dikdörtgen

- İsteğe göre uygulama yapılabilmesi için yüzeyler deliksizdir.
- Malzeme : Döküm

Product Nr. 2670 Horizontal Processing Cube Rectangular

- Application on the surface according to desired way.
- Material : Casting



CNC Yatay İşleme Kulesi

CNC Horizontal Processing Cube

Referans Nr.	a	b	c	d	e	f	g	ı	k (±0.02)	J ($^{0.02}_{0}$)	(kg)
2690-40015014	500	400	150	320	200	55	50	150	100	14	165
2690-50020014	600	500	200	400	250	75	50	150	100	14	240
2690-63025014	700	630	250	500	315	100	50	150	125	14	455
2690-40015018	500	400	150	320	200	55	50	150	100	18	152
2690-50020018	600	500	200	400	250	75	50	150	100	18	238
2690-63025018	700	630	250	500	315	100	50	150	125	18	450

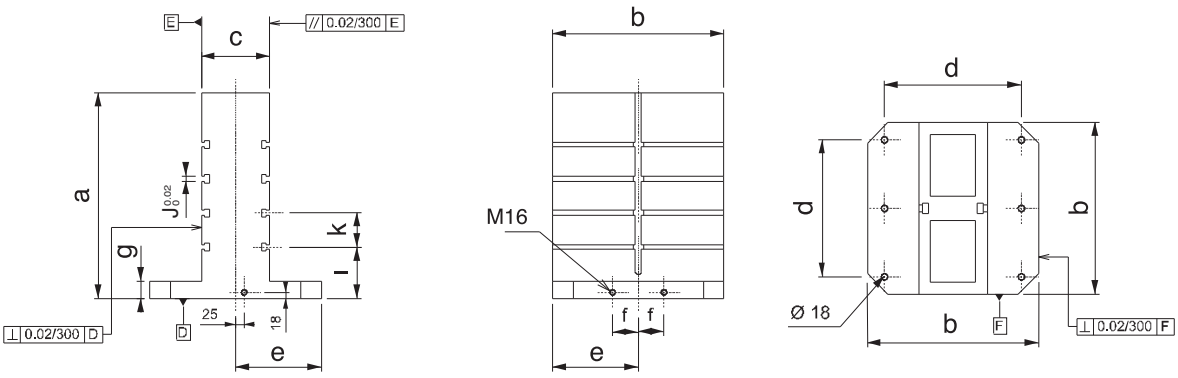


Ürün Nr. 2690 Yatay İşleme Kulesi Dikdörtgen (T-Kanallı)

- İki yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- T-Kanal ölçüsü 14mm - 18mm DIN 650 standartındadır.
- Malzeme : Döküm

Product Nr. 2690 Horizontal Processing Cube Rectangular (with T-Slot)

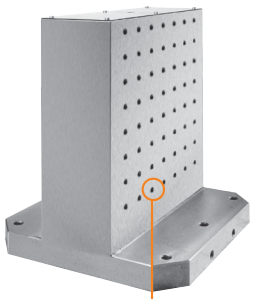
- Workpiece can be applied on four faces.
- It is in compliance with Standard Coupling Equipment.
- T-Slot is in the standard of 14mm - 18mm DIN 650.
- Material : Casting



CNC Yatay İşleme Kulesi

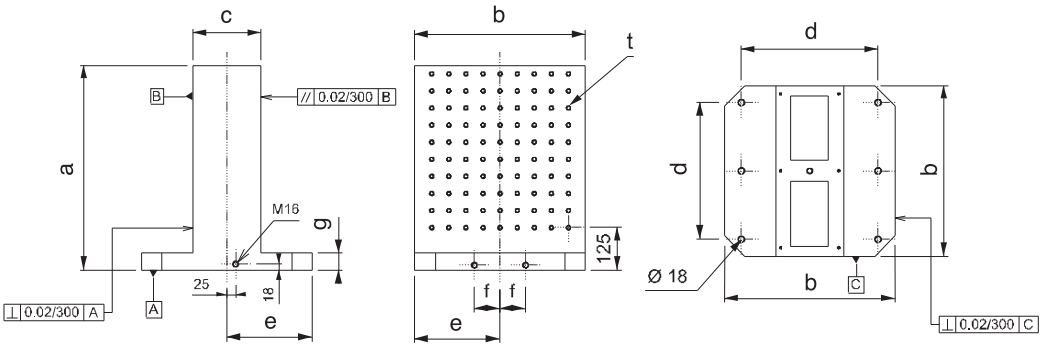
CNC Horizontal Processing Cube

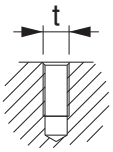
Referans Nr.	a	b	c	d	e	f	g	t	(kg)
2710-40015012	500	400	150	320	200	55	50	M12	170
2710-50020012	600	500	200	400	250	75	50	M12	250
2710-63025012	700	630	250	500	315	100	50	M12	475
2710-40015016	500	400	150	320	200	55	50	M16	164
2710-50020016	600	500	200	400	250	75	50	M16	248
2710-63025016	700	630	250	500	315	100	50	M16	470



Ürün Nr. 2710 Yatay İşleme Kulesi Dikdörtgen (Dişli)
- Malzeme : Döküm
- İki yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- İki yüzeye M12 - M16 diş merkez aralığı 50mm ±0.02
- Gövdeye dişli

Product Nr. 2710 Horizontal Processing Cube Rectangular (with Threaded)
- Material : Casting
- Workpiece can be applied on two faces.
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Threaded body



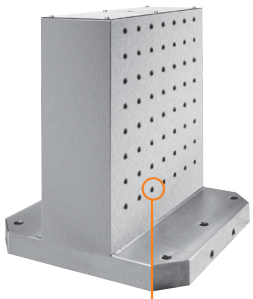


Gövdeye dişli
Threaded body

CNC Yatay İşleme Kulesi

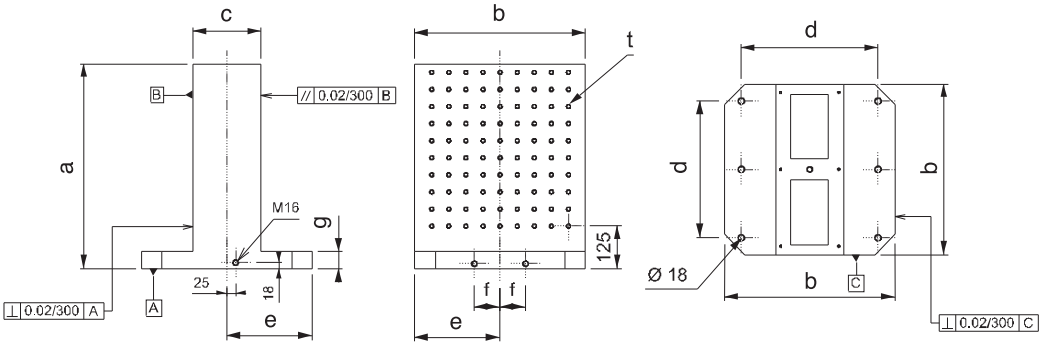
CNC Horizontal Processing Cube

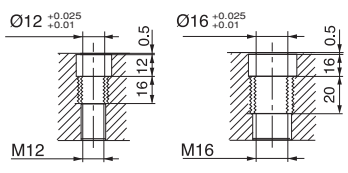
Referans Nr.	a	b	c	d	e	f	g		(kg)
2720-40015012	500	400	150	320	200	55	50	M12	170
2720-50020012	600	500	200	400	250	75	50	M12	250
2720-63025012	700	630	250	500	315	100	50	M12	475
2720-40015016	500	400	150	320	200	55	50	M16	164
2720-50020016	600	500	200	400	250	75	50	M16	248
2720-63025016	700	630	250	500	315	100	50	M16	470



Ürün Nr. 2720 Yatay İşleme Kulesi Dikdörtgen (Çelik Burçlu)
- Malzeme : Döküm
- İki yüzeyine iş parçası bağlanabilir.
- Standart bağlama ekipmanlarına uyumludur.
- İki yüzeye M12 - M16 diş merkez aralığı 50mm ±0.02
- Çelik burçlu

Product Nr. 2720 Horizontal Processing Cube Rectangular (with Steel Bush)
- Material : Casting
- Workpiece can be applied on two faces.
- It is in compliance with Standard Coupling Equipment.
- M12 - M16 thread gap on it's surface is 50 ± 0.02.
- Steel bush





Çelik burçlu
Steel bush

Kalıp Taşıma Mapası

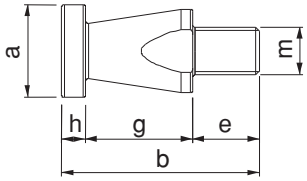
Ringbolt for Mould Carrying

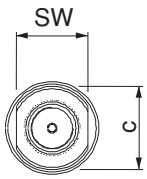
Referans Nr.	m	a	b	c	sw	e	g	h	Bir mapanın taşıma kuvveti Lifting Force of one Ringbolt Kgf	(g)
2730-016	M16	39	85	35	30	30	45	10	660	370
2730-020	M20	39	85	35	30	30	45	10	1000	390

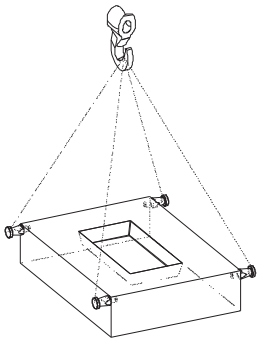


Ürün Nr. 2730 Kalıp Taşıma Mapası
- Bağlama ölçüsü M16 - M20
- Siyah Kaplama

Product Nr. 2730 Ringbolt for Mould Carrying
- Coupling Measurement: M16 - M20
- Black Coating







Kalıp Taşıma Mapası

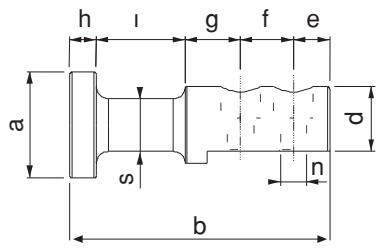
Ringbolt for Mould Carrying

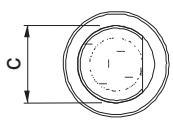
Referans Nr.	a	b	c	d	e	f	g	h	ı	n	s	Bir mapanın taşıma kuvveti Lifting Force of one Ringbolt Kgf	g
2750-044	44	108	32	27	15	22	23	11	37	11	22	400	525

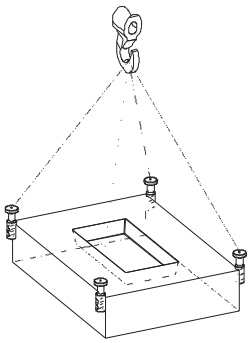


Ürün Nr. 2750 Kalıp Taşıma Mapası
- Bağlama civata ölçüsü DIN 912 M10x35 inbus
- Siyah Kaplama

Product Nr. 2750 Ringbolt for Mould Carrying
- Coupling Bolt Measurement: DIN 912 M10x35 Inbus
- Black Coating







CNC Torna Yumuşak Ayak

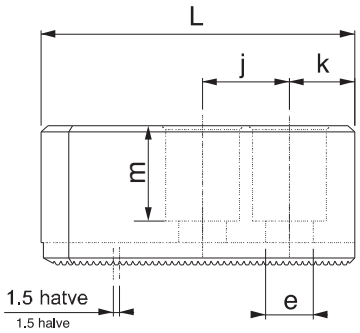
CNC Lathe Chuck Soft Podous

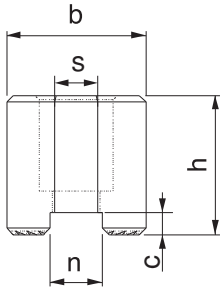
Referans Nr.	inch	hatve halve	L	b	h	n t7	c	k	j	e	m	s	Ø min	(g)
2770-0612	6” inch	1.5x60	72	32	32	12	5	15	20	11	22	10	6.5	1460
2770-0814	8” inch	1.5x60	98	37	37	14	5	24	25	13	22	14	8.5	2785
2770-1016	10” inch	1.5x60	110	42	42	16	5	30	30	13	29	14	10	4060
2770-1218	12” inch	1.5x60	130	50	52	18	5	39	30	15	32	17	12	6510
2770-1221	12” inch	1.5x60	130	50	52	21	5	39	30	17	32	19	12	6575
2775-0612	6” inch	1.5x60	72	28	37	12	5	15	20	11	17	10	6.5	1415
2775-0814	8” inch	1.5x60	95	35	67	14	5	24	25	13	19	14	8.5	4465
2775-1016	10” inch	1.5x60	110	38	77	16	5	30	30	13	19	14	10	6850
2775-1218	12” inch	1.5x60	130	48	77	18	5	39	30	15	23	17	12	10075
2775-1221	12” inch	1.5x60	130	48	77	21	5	39	30	17	23	19	12	9600



Ürün Nr. 2770 - 2775 CNC Torna Yumuşak Ayak
- 6” - 8” - 10” - 12” inch aynalar için

Product Nr. 2770 - 2775 CNC Lathe Chuck Soft Podous
- For chucks of 6” - 8” - 10” and 12”





CNC Torna Yumuşak Ayak T-Pabucu

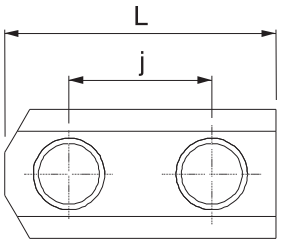
CNC Lathe Chuck Soft Podous T-Nut

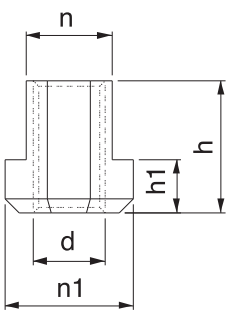
Referans Nr.	inch	L	h	n T6	n1	h1	d	j	(g)
2790-0610	6” inch	38	18.5	12	18	7.5	M10	20	55
2790-0812	8” inch	45	21.5	14	21	8.5	M12	25	85
2790-1012	10” inch	52	21.5	16	22	8.5	M12	30	115
2790-1214	12” inch	55	33.5	18	26.5	13.5	M14	30	225
2790-1216	12” inch	55	27	21	29	13.5	M16	30	210



Ürün Nr. 2790 CNC Torna Yumuşak Ayak T-Pabucu
- 6” - 8” - 10” - 12” inch aynalar için
- Sertleştirilmiş
- Siyah Kaplama

Product Nr. 2790 CNC Lathe Chuck Soft Podous T-Nut
- For chucks of 6” - 8” - 10” and 12”
- Hardened
- Black Coating

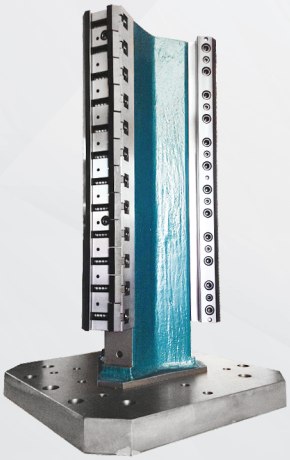




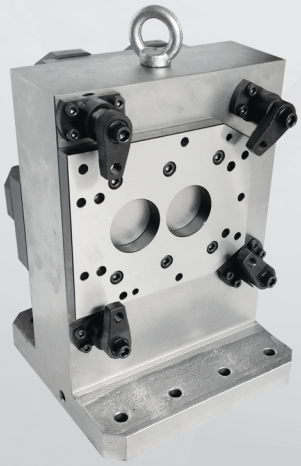
PROJE BAZLI FİKSTÜR UYGULAMALAR
SPECIAL PROJECT FIXTURE APPLICATIONS

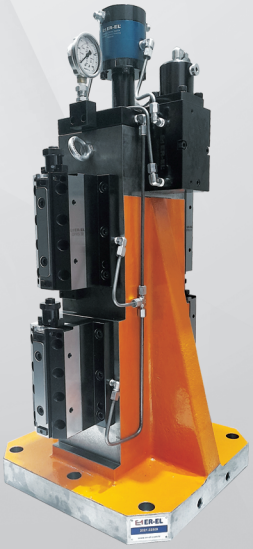






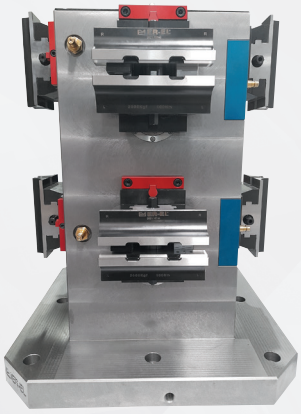






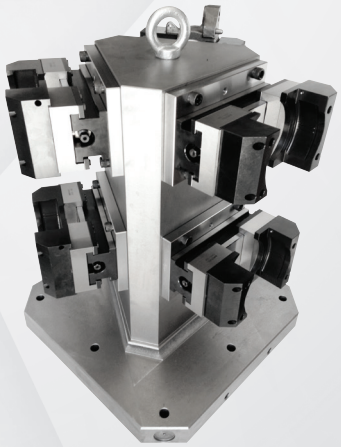
Not : Her nevi iş parçasını bağlamak için mekanik, pnömatik ve hidrolik fikstür uygulamaları yapılmaktadır.
Note : To connect all kinds of workpiece, mechanical, pneumatic and hydraulic fixture applications are made.

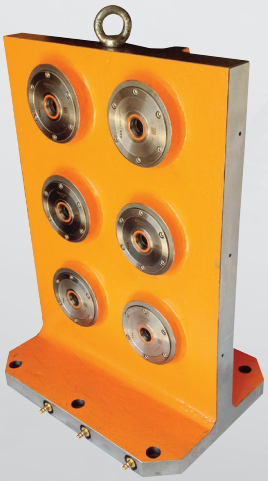
PROJE BAZLI FİKSTÜR UYGULAMALAR
SPECIAL PROJECT FIXTURE APPLICATIONS

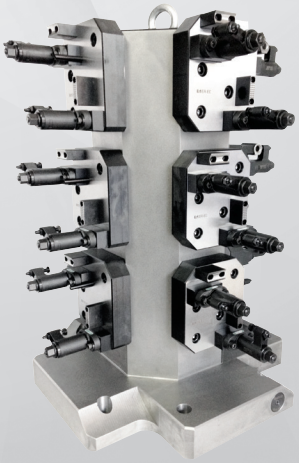








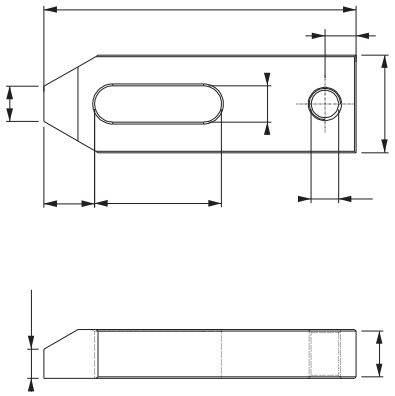




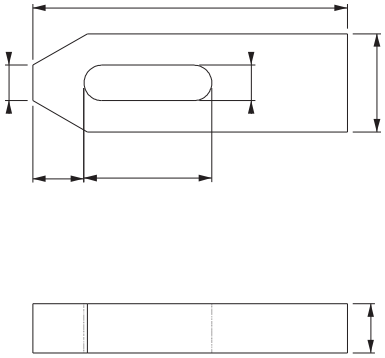
Not : Her nevi iş parçasını bağlamak için mekanik, pnömatik ve hidrolik fikstür uygulamaları yapılmaktadır.
Note : To connect all kinds of workpiece, mechanical, pneumatic and hydraulic fixture applications are made.

Özel Sipariş Oluşturma Şablonları / Create A Special Order Template

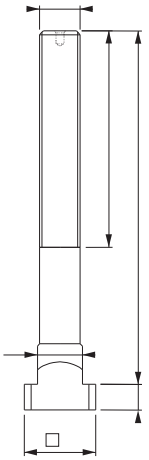
Nr.1330 Destek Delikli Düz Pabuç



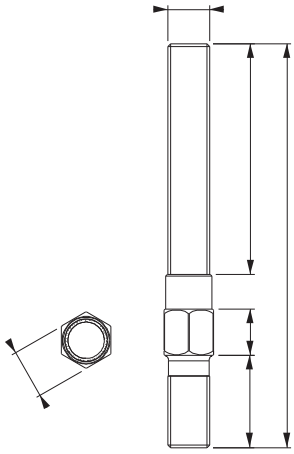
Nr.1350 Düz Pabuç



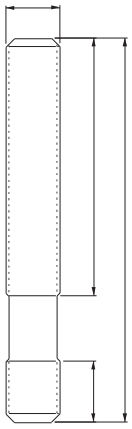
Nr.1590 T-Ayaklı Saplama



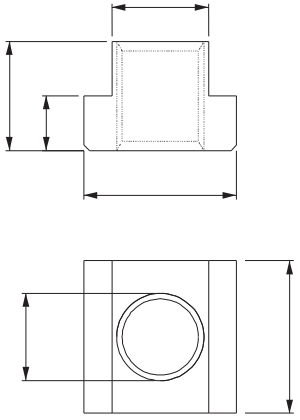
Nr.1670 Anahtar Ağızlı Saplama



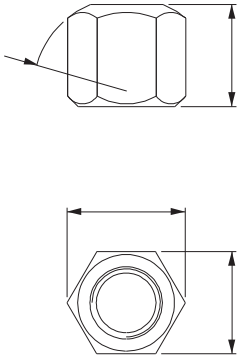
Nr.1690 Düz Saplama



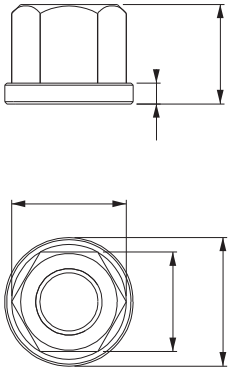
Nr.1750 T-Pabuç



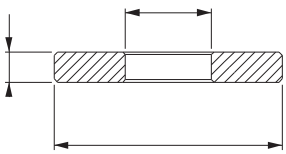
Nr.1790 Takviyeli Somun



Nr.1810 Pullu Somun

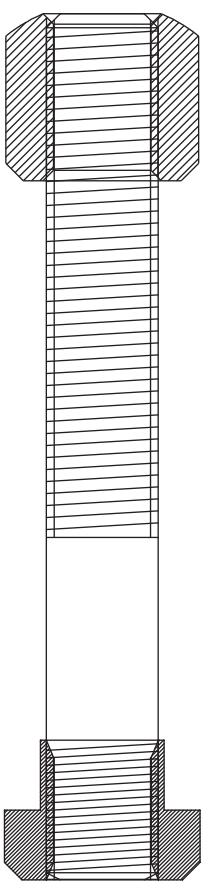


Nr.1870 Pul



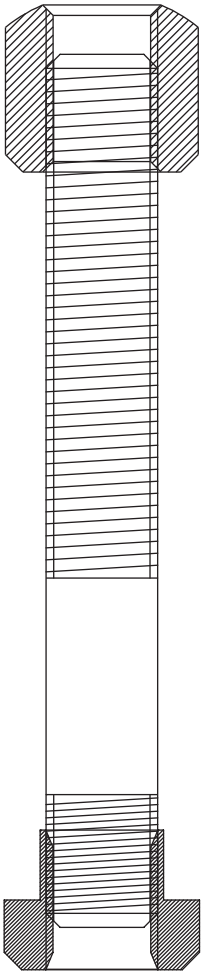
DOĞRU - YANLIŞ KULLANIM

RIGHT - WRONG USE



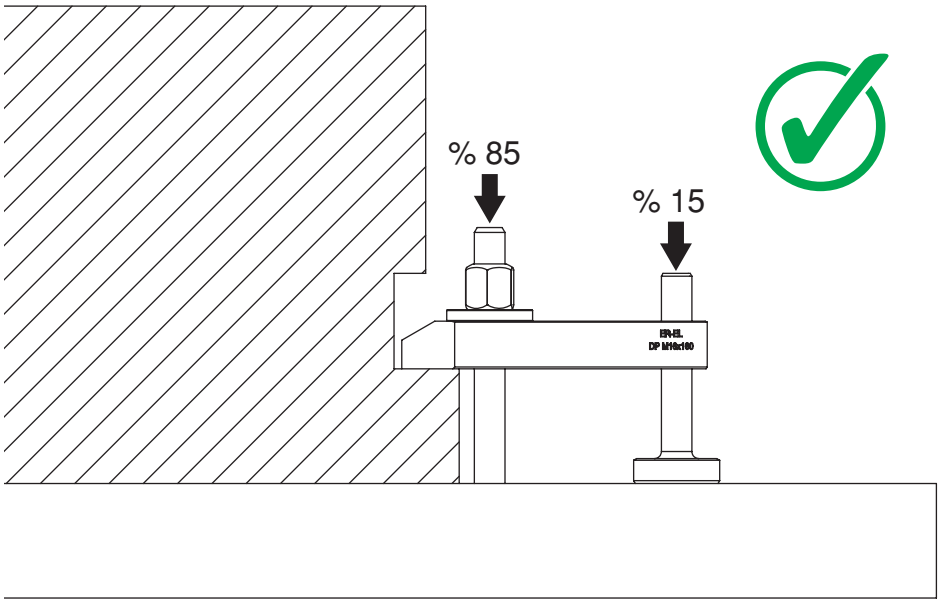
Modüler Kullanımlarda
Saplamanın Takviyeli Somuna ve
T-Pabuça Komple Vidalanmasına
Dikkat Ediniz..!

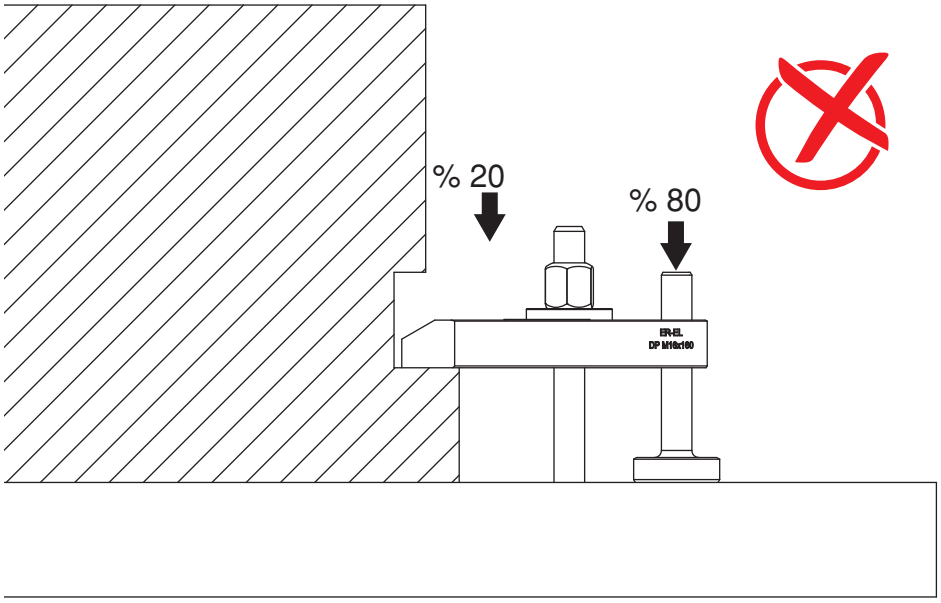
Make sure that in the use of
modular Hexagon Nut and T-Nut is
screwed fully into the Stud.

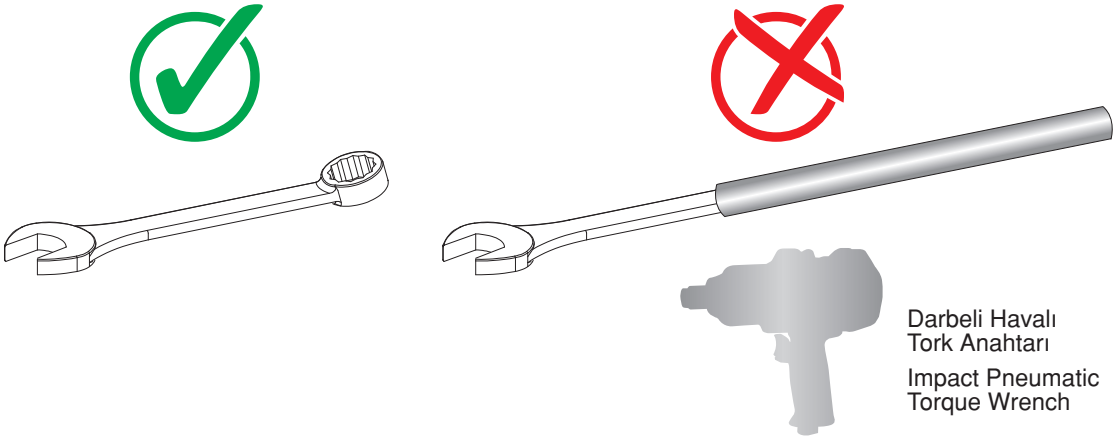


DOĞRU - YANLIŞ KULLANIM

RIGHT - WRONG USE







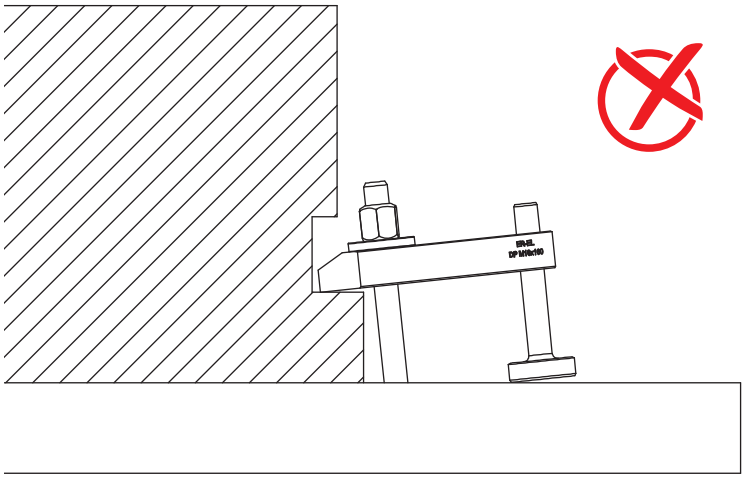
Darbeli Havalı
Tork Anahtarı

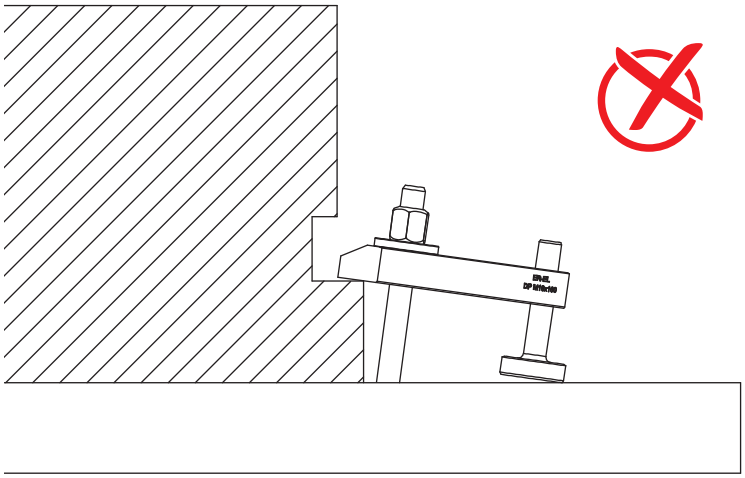
Impact Pneumatic
Torque Wrench

DOĞRU - YANLIŞ KULLANIM

RIGHT - WRONG USE







Pres Tezgahı / Hızlı Kalıp Değiştirme Sistem Bilgi Formu
Press Machine / Quick Die Change System Information Form

Tarih / *Date*:……../……/.....

Firma İsmi :
Company Name :

İletişim Tel & Adres :
Contact Tel & Address :

Yetkili Kişi :
Authorized Person :

Pres Tonajı / *Press tonnage* :

Marka/Model/Tipi :
Marke/Modell/Type:

Kalıp Referans No:
Mold Reference No:

Pres Pleyt Ölçüleri :
Press Plate Measurements :

Üst
Top
X:……. Y:……..

Alt
Bottom
X:……. Y:……..

Pres Tork Mesafesi :
Press Torque Distance:

Preste "U" Kanal Var mı?
Is there U channel in Press?

Evet…….
Yes .....

Hayır…….
No .....

Ölçüsü……..
its measure .....

Presin "T" Kanalı Şekli
T-channel shape of Press

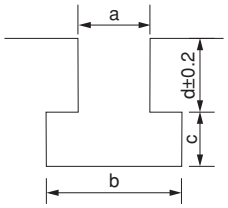
Alt
Bottom

Üst
Top

Pres "T" Kanal Ölçüsü:
T-channel measure of Press :

ÜST TABLA:
Top Table: A:…..… B:…..… C:…..… D:…..…

ALT TABLA:
Bottom Table: A:…..… B:…..… C:…..… D:…..…



Kanal Merkez Aralığı:
Channel Center Distance :

Kalıp Çalışma Isısı / *Mold Working Heat :*

Kalıp taşıma Şekli / *Mold Transportation Shape :*

Hidrolik Pabuç Bilgileri / *Hydraulic Clamp Information*

Pabuç Seçimi :
Selection of clamp :

Plaka Kalınlığı
Plate Thickness

Alt
Bottom
H:….

Üst
Top
H:…..

Hidrolik Kalıp Kaldırma Bilgileri
Die Lifter Hydraulic Information

Kalıp Ağırlığı :
Mold Weight

Kalıp Ölçüleri:
Mold Size: X…… Y…… Z……

Kalıp Kaydırma Kolu Bilgileri
Die Arm Informations:

Taşıyacağı Yük :
Load Capacity :

Ağır Model
Heavy Model

Hafif Model
Light Model

Desteklimi?
Supported?

Evet…….
Yes .....

Hayır……
No .....

Model RS :
Modell RS :

L=
Kalıp uzunluğu
Mold Length

H=
Zemin yüksekliği
Ground Height

W=
Kalıp Ağırlığı
Mold Weight

Komple kurulum sistem istiyor:
Company wants whole system setup?

Evet…….
Yes .....

Hayır……
No .....

Bu Kısım ER-EL tarafından doldurulacaktır
This part will be filled in by ER-EL

Sistemde Kullanılacak Ekipmanları Model / Kod Bilgileri :
Model / code information of the equipment to be used in the system:

Enjeksiyon Tezgahı / Hızlı Kalıp Değiştirme Sistem Bilgi Formu
Injection Machine/Quick Die Change System Information Form

Tarih: / *Date*:……../……./.....

Firma İsmi :
Company Name :

İletişim Tel & Adres :
Contact Tel & Address :

Yetkili Kişi :
Authorized Person :

Enjeksiyon Tonajı / *Injection tonnage* :

Marka/Model/Tipi :
Marke/Modell/Type :

Kalıp Referans No:
Mold Reference No:

Enjeksiyon çalışma Bilgileri
Injection working information:

	Sol *Left*		Sağ *Right*	
Enjeksiyon Pleyt Ölçüleri *Injection Plate Measurements*	X:…….	Y:……..	X:…….	Y:……..

Enjeksiyon Tork Mesafesi :
Injection Torque Distance:

Tezgahta *DİŞ*
**THREAD* in Machine*

Evet *Yes* .....
Hayır *No* .....
Ölçüsü…….. *its measure* .....

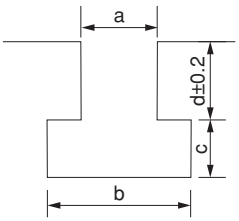
Tezgahta *DİŞ* var ise merkez aralığı :
If there is thread in the machine, center interval :

Enjeksiyon "T" Kanalı Şekli
T-channel shape of Injection

Sol *Left*

Sağ *Right*

Enjeksiyon T-Kanal Ölçüsü:
T-channel measure of Injection:



Sol Tabla *Left Table:*	A:…….	B:…….	C:…….	D:…….
Sağ Tabla *Right Table:*	A:…….	B:…….	C:…….	D:…….

Kanal Merkez Aralığı :
Center interval of channel :

Çalışma Isısı :
Working Heat :

Hidrolik Pabuç Bilgileri
Hydraulic Clamp Informations:

Kalıp Ağırlığı :
Weight of Mold :

Kalıp Plaka Kalınlığı:
Mold Plate Thickness:

Sol *Left*	Sağ *Right*
H:….	H:…..

Komple kurulum sistem istiyor:
Company wants whole system setup?

Evet *Yes* .....
Hayır *No* .....

BU KISIM ER-EL tarafından doldurulacaktır
This part will be filled in by ER-EL

Sistemde Kullanılacak Ekipmanları Model / Kod Bilgileri :
Model / code information of the equipment to be used in the system:



T.C.
TÜRK PATENT ENSTİTÜSÜ

MARKA TESCİL BELGESİ

ER-EL

Kutay KUMBARACI
Enstitü Başkanı a.
Markalar Dairesi Başkanı

TÜRK PATENT ENSTİTÜSÜ

T.C.
TÜRK PATENT ENSTİTÜSÜ

MARKA YENİLEME BELGESİ

ER-EL MAKİNA YEDEK PARÇA İMALATI SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Markaların Korunması Hakkında 556 Sayılı Kanun Hükümleri Kararnamesiye göre **2012/2012** tarihinden itibaren ON YIL süreyle yenilenmiştir.

Kutay KUMBARACI
Markalar Dairesi Başkanı

TÜRK PATENT ENSTİTÜSÜ



T.C.
TÜRK PATENT ve MARKA KURUMU

MARKA TESCİL BELGESİ
SURETİ
Marka No : 159736 - Ticaret

MİKSAN

Marka Sahibi : ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ TÜRKİYE CUMHURİYETİ Çerkeşli Osb Mah. İmes 3 Blv. No:14 Dilovası 34775 Kocaeli

Emtiası : 07
Metal işlemede, sanayi kalıplarında, bütün takım tezgahlarında kullanılan hızlı bağlama sistemleri; (fikstürlerde ve aparatlarda, metal ve plastik enjeksiyon makinelerinde, her çeşit preslerde kullanılan kalıpları bağlama pabuçları, ayrıca işlenecek parçaları üstten ve yandan bağlama pabuçları, hidrolik, mekanik, pnömatik bağlama pabuçları ve mengeneler).

İşbu Marka ilk defa 28/03/1995 tarihinde tescil edilmiş olup, 28/03/2015 tarihinden itibaren ON YIL süreyle yenilenmiştir.

Prof. Dr. Habip ASAN
Türk Patent ve Marka Kurumu Başkanı

ALLI GİBİDİR

TURK PATENT



T.C.
TÜRK PATENT ve MARKA KURUMU

MARKA TESCİL BELGESİ

Marka No : 2017 35083 - Ticaret

ER-EL

Marka Sahibi : ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ TÜRKİYE CUMHURİYETİ Çerkeşli Osb Mah. İmes 3 Blv. No:14 Dilovası 34775 Kocaeli

Emtiası : 06 , 07
Bişiklerdir.

İşbu Marka 17/04/2017 tarihinden itibaren ON YIL süreyle 20/10/2017 tarihinde tescil edilmiştir.

Prof. Dr. Habip ASAN
Türk Patent ve Marka Kurumu Başkanı

TURK PATENT



TURK PATENT

MARKA TESCİL BELGESİ
No: 2021 160574 - Ticaret - Hizmet

ER-EL Fikstür

Marka Sahibi
ER-EL MAKİNA YEDEK PAR.İML.SAN.VE TİC.LTD.ŞTİ.

Mal / Hizmet Sınıfları
06, 07, 35

Bu marka, 6769 sayılı Sınai Mülkiyet Kanunu kapsamında, 11.11.2021 tarihinden itibaren 10 yıl süreyle korunmak üzere, 22.06.2022 tarihinde tescil edilmiştir.

Cemil BAŞPINAR
Kurum Başkan V.



TRB INTERNATIONAL

SERTİFİKA

ER-EL MAKİNA YEDEK PARÇA İMALATI SAN. VE TİC. LTD. ŞTİ.

ÇERKEŞLİ OSB MAH. İMES 3 BLV. NO:14 DİLOVASI KOCAELİ

ISO 9001:2015

KALIP BAĞLAMA EKİPMANLARI VE MAKİNA YEDEK PARÇALARI İMALATI VE SATIŞI FAALİYETLERİ

Bu belge ile sertifika sahibinin yukarıda belirtilen adreste ilanı sözleşmesi koşullarına ve genelgeçerliklerine uygun olarak TRB Belgelendirme Kuruluşu tarafından değerlendirildiği ve ilgili yönetim uygulaşlığı yukarıda adı geçen yönetim sistemi gerliklerine sağlandığı tescil edilmiştir. Ayrıca bu sertifika, kuruluş ve TRB Belgelendirme ins kuralarına uymağı ve "www.trb.com.de" sertifika sorgulama kısmında aktif gözlendiği sürece geçerlidir.

Sertifika No	: DE-QC-934
Tescil Tarihi	: 22.09.2018
Geçerlilik Tarihi	: 20.09.2023
Sertifika Dönemi	: 3 Yıl (2. Yıl)
Baskı No	: 04

Gerrit Mulder

IAF

DAkkS Deutsche Akkreditierungsstelle D-ZM-19486-01-00



TRB INTERNATIONAL

SERTİFİKA

ER-EL MAKİNA YEDEK PARÇA İMALATI SAN. VE TİC. LTD. ŞTİ.

ÇERKEŞLİ OSB MAH. İMES 3 BLV. NO:14 DİLOVASI KOCAELİ

ISO 14001:2015

KALIP BAĞLAMA EKİPMANLARI VE MAKİNA YEDEK PARÇALARI İMALATI VE SATIŞI FAALİYETLERİ

Bu belge ile sertifika sahibinin yukarıda belirtilen adreste ilanı sözleşmesi koşullarına ve genelgeçerliklerine uygun olarak TRB Belgelendirme Kuruluşu tarafından değerlendirildiği ve ilgili yönetim uygulaşlığı yukarıda adı geçen yönetim sistemi gerliklerine sağlandığı tescil edilmiştir. Ayrıca bu sertifika, kuruluş ve TRB Belgelendirme ins kuralarına uymağı ve "www.trb.com.de" sertifika sorgulama kısmında aktif gözlendiği sürece geçerlidir.

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Baskı No	: 04

Gerrit Mulder

IAF

DAkkS Deutsche Akkreditierungsstelle D-ZM-19486-01-00



TRB INTERNATIONAL

SERTİFİKA

ER-EL MAKİNA YEDEK PARÇA İMALATI SAN. VE TİC. LTD. ŞTİ.

ÇERKEŞLİ OSB MAH. İMES 3 BLV. NO:14 DİLOVASI KOCAELİ

ISO 45001:2018

KALIP BAĞLAMA EKİPMANLARI VE MAKİNA YEDEK PARÇALARI İMALATI VE SATIŞI FAALİYETLERİ

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Sertifika No	: DE-SC-934
Tescil Tarihi	: 22.09.2018
Geçerlilik Tarihi	: 22.09.2023
Sertifika Dönemi	: 3 Yıl (2. Yıl)
Baskı No	: 04

Gerrit Mulder



CERTIFICATION

Certificate

EC UYGUNLUK BEYANI
EC CERTIFICATE OF CONFORMITY

KURULUŞ / COMPANY
ER-EL MAKİNA YEDEK PARÇA İML. SAN. VE TİC. LTD. ŞTİ.

ADRES / ADDRESS
ÇERKEŞLİ OSB MAH. İMES 3 BULVARI NO:14 - 41455
DİLOVASI / KOCAELİ / TURKEY

PRODUCT DESCRIPTION/ ÜRÜN TANIMI
Mold Clamping and Transport Equipment /
Kalıp Bağlama ve Yükleme Ekipmanları

PRODUCT COMMERCIAL BRAND / MARKA : ER-EL

APPLICABLE EC DIRECTIVES / UYGULANAN YÖNETMELİKLER : GENERAL PRODUCT SAFETY DIRECTIVES 2001/95/EC

CERTIFICATE NUMBER	: 21032019CE0075-2023
CERTIFICATE ISSUE DATE	: 21.03.2023
CERTIFICATE VALIDITY DATE	: 20.03.2024

KURULUŞ YETKİLİ KAŞE İMZA



TURK PATENT

FAYDALI MODEL BELGESİ
No: TR 2019/09468 Y

Buluş Başlığı
KALIP YÜKLEME TABLASINDA GELİŞTİRME

Faydalı Model Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Bu belge, 6769 sayılı Sınai Mülkiyet Kanunu kapsamında 25/06/2019 tarihinden itibaren 10 yıl süre ile korunmak üzere 26/07/2021 tarihinde verilmiştir

Prof. Dr. Habip ASAN
Başkan



TURK PATENT

FAYDALI MODEL BELGESİ
No: TR 2017 02807 Y

Buluş Başlığı
MEKANİK MENGENE

Faydalı Model Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Bu belge, 6769 sayılı Sınai Mülkiyet Kanununun Geçici 1 nci maddesi uyarınca Mülga 551 sayılı Patent Haklarının Korunması Hakkında Kanun Hükmünde Kararname kapsamında 24/02/2017 tarihinden itibaren 10 yıl süre ile korunmak üzere 21/10/2019 tarihinde verilmiştir.

Prof. Dr. Habip ASAN
Başkan



TURK PATENT

FAYDALI MODEL BELGESİ
No: TR 2017 06471 Y

Buluş Başlığı
YATAY İŞLEME TEZGÂHLARI İÇİN GEZER ÇENELİ ÇATAL KULE

Faydalı Model Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Bu belge, 6769 sayılı Sınai Mülkiyet Kanunu kapsamında 03/05/2017 tarihinden itibaren 10 yıl süre ile korunmak üzere 21/11/2019 tarihinde verilmiştir.

Prof. Dr. Habip ASAN
Başkan



CERTIFICATION

Certificate

EC UYGUNLUK BEYANI
EC CERTIFICATE OF CONFORMITY

KURULUŞ / COMPANY
ER-EL MAKİNA YEDEK PARÇA İML. SAN. VE TİC. LTD. ŞTİ.

ADRES / ADDRESS
ÇERKEŞLİ OSB MAH. İMES 3 BULVARI NO:14 41455
DİLOVASI / KOCAELİ / TURKEY

PRODUCT DESCRIPTION/ ÜRÜN TANIMI
Workpiece Fixture Holders Components and Vices /
İş parçası Fiktür Tutucuları, Komponent ve Mengeneleri

PRODUCT COMMERCIAL BRAND / MARKA : ER-EL

APPLICABLE EC DIRECTIVES / UYGULANAN YÖNETMELİKLER : GENERAL PRODUCT SAFETY DIRECTIVES 2001/95/EC

APPLICABLE HARMONISED STANDARDS / UYGULANAN STANDARTLAR : TS 182

CERTIFICATE NUMBER	: 21032019CE0076-2023
CERTIFICATE ISSUE DATE	: 21.03.2023
CERTIFICATE VALIDITY DATE	: 20.03.2024

KURULUŞ YETKİLİ KAŞE İMZA



TURK PATENT

TASARIM TESCİL BELGESİ SURETİ
No: 2014 02138

Tasarım Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Prof. Dr. Habip ASAN
Başkan



TURK PATENT

TASARIM YENİLEME BELGESİ
No: 2016 06634

Tasarım Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Prof. Dr. Habip ASAN
Başkan



TURK PATENT

TASARIM TESCİL BELGESİ
No: 2016 012272

Tasarım Sahipleri
ER-EL MAKİNA YEDEK PAR.İML.SAN.VE TİC.LTD.ŞTİ.
EROL ELMAS

Cemil BAŞPINAR
Kurum Başkan V.



TURK PATENT

TASARIM TESCİL BELGESİ SURETİ
No: 2005 01894

Tasarım Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Prof. Dr. Habip ASAN
Başkan



TURK PATENT

TASARIM YENİLEME BELGESİ
No: 2016 09098

Tasarım Sahibi
ER-EL MAKİNA YEDEK PARÇA İMALAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Prof. Dr. Habip ASAN
Başkan



TURK PATENT

TASARIM TESCİL BELGESİ
No: 2021 012341

Tasarım Sahibi
ER-EL MAKİNA YEDEK PAR.İML.SAN.VE TİC.LTD.ŞTİ.

Cemil BAŞPINAR
Kurum Başkan V.



TURK PATENT

TASARIM TESCİL BELGESİ
No: 2021 012276

Tasarım Sahibi
ER-EL MAKİNA YEDEK PAR.İML.SAN.VE TİC.LTD.ŞTİ.

Cemil BAŞPINAR
Kurum Başkan V.

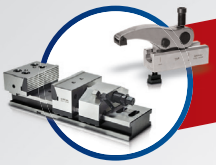


TURK PATENT

TASARIM TESCİL BELGESİ
No: 2021 012456

Tasarım Sahibi
ER-EL MAKİNA YEDEK PAR.İML.SAN.VE TİC.LTD.ŞTİ.

Cemil BAŞPINAR
Kurum Başkan V.



Standart Ürünler
Standard Products



5-Eksen Blok Bağlama Sistemi
5-Axis Clamping Block System



Hızlı Kalıp Değiştirme Sistemi
Quick Mold Change System



ER-EL Zero Sistem
ER-EL Zero Point Clamping System



Tek Dokunuş Bağlamalar
Single Touch Clamps



Hidrolik Komponentler
Hydraulic Components



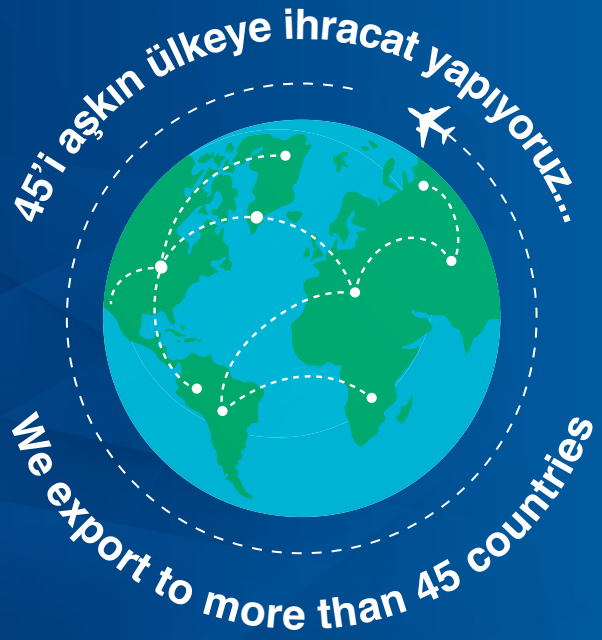
Proje Bazlı Fikstür Uygulamaları
Project Based Fixture Applications



MİKSAN
Standard Products

Bağlama ekipmanlarında kalite üretiyoruz..

"We produce quality in clamping equipment"



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