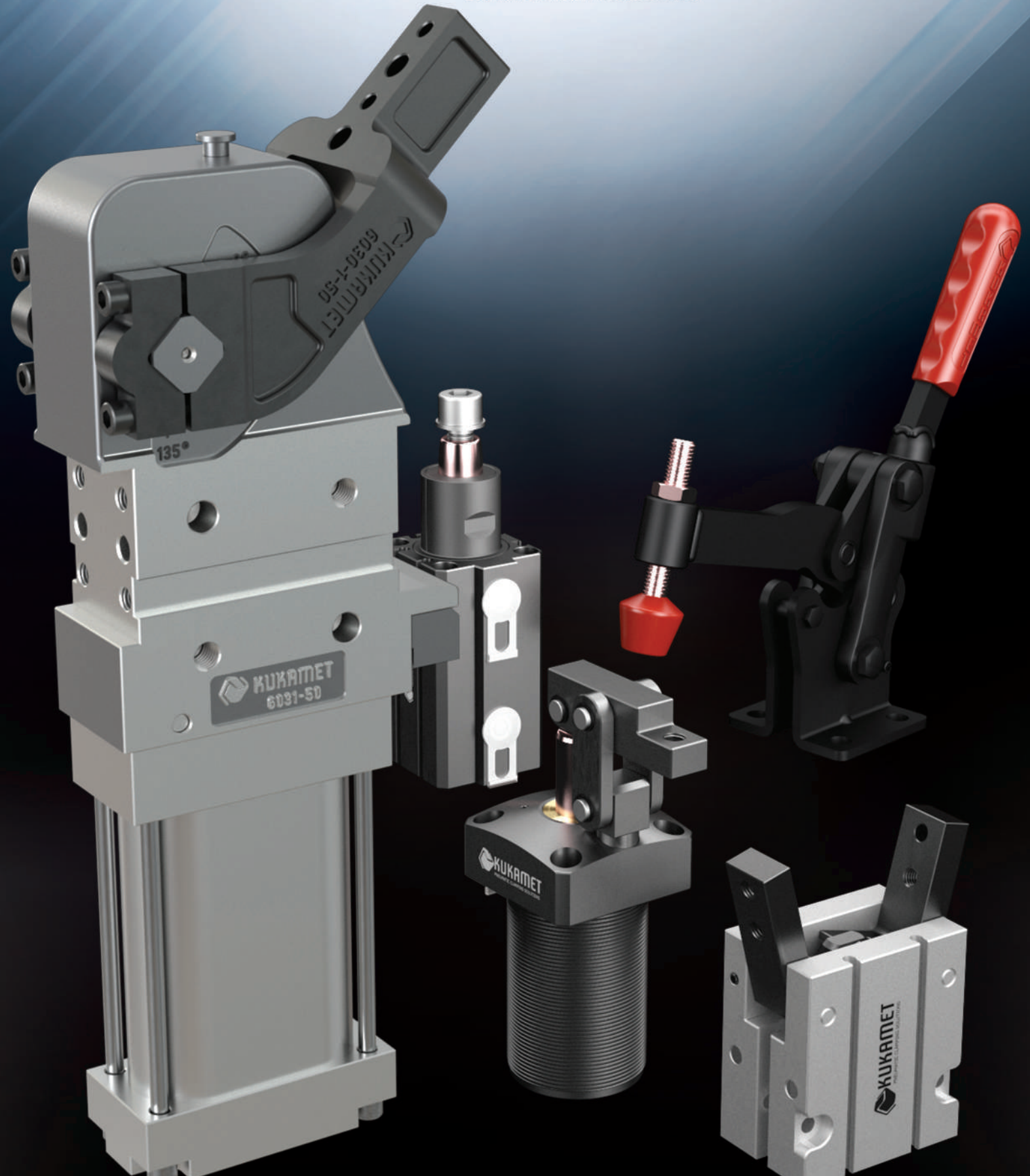




# KUKAMET

PNEUMATIC CLAMPING SOLUTIONS

[www.kukamet.com.tr](http://www.kukamet.com.tr)



PNEUMATIC COMPONENTS FOR PRODUCTION ENGINEERING





#### KURUCUMUZUN MESAJI

1985 yılında Hasan Bey tarafından kurulan firmamız 38 yıllık tecrübeye sahiptir. 38 yıllık tecrübemiz ile, bugün tüm dünyada otomotiv, savunma sanayii, beyaz eşya, gıda ve tarım ana sanayileri tarafından kullanılan hızlı bağlantı elemanlarında tercih edilen markayız. Yenilikçi anlayışla üretimin GİZLİ KAHRAMANLARINI sizlere sunuyoruz.

#### FOUNDER'S MESSAGE

Founded in 1985 by Mr. Hasan, our company has 38 years of experience. With our 38 years of experience, today we are the preferred Toggle Clamp brand for many companies in the automotive, white goods, defense, food and agricultural industries all over the world. We will keep innovating to present you with the best secret heroes of manufacturing.

#### TANIM

Esasında bir bağlantı elemanı olan toggle clamp birçok sanayi kolunda geniş bir uygulama çeşitliliğine sahiptir. Minimum güç ile maksimum sıkıştırma, itme, çekme gücü sağlar. "KUKAMET" i ayrıcalıklı kılan, ani darbe, titreşim ve sarsıntılara karşı açılmasını engelleyecek kilit sistemine sahip olmasıdır. Ayrıca geliştirilen sıkma uçları sayesinde her şekilde parça kullanımına imkan sağlanmıştır.

#### KULLANIM ALANLARI

- \* Otomotiv kaynak, kontrol ve montaj aparatlarında
- \* Talaşlı üretimde parça sabitlemede
- \* Sac sabitlemede
- \* İmalat aparatlarında
- \* Metal işleme alanlarında
- \* Profil sıkımda
- \* Kapak sıkımda
- \* Seri üretim aparatlarında
- \* Demir plastik ve ahşap doğramada

#### KULLANILDIĞI SANAYİLER

- \* Otomotiv
- \* Beyaz eşya
- \* Makine
- \* Gıda
- \* Plastik
- \* Ahşap
- \* Seramik

#### GENEL ÖZELLİKLER

- \* Galvaniz kaplı, yüksek kaliteli, çelik sac aksamı
- \* Isıl işlem görmüş ve yağlı yataklama burçları
- \* 304 kalite paslanmaz krom perçinler
- \* Kolay tutulabilen yağa ve kırılmaya dayanıklı insan sağlığına ve gıdaya uygun plastik sap
- \* Farklı bağlantı tabanları ile çeşitli pozisyonlarda montaj
- \* Yağa ve yanmaya dayanıklı baskı civatası iki eksenli hareket imkanı sunar böylece sabitleme mesafesi ayarlanabilir



#### DEFINITION

Toggle clamp that is basically a fastening element has various ranges of application in several branches of industry. It provides maximum holding, pushing pulling and squeezing forces with minimum power. Having a lock system that will prevent from being opened due to sudden impacts, vibrations or shocks grants privileges to the "KUKAMET". It also offers opportunity to use parts in any way through its compression ends.

#### USAGE AREAS

- \* At automotive welding, control and assembly apparatus
- \* For fixing parts at production
- \* For fixing steel sheet
- \* For production apparatus
- \* At areas of metal processing
- \* For profile squeeze
- \* For cover squeeze
- \* At apparatus of serial production
- \* For chopping of wood plastics and iron

#### INDUSTRIAL USAGES

- \* Automotive Industries
- \* White goods Industries
- \* Machine Manufacturers
- \* Food Sector
- \* Plastics Sector
- \* Wood Sector
- \* Ceramics Sector

#### GENERAL FEATURES

- \* High-quality steel sheet parts are galvanized
- \* Heat treated and lubricated bushings
- \* Stainless rivets (304 quality)
- \* Plastic handles are easy grabbing, resistant to oil and break, suitable for human health and food
- \* Assembly with different connection bases at various positions
- \* Compression bolts are resistant to oil and fire, fixation distances can be adjusted by enabling movement in 2 axial



Ürün Product	Tanım Definition	Sayfa No Page No
	<b>Yatay Bağlantı Elemanları</b> Horizontal Toggle Clamps	6-16
	<b>Dikey Bağlantı Elemanları</b> Vertical Toggle Clamps	17-41
	<b>Kompakt Dikey Bağlantı Elemanları</b> Compact Vertical Toggle Clamps	42
	<b>U Kancalı Bağlantı Elemanları</b> Latch Toggle Clamps With U Hook	43-54
	<b>C Kancalı Bağlantı Elemanları</b> Latch Toggle Clamps With C Hook	55-58
	<b>İtme Çekme Bağlantı Elemanları</b> Straight Line Push-Pull Type Toggle Clamps	59-76
	<b>Paslanmaz Çelik Bağlantı Elemanları</b> Stainless Steel Toggle Clamps	77
	<b>Pnömatik Bağlantı Elemanları</b> Pneumatic Toggle Clamps	79-96
	<b>Kombine Bağlantı Elemanları</b> Combination Toggle Clamps	97-98
	<b>İşkence Tipi Bağlantı Elemanları</b> Squeezing Type Toggle Clamps	99-103
	<b>Pnömatik Swing Aksesuarları</b> Pneumatic Swing Accessories	105-108
	<b>Döner Tip Pnömatik Bağlantı Elemanları</b> Pneumatic Swing Clamps	109-115
	<b>Pnömatik Tutucu</b> Pneumatic Gripper	117-120
	<b>Pnömatik Power Clamp</b> Pneumatic Power Clamp	121-123
	<b>Siyah Seri Bağlantı Elemanları</b> Black Series Toggle Clamps	124
	<b>Aksesuarlar</b> Accessories	125-131



**sağlığa zararlı olmayan  
kolay tutulabilen, yağa ve kırılmaya  
dayanıklı, ergonomik poliüretan sap**  
Not be harmful to health polyurethane handles  
are ergonomic, easy grabbing and resistant to  
oil and break

**parmak sıkışmaması için koruyucu parça**  
protector parts to avoid pinching of fingers

**galvaniz kaplı, yüksek kaliteli  
çelik sac aksamı**  
high-quality steel sheet parts are  
galvanized

**8.8 kalite, somunlu ve rondelalı baskı civatası**  
8.8 grade, clamping bolt with nut and washer

**paslanmaz perçinler ve  
sertleştirilmiş burçlar**  
stainless rivets (304 quality) and heat  
treated bushings

**uzun süre kullanım için bütün  
mafsalların yağlanması**  
lubricated hinges for a long time using

**yağa ve yanmaya dayanıklı baskı parçası**  
clamping plastics are resistant to oil and fire

**2 eksenli hareket imkanı baskı parçası ve  
bu baskı civatasının çıkması için kıvrım**  
fixation distances can be adjusted by enabling  
movement in 2 axial and folds for avoid to quit  
of clamping parts





- Tüm standart bağlantı elemanlarımız üstün kaliteli çelikten üretilip satışa sunulmaktadır.
- R304 kalite paslanmaz çelik perçinler üzerine yaptığımız özel uygulama sayesinde aşınmayı esgariye indirerek daha uzun kullanım ömrü sağlar.
- Isıl işlem yöntemiyle sertleştirilmiş burçlar aşınmayı önler.
- Yağlanmış mafsal lar kolay kullanım ve aşınmaya karşı koruma sağlar.
- Poliüretan yağa dayanıklı ergonomik sap ; rahat kullanımlı, kırılmaz ve esnek tir. Cadmiumsuzdur. 80 °C sıcaklıkta yumuşar , 180 °C sıcaklıkta erir. Bu durumda metal saplarımız önerilir.
- Silikon uç ; -60 °C ile 200 °C sıcaklıklarda kullanılır. Aralıklı olarak 250 °C ye kadar dayanıklıdır. Esneklik özelliği , hava direnci ve ozon dayanımı yüksektir. Yüksek mekanik özellikler gerektiren uygulamalarda önerilmez. Bu durumda metal uçlarımız önerilir.
- Doğal Kauçuk Uç; -50 derece ile 90 derece sıcaklıklarda kullanılır. Özgül ağırlığı 1,8'dir Sertliği 20 A ile 90 A shore arasındadır Çekme gerilmesi 250-300kg/cm2 dir Uzama katsayısı %500-700 arasındadır. Doğal kauçuğun önemli bir başka özelliği de yük ve gerilim altında da yapısının düzünleşmesidir. Bu özelliğinden dolayı yapısında kuvvetlendirici dolgu maddesi olmasa bile kopma mukavemet değerleri artmaktadır; sürtünme ve aşınma direnci yüksektir.

başlanmış pimler sayesinde mukavemet bakımından hiç problem yaşamadan ağır iş uygulamalarda uzun çalışma sürelerine ulaşmaları sağlanmıştır.

- Pnömatik Swing Bağlantı Elemanlarımızda ; çalışma ömrünü uzatan toz kapaklı koçulmuştur. Özel bir tasarım ile tekrarlama hassasiyeti sağlanmıştır.

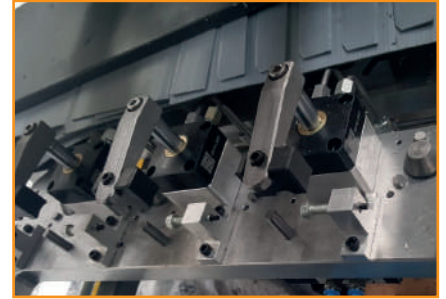
- All our standard model toggle clamps are manufactured from high grade steel
- Special designed of our R304 quality stainless steel rivets minimize wear and ensure long endurance.
- Bushings hardened by heat treatment reduce wear
- Lubricated hinges ensure easy operation and wear resistance
- Polyurethane oil resistant ergonomic handle; for easy operation, is impact resistant and flexible. No Cadmium. Softens at 80 °C, melts at 180 °C For high temperatures we advice metal handles.
- The silicon squeeze part can be used in temperatures between -60 °C and 200 °C It can handle peaks in temperature up to 250 °C It is flexible and highly resistant to air pressure and ozone It is not suited for applications needing strong mechanical properties. For these applications we advice metal squeeze parts
- Natural Rubber Tip: It is used at temperatures between -50 degrees and 90 degrees Its specific gravity is 1,8 kg Its hardness is between 20 A and 90 A shore. The tensile stress is 250-300kg/cm<sup>2</sup> The elongation coefficient is between 500-700%. Another important feature of natural rubber is its smoothing under load and tension. Due to this feature, even if there is no reinforcing filler in its structure, its breaking strength values increase and its friction and wear resistance are high.
- The modular series is thanks to the forged steel arms, hardened bushings and grinded pins capable of handling the heaviest jobs with long endurance without any problem.
- Our pneumatic swing clamps are equiped with a dust guard to prolong their lifespan. Our special design ensures a high accuracy in repeating cycles.

## ÖZEL KULLANIM ALANLARI İÇİN BAĞLANTI ELEMANLARI

Toggle clamps for specialized applications:

Bağlantı elemanı olan ürün gamımızın büyük bölümü , ST52 çelik , paslanmaz çelik ve siyah seri olarak da mevcuttur. Bu ürünler, ürün kodlarının önüne gelen S ve B harflerinden tanınabilir. Satış ekibimiz seçiminizi yapmanıza yardımcı olmaktan mutluluk duyar.

A wide range of our toggle clamps is available in ST52 grade steel, stainless steel and in all black. These models can be identified by the letters S and B in front of the product code respectively. Our sales team will be happy to assist you to make the right choice.



## PASLANMAZ ÇELİK SERİSİ

Stainless Steel Series

Sıkı hijyen gereksinimlerine tabi veya paslanmaya ve aside karşı yüksek mukavemet gerektiren uygulamalar için ideal çözümdür. Örneğin ; gıda , kimya ve ilaç sanayileri için uygundur. Paslanmaz çelik bağlantı elemanlarının ağır çevre şartlarına maruz kalınan uygulamalar için de kullanılması tavsiye edilir.

Paslanmaz Çeliğin En Önemli Faydaları:

- Asit ve korozyona karşı mukavemetli
- Anti-magnetik
- Boya veya ek kaplamaya gerek olmaz.

The product of choice for applications where stringent hygiene requirements or high corrosion and acid resistance is needed. For example in the Food, Chemical and Pharmaceutical industries. Stainless steel clamps and latches are also ideal for use in outdoor applications where they are subjected to harsh weather conditions.

The main benefits of stainless steel are:

- Very high corrosion and acid protection against environmental influences
- Anti-magnetic properties
- No need for extra coating.

## SİYAH SERİSİ

Black Series

Siyah serisi ; özel olarak optik ölçüm uygulamaları için geliştirilmiştir. Uygulanan mat siyah fosfat kaplama ışık ve lazer ışınlarının yansımalarını önlerken aynı zamanda paslanmaya karşı da koruma sağlar. Bu bağlantı elemanlarının ışık yansıtma özelliği sayesinde ölçüm verilerinin alınması esnasında kolayca bağlanan iş parçası izole edilir ve daha yüksek kalite ölçüm verisi toplanabilmesini sağlar.

The black series is purpose designed for use with optical measurement applications. The application of a matt black phosphate coating prevents the reflection of light or laser beams, whilst also providing corrosion protection. The non-reflective properties of these clamps enable them to be isolated from the work piece easily while processing the measurement data and drastically improve data quality.



**PNÖMATİK  
BAĞLANTI ELEMANLARI  
PNEUMATIC  
TOGGLE CLAMPS**



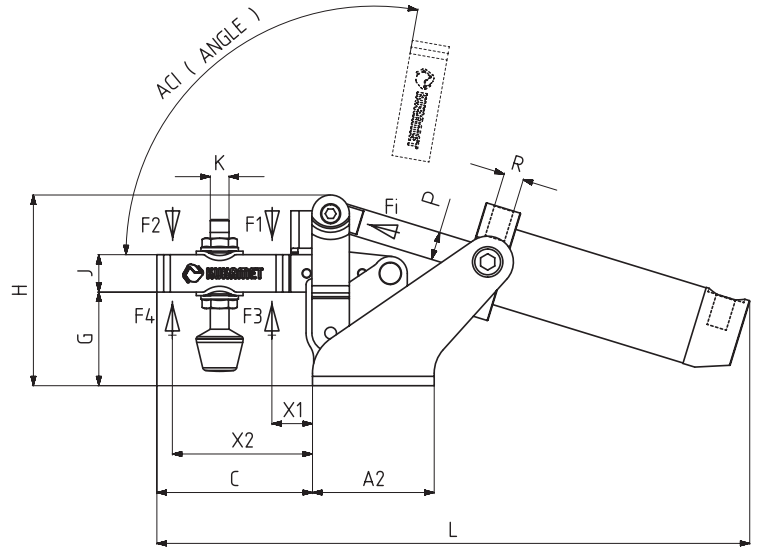
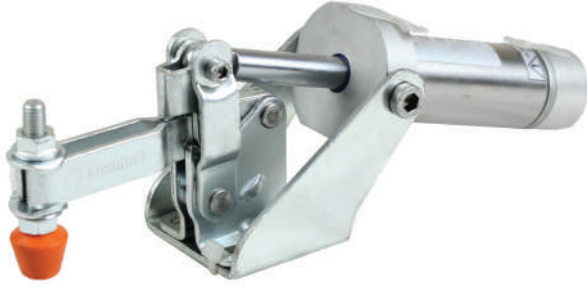
*üretim hızı ve güçlü kahramanları...  
fast and strong heroes of production...*



MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5 °)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
611 - 1 - Q16	600	400	1000	680	120	0,09	95°	275	6
611 - 1 - Q20	750	500	1000	680	190	0,14	95°	360	6
611 - 2	1200	700	1400	925	300	0,25	95°	535	6
611 - 3	2000	1400	2500	1560	500	0,51	95°	860	6
611 - 4	3000	2000	3300	2200	750	1,04	95°	1690	6
611 - 5	4500	2500	5000	3000	1100	2	95°	3090	6

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ), F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

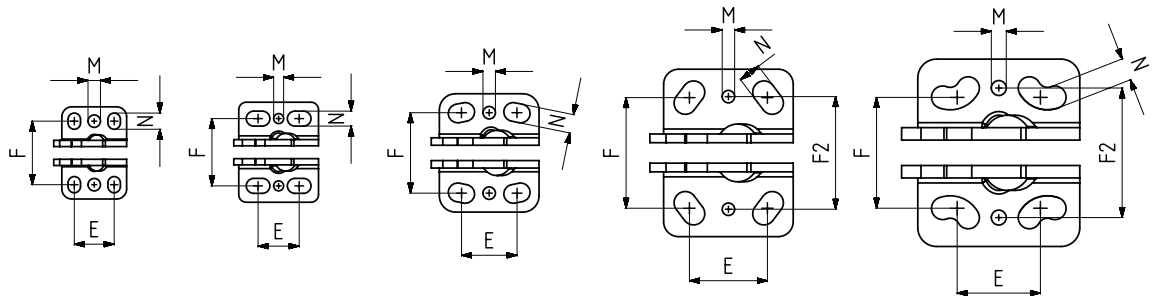
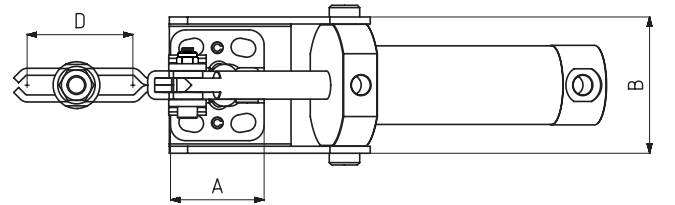
Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



### Ayak Tipi: Yatay Tabanlı, Ön Bağlantılı

### Body Mounting Base: Horizontal, Tied front

Pistonlar çift etkili, manyetik ve yastıklıdır.  
 Pneumatic cylinders are double acting, magnetic and cushioning.



MODEL NO : 611-1

MODEL NO : 611-2

MODEL NO : 611-3

MODEL NO : 611-4

MODEL NO : 611-5



612

Sayfa/Page: 80



211

Sayfa/Page: 17

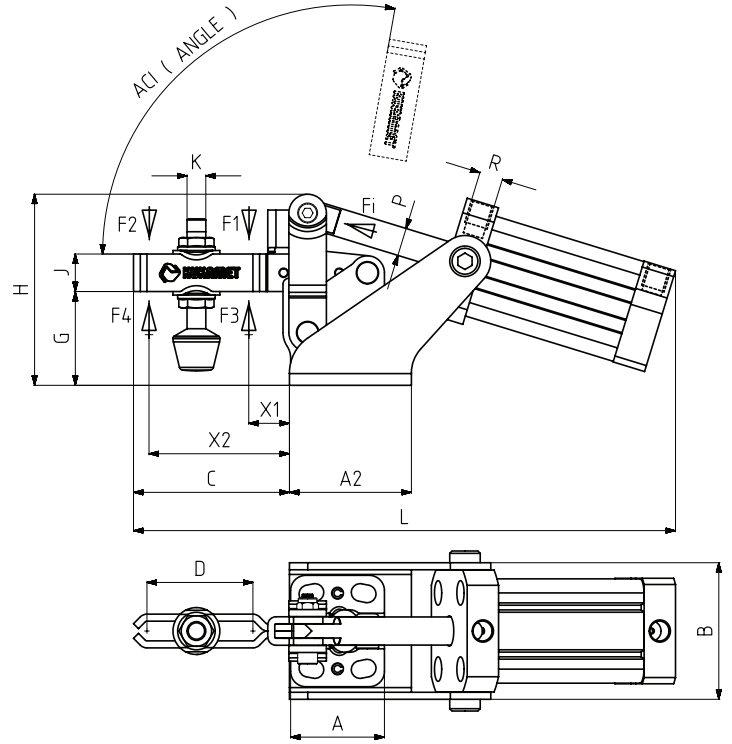
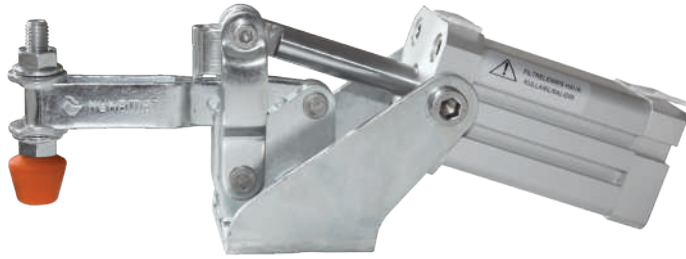
MODEL NO	A	A2	B	C	D	E	F	F2	G	H	J	K	L	M	N	X1	X2	P	R	PİSTON Ø
611 - 1 - Q16	26	34	44	42	26	16	25,5	25,5	25	52	10	M5	185	Ø5	5 x 6,5	16	32	Ø 6	M5	16
611 - 1 - Q20	26	34	44	44	26	16	25,5	25,5	25	52	10	M5	192	Ø5	5 x 6,5	16	32	Ø 8	G1/8	20
611 - 2	32	42	51	60	42	16,5	27	27	29	61	13	M6	225	Ø4	6 x 9,5	18	48	Ø 10	G1/8	25
611 - 3	40	52	58	66,5	42	22,5	32,3	32,3	40	81,5	16	M 8	253,5	Ø5	7,5 x 10,5	25	52	Ø 12	G1/8	32
611 - 4	52	95	77	98,5	67	31,5	44,5	45,2	50	104	20	M10	323	Ø5	9 x 14,5	32	80	Ø 16	G1/8	40
611 - 5	65	134	92	124	88	33,5	44,5	52	62	128	25	M12	399	Ø6	9 x 19,5	36	101	Ø 20	G1/8	50

MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5°)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
612 - 2	1200	700	1400	925	300	0,25	95°	535	6
612 - 3	2000	1400	2500	1560	500	0,51	95°	860	6

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

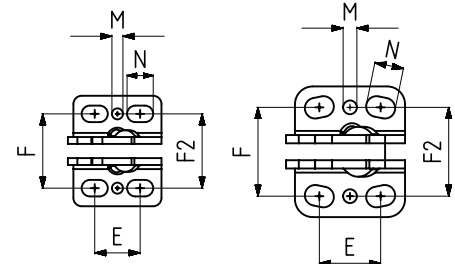
612



**Ayak Tipi: Yatay Tabanlı, Ön Bağlantılı**  
 Body Mounting Base: Horizontal, Tied Front

**Sensör Kanallı - Kare Pistonlu**  
 With Square Piston and Sensor Slot

**Pistonlar çift etkili, manyetik ve yastıklıdır.**  
 Pneumatic cylinders are double acting, magnetic and cushioning.



MODEL NO : 612-2

MODEL NO : 612-3



MODEL NO	A	A2	B	C	D	E	F	F2	G	H	J	K	L	M	N	X1	X2	P	R	PİSTON Ø
612 - 2	32	42	51	60	42	16,5	27	27	29	61	13	M6	203	Ø4	6 x 9,5	18	48	Ø 10	G1/8	25
612 - 3	40	52	58	66,5	42	22,5	32,3	32,3	40	81,5	16	M 8	231	Ø5	7,5 x 10,5	25	52	Ø 12	G1/8	32

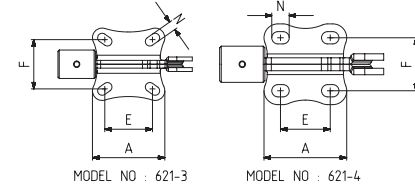
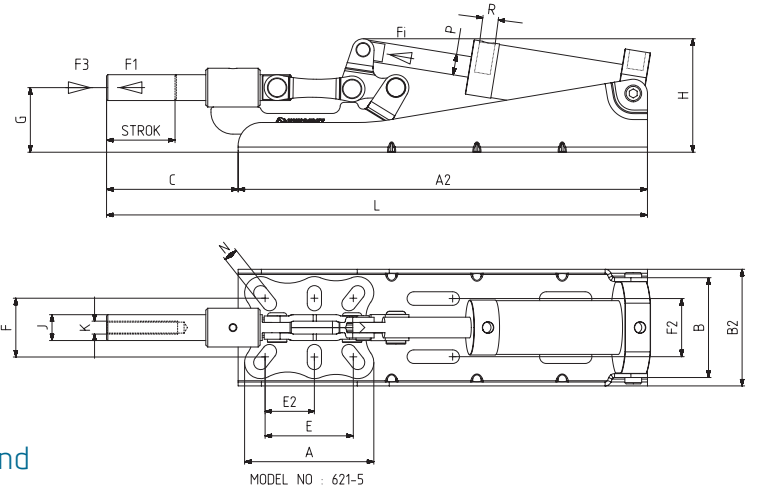


621



MODEL NO	F1 (N)	F3 (N)	Fi (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
621 - 3 (Ø 12)	1500	2960	300	0.25	23	1140	6
621 - 3 (Ø 14)	2500	3200	500	0.51	23	1310	6
621 - 4 (Ø 16)	4500	6650	750	1.04	33	2230	6
621 - 4 (Ø 18)	4500	7200	750	1.04	33	2260	6
621 - 5 (Ø 20)	7500	15000	1100	2	42	3860	6

F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )  
 Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

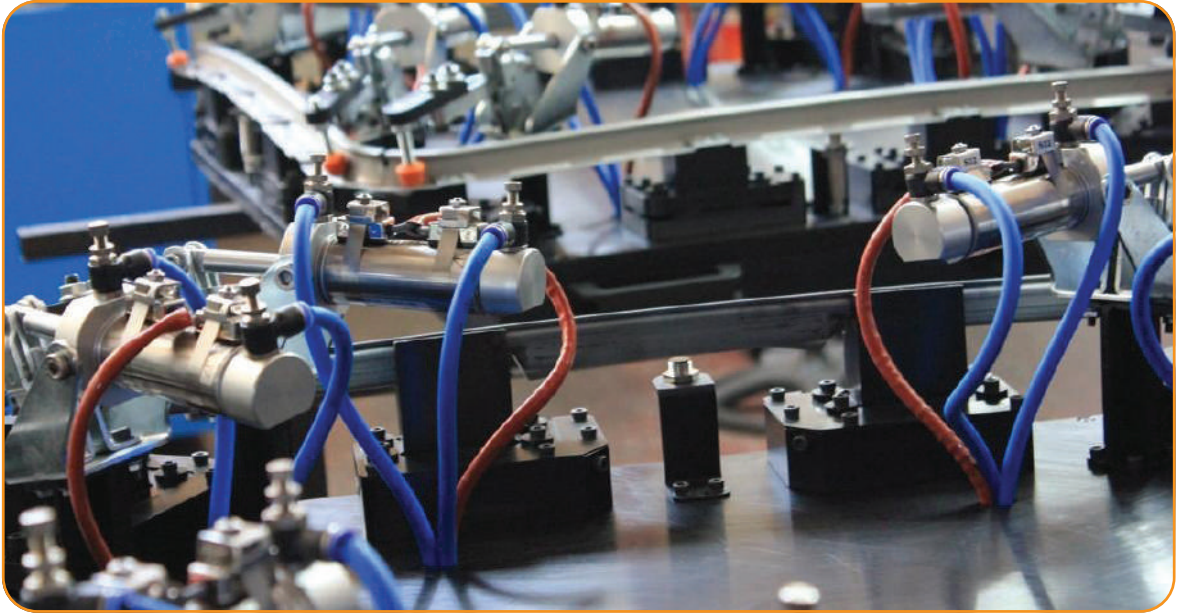


### Ayak Tipi: Yatay Tabanlı, Kaynaklı, Arka Bağlantılı

Body Mounting Base: Horizontal With Welding, Tied Behind



**Pistonlar çift etkili, manyetik ve yastıklıdır.**  
 Pneumatic cylinders are double acting, magnetic and cushioning.

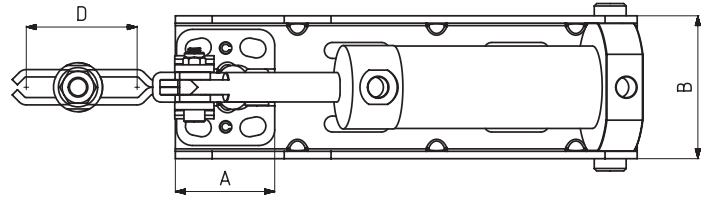
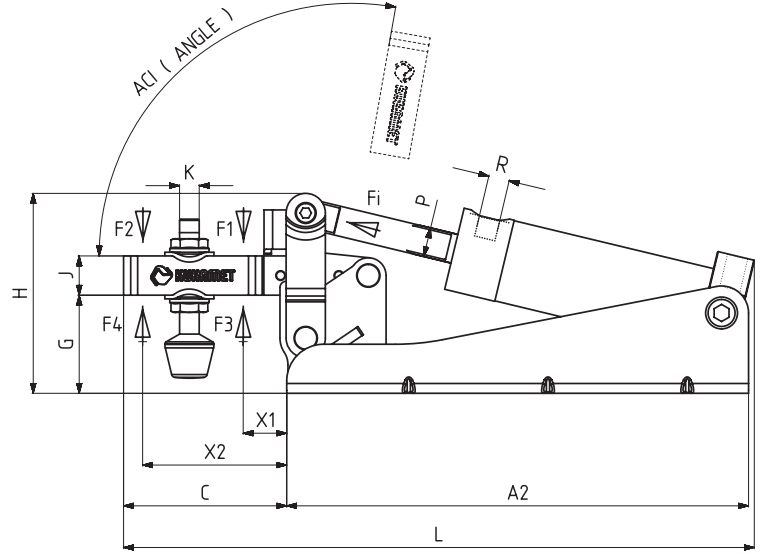
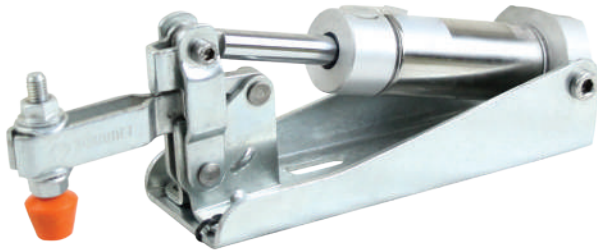


MODEL NO	A	A2	B	B2	C	E	E2	F	F2	G	H	J	K	L	N	P	R	PİSTON Ø
621 - 3 (Ø 12)	56	226	51	68	70	37	-	38	35	35	65	12	M8	296	7 x 12	Ø 10	G1/8	25
621 - 3 (Ø 14)	56	243	58	68	70	37	-	38	35	35	71.5	14	M8	314	7 x 12	Ø 12	G1/8	32
621 - 4 (Ø 16)	64	289	77	78	84	38,5	-	41	41	43	89	16	M10	375	9,5x13,5	Ø 16	G1/8	40
621 - 4 (Ø 18)	64	289	77	78	84	38,5	-	41	41	43	89	18	M10	375	9,5x13,5	Ø 16	G1/8	40
621 - 5 (Ø 20)	100	355	79	92	101	68	38	45,5	45	51	105	20	M12	460	11 x 22	Ø 20	G1/8	50

MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5°)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
631 - 1	750	500	1000	680	190	0,14	95°	470	6
631 - 2	1200	700	1400	925	300	0,25	95°	765	6
631 - 3	2000	1400	2500	1560	500	0,51	95°	1100	6
631 - 4	3000	2000	3300	2200	750	1,04	95°	2020	6
631 - 5	4500	2500	5000	3000	1100	2	95°	3610	6

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ), F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

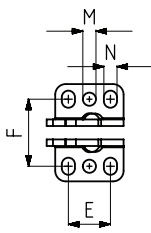
Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



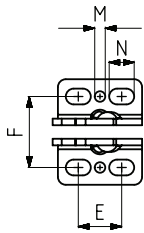
### Ayak Tipi: Yatay Tabanlı, Arka Bağlantılı

Body Mounting Base: Horizontal, Tied Behind

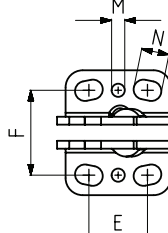
Pistonlar çift etkili, manyetik ve yastıklıdır.  
 Pneumatic cylinders are double acting, magnetic and cushioning



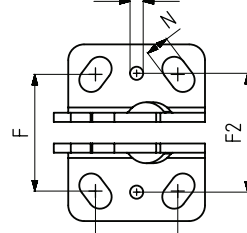
MODEL NO : 631-1



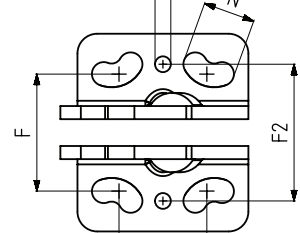
MODEL NO : 631-2



MODEL NO : 631-3



MODEL NO : 631-4



MODEL NO : 631-5



611

Sayfa/Page: 79



612

Sayfa/Page: 80

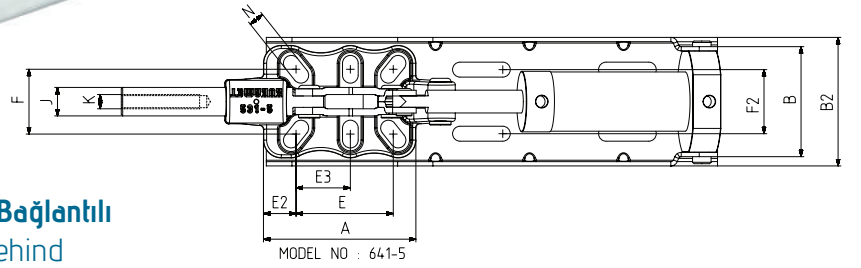
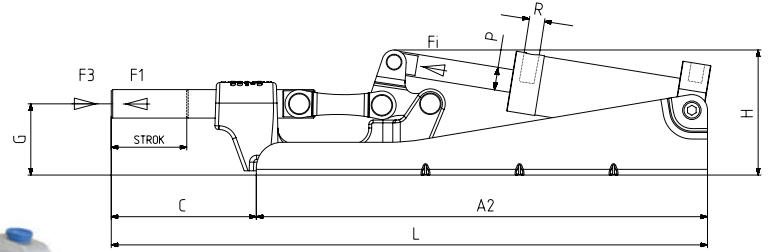
MODEL NO	A	A2	B	C	D	E	F	F2	G	H	J	K	L	M	N	X1	X2	P	R	PİSTON Ø
631 - 1	26	151,5	44	42	26	16	25,5	25,5	25	52	10	M5	194,5	Ø5	5 x 6,5	16	32	Ø 8	G1/8	20
631 - 2	32	171	51	60	42	16,5	27	27	29	61	13	M6	232	Ø4	6 x 9,5	18	48	Ø 10	G1/8	25
631 - 3	40	188	58	66,5	42	22,5	32,3	32,3	40	81	16	M8	257	Ø5	7,5 x 10,5	25	52	Ø 12	G1/8	32
631 - 4	52	227	77	98,5	67	31,5	44,5	45,2	50	104	20	M10	330	Ø5	9 x 14,5	32	80	Ø 16	G1/8	40
631 - 5	65	275	92	125	88	33,5	44,5	52	62	128	25	M12	400	Ø6	9 x 19,5	36	101	Ø 20	G1/8	50



MODEL NO	F1 (N)	F3 (N)	Fi (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%)	BAR
641 - 3 (Ø 12)	1500	3700	300	0.25	23	1370	6
641 - 3 (Ø 14)	2500	4000	500	0.51	23	1550	6
641 - 4 (Ø 16)	4500	8100	750	1.04	33	2560	6
641 - 4 (Ø 18)	4500	8800	750	1.04	33	2570	6
641 - 5 (Ø 20)	7500	18450	1100	2	42	4280	6

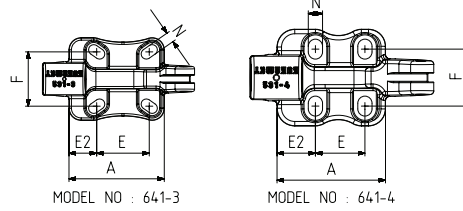
F1 : BASKI KUVVETİ ( EXERTING FORCE ), F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



### Ayak Tipi: Yatay Tabanlı, Döküm Gövdeli, Arka Bağlantılı

Body Mounting Base: Horizontal, Casting, Tied Behind



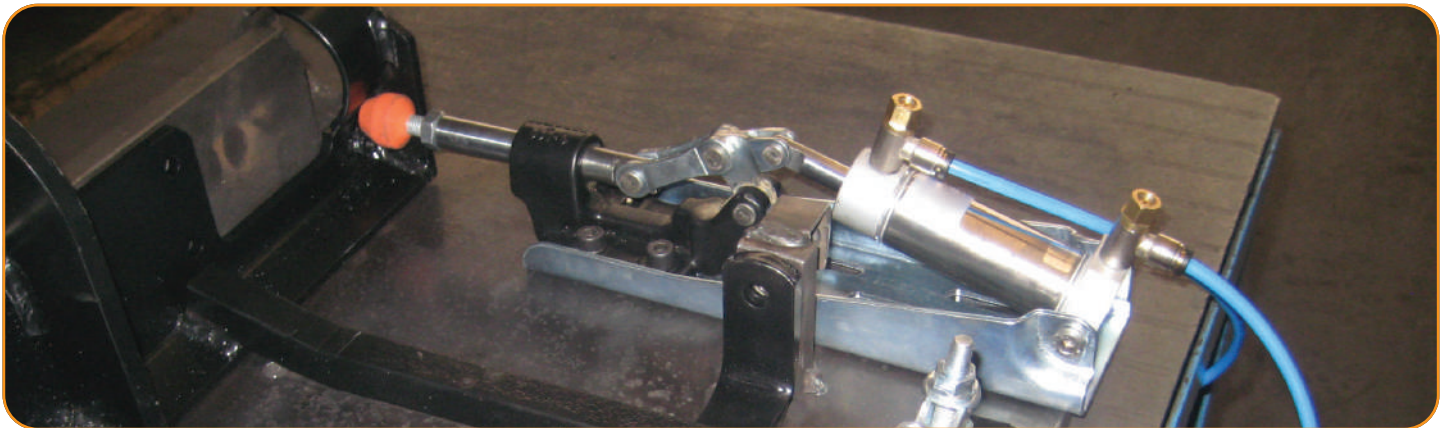
621  
Sayfa/Page: 81



533  
Sayfa/Page: 69



672  
Sayfa/Page: 89



#### Pistonlar çift etkili, manyetik ve yastıklıdır

Pneumatic cylinders are double acting, magnetic and cushioning

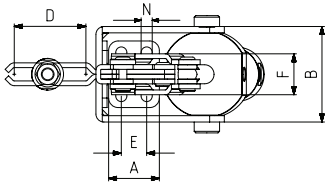
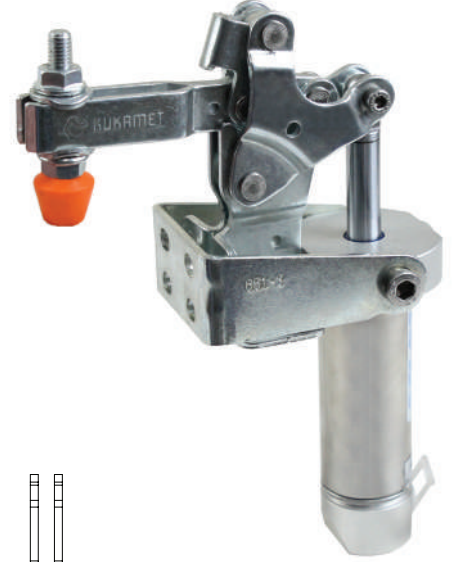
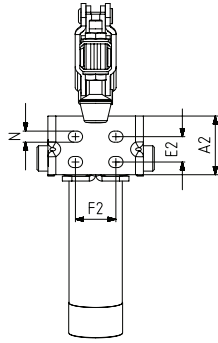
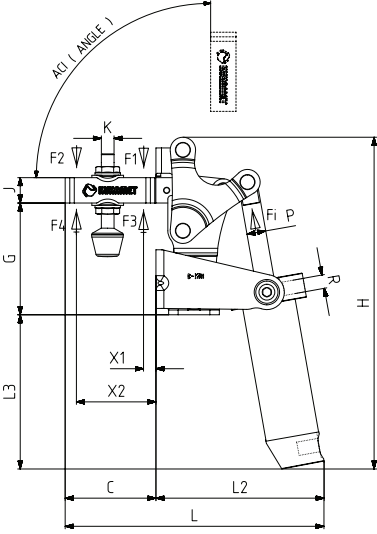
MODEL NO	A	A2	B	B2	C	E	E2	E3	F	F2	G	H	J	K	L	N	P	R	PİSTON Ø
641 - 3 (Ø 12)	67	226	51	68	70	37	19,5	-	38	35	35	65	12	M8	296	7 x 12	Ø 10	G1/8	25
641 - 3 (Ø 14)	67	243	58	68	70	37	19,5	-	38	35	35	72	14	M8	314	7 x 12	Ø 12	G1/8	32
641 - 4 (Ø 16)	76	289	77	78	84	34,5	27	-	40	41	42	87	16	M10	375	10x14	Ø 16	G1/8	40
641 - 4 (Ø 18)	76	289	77	78	84	34,5	27	-	40	41	42	87	18	M10	375	10x14	Ø 16	G1/8	40
641 - 5 (Ø 20)	107	355	79	92	101	68	23	38	45,5	45	51	105	20	M12	460	11 x 22	Ø 20	G1/8	50

651


**Ayak Tipi: Dik Tabanlı**  
 Body Mounting Base: Vertical

MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5°)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
651 - 2	1200	700	1400	925	300	0.25	90°	570	6
651 - 3	2000	1400	2500	1560	500	0.51	90°	910	6
651 - 4	3000	2000	3300	2200	750	1.04	90°	1945	6
651 - 5	4500	2500	5000	3000	1100	2	90°	3678	6

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

 Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )


MODEL NO : 651-2

MODEL NO : 651-3

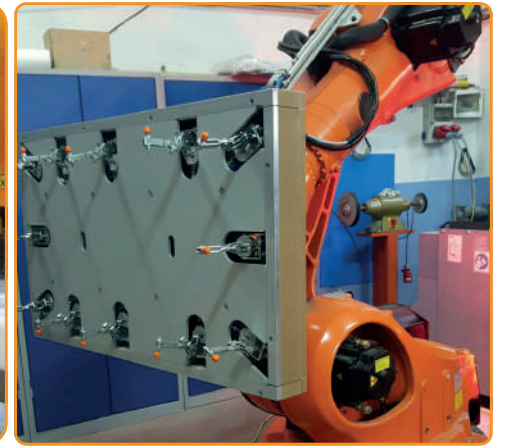
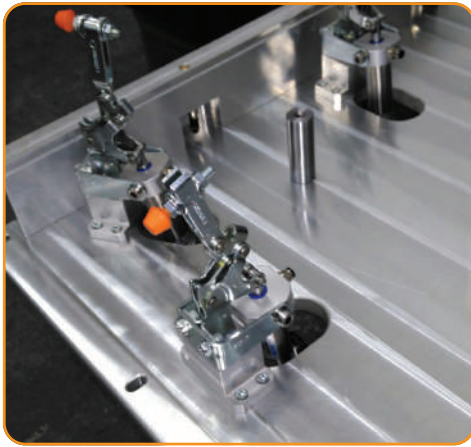
MODEL NO : 651-4

MODEL NO : 651-5


 651-H  
 Sayfa/Page: 85

 611  
 Sayfa/Page: 79

 211  
 Sayfa/Page: 17

 251  
 Sayfa/Page: 42

**Pistonlar çift etkili, manyetik ve yastıklıdır.**

Pneumatic cylinders are double acting, magnetic and cushioning.

MODEL NO	A	A2	B	C	D	E	E2	F	F2	G	H	J	K	L	L2	L3	N	X1	X2	P	R	PİSTON Ø
651 - 2	26	26	51	54	42	12,5	12,5	27	27	65	180	13	M6	146	92	82	6x8	12	42	Ø 10	G1/8	25
651 - 3	32	32	60	57	42	16	16	25,5	25,5	70,5	210	16	M8	164	106	98	7x9	15	42	Ø 12	G1/8	32
651 - 4	50	50	79	89	67	32	32	45	45	100	255	20	M10	230	141	101	9	22	70	Ø 16	G1/8	40
651 - 5	65	65	91	113	94	41,5	41,5	57	57	130	311	25	M12	286	172	114	11	25	91	Ø 20	G1/8	50

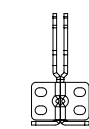
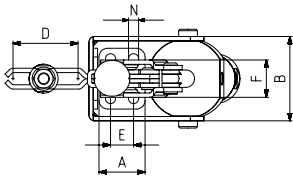
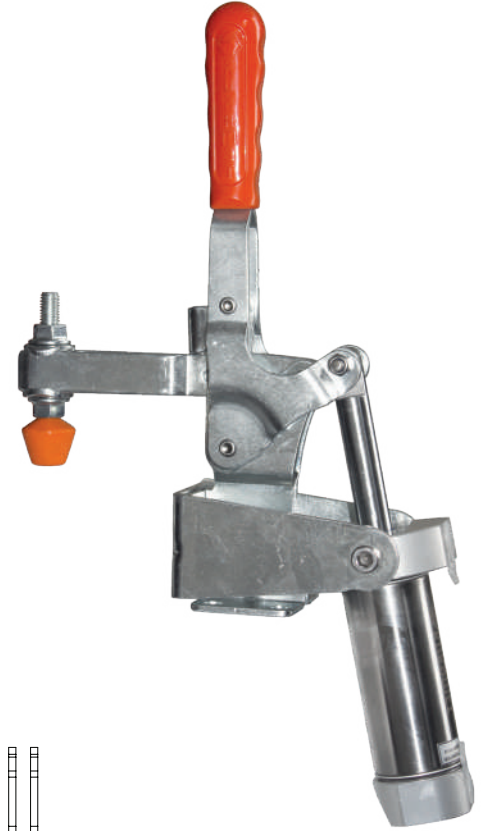
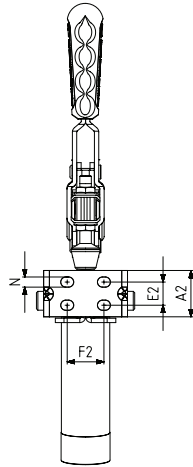
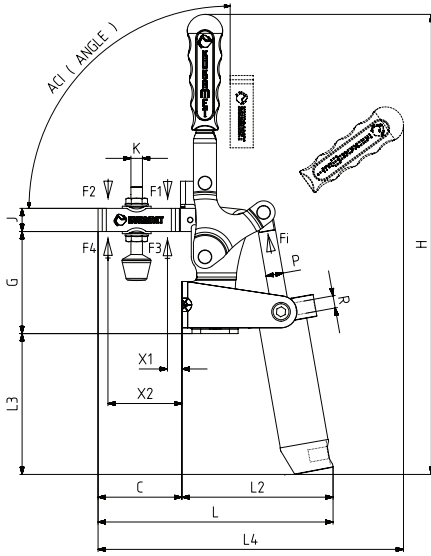


MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5°)	AĞIRLIK (WEIGHT) (gr ±%)	BAR
651 - 2 - H	1200	700	1400	925	300	0,25	90°	620	6
651 - 3 - H	2000	1400	2500	1560	500	0,51	90°	985	6
651 - 4 - H	3000	2000	3300	2200	750	1,04	90°	2100	6
651 - 5 - H	4500	2500	5000	3000	1100	2	90°	3900	6

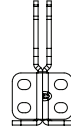
F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ), F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

Vn, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

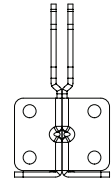
**Ayak Tipi: Dik Tabanlı, Kollu**  
Body Mounting Base: Vertical and with handle



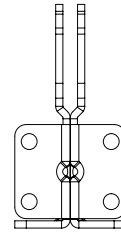
MODEL NO : 651-2-H



MODEL NO : 651-3-H



MODEL NO : 651-4-H



MODEL NO : 651-5-H



652  
Sayfa/Page: 86



251  
Sayfa/Page: 42



651  
Sayfa/Page: 84



**Pistonlar çift etkili, manyetik ve yastıklamalıdır**  
Pneumatic cylinders are double acting, magnetic and cushioning

MODEL NO	A	A2	B	C	D	E	E2	F	F2	G	H	J	K	L	L2	L3	L4	N	X1	X2	P	R	PİSTON Ø
651 - 2 - H	26	26	51	54	42	12,5	12,5	27	27	65	261	13	M6	146	92	82	174	6x8	12	42	Ø 10	G1/8	25
651 - 3 - H	32	32	60	57	42	16	16	25,5	25,5	70,5	318	16	M8	164	106	98	212	7x9	15	42	Ø 12	G1/8	32
651 - 4 - H	50	50	79	89	67	32	32	45	45	100	393	20	M10	230	141	101	287	9	22	70	Ø 16	G1/8	40
651 - 5 - H	65	65	91	113	94	41,5	41,5	57	57	130	447	25	M12	286	172	114	333	11	25	91	Ø 20	G1/8	50



652



MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5 °)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
652 - 2	1200	700	1400	925	300	0,25	90 °	570	6
652 - 3	2000	1400	2500	1560	500	0,51	90 °	910	6

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ), F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

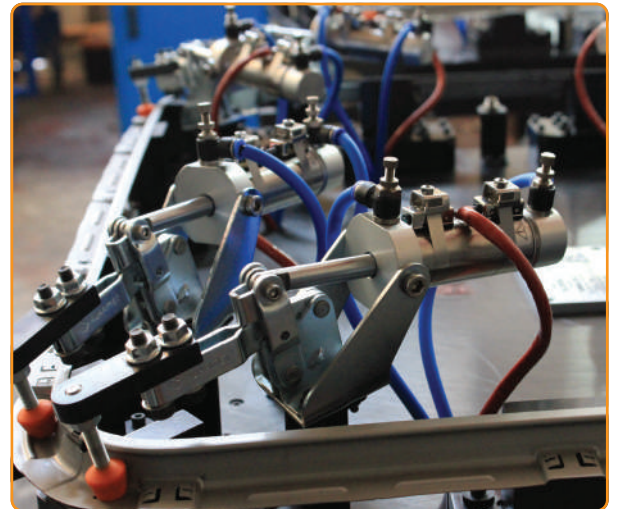
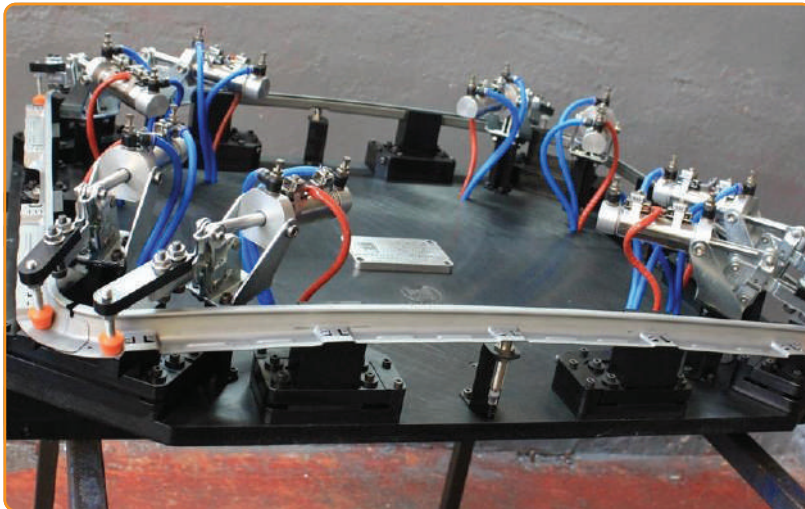
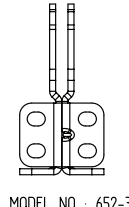
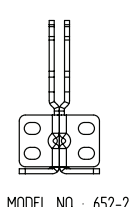
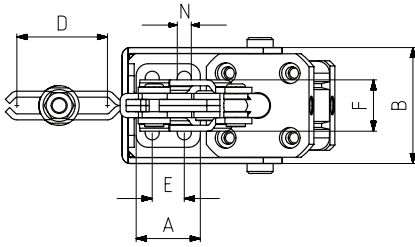
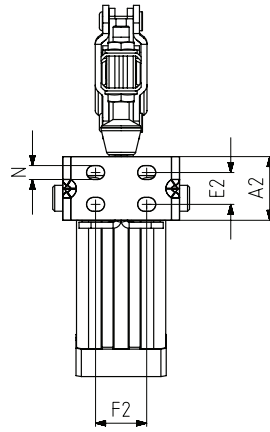
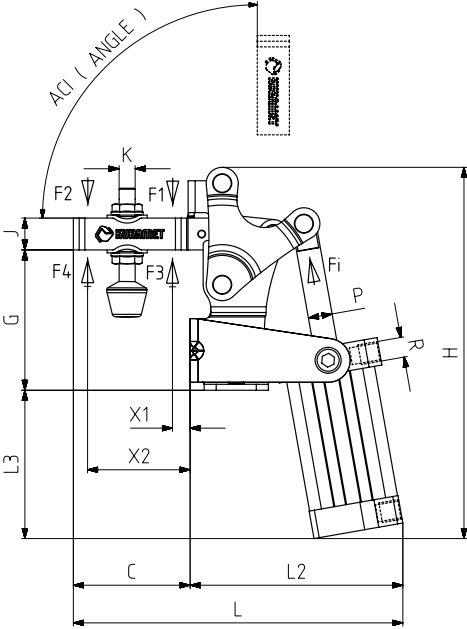
Vn, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR. ( Vn, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

**Ayak Tipi: Dik Tabanlı**

Body Mounting Base: Vertical

**Sensör Kanallı - Kare Pistonlu**

With Square Piston and Sensor Slot



**Pistonlar çift etkili, manyetik ve yastıklıdır.**

Pneumatic cylinders are double acting, magnetic and cushioning

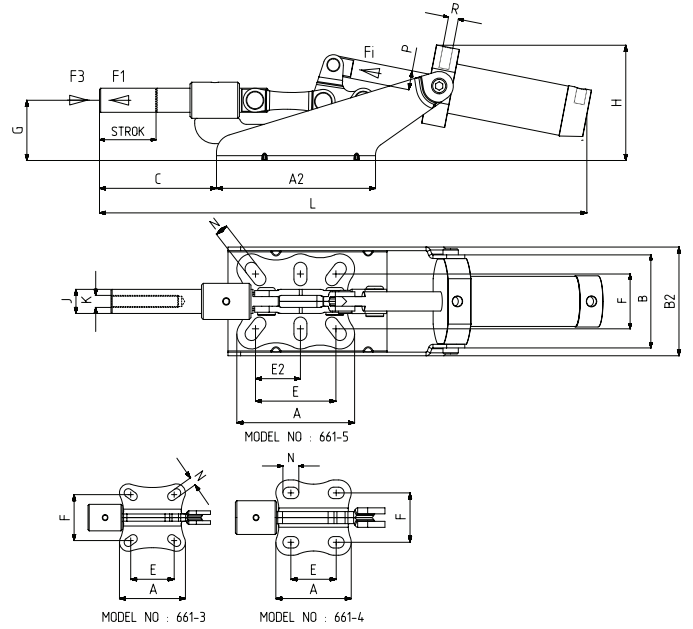
MODEL NO	A	A2	B	C	D	E	E2	F	F2	G	H	J	K	L	L2	L3	N	X1	X2	P	R	PİSTON Ø
652 - 2	26	26	51	54	42	12,5	12,5	27	27	65	156	13	M6	145	91	59	6x8	12	42	Ø 10	G1/8	25
652 - 3	32	32	60	57	42	16	16	25,5	25,5	70,5	188	16	M8	165	108	76	7x9	15	42	Ø 12	G1/8	32



MODEL NO	F1 (N)	F3 (N)	F <sub>i</sub> (N)	V <sub>n</sub> (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
661 - 3 (Ø 12)	1500	2960	300	0.25	23	880	6
661 - 3 (Ø 14)	2500	3200	500	0.51	23	1026	6
661 - 4 (Ø 16)	4500	6650	750	1.04	33	1816	6
661 - 4 (Ø 18)	4500	7200	750	1.04	33	1836	6
661 - 5 (Ø 20)	7500	15000	1100	2	42	3278	6

F1 : BASKI KUVVETİ (EXERTING FORCE), F3 : TUTMA KAPASİTESİ (HOLDING CAPACITY), F<sub>i</sub> : UYGULAMA KUVVETİ (APPLIED FORCE)

V<sub>n</sub>, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR (V<sub>n</sub>, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR)



**Ayak Tipi: Yatay Tabanlı, Kaynaklı, Ön Bağlantılı**  
 Body Mounting Base: Horizontal With Welding, Tied Front



621  
Sayfa/Page: 81



531  
Sayfa/Page: 66

**Pistonlar çift etkili, manyetik ve yastıklıdır.**  
 Pneumatic cylinders are double acting, magnetic and cushioning.

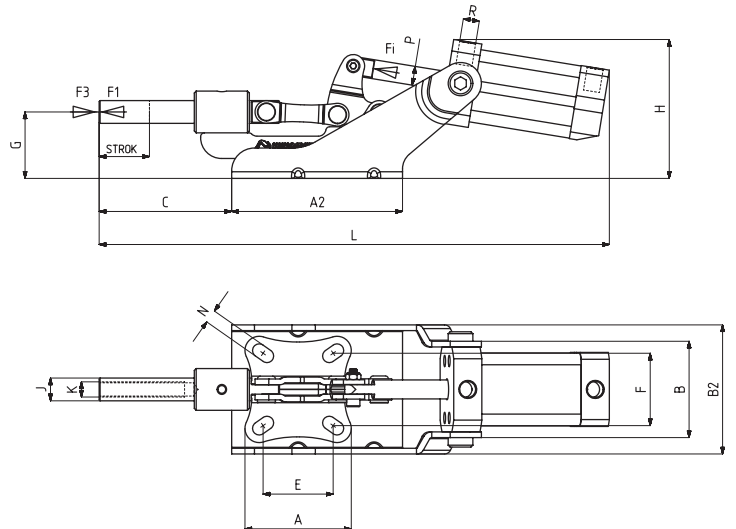
MODEL NO	A	A2	B	B2	C	E	E2	F	G	H	J	K	L	N	P	R	PİSTON Ø
661 - 3 (Ø 12)	56	90	51	68	70	37	-	38	35	72	12	M8	292	7 x 12	Ø 10	G1/8	25
661 - 3 (Ø 14)	56	100	58	68	70	37	-	38	35	79	14	M8	312	7 x 12	Ø 12	G1/8	32
661 - 4 (Ø 16)	64	115	77	78	84	38,5	-	41	43	100	16	M10	372	9.5 x 13.5	Ø 16	G1/8	40
661 - 4 (Ø 18)	64	115	77	78	84	38,5	-	41	43	100	18	M10	372	9.5 x 13.5	Ø 16	G1/8	40
661 - 5 (Ø 20)	100	170	79	92	101	68	38	45,5	51	110	20	M12	456	11 x 22	Ø 20	G1/8	50



MODEL NO	F1 (N)	F3 (N)	F <sub>i</sub> (N)	V <sub>n</sub> (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
662 - 3 (Ø 12)	1500	2960	300	0,25	23	880	6
662 - 3 (Ø 14)	2500	3200	500	0,51	23	1026	6

F1 : BASKI KUVVETİ (EXERTING FORCE), F3 : TUTMA KAPASİTESİ (HOLDING CAPACITY), F<sub>i</sub> : UYGULAMA KUVVETİ (APPLIED FORCE)

V<sub>n</sub>, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR (V<sub>n</sub>, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR)



**Ayak Tipi: Yatay Tabanlı, Kaynaklı, Ön Bağlantılı**  
 Body Mounting Base: Horizontal With Welding, Tied Front

**Sensör Kanallı - Kare Pistonlu**  
 With Square Piston and Sensor Slot



661  
Sayfa/Page: 87



533  
Sayfa/Page: 69



534  
Sayfa/Page: 71

**Pistonlar çift etkili, manyetik ve yastıklıdır.**  
 Pneumatic cylinders are double acting, magnetic and cushioning.

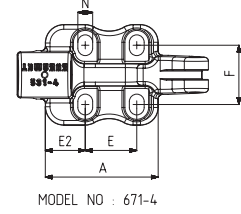
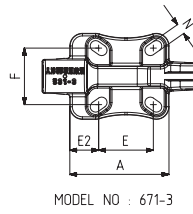
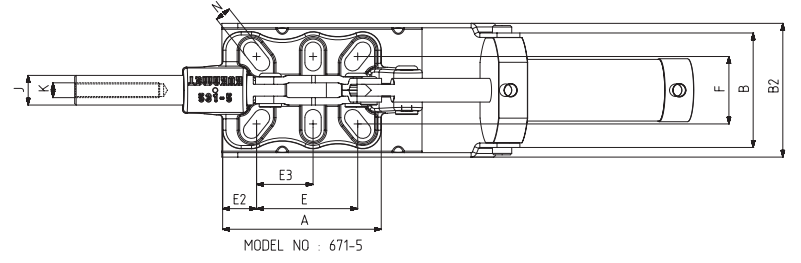
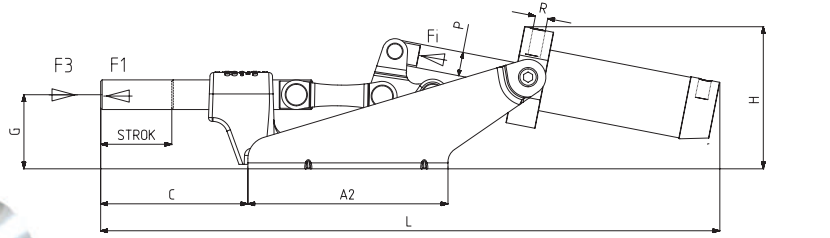
MODEL NO	A	A2	B	B2	C	E	F	G	H	J	K	L	N	P	R	PİSTON Ø
662 - 3 (Ø 12)	56	90	51	68	70	37	38	35	73	12	M8	268	7 x 12	Ø 10	G1/8	25
662 - 3 (Ø 14)	56	100	58	68	70	37	38	35	80	14	M8	288	7 x 12	Ø 12	G1/8	32

MODEL NO	F1 (N)	F3 (N)	Fi (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%)	BAR
671-3 (Ø 12)	1500	3700	300	0.25	23	1090	6
671-3 (Ø 14)	2500	4000	500	0.51	23	1250	6
671-4 (Ø 16)	4500	8100	750	1.04	33	2130	6
671-4 (Ø 18)	4500	8800	750	1.04	33	2140	6
671-5 (Ø 20)	7500	18450	1100	2	42	3640	6

F1 : BASKI KUVVETİ ( EXERTING FORCE ), F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

Vn, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

671



### Ayak Tipi: Yatay Tabanlı, Döküm Gövdeli, Ön Bağlantılı

Body Mounting Base: Horizontal, Casting, Tied Front



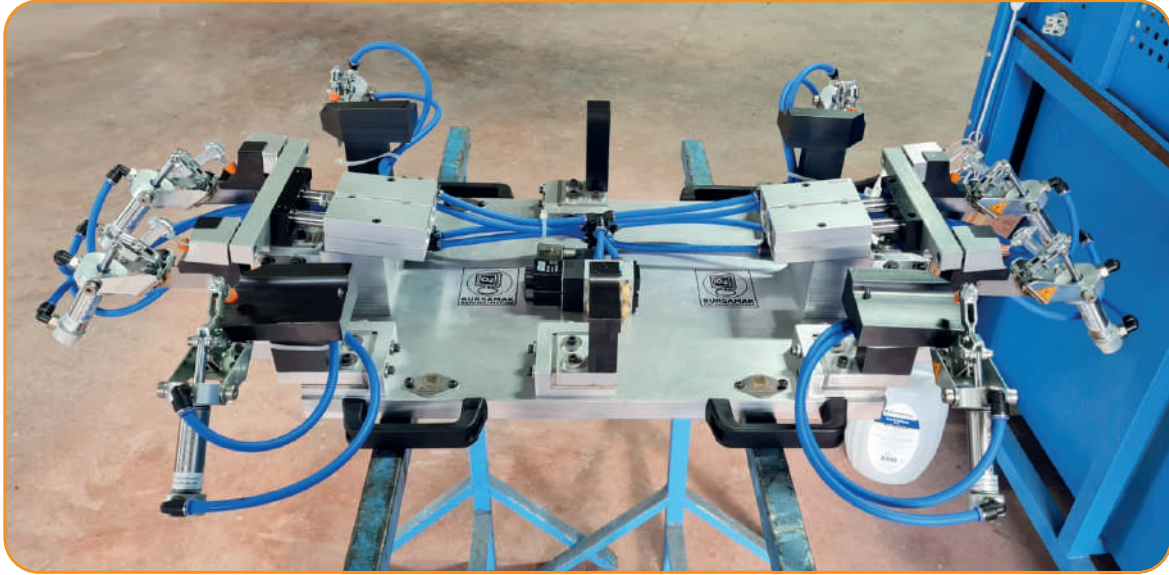
661  
Sayfa/Page: 87



662  
Sayfa/Page: 87



531  
Sayfa/Page: 66



### Pistonlar çift etkili, manyetik ve yastıklıdır.

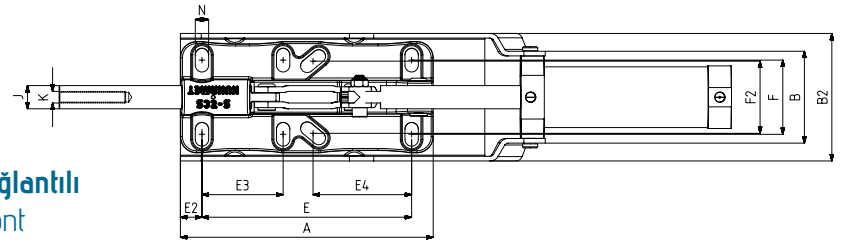
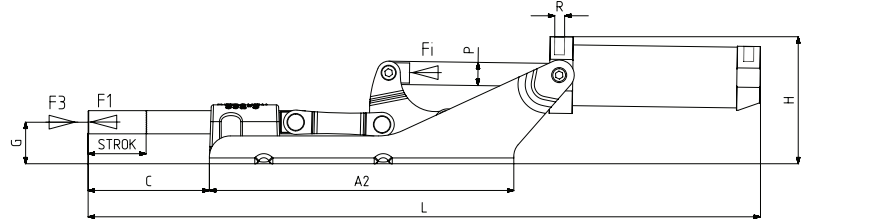
Pneumatic cylinders are double acting, magnetic and cushioning

MODEL NO	A	A2	B	B2	C	E	E2	E3	F	G	H	J	K	L	N	P	R	PİSTON Ø
671-3 (Ø 12)	67	90	51	68	70	37	19,5	-	38	35	72	12	M8	292	7 x 12	Ø 10	G1/8	25
671-3 (Ø 14)	67	100	58	68	70	37	19,5	-	38	35	79	14	M8	312	7 x 12	Ø 12	G1/8	32
671-4 (Ø 16)	76	115	77	78	84	34,5	27	-	40	42	100	16	M10	372	10 x 14	Ø 16	G1/8	40
671-4 (Ø 18)	76	115	77	78	84	34,5	27	-	40	42	100	18	M10	372	10 x 14	Ø 16	G1/8	40
671-5 (Ø 20)	107	170	79	92	101	68	23	38	45,5	51	110	20	M12	456	11 x 22	Ø 20	G1/8	50





MODEL NO	F1 (N)	F3 (N)	Fi (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
672 - 5 (Ø 20)	7500	18450	1100	2	95	5260	6
F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )							
Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm <sup>3</sup> AT 6 BAR )							



MODEL NO : 672-5

**Ayak Tipi: Yatay Tabanlı, Döküm Gövdeli, Ön Bağlantılı**  
Body Mounting Base: Horizontal, Casting, Tied Front



641 Sayfa/Page: 83    621 Sayfa/Page: 81    532 Sayfa/Page: 68

MODEL NO	A	A2	B	B2	C	E	E2	E3	E4	F	F2	G	H	J	K	L	N	P	R	PİSTON Ø
672 - 5 (Ø 20)	218	262,5	79	110	105	180,5	18,5	70	85	64	62,5	36	110	20	M12	578	11,5x20,5	Ø 20	G1/8	50



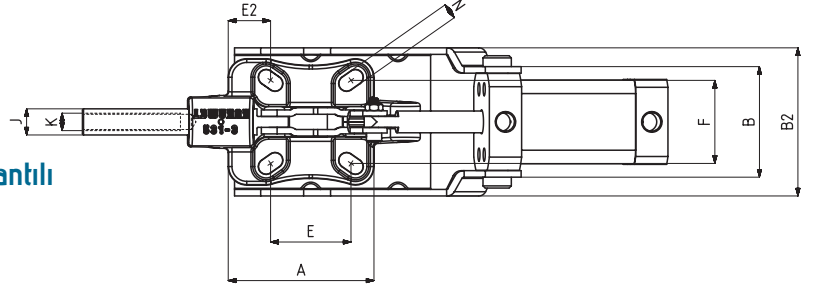
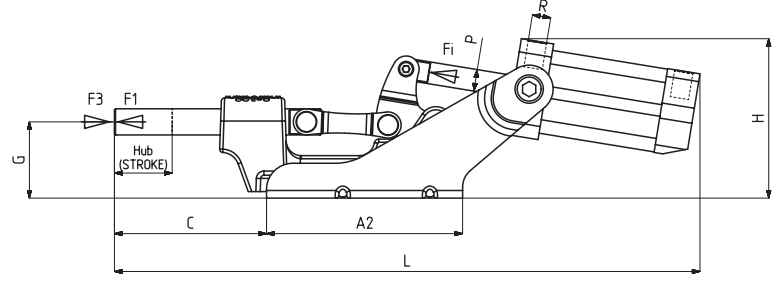
**Pistonlar çift etkili, manyetik ve yastıklıdır.**  
Pneumatic cylinders are double acting, magnetic and cushioning



MODEL NO	F1 (N)	F3 (N)	Fi (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
673 - 3 (Ø 12)	1500	3700	300	0,25	23	1090	6
673 - 3 (Ø 14)	2500	4000	500	0,51	23	1250	6

F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



**Ayak Tipi: Yatay Tabanlı, Döküm Gövdeli, Ön Bağlantılı**

Body Mounting Base: Horizontal, Casting, Tied Front

**Sensör Kanallı - Kare Pistonlu**

With Square Piston and Sensor Slot



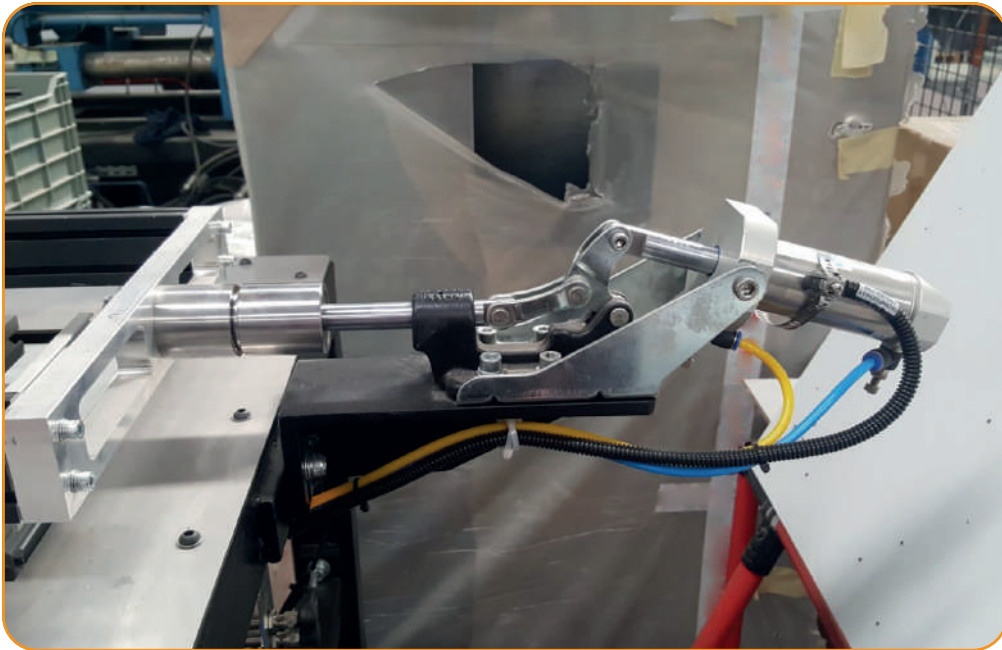
661  
Sayfa/Page: 87



533  
Sayfa/Page: 69



535-R-L  
Sayfa/Page: 72



**Pistonlar çift etkili, manyetik ve yastıklıdır**

Pneumatic cylinders are double acting, magnetic and cushioning

MODEL NO	A	A2	B	B2	C	E	E2	F	G	H	J	K	L	N	P	R	PİSTON Ø
673 - 3 (Ø 12)	67	90	51	68	70	37	19,5	38	35	73	12	M8	268	7 x 12	Ø 10	G1/8	25
673 - 3 (Ø 14)	67	100	58	68	70	37	19,5	38	35	80	14	M8	288	7 x 12	Ø 12	G1/8	32

**NOT : Pnömatik ürünlerin C1 , C2 , C3 lama boylarıdır.**

Note : C1,C2,C3 is the jaws length of the pneumatic products

**NOT : Pnömatik ürünlerin teknik detayları 79, 80, 82, 84, 85 ve 86 numaralı sayfalarda mevcuttur.**

Note : Technical details of pneumatic products are available at pages 79, 80, 82, 84, 85 and 86

611-D

MODEL NO	C1	C2	C3
611 - 1 - Ø16-D	44	94	144
611 - 1 - Ø20-D	44	94	144
611 - 2-D	62	112	162
611 - 3-D	67	117	167
611 - 4-D	100	150	200
611 - 5-D	130	180	230



612-D

MODEL NO	C1	C2	C3
612 - 2-D	62	112	162
612 - 3-D	67	117	167



631-D

MODEL NO	C1	C2	C3
631 - 1-D	44	94	144
631 - 2-D	62	112	162
631 - 3-D	67	117	167
631 - 4-D	100	150	200
631 - 5-D	130	180	230



**Ayak Tipi: Yatay Tabanlı,  
Ön Bağlantılı**

Body Mounting Base:  
Horizontal, Tied Front

**Ayak Tipi: Yatay Tabanlı,  
Ön Bağlantılı**

Body Mounting Base:  
Horizontal, Tied Front

**Ayak Tipi: Yatay Tabanlı,  
Arka Bağlantılı**

Body Mounting Base:  
Horizontal, Tied Behind

651-D

MODEL NO	C1	C2	C3
651 - 2-D	62	112	162
651 - 3-D	67	117	167
651 - 4-D	100	150	200
651 - 5-D	130	180	230



651-H-D

MODEL NO	C1	C2	C3
651 - 2 - H-D	62	112	162
651 - 3 - H-D	67	117	167
651 - 4 - H-D	100	150	200
651 - 5 - H-D	130	180	230



652-D

MODEL NO	C1	C2	C3
652 - 2-D	62	112	162
652 - 3-D	67	117	167



**Ayak Tipi: Dik Tabanlı**

Body Mounting Base: Vertical

**Ayak Tipi: Dik Tabanlı, Kollu**

Body Mounting Base:  
Vertical and with handle

**Ayak Tipi: Dik Tabanlı**

Body Mounting Base: Vertical



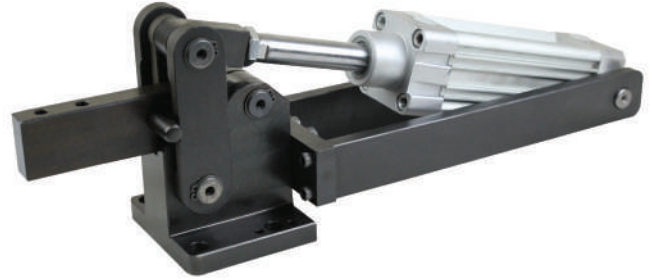
681



MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	F <sub>i</sub> (N)	V <sub>n</sub> (dm <sup>3</sup> )	AÇI (ANGLE) (± 5°)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
681 - 4	2500	1800	9000	6000	750	1.28	90°	5565	6
681 - 6	4000	2400	18000	12000	1150	2.5	90°	9660	6
681 - 8	6500	4000	30000	20000	1850	5.13	90°	20475	6

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , F<sub>i</sub> : UYGULAMA KUVVETİ ( APPLIED FORCE )

V<sub>n</sub> , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( V<sub>n</sub> , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



**Ayak Tipi: Yatay Tabanlı**  
Body Mounting Base: Horizontal

Pistonlar çift etkili, manyetik ve yastıklıdır.  
Pneumatic cylinders are double acting, magnetic and cushioning.



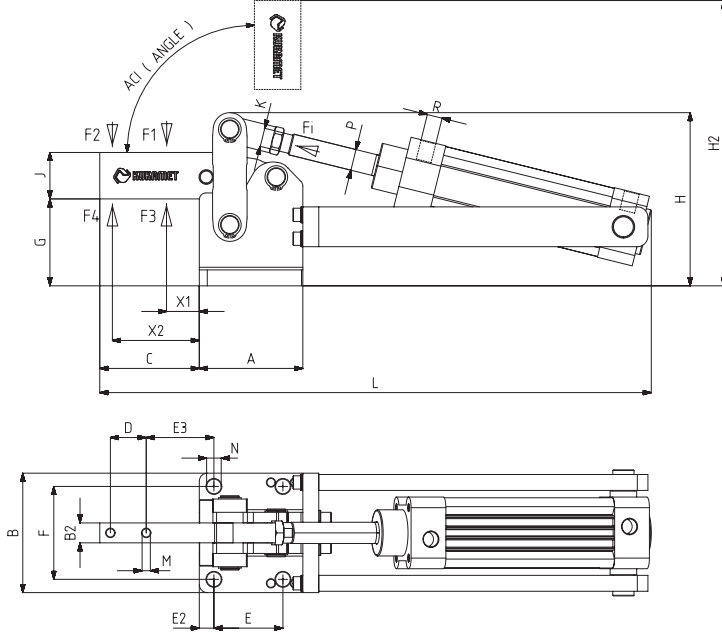
681-M  
Sayfa/Page: 92



682  
Sayfa/Page: 93

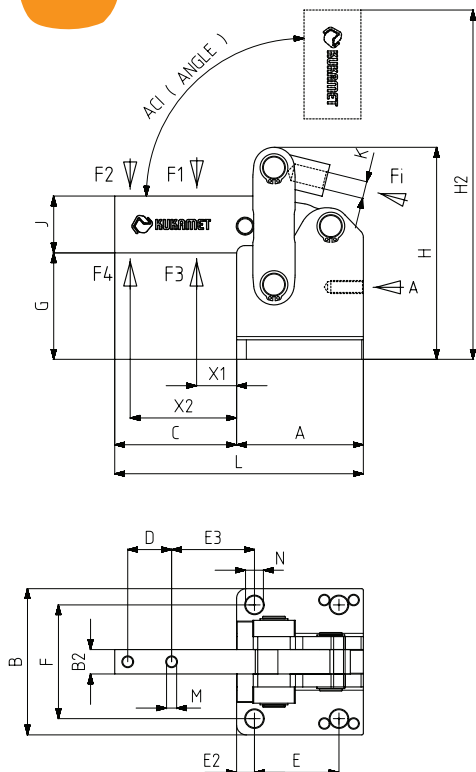


6031  
Sayfa/Page: 122



MODEL NO	A	B	B2	C	D	E	E2	E3	F	G	H	H2	J	K	L	M	N	X1	X2	P	R	PİSTON Ø	PİSTON STROK
681 - 4	77	90	15	75	27	52	10	47	70	65,5	131	216	35	M12X1,25	416	6,2	11	18	64	Ø16	G1/4	40	80
681 - 6	93	105	20	85	26	55	11	54	83	71	158	249	40	M16X1,50	483	8,2	12,5	18	69	Ø20	G1/4	50	100
681 - 8	125	145	30	115	40	80	15	67	115	94	212	336	60	M16X1,50	594	12,2	16,5	18	92	Ø20	G3/8	63	125

681-M

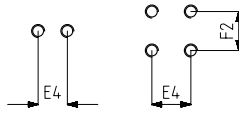


MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	F <sub>i</sub> (N)	V <sub>n</sub> (dm <sup>3</sup> )	AÇI (ANGLE) (± 5°)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
681-4-M	2500	1800	9000	6000	750	1,28	90°	2800	6
681-6-M	4000	2400	18000	12000	1150	2,5	90°	4600	6
681-8-M	6500	4000	30000	20000	1850	5,13	90°	11300	6

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , F<sub>i</sub> : UYGULAMA KUVVETİ ( APPLIED FORCE )

V<sub>n</sub> , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( V<sub>n</sub> , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

VIEW A



**Ayak Tipi: Yatay Tabanlı**  
Body Mounting Base: Horizontal

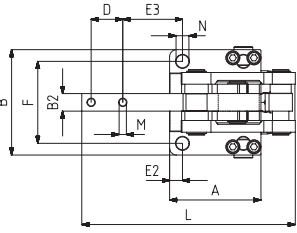
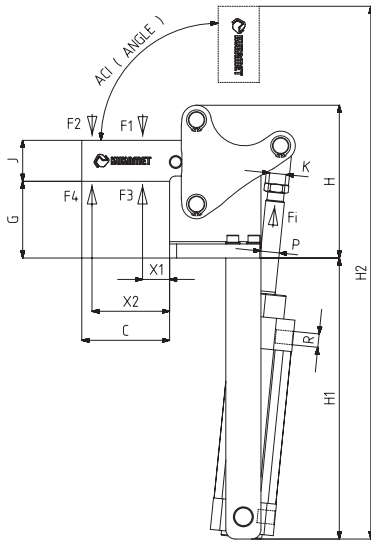


681  
Sayfa/Page: 92



252  
Sayfa/Page: 42

MODEL NO	A	B	B2	C	D	E	E2	E3	E4	F	F2	G	H	H2	J	K	L	M	N	X1	X2	P	R	PİSTON Ø	PİSTON STROK
681-4-M	77	90	15	75	27	52	10	47	18	70	-	65,5	131	215,5	35	M12X1,25	152	6,2	11	18	64	16	G1/4	40	80
681-6-M	93	105	20	85	26	55	11	54	24	83	24	71	158	249	40	M16X1,50	178	8,2	12,5	18	69	20	G1/4	50	100
681-8-M	125	145	30	115	40	80	15	67	34	115	40	94	212	336	60	M16X1,50	240	12,2	16,5	18	92	20	G3/8	63	125



MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5 °)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
682 - 4	2500	1800	9000	6000	750	1.28	90°	5590	6
682 - 6	4000	2400	18000	12000	1150	2.5	90°	9944	6
682 - 8	6500	4000	30000	20000	1850	5.13	90°	21269	6

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ), F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



### Ayak Tipi: Yatay Tabanlı

### Body Mounting Base: Horizontal

**Pistonlar çift etkili, manyetik ve yastıklıdır.**  
 Pneumatic cylinders are double acting, magnetic and cushioning.



682-M  
Sayfa/Page: 93



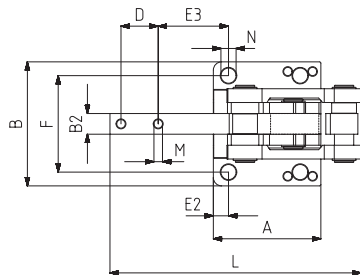
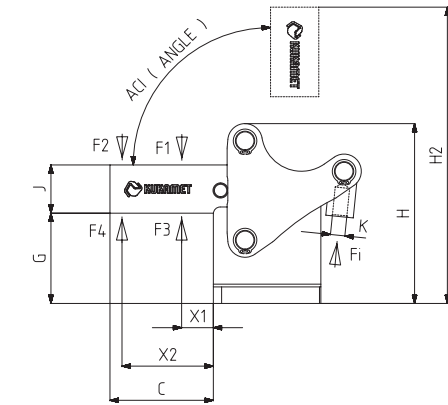
6031  
Sayfa/Page: 122

MODEL NO	A	B	B2	C	D	E2	E3	F	G	H	H1	H2	J	K	L	M	N	X1	X2	P	R	PİSTON Ø	PİSTON STROK
682 - 4	77	90	15	75	27	10	47	70	65,5	130,5	240	455	35	M12X1,25	182	6,2	11	18	64	Ø 16	G1/4	40	80
682 - 6	93	105	20	85	26	11	54	83	71	158	287	535	40	M16X1,50	219	8,2	12,5	18	69	Ø 20	G1/4	50	100
682 - 8	125	145	30	115	40	15	67	115	94	212	333	669	60	M16X1,50	288	12,2	16,5	18	92	Ø 20	G3/8	63	125

MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5 °)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
682-4-M	2500	1800	9000	6000	750	1.28	90°	3100	6
682-6-M	4000	2400	18000	12000	1150	2.5	90°	4900	6
682-8-M	6500	4000	30000	20000	1850	5.13	90°	11600	6

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ), F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



### Ayak Tipi: Yatay Tabanlı

### Body Mounting Base: Horizontal



681  
Sayfa/Page: 92



252  
Sayfa/Page: 42



682  
Sayfa/Page: 93

MODEL NO	A	B	B2	C	D	E2	E3	F	G	H	H2	J	K	L	M	N	X1	X2	P	R	PİSTON Ø	PİSTON STROK
682-4-M	77	90	15	75	27	10	47	70	65,5	131	216	35	M12X1,25	182	6,2	11	18	64	Ø 16	G1/4	40	80
682-6-M	93	105	20	85	26	11	54	83	71	158	249	40	M16X1,50	219	8,2	12,5	18	69	Ø 20	G1/4	50	100
682-8-M	125	145	30	115	40	15	67	115	94	212	336	60	M16X1,50	288	12,2	16,5	18	92	Ø 20	G3/8	63	125

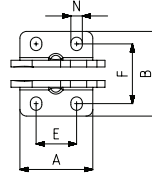
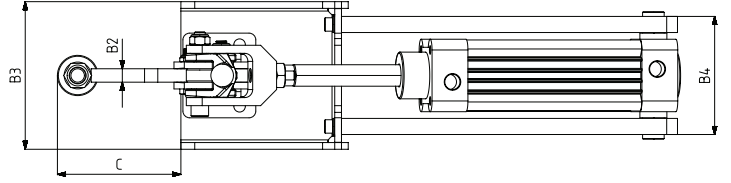
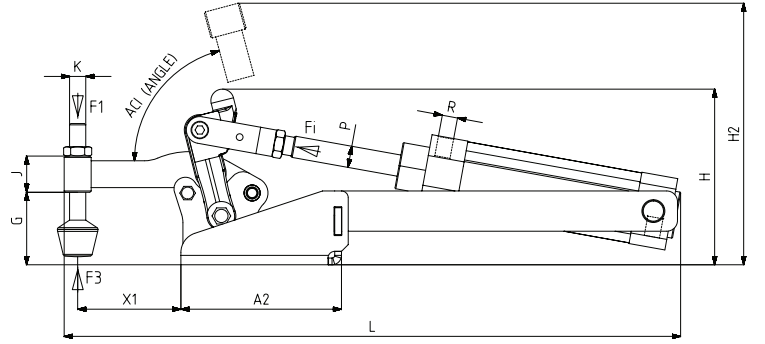
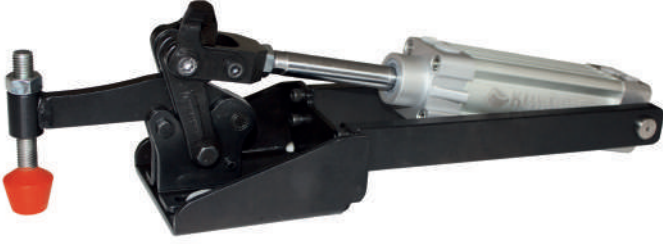
683



MODEL NO	F1 (N)	F3 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5°)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
683 - 4	1600	5600	750	1,28	70°	4900	6
683 - 6	2000	11000	1150	2,5	70°	8000	6

F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



**Ayak Tipi: Yatay Tabanlı (Modüler Pistonlu)**  
Body Mounting Base: Horizontal (Modular with piston)



683-H  
Sayfa/Page: 95



6031  
Sayfa/Page: 122



**Pistonlar çift etkili, manyetik ve yastıklıdır.**

Pneumatic cylinders are double acting, magnetic and cushioning.

MODEL NO	A	A2	B	B2	B3	B4	C	E	F	G	H	H2	J	K	L	N	X1	P	R	PİSTON Ø	PİSTON STROK
683 - 4	54	119	63	10	100	88	91,5	30	44,5	54	131	195	27	M12	457	8,5 x 10	76,5	Ø 16	G1/4	40	80
683 - 6	70	151	74	12	112	100	112	45	52	73	164	245	32	M12	549	10,5 x 11,5	97	Ø 20	G1/4	50	100

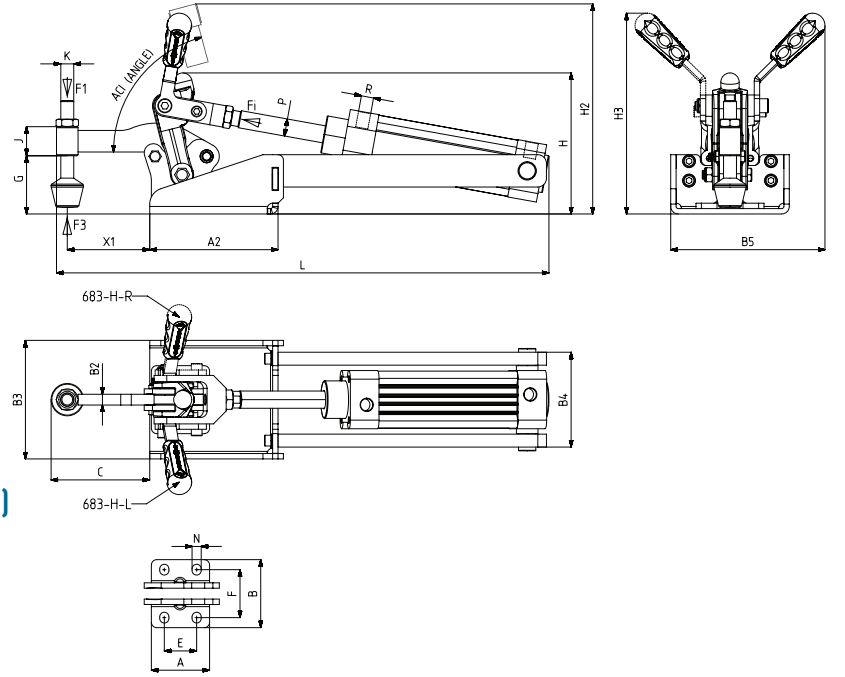



**683-H**


MODEL NO (KOLLU) / WITH HANDLE	F1 (N)	F3 (N)	Fİ (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (± 5°)	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
683 - 4-H-L / ..H-R	1600	5600	750	1,28	70°	4980	6
683 - 6-H-L / ..H-R	2000	11000	1150	2,5	70°	8130	6

F1 : BASKI KUVVETİ ( EXERTING FORCE ), F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fİ : UYGULAMA KUVVETİ ( APPLIED FORCE )

Vn, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



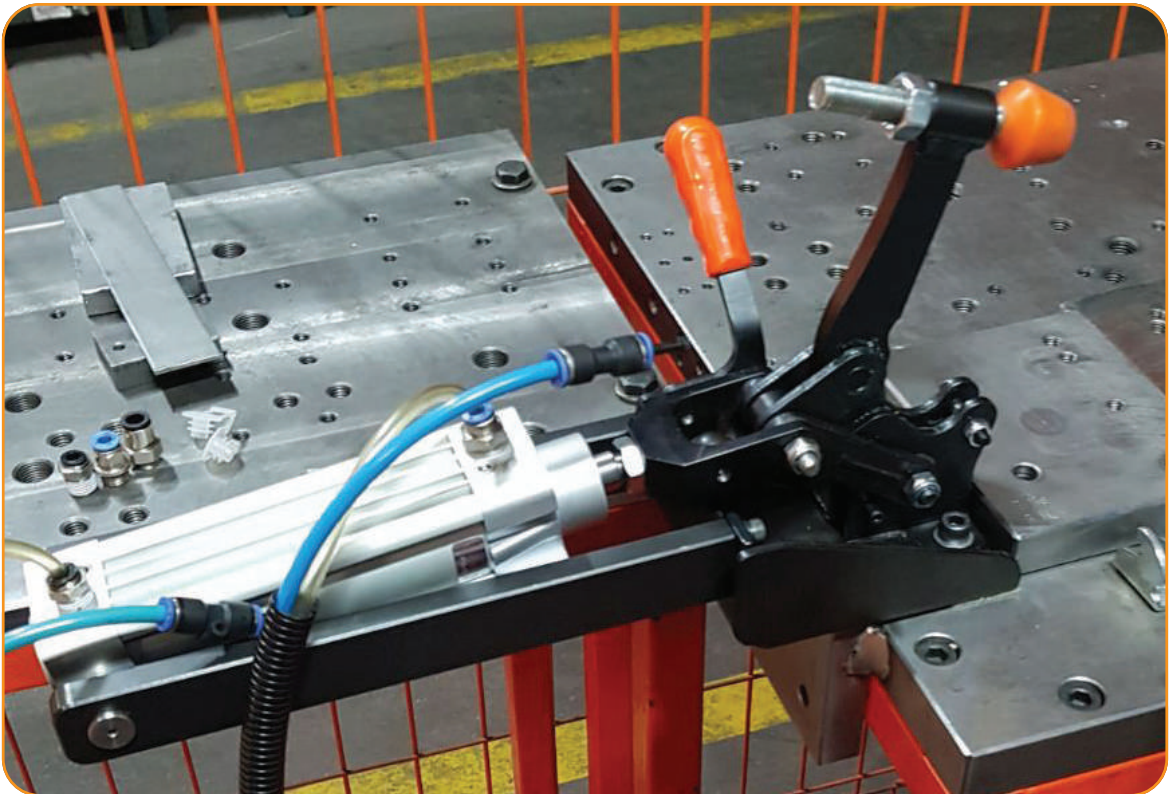
**Ayak Tipi: Yatay Tabanlı, Kollu (Modüler Pistonlu)**  
 Body Mounting Base: Horizontal and with handle  
 (Modular with piston)



6011  
 Sayfa/Page: 109



683  
 Sayfa/Page: 94



**Pistonlar çift etkili, manyetik ve yastıklıdır.**

Pneumatic cylinders are double acting, magnetic and cushioning.

MODEL NO (KOLLU) / WITH HANDLE	A	A2	B	B2	B3	B4	B5	C	E	F	G	H	H2	H3	J	K	L	N	X1	P	R	PİSTON Ø	PİSTON STROK
683 - 4-H-L / ..H-R	54	119	63	10	100	88	138	91,5	30	44,5	54	131	195	186	27	M12	457	8,5 x 10	76,5	Ø 16	G1/4	40	80
683 - 6-H-L / ..H-R	70	151	74	12	112	100	188,5	112	45	52	73	164	245	256	32	M12	549	10,5 x 11,5	97	Ø 20	G1/4	50	100

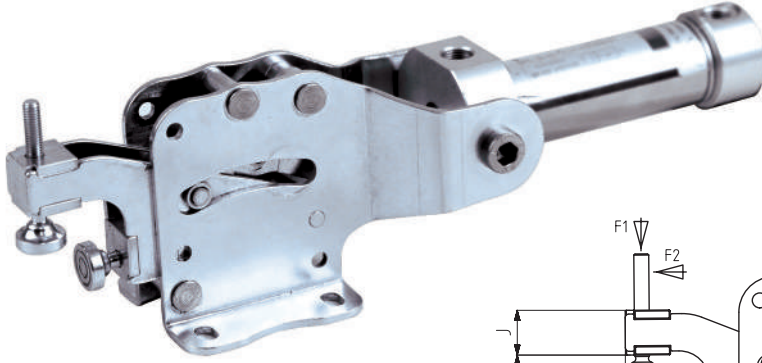
691



MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	F <sub>i</sub> (N)	V <sub>n</sub> (dm <sup>3</sup> )	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
691-1	1000	1000	1000	1000	300	0,25	641	6
691-2	2000	2000	2000	2000	500	0,51	1173	6
691-3	3000	3000	3000	3000	750	1,04	2440	6

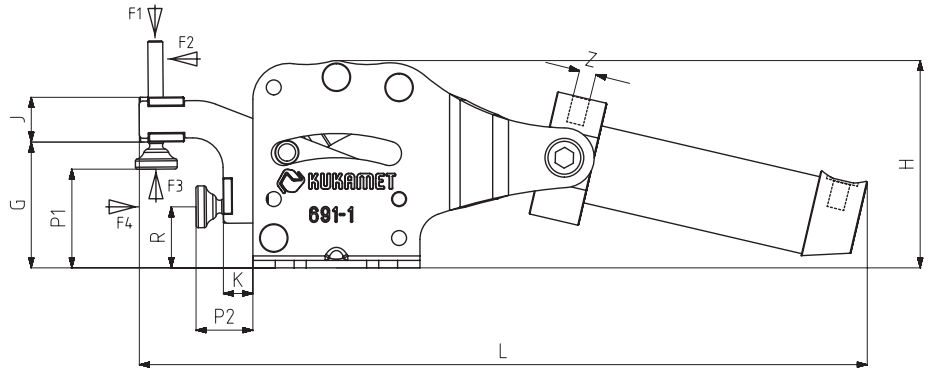
F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , F<sub>i</sub> : UYGULAMA KUVVETİ ( APPLIED FORCE )

V<sub>n</sub>, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( V<sub>n</sub>, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )



**Ayak Tipi: Yatay Tabanlı**  
Body Mounting Base: Horizontal

Pistonlar çift etkili, manyetik ve yastıklıdır.  
Pneumatic cylinders are double acting, magnetic and cushioning



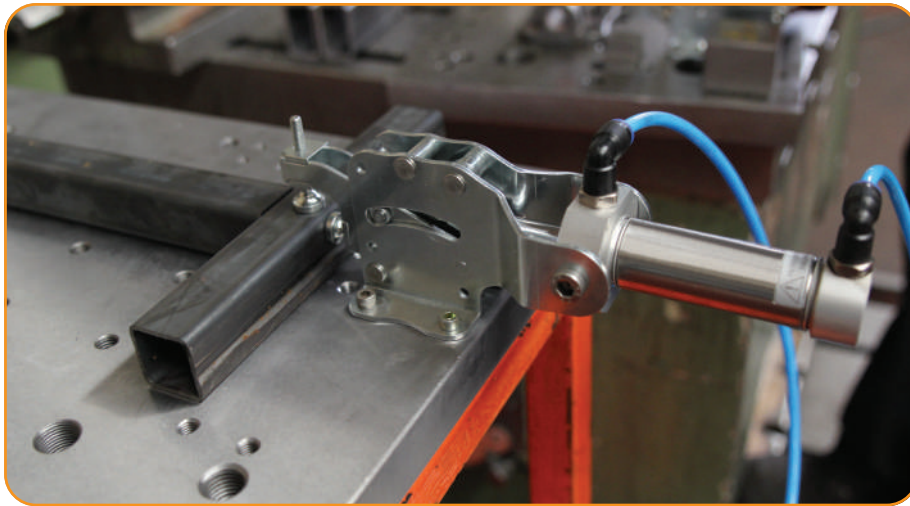
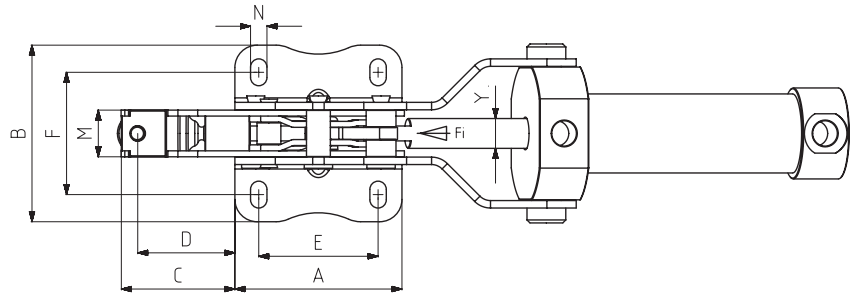
611  
Sayfa/Page: 79



711  
Sayfa/Page: 97

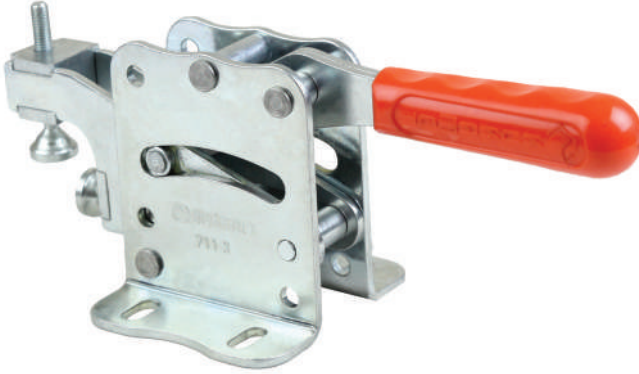


252  
Sayfa/Page: 42



MODEL NO	A	B	C	D	E	F	G	H	J	K	L	M	N	P1 Min.	P1 Max.	P2 Min.	P2 Max.	R	Y	Z	PİSTON Ø
691-1	56	59,5	38	32,5	40	41	42	70	15	10	244	16	5,5 x 9	15	33	19	37	20,5	10	G1/8	25
691-2	75	79,5	48	41	50	56	52	88	20	12	291	20	6,5 x 13	24	41	22	39	24,5	12	G1/8	32
691-3	90	101,5	58	50	50	71	62	105	25	15	356,5	30	8,5 x 18,5	23	49	28	54	29	16	G1/8	40

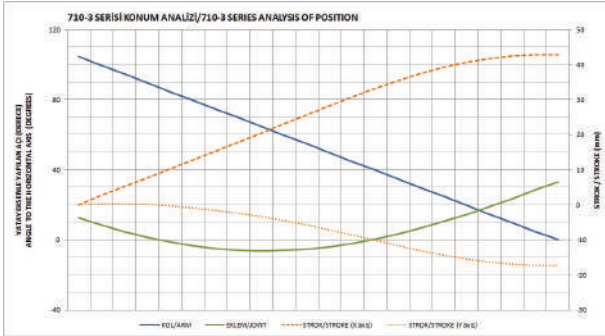
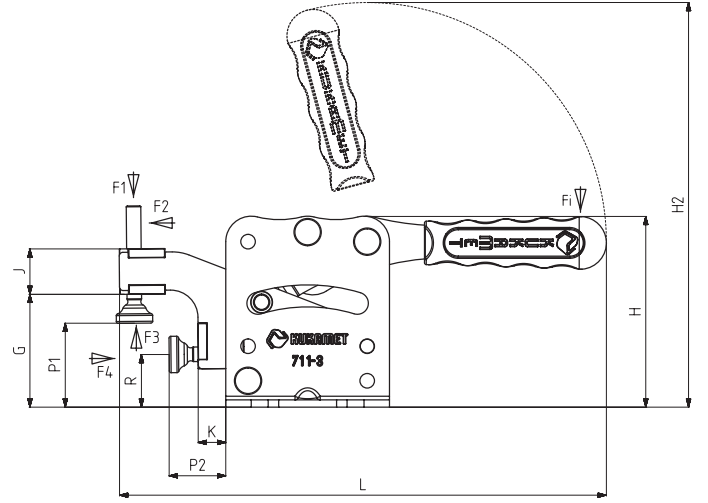
711



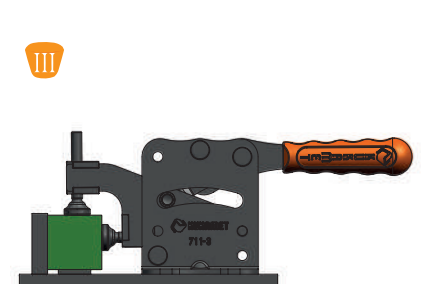
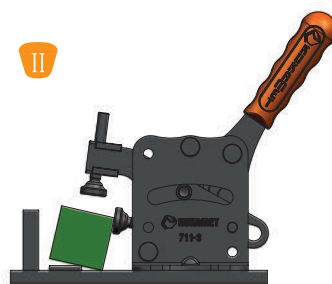
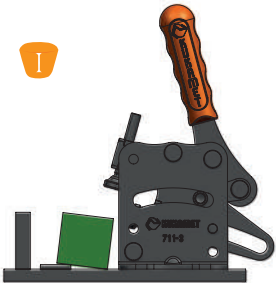
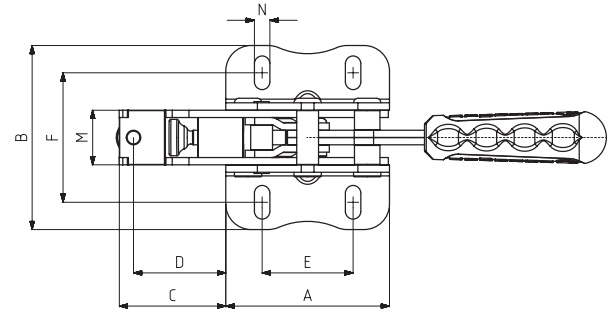
**Ayak Tipi: Yatay Tabanlı**  
Body Mounting Base: Horizontal

MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		AĞIRLIK (WEIGHT) (gr ±%2)
					VERİM (YIELD) (F1:Fi)	VERİM (YIELD) (F2:Fi)	
711-1	1000	1000	1000	1000	14:1	8:1	400
711-2	2000	2000	2000	2000	17:1	9:1	790
711-3	3000	3000	3000	3000	19:1	11:1	1690

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )



**Sıkma Pozisyonları**  
Clamping Positions



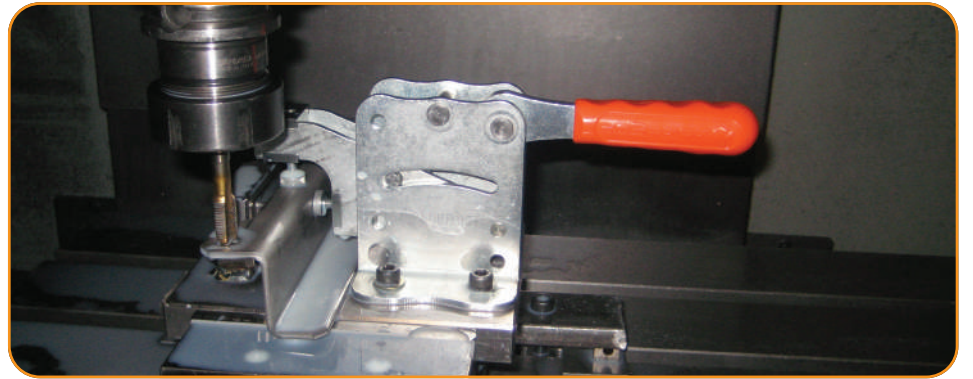
691  
Sayfa/Page: 96



141  
Sayfa/Page: 16



712  
Sayfa/Page: 98



MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	M	N	P1 Min.	P1 Max.	P2 Min.	P2 Max.	R
711-1	56	59,5	38	32,5	40	41	42	70	148	15	10	173	16	5,5 x 9	15	33	19	37	20,5
711-2	75	79,5	48	41	50	56	52	88	186	20	12	223	20	6,5 x 13	24	41	22	39	24,5
711-3	90	101,5	58	50	50	71	62	105	222	25	15	268	30	8,5 x 18,5	23	49	28	54	29

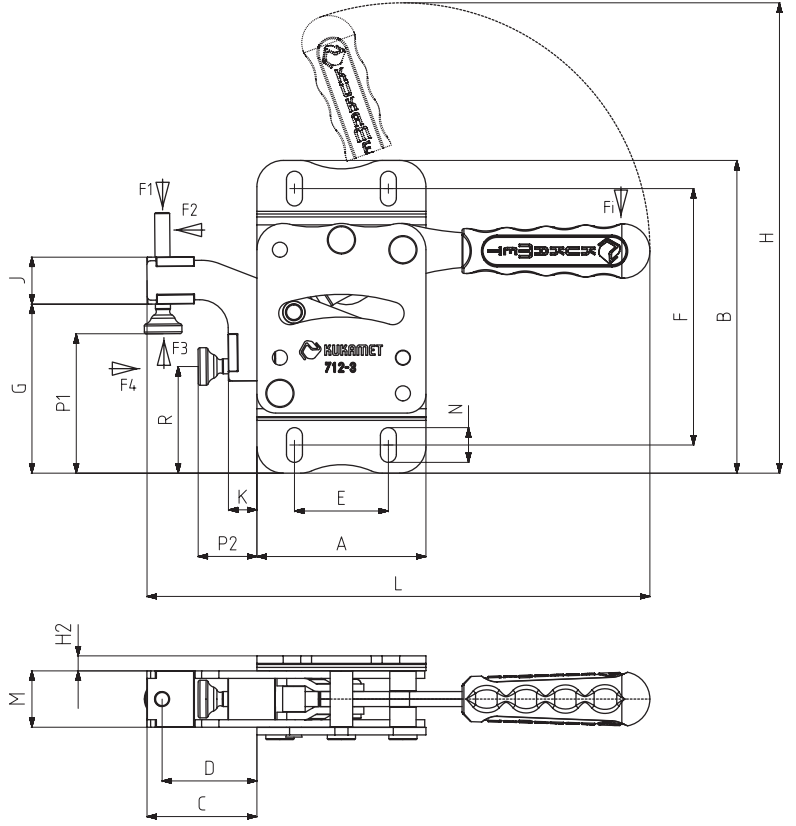
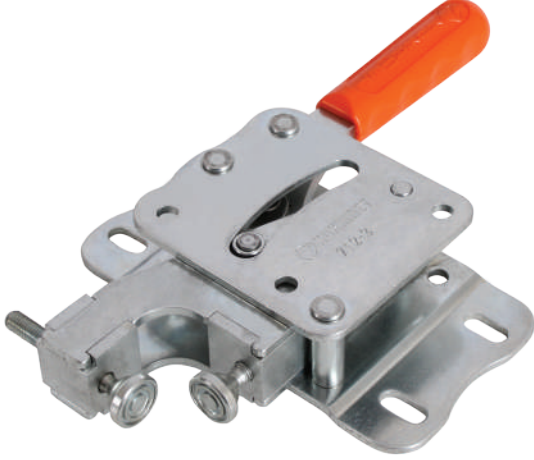


712



MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		AĞIRLIK (WEIGHT) (gr ±%)
					VERİM (YIELD) (F1:Fi)	VERİM (YIELD) (F2:Fi)	
712-1	1000	1000	1000	1000	14:1	8:1	405
712-2	2000	2000	2000	2000	17:1	9:1	800
712-3	3000	3000	3000	3000	19:1	11:1	1670

F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) ,  
Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

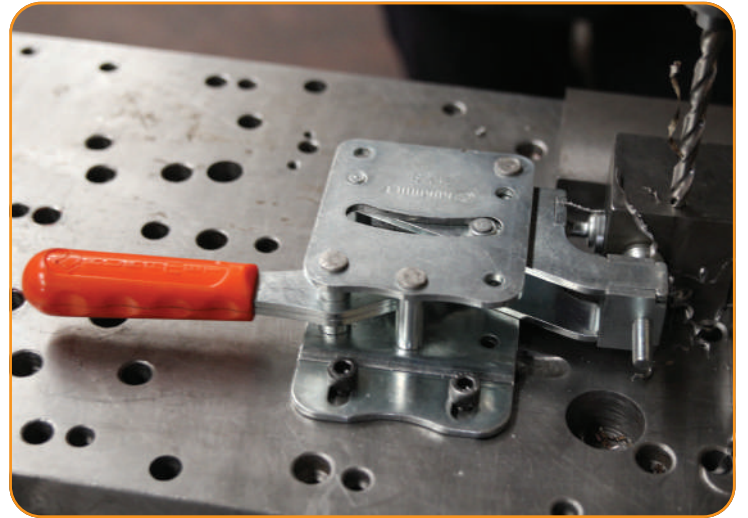
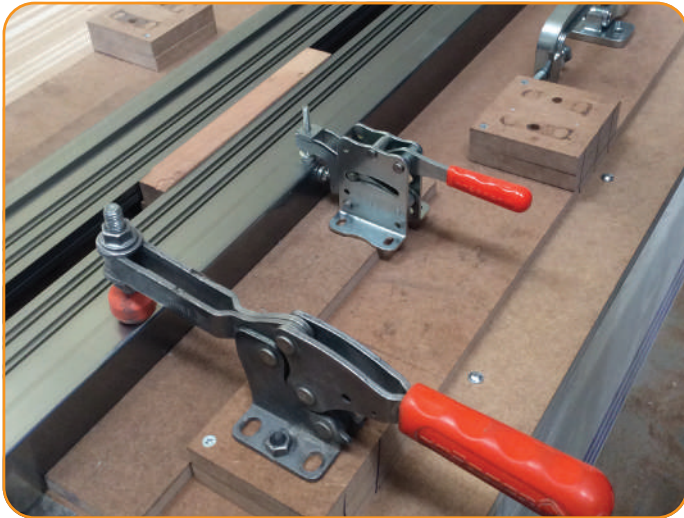


**Ayak Tipi: Yatay Tabanlı**  
Body Mounting Base: Horizontal

711  
Sayfa/Page: 97

691  
Sayfa/Page: 96

142  
Sayfa/Page: 16

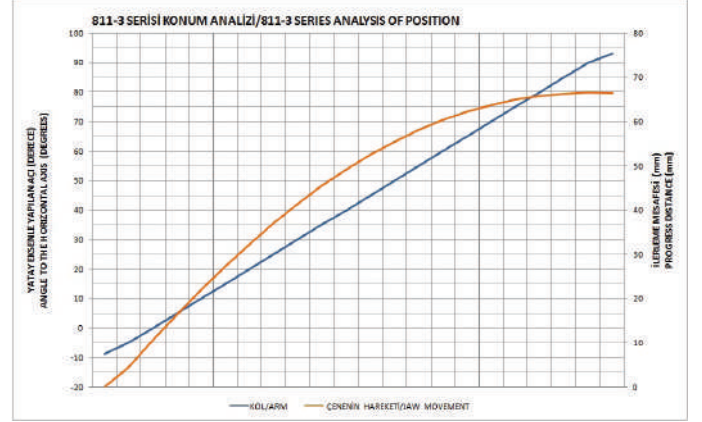


MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	M	N	P1 Min.	P1 Max.	P2 Min.	P2 Max.	R
712-1	56	106,5	38	32,5	40	88	58,5	164,5	8	15	10	173	16	5,5 x 9	31,5	49,5	19	37	37
712-2	75	136,5	48	41	50	113	75	209	9	20	12	223	20	6,5 x 13	47	64	22	39	47,5
712-3	90	166,5	58	50	50	136,5	90	250	10	25	15	268	30	8,5 x 18,5	51	77	28	54	57



MODEL NO	F1 (N)	F3 (N)	Fi	AĞIRLIK (WEIGHT) (gr ±%)
			VERİM (YIELD) (F1:F)	
811-1	1000	2500	27:1	700
811-2	3500	4500	36:1	1060
811-3	4000	6000	38:1	1600

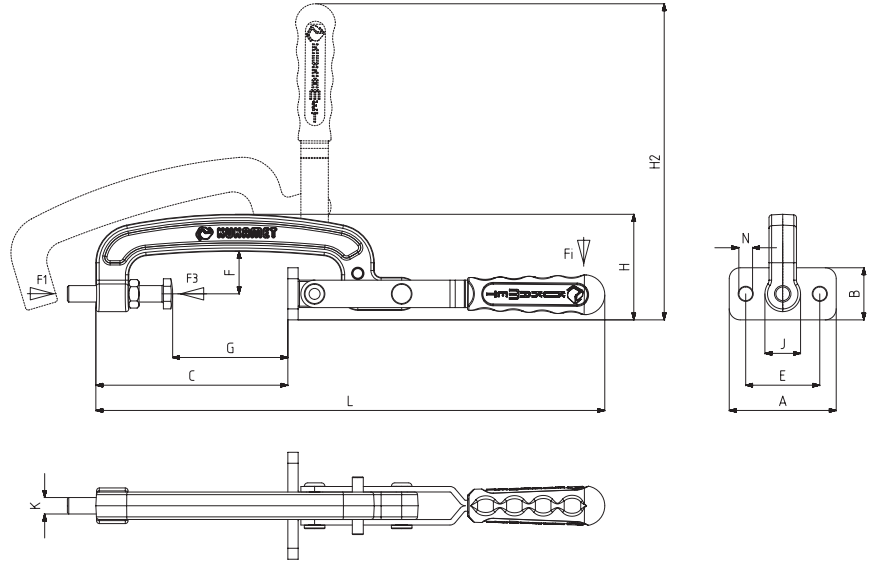
F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) ,  
Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )



### Ayak Tipi: Yatay Tabanlı Body Mounting Base: Horizontal

**Ürün özellikleri;**  
Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.  
Clamp çenesi sıcak dövme çelikten yapılmıştır.  
Diğer parçaları çelik malzemeden üretilmiş ve korozyon direnci için galvaniz kaplama yapılmıştır.

**Product Features;**  
The products are strong and suited for heavy duty applications.  
The clamping jaw is made of hot forged steel.  
The remaining parts are made of galvanized steel for corrosion resistance.



822

Sayfa/Page: 100



841

Sayfa/Page: 102

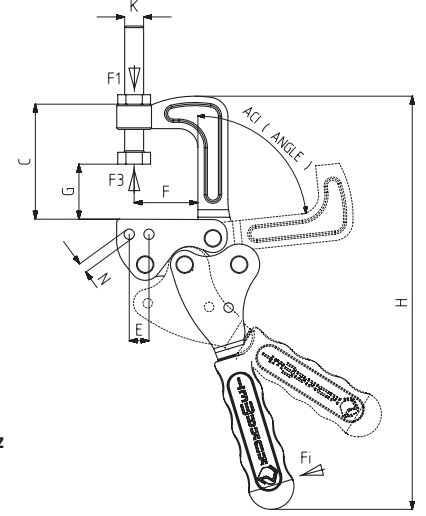
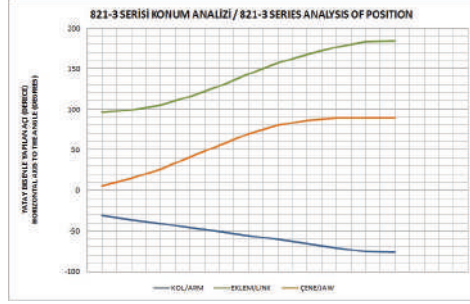


MODEL NO	A	B	C	E	F	G Min.	G Max.	H	H2	J	K	L	N
811-1	58	38	77	40	24	23	50	60	204	16	M8	282	Ø 8
811-2	68	38	110	45	28	46	80	69	217	20	M10	330	Ø 8
811-3	78	38	140	54	31	53	100	77	230	26	M12	372	Ø 10


**821**


MODEL NO	F1 (N)	F3 (N)	Fi	AÇI (ANGLE) (± 5 °)	AĞIRLIK (WEIGHT) (gr ±%2)
			VERİM (YIELD) (F1:Fi)		
821-2	3500	4000	9:1	85°	810

F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) ,  
 Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )


**Ayak Tipi: Dikey Tabanlı**  
 Body Mounting Base: Vertical


822

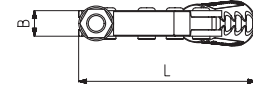


841-D

Sayfa/Page: 100 Sayfa/Page: 102

**Ürün özellikleri;**  
 Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.  
 Clamp çenesi sıcak dövme çelikten yapılmıştır.  
 Diğer parçaları çelik malzemeden üretilmiş ve korozyon direnci için galvaniz kaplama yapılmıştır.

**Product Features;**  
 The products are strong and suited for heavy duty applications.  
 The clamping jaw is made of hot forged steel.  
 The remaining parts are made of galvanized steel for corrosion resistance.



MODEL NO	B	C	E	F	G min.	G max.	H	K	L	N
821-2	15	72	12.5	31	0	50	261	M12	107	6.5

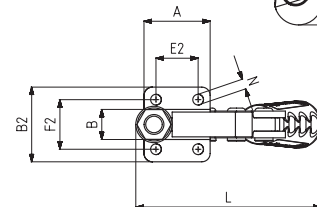
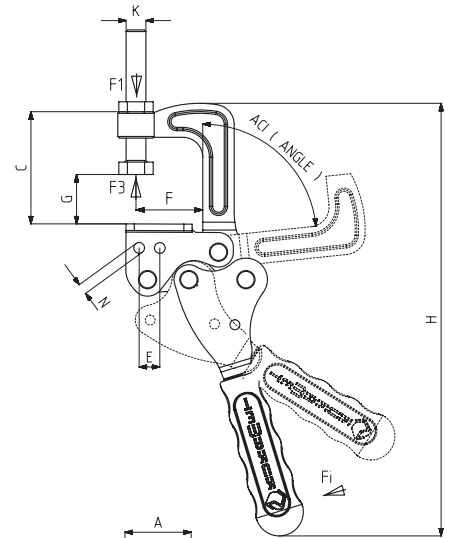

**822**


MODEL NO	F1 (N)	F3 (N)	Fi	AÇI (ANGLE) (± 5 °)	AĞIRLIK (WEIGHT) (gr ±%2)
			VERİM (YIELD) (F1:Fi)		
822-2	3500	4000	9:1	85°	830

F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) ,  
 Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

**Ürün özellikleri;**  
 Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.  
 Clamp çenesi sıcak dövme çelikten yapılmıştır.  
 Diğer parçaları çelik malzemeden üretilmiş ve korozyon direnci için galvaniz kaplama yapılmıştır.

**Product Features;**  
 The products are strong and suited for heavy duty applications.  
 The clamping jaw is made of hot forged steel.  
 The remaining parts are made of galvanized steel for corrosion resistance.


**Ayak Tipi: Yatay Tabanlı**  
 Body Mounting Base: Horizontal


821



831

Sayfa/Page: 100 Sayfa/Page: 101

MODEL NO	A	B	B2	C	E	E2	F	F2	G min.	G max.	H	K	L	N
822-2	40	15	45	68	12.5	25.5	31	30	0	50	261	M12	107	6.5



831



**Ayak Tipi: Yatay Tabanlı**  
Body Mounting Base: Horizontal

**Ürün özellikleri ;**

Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.  
Clamp çenesi sıcak dövme çelikten yapılmıştır ve civata dişleri ovalamadır.  
Diğer parçaları çelik malzemeden üretilmiş ve korozyon direnci için galvaniz kaplama yapılmıştır.

Product Features;  
The products are strong and suited for heavy duty applications.  
The clamping jaw is made of hot forged steel.  
The remaining parts are made of galvanized steel for corrosion resistance.



822

Sayfa/Page: 100

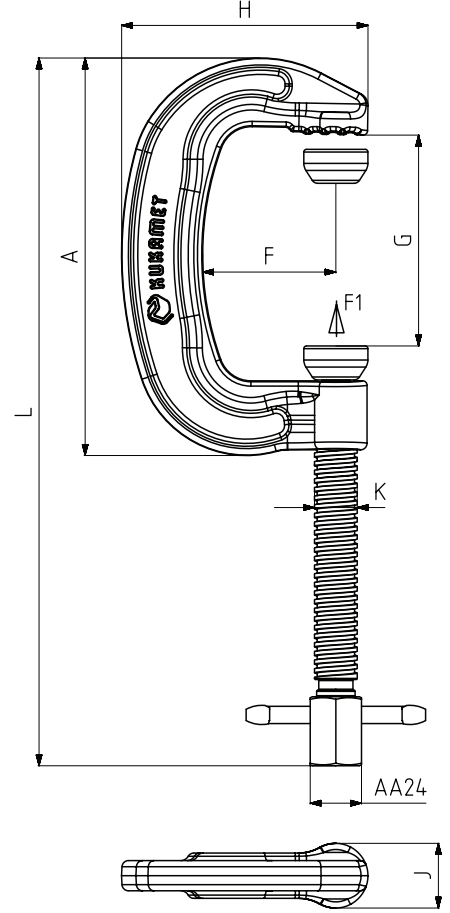


541-L

Sayfa/Page: 74

MODEL NO	F1 (N)	AĞIRLIK (WEIGHT) (gr ±%2)
831-2	8000	1610
831-3	8000	2300

F1 : BASKI KUVVETİ ( EXERTING FORCE )



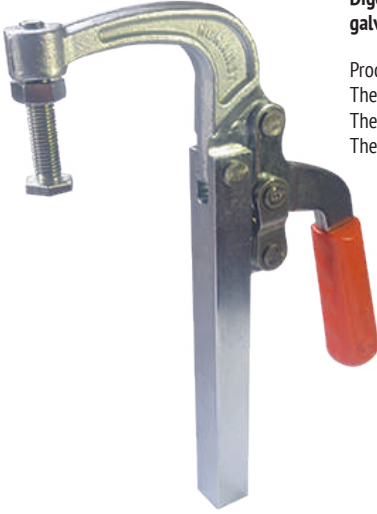
MODEL NO	A	F	G Min.	G Max.	H	J	K	L Min.	L Max.
831-2	184	62	0	90	115	30	TR20	235	325
831-3	257	73,6	0	140	139	30	TR20	300	440



**841**

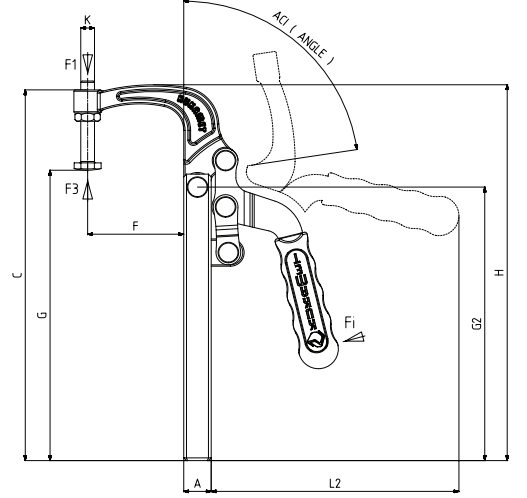
**Ayak Tipi: Lamalı Taban**

Body Mounting Base: With mounting bar



**Ürün özellikleri;**  
 Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.  
 Clamp çenesi sıcak dövme çelikten yapılmıştır.  
 Diğer parçaları çelik malzemeden üretilmiş ve korozyon direnci için galvaniz kaplama yapılmıştır.

**Product Features;**  
 The products are strong and suited for heavy duty applications.  
 The clamping jaw is made of hot forged steel.  
 The remaining parts are made of galvanized steel for corrosion resistance.



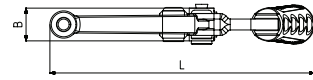
841-D

Sayfa/Page: 102



831

Sayfa/Page: 101



MODEL NO	A	B	C	F	G min.	G max.	G2	H	K	L	L2
841-2	20 x 20	24	272	70	205	248	200	275	M10	193	180

**841-D**

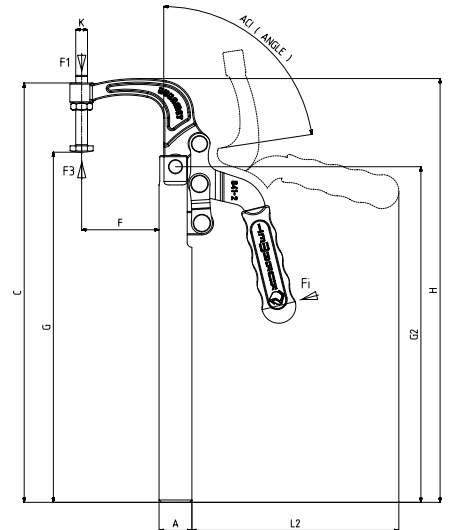
**Ayak Tipi: Yuvarlak Gövde**

Body Mounting Base: Round Body



**Ürün özellikleri;**  
 Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.  
 Clamp çenesi sıcak dövme çelikten yapılmıştır.  
 Diğer parçaları çelik malzemeden üretilmiş ve korozyon direnci için galvaniz kaplama yapılmıştır.

**Product Features;**  
 The products are strong and suited for heavy duty applications.  
 The clamping jaw is made of hot forged steel.  
 The remaining parts are made of galvanized steel for corrosion resistance.



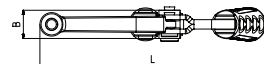
841

Sayfa/Page: 102



831

Sayfa/Page: 101



MODEL NO	A	B	C	F	G min.	G max.	G2	H	K	L	L2
841-2-D	Ø28	24	357	66	291	328,5	85,5	360,5	M10	193	176

842



MODEL NO	F1 (N)	F3 (N)	Fi	AÇI (ANGLE)	AĞIRLIK (WEIGHT) (gr ±%2)
			VERİM (YIELD) (F1:Fi)		
842-2	3500	4000	9:1	15°	900

F1 : BASKI KUVVETİ ( EXERTING FORCE ), F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

### Ayak Tipi: Yatay Tabanlı

Body Mounting Base: Horizontal

#### Ürün özellikleri;

Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.

Clamp çenesi ve kolu sıcak dövme çelikten yapılmıştır.

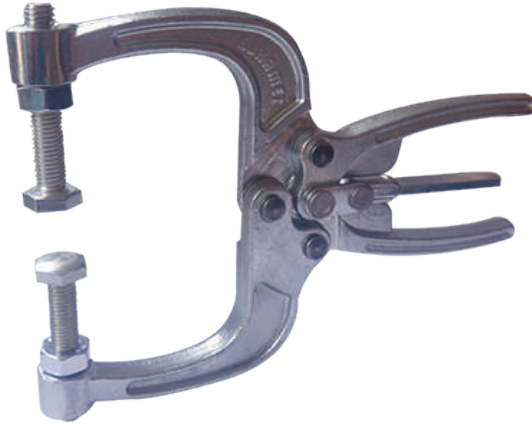
Diğer parçaları çelik malzemeden üretilmiş ve korozyon direnci için galvaniz kaplama yapılmıştır.

#### Product Features;

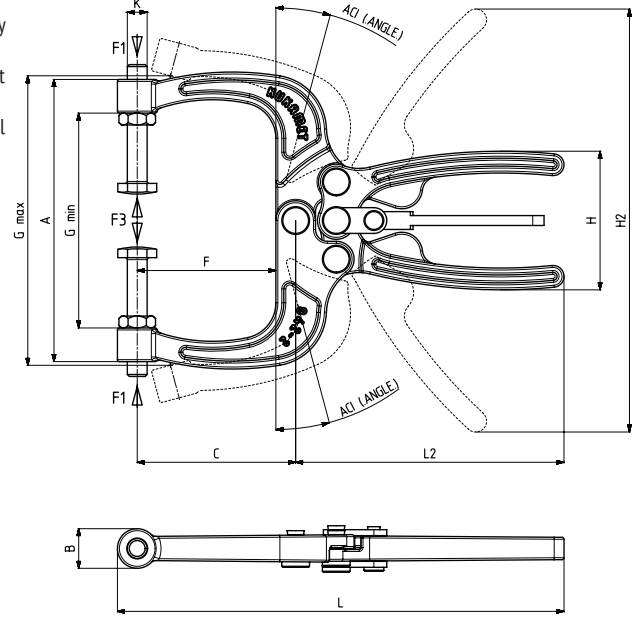
The products are strong and suited for heavy duty applications.

The clamping jaw and handle is made of hot forged steel.

The remaining parts are made of galvanized steel for corrosion resistance.



831  
Sayfa/Page: 101



MODEL NO	A	B	C	F	G min.	G max.	H	H2	K	L	L2
842-2	143	20	80	70	108	148	70	215	M10	230	140

843



**new**

MODEL NO	AĞIRLIK (WEIGHT)	STROK
843-3	2750	65
843-5	5500	82

### Ayak Tipi: Yuvarlak Gövde

Body Mounting Base: Round Body

#### Ürün özellikleri;

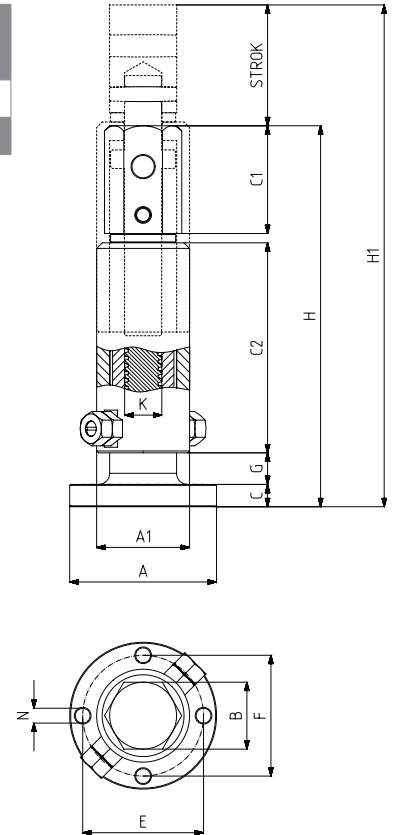
Yüksek ön baskı kuvveti gerektiren yerlerde sabitleme için kullanılan ürünlerdir. Gövde yapısı yüksek kaliteli 4140 malzemeden üretilmiş olup trapez profilli güç vidası kullanılarak daha akıcı ve hızlı hareket etme imkânı elde edilirken, uzun ömürlü yüksek mukavemetli sabitleme elemanıdır. Ürün baş kısmı altıgen olarak üretilip daha yüksek sıkıştırma için havali tabancalar, büyük anahtar veya alternatif uzun kollu tork anahtarları ile belirlenen bölgelerde azami sıkıştırma kuvvetleri elde edilmektedir. Üst hareketli gövde üzerine müşteri isteğine göre kaynatılan baskı çenesi/çeneleri ile istenildiğinde birden fazla bölgeye baskı yapılabilir. Talep edildiğinde ürün tersine de çalıştırılarak sıkışan parçaları çıkarılabilir niteliğine de sahiptir.

#### Product Features;

These are the products which are used for fixing in places that require high pre-pressure force. The body structure is made of high quality 4140 material so it is a long-lasting, high-strength fastening element, while it is possible to move more fluently and quickly because of using the trapezoidal profile power screw. The product head is produced as hexagonal so maximum compression forces are obtained in the areas determined by air guns, large wrenches or alternative long-armed torque wrenches for higher compression. If desired, multiple zones can be pressed with the pressure jaw(s) welded on the upper movable body according to the customer's request. If it is requested, the product can also be operated in reverse to remove the jammed parts.

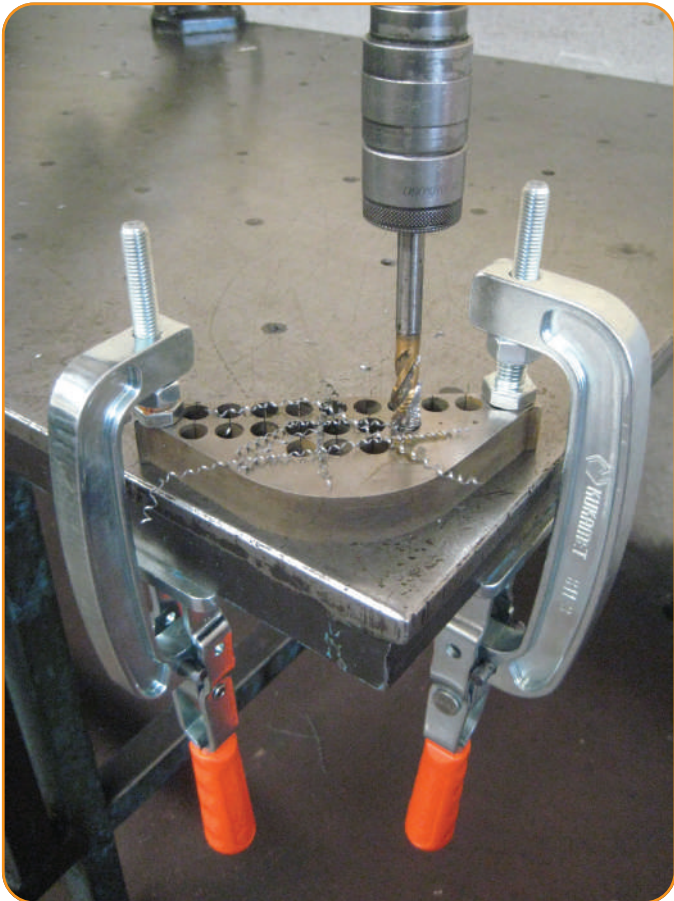


831  
Sayfa/Page: 101

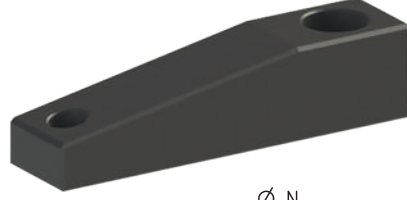


MODEL NO	A	A1	B	C	C1	C2	E	F	G min.	G max.	H	H1	K	N
843-3	Ø79	Ø50	36	12	58	113	65	65	17	82	205	270	TR20	Ø8
843-5	Ø98	Ø68	41	15	58	144	58,7	58,7	18	100	240	322	TR28	Ø10,5



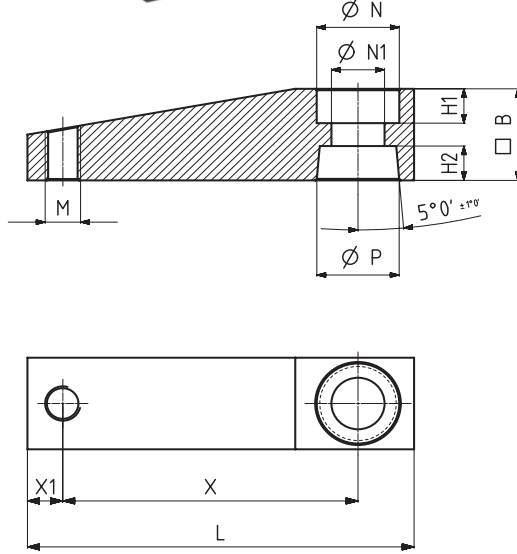
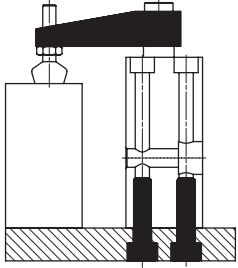


6010-1



## Sıkma Kolu Squeezing Arm

### Montaj seçenekleri Mounting options.



### NOT:

- Çelik malzemeden üretilmiş ve korozyon direnci için fosfat kaplama yapılmıştır.

Aksesuarlar : ( fiyata dahil değildir )

1-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )

### Sıkma kolunun montajı :

- 1-) Sıkma kolunu yaylı rondela ve civata ile piston mili üzerine tutturun.
- 2-) Sıkma kolunu çevirerek pozisyonunu ayarlayın.
- 3-) Anahtar ile sıkma kolunu tutup, civatayı sabitleyin.

### Sıkma kolunun sökülmesi :

- 1-) Anahtar ile sıkma kolunu tutarak civatayı çözün.
- 2-) Aşağıdaki resimde görüldüğü şekilde, plastik çekiç ile alttan yukarı doğru hafifçe vurarak sıkma kolunu piston milinden ayırın.

**Dikkat:** Aşağıdaki resimde olduğu gibi, kesinlikle yandan darbe uygulanmamalıdır.

### NOTE:

- Made of steel and phosphate coated for corrosion resistance.

Accessories : (not included in the price)

1-) Squeeze part( 911,912,913,914,915,916 )

### Mounting of squeezing arm:

- 1-) Set up squeezing arm with spring washer and bolt on the piston rod.
- 2-) Turn squeezing arm into position.
- 3-) Hold clamping arm fixed with wrench and tighten bolt.

### Squeezing arm removal:

- 1-) Hold clamping arm fixed with wrench and loosen bolt.
- 2-) As in the following picture, With light blows from below (plastic hammer), separate squeezing arm from the piston rod.

Caution!: As in the following picture, Definitely, from side blow should not be applied.

KOD	MODEL NO	B	H1	H2	L	M	ØN	ØN1	ØP	X	X1	AĞIRLIK (WEIGHT) (gr ±%)
6010-1-25	6012-6013-6014-6016-25	16	6	6,5	66	M6	14,7	8,5	14	50	6	90
6010-1-32	6012-6013-6014-6016-32	20	7	9	80	M8	14,7	8,5	16	60	10	183
6010-1-40	6012-6013-6014-6016-40	20	7	9	90	M8	14,7	8,5	16	70	10	213
6010-1-50	6012-6013-6014-6016-50	25	9	10	105	M12	18,5	10,5	20	80	10	370



6010-2



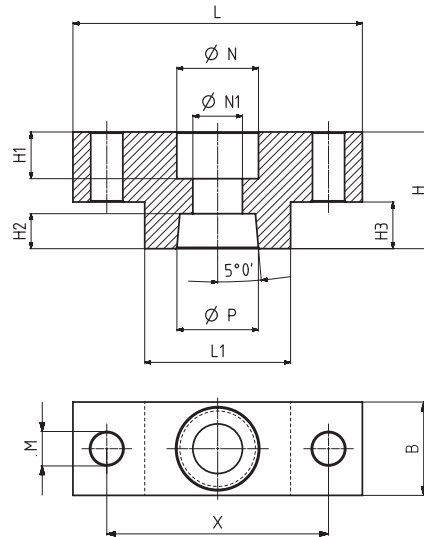
## Sıkma Kolu Adaptörü Squeezing Arm Adapter

### NOT:

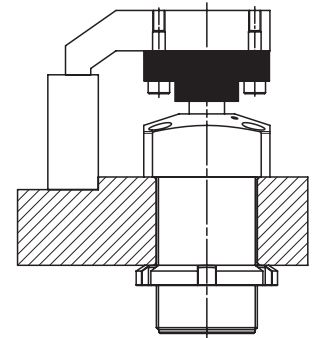
- Çelik malzemeden üretilmiş ve korozyon direnci için fosfat kaplama yapılmıştır.
- Özel yapıdaki sıkma kollarının montajı için kullanılır.

### NOTE:

- Made of steel and phosphate coated for corrosion resistance.
- Used for mounting of special construction squeezing arm.



### Montaj seçenekleri Mounting options.



KOD	MODEL NO	B	H	H1	H2	H3	L	L1	M	ØN	ØN1	ØP	X	AĞIRLIK (WEIGHT) (gr ±%)
6010-2-25	6012-6013-6014-6016-25	16	20	8	6,5	8	50	25	5,5	14,5	8,5	14	38	74
6010-2-32-40	6012-6013-6014-6016-32-40	20	25	11	9	10	60	30	7	14,5	8,5	16	45	147
6010-2-50	6012-6013-6014-6016-50	25	30	14	10	12	65	30	9	18,5	10,5	20	48	220

1-) Tek bir sıkıştırma kolu ve piston mili arasında bağlantı elemanı olarak montaj.

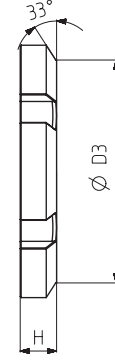
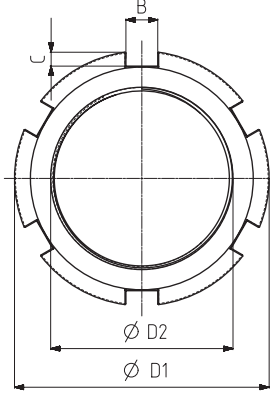
1-) Mounting as a connection element between an individual squeezing arm and the piston rod.



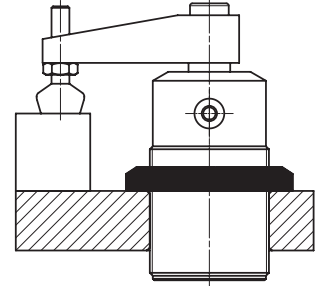
6010-3



**Bağlantı Somunu (DIN 70852)**  
Connection Nut (DIN 70852)



**Montaj seçenekleri**  
Mounting options.

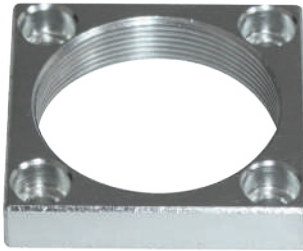


- 1-) Gövdeyi fiştür üzerine sabitlemek için yukarıdan bağlantı somunu ile montaj.
- 2-) Sıkmak için kullanılacak anahtar DIN 1810 A

- 1-) Mounting with connection nut from above locking swing clamp on fixture.
- 2-) The key, will be used for squeeze DIN 1810 A

KOD	MODEL NO	B	C	ØD1	ØD2	ØD3	H	AĞIRLIK (WEIGHT) (gr ±%)
6010-3-25	6013-6014-6015-25	7	3,3	56	M 40 x 1,5	49	8	66
6010-3-32	6013-6014-6015-32	8	3,8	68	M 50 x 1,5	60	8	88
6010-3-40	6013-6014-6015-40	8	3,8	75	M 55 x 1,5	67	8	112
6010-3-50	6013-6014-6015-50	11	4,3	85	M 65 x 1,5	76	9	141

6010-4



**NOT:**

- Çelik malzemeden üretilmiştir ve korozyon direnci için galvaniz (Cr3) kaplama yapılmıştır.

**Avantajları :**

- Fiştür üzerine dış açılmasına gerek kalmadan montaj imkanı sağlar.

**Not :** 6014 ve 6015 numaralı ürünlerin montaj deliklerinin merkezleri ile aynıdır.

**NOTE:**

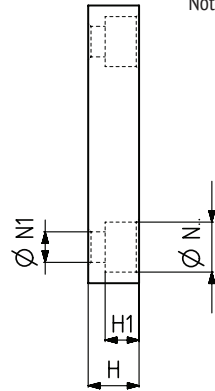
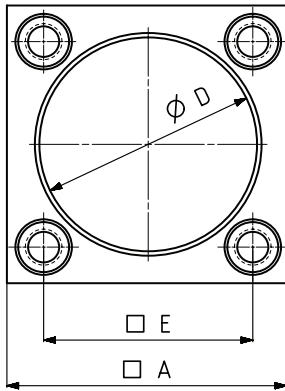
- Made of steel and coated galvanized (Cr3) for corrosion resistance.

**Advantages :**

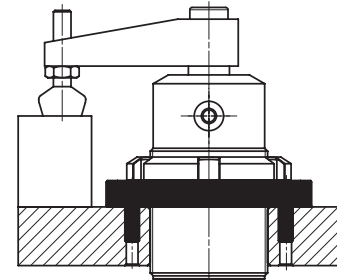
Avoids cutting a large thread on the fixture.

**Note :** The hole centers are the same with 6014 and 6015 coded products hole centers.

**Bağlantı Flaş**  
Connection Flange



**Montaj seçenekleri**  
Mounting options.



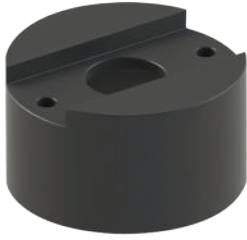
- 1-) Döner tip pnömatik bağlantı elemanını flaş içine vidalayarak montaj.
- 2-) Gövdeyi fiştür üzerine kilitlemek için bağlantı somunu ile montaj.
- 3-) Flaş üzerindeki bağlantı delikleri kullanılarak montaj.

- 1-) Mounting with swing clamp screwed into flange.
- 2-) Mounting with connection nut for locking swing clamp on fixture.
- 3-) Mounting with connection holes on the flange.

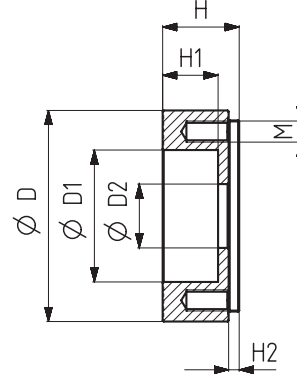
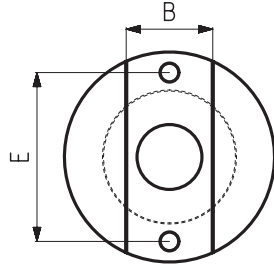
KOD	MODEL NO	A	E	ØD	H	H1	ØN	ØN1	AĞIRLIK (WEIGHT) (gr ±%)
6010-4-25	6013-6014-6015-25	50	37	M 40 x 1,5	10	6	9	5,5	82
6010-4-32	6013-6014-6015-32	60	45	M 50 x 1,5	12	7	11	6,5	125
6010-4-40	6013-6014-6015-40	70	50	M 55 x 1,5	12	7	11	6,5	208
6010-4-50	6013-6014-6015-50	80	58	M 65 x 1,5	15	9	13	8,5	320



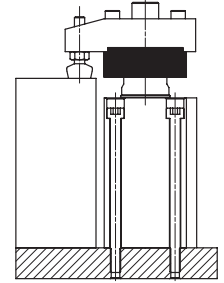
6010-5



**Koruma Adaptörü**  
Protection Adapter (For Piston Rod)



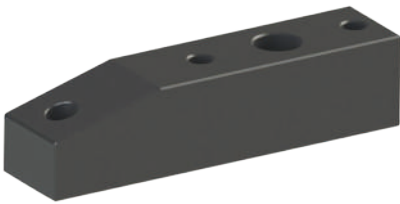
**Montaj seçenekleri**  
Mounting options.



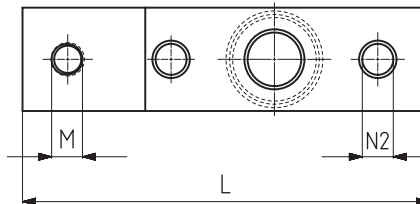
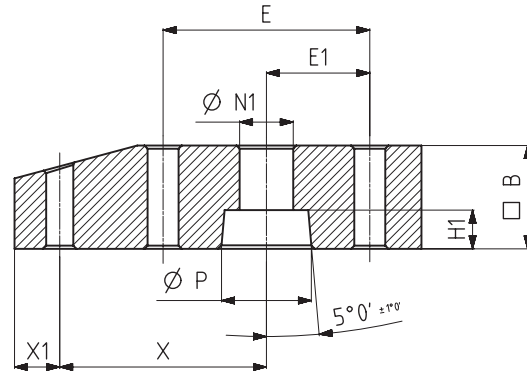
1-) Sadece 6011 numaralı ürünlerde kullanılmaya uygundur.  
1-) Can be used for only 6011 series products.

KOD	MODEL NO	B	E	ØD	ØD1	ØD2	H	H1	H2	M	AĞIRLIK (WEIGHT) (gr ±%2)
6010-5-25	6011-25	16,4	32	40	25	14,1	14,5	9,5	2	M4	32
6010-5-32 - 40	6011-32-40	22,6	41,4	50	32	16,1	18	11	3	M6	59
6010-5-50	6011-50	25,8	46,5	60	39	20,1	33	24	5	M6	145

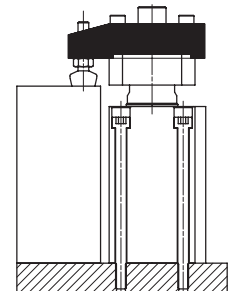
6010-6



**Sıkma Kolu (Koruma Adaptörü için)**  
Squeezing Arm (for protection adapter)

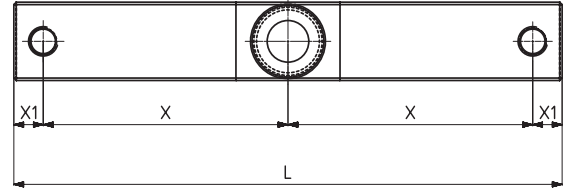
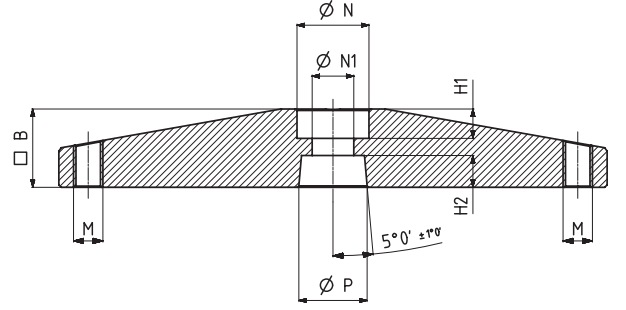


**Montaj seçenekleri**  
Mounting options.



KOD	MODEL NO	B	E	E1	H1	L	M	ØN1	ØN2	ØP	X	X1	AĞIRLIK (WEIGHT) (gr ±%2)
6010-6-25	6011-25	16	32	16	6,5	63	M6	8,5	4,5	14	32	7	102
6010-6-32 - 40	6011-32-40	22	41,4	20,7	9	82	M8	10,5	6,5	16	45	10	252
6010-6-50	6011-50	25	46,5	23,25	10	105	M10	12,5	6,5	20	65	10	420

6010-7



### Sıkma Kolu

#### Squeezing Arm

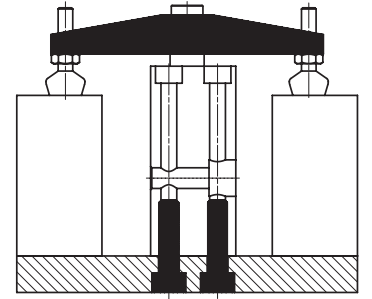
**NOT:**  
- Çelik malzemeden üretilmiştir ve korozyon direnci için fosfat kaplama yapılmıştır.

Aksesuarlar : ( fiyata dahil değildir )  
1-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )

**NOTE:**  
- Made of steel and phosphate coated for corrosion resistance.

Accessories : (not included in the price)  
1-) Squeeze part( 911,912,913,914,915,916 )

**Montaj seçenekleri**  
Mounting options.



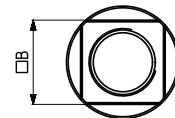
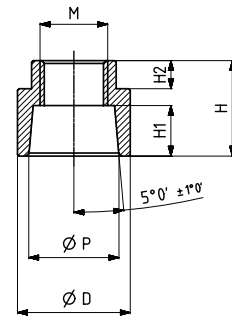
KOD	MODEL NO	B	H1	H2	L	M	ØN	ØN1	ØP	X	X1	AĞIRLIK (WEIGHT) (gr ±%2)
6010-7-25	6012-6013-6014-6016-25	16	6	6,5	112	M6	14,7	8,5	14	50	6	155
6010-7-32	6012-6013-6014-6016-32	20	7	9	140	M8	14,7	8,5	16	60	10	330
6010-7-40	6012-6013-6014-6016-40	20	7	9	160	M8	14,7	8,5	16	70	10	390
6010-7-50	6012-6013-6014-6016-50	25	9	10	180	M12	18,5	10,5	20	80	10	650

6010-8



### Sıkma Kolu Adaptörü

#### Squeezing Arm Adapter



**NOT:**  
- Çelik malzemeden üretilmiş ve korozyon direnci için fosfat kaplama yapılmıştır.

**NOTE:**  
- Made of steel and phosphate coated for corrosion resistance.

KOD	MODEL NO	B	D	H	H1	H2	M	ØP	AĞIRLIK (WEIGHT) (gr ±%2)
6010 - 8 - 32	6012-6013-6014-6016 - 32	15	20	17	9	5	M12	16	20
6010 - 8 - 40	6012-6013-6014-6016 - 40	15	20	17	9	5	M12	16	20
6010 - 8 - 50	6012-6013-6014-6016 - 50	18	25	25	10	6	M12	20	55

new

**6011**


MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%)	BAR
6011 - 25R	200	0,1	28	360	6
6011 - 25L	200	0,1	28	360	6
6011 - 32R	300	0,23	26	600	6
6011 - 32L	300	0,23	26	600	6
6011 - 40R	600	0,4	26	780	6
6011 - 40L	600	0,4	26	780	6
6011 - 50R	900	0,96	38	1430	6
6011 - 50L	900	0,96	38	1430	6

F1 : BASKI KUVVETİ (EXERTING FORCE)

 Vn, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR (Vn, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR)

**Not: Filtrelenmiş ve yağlanmış hava kullanılmalıdır.**  
 Note: Operate only with filtered and lubricated air.

**DÖNER TİP PNÖMATİK BAĞLANTI ELEMANI - KARE GÖVDE**

- Silindirik çift etkili ve manyetikdir.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksall kaplama yapılmıştır.
- Piston mili yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.
- Piston mili, koruma adaptörü sayesinde kaynak çapakları ve dış etkenlerden korunmaktadır.
- Piston konumunu izlemek için, gövde üzerinde "T" tip ve "C" tip sensörlere uygun kanallar mevcuttur.

Aksesuarlar : ( fiyata dahil değildir )

- 1-) Piston mili koruma adaptörü ( 6010-5 )
- 2-) Koruma adaptörü için sıkma kolu ( 6010-6 )
- 3-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )
- 4-) Sıkma kolu adaptörü ( 6010-8 )

**PNEUMATIC SWING CLAMP - SQUARE BODY**

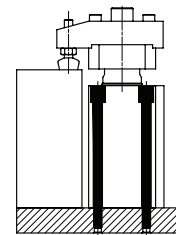
- Cylinder is double acting and magnetic.
- The body is made of strength aluminum. Anodised for Corrosion resistance.
- The piston rod is hard chrome plated and shapely polished for to high wear resistance and corrosion resistance.
- Piston rod, protected against welding spatter and external factors through the protection adapter.
- There are slots on the body, according to T type and C type sensors, for monitoring the position of piston.

Accessories : ( not included in the price )

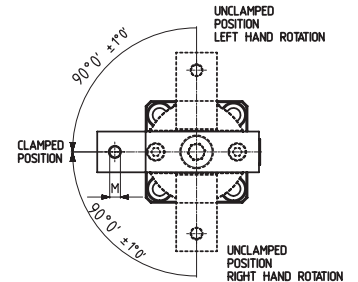
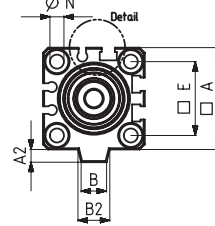
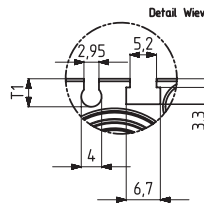
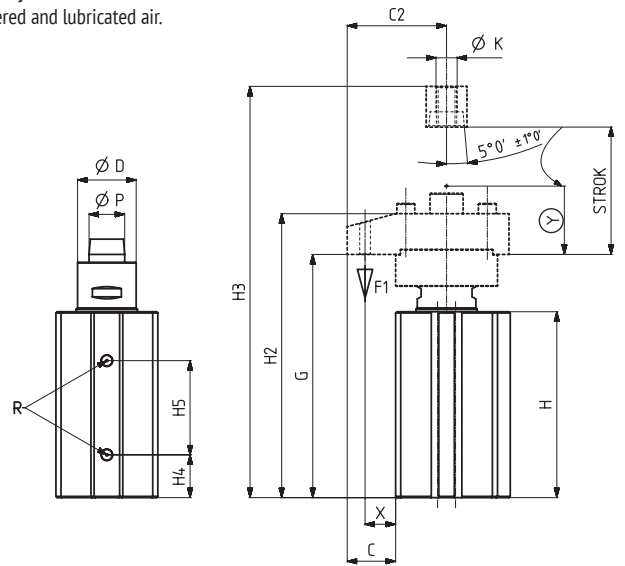
- 1-) Piston rod protection adapter. ( 6010-5 )
- 2-) Squeezing arm for protection adapter ( 6010-6 )
- 3-) Squeeze part ( 911,912,913,914,915,916 )
- 4-) Squeezing Arm Adapter ( 6010-8 )


 6012  
 Sayfa/Page: 110

 6017  
 Sayfa/Page: 115

 6031  
 Sayfa/Page: 122

**Montaj seçenekleri**  
 Mounting options

- Gövde üzerindeki deliklerden imbus civata ( DIN 912 ) ile yukarıdan montaj.
- Mounting from above with socket bolt (DIN 912) through to holes on the body.



MODEL NO	A	A2	B	B2	C	C2	D	E	G	H	H2	H3	H4	H5	K	M	N	P	R	T	T1	X	Y	PİSTON Ø
6011 - 25R	40	4	10,5	12,5	19	39	24	29	100	76	116	154	16	47	M8	M6	5,5	14	M5	5	5,5	12	12	25
6011 - 25L	40	4	10,5	12,5	19	39	24	29	100	76	116	154	16	47	M8	M6	5,5	14	M5	5	5,5	12	12	25
6011 - 32R	45	4,5	14,5	16,5	32,5	55	29	34	115	82,5	138	175	21	48	M10	M8	5,5	16	G1/8	4,5	5,5	22,5	10	32
6011 - 32L	45	4,5	14,5	16,5	32,5	55	29	34	115	82,5	138	175	21	48	M10	M8	5,5	16	G1/8	4,5	5,5	22,5	10	32
6011 - 40R	55	5	19,5	24	27,5	55	29	40	115	82,5	137	175	21	48	M10	M8	5,5	16	G1/8	6,5	7	17,5	10	40
6011 - 40L	55	5	19,5	24	27,5	55	29	40	115	82,5	137	175	21	48	M10	M8	5,5	16	G1/8	6,5	7	17,5	10	40
6011 - 50R	64	6	20	23	43	75	37	50	149	105	174	228	20	66	M12	M10	6,5	20	G1/8	6	6,5	33	16	50
6011 - 50L	64	6	20	23	43	75	37	50	149	105	174	228	20	66	M12	M10	6,5	20	G1/8	6	6,5	33	16	50

**Not: Döner Tip Bağlantı Elemanları, sadece "Y" stroğu sırasında sıkma yapabilir.**  
 Note: Swing clamps can squeezing only during the "Y" stroke.



6012



MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
6012 - 25R	170	0,15	28	400	6
6012 - 25L	170	0,15	28	400	6
6012 - 32R	270	0,28	30	670	6
6012 - 32L	270	0,28	30	670	6
6012 - 40R	450	0,47	30	950	6
6012 - 40L	450	0,47	30	950	6
6012 - 50R	700	0,88	36	1600	6
6012 - 50L	700	0,88	36	1600	6

F1 : BASKI KUVVETİ ( EXERTING FORCE )

Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

**Not: Filtrelenmiş ve yağlanmış hava kullanılmalıdır.**  
Note: Operate only with filtered and lubricated air.

### DÖNER TİP PNÖMATİK BAĞLANTI ELEMANI - BLOK GÖVDE

- Silindir çift etkili ve manyettiktir.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksal kaplama yapılmıştır.
- Piston mil yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.
- Piston konumunu izlemek için, gövde üzerinde "T" tip sensörlere uygun kanallar mevcuttur.

Aksesuarlar : ( fiyata dahil değildir )

- 1-) Sıkma kolu ( 6010-1 )
- 2-) Sıkma kolu ( 6010-7 )
- 3-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )
- 4-) Sıkma kolu adaptörü ( 6010-8 )



6011  
Sayfa/Page: 109



6017  
Sayfa/Page: 115



6031  
Sayfa/Page: 122

### PNEUMATIC SWING CLAMP - BLOCK BODY

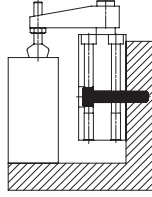
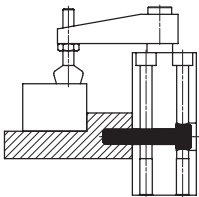
- Cylinder is double acting and magnetic.
- The body is made of strength aluminum. Anodised for Corrosion resistance.
- The piston rod is hard chrome plated and shapely polished for to high wear resistance and corrosion resistance.
- There are slots on the body, according to T type sensors, for monitoring the position of piston.

Accessories : ( not included in the price )

- 1-) Squeezing arm ( 6010-1 )
- 2-) Squeezing arm ( 6010-7 )
- 3-) Squeeze part ( 911,912,913,914,915,916 )
- 4-) Squeezing Arm Adapter ( 6010-8 )



### Montaj seçenekleri Mounting options



### 1-Gövde ön ve arka yüzündeki delikler kullanılarak montaj.

1- Mounting through to holes on the front and rear surface of body.

### 2- Gövde üst yüzündeki deliklerden imbus civata (DIN 912) ile yukarıdan montaj.

2-Mounting from above with socket bolt ( DIN 912 ) through to holes on the top surface of body

### 3- Gövde alt yüzündeki, klavuz çekilmiş delikler kullanılarak montaj.

3-Mounting through to tapped holes on the lower surface of body.

MODEL NO	A	B	C	C2	E	F	F2	G	H	H2	H3	H4	H5	H6	H7	K	M	N	N2	N3	P	R	T	X	Y	PİSTON Ø
6012 - 25R	35	55	41	56	20	40	17	85	80	101	129	32	16	47	20	M8	M6	6,5	8,5	M8	14	M5	5	35	12	25
6012 - 25L	35	55	41	56	20	40	17	85	80	101	129	32	16	47	20	M8	M6	6,5	8,5	M8	14	M5	5	35	12	25
6012 - 32R	45	60	50	70	30	45	18	100	92	120	150	43	21	52	20	M8	M8	6,5	8,5	M8	16	G1/8	6,5	40	10	32
6012 - 32L	45	60	50	70	30	45	18	100	92	120	150	43	21	52	20	M8	M8	6,5	8,5	M8	16	G1/8	6,5	40	10	32
6012 - 40R	55	70	55	80	37	52	22	100	92	120	150	40	21	52	25	M8	M8	8,5	8,5	M10	16	G1/8	7,5	45	10	40
6012 - 40L	55	70	55	80	37	52	22	100	92	120	150	40	21	52	25	M8	M8	8,5	8,5	M10	16	G1/8	7,5	45	10	40
6012 - 50R	65	85	58,5	90	46	66	25	110	104,5	135	171	45	20	64	30	M10	M12	8,5	10,5	M10	20	G1/8	6	48,5	15	50
6012 - 50L	65	85	58,5	90	46	66	25	110	104,5	135	171	45	20	64	30	M10	M12	8,5	10,5	M10	20	G1/8	6	48,5	15	50

**Not: Döner Tip Bağlantı Elemanları, sadece "Y" stroğu sırasında sıkma yapılabilir.**

Note: Swing clamps can squeezing only during the "Y" stroke.

**6013**


MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%)	BAR
6013 - 25R	170	0,14	28	300	6
6013 - 25L	170	0,14	28	300	6
6013 - 32R	270	0,28	30	480	6
6013 - 32L	270	0,28	30	480	6
6013 - 40R	450	0,47	30	560	6
6013 - 40L	450	0,47	30	560	6
6013 - 50R	700	0,88	36	1000	6
6013 - 50L	700	0,88	36	1000	6

F1 : BASKI KUVVETİ ( EXERTING FORCE )

 Vn, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

**Not: Filtrelenmiş ve yağlanmış hava kullanılmalıdır.**  
 Note: Operate only with filtered and lubricated air.

**DÖNER TİP PNÖMATİK BAĞLANTI ELEMANI - YUVARLAK GÖVDE**

- Silindir çift etkilidir.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksal kaplama yapılmıştır.
- Piston mili yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.

Aksesuarlar : ( fiyata dahil değildir )

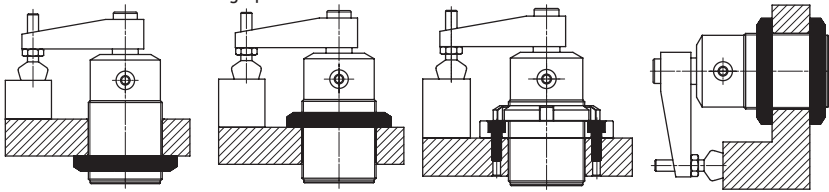
- 1-) Sıkma kolu ( 6010-1 )
- 2-) Sıkma kolu ( 6010-7 )
- 3-) Bağlantı somunu ( 6010-3 )
- 4-) Bağlantı flanşı ( 6010-4 )
- 5-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )
- 6-) Sıkma kolu adaptörü ( 6010-8 )

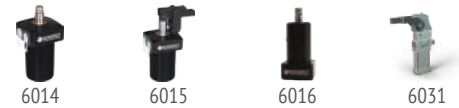
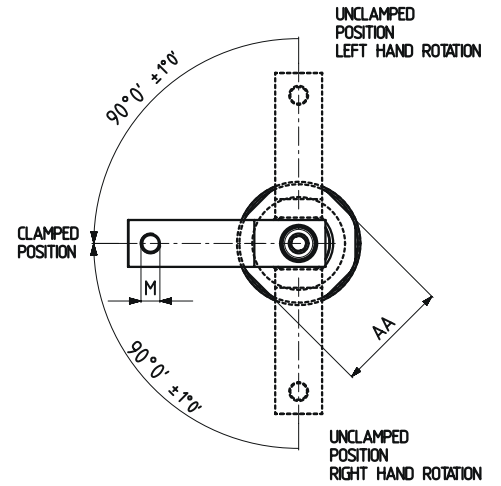
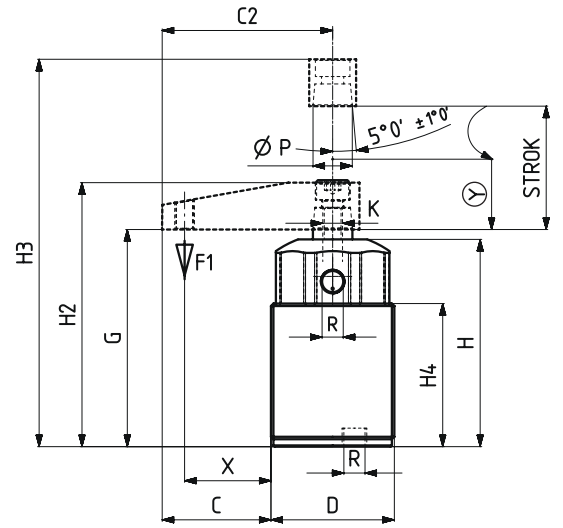
**PNEUMATIC SWING CLAMP - ROUND BODY**

- Cylinder is double actin.
- The body is made of strength aluminum. Anodised for Corrosion resistance.
- The piston rod is hard chrome plated and shapely polished for to high wear resistance and corrosion resistance.

Accessories : ( not included in the price )

- 1-) Squeezing arm ( 6010-1 )
- 2-) Squeezing arm ( 6010-7 )
- 3-) Connection nut ( 6010-3 )
- 4-) Connection flange ( 6010-4 )
- 5-) Squeeze part ( 911,912,913,914,915,916 )
- 6-) Squeezing Arm Adapter ( 6010-8 )


**Montaj seçenekleri**  
 Mounting options

**1- Bağlantı somunu ile montaj ( 6010-3 )**  
 1- Mounting with connection nut

**2- Bağlantı flanşı ile montaj ( 6010-4 )**  
 2- Mounting with connection flange


Sayfa/Page: 112 Sayfa/Page: 113 Sayfa/Page: 114 Sayfa/Page: 122

MODEL NO	AA	C	C2	D	G	H	H2	H3	H4	K	M	P	R	X	Y	PİSTON Ø
6013 - 25R	36	36	56	M 40 x 1,5	78	74	94	122	50	M8	M6	14	M5	30	12	25
6013 - 25L	36	36	56	M 40 x 1,5	78	74	94	122	50	M8	M6	14	M5	30	12	25
6013 - 32R	46	45	70	M 50 x 1,5	89	84	109	139	58	M8	M8	16	G1/8	35	12	32
6013 - 32L	46	45	70	M 50 x 1,5	89	84	109	139	58	M8	M8	16	G1/8	35	12	32
6013 - 40R	50	52,5	80	M 55 x 1,5	89	84	109	139	58	M8	M8	16	G1/8	42,5	12	40
6013 - 40L	50	52,5	80	M 55 x 1,5	89	84	109	139	58	M8	M8	16	G1/8	42,5	12	40
6013 - 50R	60	57,5	90	M 65 x 1,5	103	97	128	164	70	M10	M12	20	G1/8	47,5	15	50
6013 - 50L	60	57,5	90	M 65 x 1,5	103	97	128	164	70	M10	M12	20	G1/8	47,5	15	50

**Not: Döner Tip Bağlantı Elemanları, sadece "Y" stroğu sırasında sıkma yapabilir.**  
 Note: Swing clamps can squeezing only during the "Y" stroke.

**6014**


MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%2)	BAR
6014 - 25R	170	0,15	28	400	6
6014 - 25L	170	0,15	28	400	6
6014 - 32R	270	0,28	30	710	6
6014 - 32L	270	0,28	30	710	6
6014 - 40R	450	0,47	30	785	6
6014 - 40L	450	0,47	30	785	6
6014 - 50R	700	0,88	36	1160	6
6014 - 50L	700	0,88	36	1160	6

F1 : BASKI KUVVETİ ( EXERTING FORCE )

 Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

**Not: Filtrelenmiş ve yağlanmış hava kullanılmalıdır.**  
 Note: Operate only with filtered and lubricated air.

**DÖNER TİP PNÖMATİK BAĞLANTI ELEMANI - FLANŞ BAĞLANTILI GÖVDE**

- Silindir çift etkilidir.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksal kaplama yapılmıştır.
- Piston mili yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.



Aksesuarlar : ( fiyata dahil değildir )

- 1-) Sıkma kolu ( 6010-1 )
- 2-) Sıkma kolu ( 6010-7 )
- 3-) Bağlantı somunu ( 6010-3 )
- 4-) Bağlantı flanşı ( 6010-4 )
- 5-) Baskı ucu ( 911,912,913,914,915,916 )
- 6-) Sıkma kolu adaptörü ( 6010-8 )

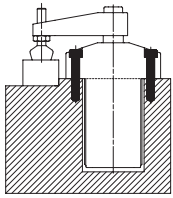


PNEUMATIC SWING CLAMP - FLANGE MOUNTING BODY

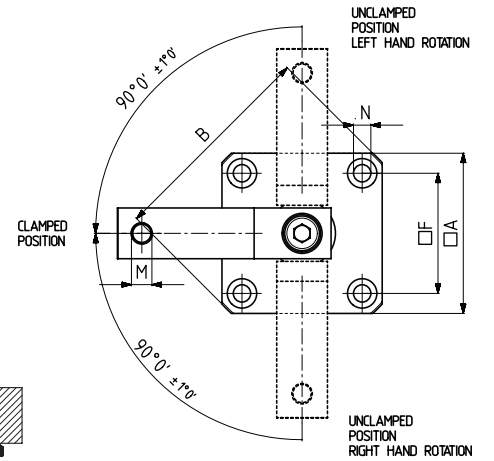
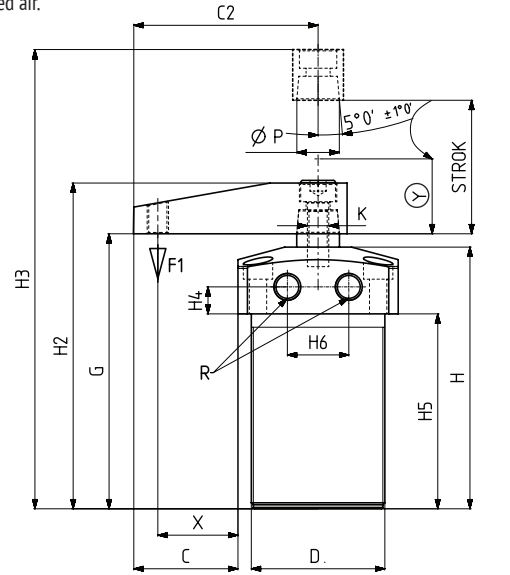
- Cylinder is double acting
- The body is made of strength aluminum. Anodised for Corrosion resistance.
- The piston rod is hard chrome plated and shapely polished for to high wear resistance and corrosion resistance.

Accessories : ( not included in the price )

- 1-) Squeezing arm ( 6010-1 )
- 2-) Squeezing arm ( 6010-7 )
- 3-) Connection nut ( 6010-3 )
- 4-) Connection flange ( 6010-4 )
- 5-) Squeeze part ( 911,912,913,914,915,916 )
- 6-) Squeezing Arm Adapter ( 6010-8 )

**Montaj seçenekleri**  
 Mounting options

**1- Flanş sayesinde imbus civata ( DIN 912 ) ile yukarıdan montaj.**  
 1- Mounting from above with imbus bolt through the flange

**2- Gövdeyi klavuz çekilmiş bir delik içine vidalama ve bağlantı somunu ile sıkarak montaj ( 6010-3 )**  
 2- By screwing the body into a tapped hole and mounting with connection nut ( 6010-3 )

**3- Gövde düz bir delik içine yerleştirerek, bağlantı somunları ile aşağıdan ve yukarıdan sıkarak montaj ( 6010-3 )**  
 3- By inserting the body into a plain hole and mounting with connection nuts, from above and from below ( 6010-3 )


MODEL NO	A	B	C	C2	D	F	G	H	H2	H3	H4	H5	H6	K	M	ØN	P	R	X	Y	PİSTON Ø
6014 - 25R	50	66	31	56	M 40 x 1,5	37	92	87	108	136	11,5	62	21	M8	M6	5,5	14	M5	25	12	25
6014 - 25L	50	66	31	56	M 40 x 1,5	37	92	87	108	136	11,5	62	21	M8	M6	5,5	14	M5	25	12	25
6014 - 32R	60	80	40	70	M 50 x 1,5	45	105	100	125	155	10	73	23	M8	M8	6,5	16	G1/8	30	10	32
6014 - 32L	60	80	40	70	M 50 x 1,5	45	105	100	125	155	10	73	23	M8	M8	6,5	16	G1/8	30	10	32
6014 - 40R	65	85	47,5	80	M 55 x 1,5	50	105	100	125	155	10	73	26	M8	M8	6,5	16	G1/8	37,5	10	40
6014 - 40L	65	85	47,5	80	M 55 x 1,5	50	105	100	125	155	10	73	26	M8	M8	6,5	16	G1/8	37,5	10	40
6014 - 50R	75	100	52,5	90	M 65 x 1,5	58	111	106	136	172	10,5	79	30	M10	M12	8,5	20	G1/8	42,5	15	50
6014 - 50L	75	100	52,5	90	M 65 x 1,5	58	111	106	136	172	10,5	79	30	M10	M12	8,5	20	G1/8	42,5	15	50

**Not: Döner Tip Bağlantı Elemanları, sadece "Y" stroğu sırasında sıkma yapılabilir.**  
 Note: Swing clamps can squeezing only during the "Y" stroke.

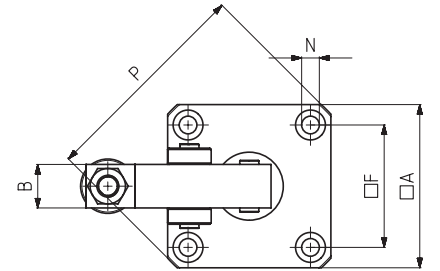
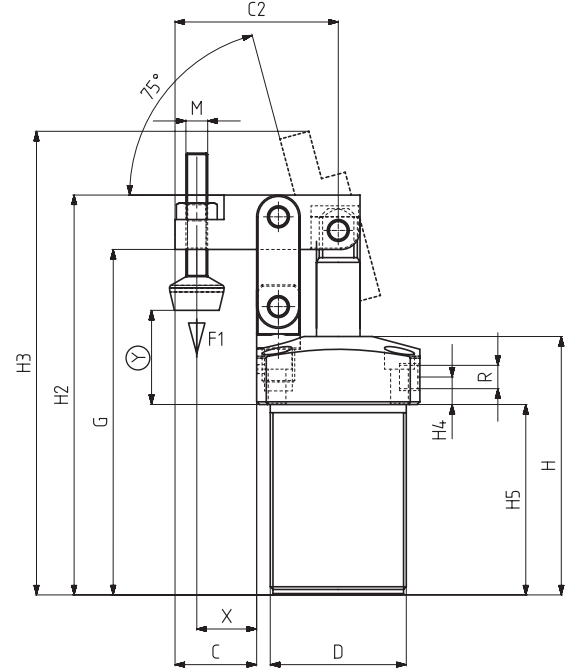


**6015**


MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	BASKI VİDASI (SQUEEZE SCREW)	AĞIRLIK (WEIGHT) (gr ±%)	BAR
6015 - 25	200	0,13	M6 x 40	600	6
6015 - 32	300	0,25	M8 x 50	950	6
6015 - 40	500	0,46	M8 x 50	1100	6
6015 - 50	700	0,79	M12 x 80	1707	6

F1 : BASKI KUVVETİ ( EXERTING FORCE )

 Vn, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

**Not: Filtrelenmiş ve yağlanmış hava kullanılmalıdır.**  
 Note: Operate only with filtered and lubricated air.

**PNÖMATİK BAĞLANTI ELEMANI - LİNK FLANŞ BAĞLANTILI GÖVDE**

- Silindir çift etkilidir.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksal kaplama yapılmıştır.
- Piston mili yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.
- Mekanizma parçaları çelik malzemeden üretilmiş ve korozyon direnci için fosfat kaplama yapılmıştır.

Aksesuarlar : ( fiyata dahil değildir )

- 1-) Bağlantı somunu ( 6010-3 )
- 2-) Bağlantı flanşı ( 6010-4 )
- 3-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )

**PNEUMATIC TOGGLE CLAMP - LINK-FLANGE MOUNTING BODY**

- Cylinder is double acting.
- The body is made of strength aluminum.
- Anodised for Corrosion resistance.
- The piston rod is hard chrome plated and shapely polished for to high wear resistance and corrosion resistance.
- Parts of the mechanism are made of steel and phosphate coated for corrosion resistance.

Accessories : ( not included in the price )

- 1-) Connection nut ( 6010-3 )
- 2-) Connection flange ( 6010-4 )
- 3-) Squeeze part ( 911, 912, 913, 914, 915, 916 )



6013



6014

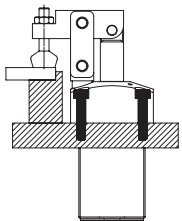
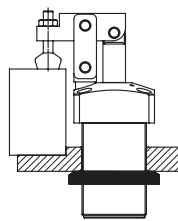
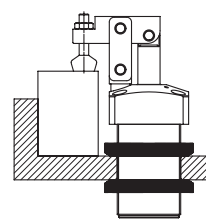


6016



6031

Sayfa/Page: 111 Sayfa/Page: 112 Sayfa/Page: 114 Sayfa/Page: 122

**Montaj seçenekleri**  
 Mounting options

 1- Flanş sayesinde imbus civata ( DIN 912 ) ile yukarıdan montaj.  
 1- Mounting from above with imbus bolt through the flange. (DIN 912)

 2- Gövdeyi klavuz çekilmiş bir delik içine vidalama ve bağlantı somunu ile sıkarak montaj ( 6010-3 )  
 2- By screwing the body into a tapped hole and mounting with connection nut ( 6010-3 )

 3- Gövde düz bir delik içine yerleştirilerek, bağlantı somunları ile aşağıdan ve yukarıdan sıkarak montaj ( 6010-3 )  
 3- By inserting the body into a plain hole and mounting with connection nuts, from above and from below ( 6010-3 )

MODEL NO	A	B	C	C2	D	F	G	H	H2	H3	H4	H5	M	ØN	P	R	X	Y Min	Y Max	PİSTON Ø
6015 - 25	50	16	25	50	M 40 x 1,5	37	114	87	134	148	12	62	M6	5,5	66	M5	16	20	39	25
6015 - 32	60	16	30	60	M 50 x 1,5	45	132	100	152	172	10	73	M8	6,5	80	G1/8	22	19	46	32
6015 - 40	65	16	35,5	68	M 55 x 1,5	50	132	100	156	181	10	73	M8	6,5	85	G1/8	23,5	22	47	40
6015 - 50	75	20	41,5	79	M 65 x 1,5	58	146	106	176	202	11	79	M12	8,5	100	G1/8	26	2	45	50

6016



MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr ±%)	BAR
6016 - 25R	170	0,15	28	430	6
6016 - 25L	170	0,15	28	430	6
6016 - 32R	270	0,28	30	750	6
6016 - 32L	270	0,28	30	750	6
6016 - 40R	450	0,47	30	840	6
6016 - 40L	450	0,47	30	840	6
6016 - 50R	700	0,88	36	1270	6
6016 - 50L	700	0,88	36	1270	6

F1 : BASKI KUVVETİ ( EXERTING FORCE )

Vn , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR. ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

**Not: Filtrelenmiş ve yağlanmış hava kullanılmalıdır.**  
 Note: Operate only with filtered and lubricated air.

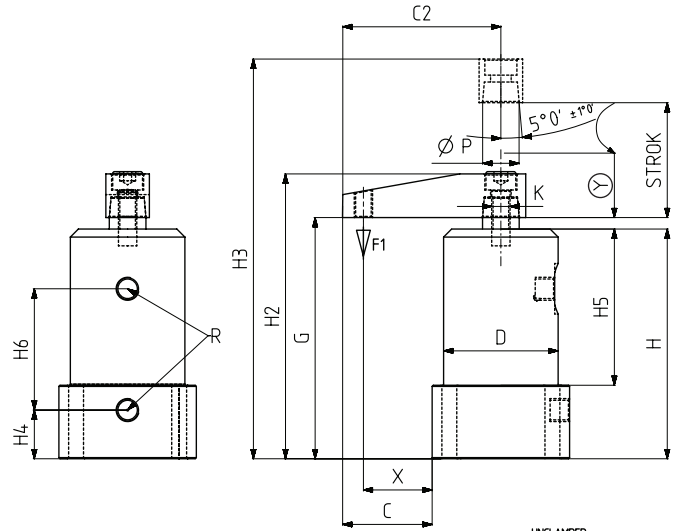


### DÖNER TİP PNÖMATİK BAĞLANTI ELEMANI - FLANŞ BAĞLANTILI GÖVDE

- Silindir çift etkilidir.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksal kaplama yapılmıştır.
- Piston mili yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.

Aksesuarlar : ( fiyata dahil değildir )

- 1-) Sıkma kolu ( 6010-1 )
- 2-) Sıkma kolu ( 6010-7 )
- 3-) Bağlantı somunu ( 6010-3 )
- 4-) Bağlantı flanşı ( 6010-4 )
- 5-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )
- 6-) Sıkma kolu adaptörü ( 6010-8 )

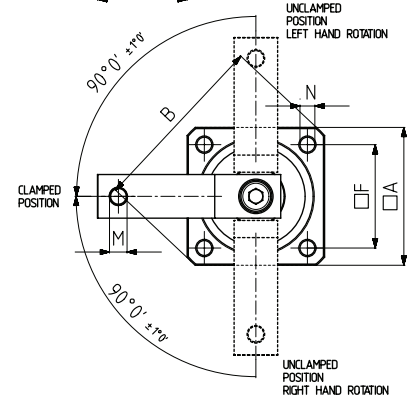


### PNEUMATIC SWING CLAMP - FLANGE MOUNTING BODY

- Cylinder is double actin.
- The body is made of strength aluminum. Anodised for Corrosion resistance.
- The piston rod is hard chrome plated and shapely polished for to high wear resistance and corrosion resistance.

Accessories : ( not included in the price )

- 1-) Squeezing arm ( 6010-1 )
- 2-) Squeezing arm ( 6010-7 )
- 3-) Connection nut ( 6010-3 )
- 4-) Connection flange ( 6010-4 )
- 5-) Squeeze part ( 911,912,913,914,915,916 )
- 6-) Squeezing Arm Adapter ( 6010-8 )

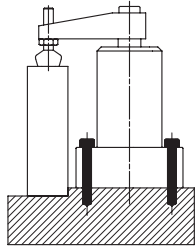


### Montaj seçenekleri

Mounting options

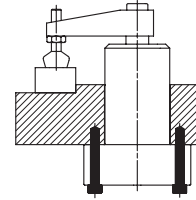
#### 1-Flanş sayesinde imbus cıvata (DIN 912) ile yukarıdan montaj.

1- Mounting from above with imbus bolt through the flange. (DIN 912)



#### 2-Flanş sayesinde imbus cıvata (DIN 912) ile aşağıdan montaj.

2- Mounting from below with imbus bolt through the flange. (DIN 912)



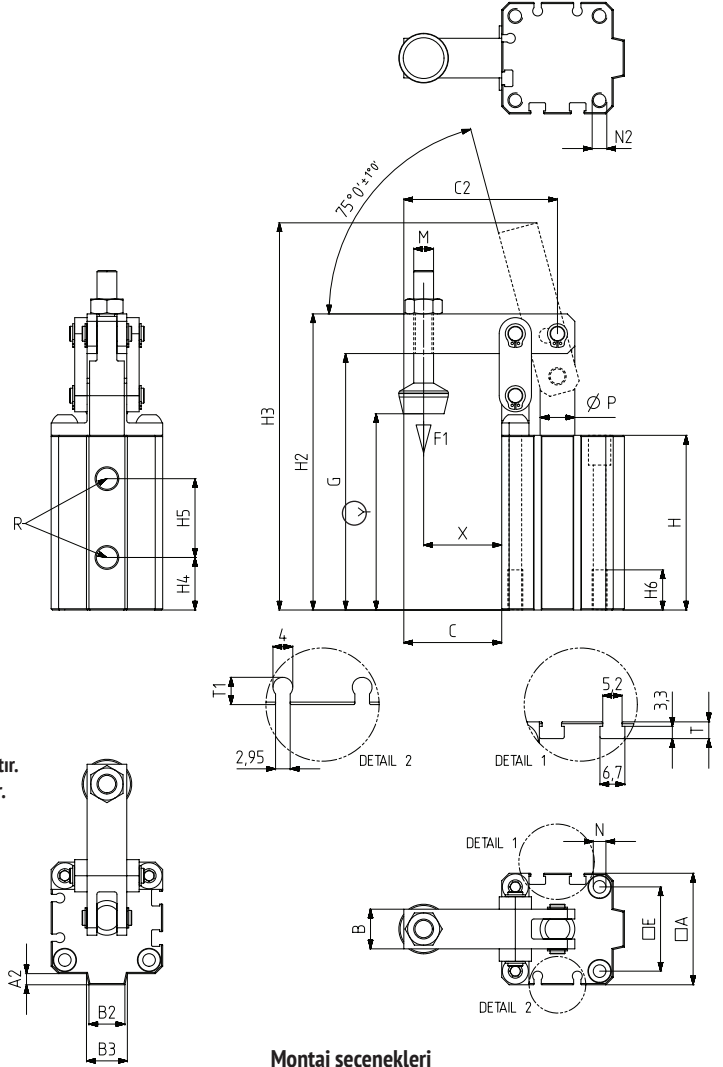
MODEL NO	A	B	C	C2	ØD	F	G	H	H2	H3	H4	H5	H6	K	M	ØN	P	R	X	Y	PİSTON Ø
6016 - 25R	50	66	31	56	40	37	92	87	108	136	16	62	45	M8	M6	5,5	14	M5	25	12	25
6016 - 25L	50	66	31	56	40	37	92	87	108	136	16	62	45	M8	M6	5,5	14	M5	25	12	25
6016 - 32R	60	80	40	70	50	45	105	100	125	155	21	68	53	M8	M8	6,5	16	G1/8	30	10	32
6016 - 32L	60	80	40	70	50	45	105	100	125	155	21	68	53	M8	M8	6,5	16	G1/8	30	10	32
6016 - 40R	65	85	47,5	80	55	50	105	100	125	155	21	68	53	M8	M8	6,5	16	G1/8	37,5	10	40
6016 - 40L	65	85	47,5	80	55	50	105	100	125	155	21	68	53	M8	M8	6,5	16	G1/8	37,5	10	40
6016 - 50R	75	100	52,5	90	65	58	111	106	136	172	20	74	63	M10	M12	8,5	20	G1/8	42,5	15	50
6016 - 50L	75	100	52,5	90	65	58	111	106	136	172	20	74	63	M10	M12	8,5	20	G1/8	42,5	15	50

**Not: Döner Tip Bağlantı Elemanları, sadece "Y" stroğu sırasında sıkma yapabilir.**  
 Note: Swing clamps can squeezing only during the "Y" stroke.




MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	BASKI VİDASI (SQUEEZE SCREW)	AĞIRLIK (WEIGHT) (gr ±%)	BAR
6017 - 25	100	0,13	M6 x 40	360	6
6017 - 32	300	0,19	M8 x 50	530	6
6017 - 40	500	0,38	M8 x 50	720	6
6017 - 50	700	0,79	M10 x 70	1110	6

F1 : BASKI KUVVETİ ( EXERTING FORCE )

 Vn, 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn, AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

**PNÖMATİK BAĞLANTI ELEMANI - LINK KARE GÖVDE**

- Silindir çift etkili ve manyetiktir.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksal kaplama yapılmıştır.
- Piston mili yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.
- Mekanizma parçaları çelik malzemeden üretilmiş ve korozyon direnci için fosfat kaplama yapılmıştır.
- Piston konumunu izlemek için, gövde üzerinde "T" tip ve "C" tip sensörlere uygun kanallar mevcuttur.

Aksesuarlar : ( fiyata dahil değildir )

1-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )

PNEUMATIC TOGGLE CLAMP - LINK SQUARE BODY

- Cylinder is double acting and magnetic.
- The body is made of strength aluminum. Anodised for Corrosion resistance.
- The piston rod is hard chrome plated and shapely polished for to high wear resistance and corrosion resistance.
- Parts of the mechanism are made of steel and phosphate coated for corrosion resistance.
- There are slots on the body, according to T type and C type sensors, for monitoring the position of piston.

Accessories : ( not included in the price )

1-) Squeeze part ( 911,912,913,914,915,916 )



6011

Sayfa/Page: 109



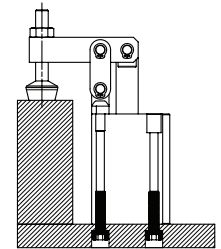
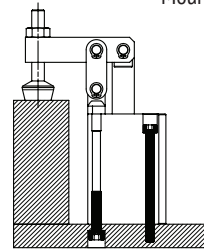
6012

Sayfa/Page: 110



6031

Sayfa/Page: 122

**Montaj seçenekleri**  
 Mounting options

**1- Gövde üzerindeki deliklerden imbus civata ( DIN 912 ) ile yukarıdan montaj.**

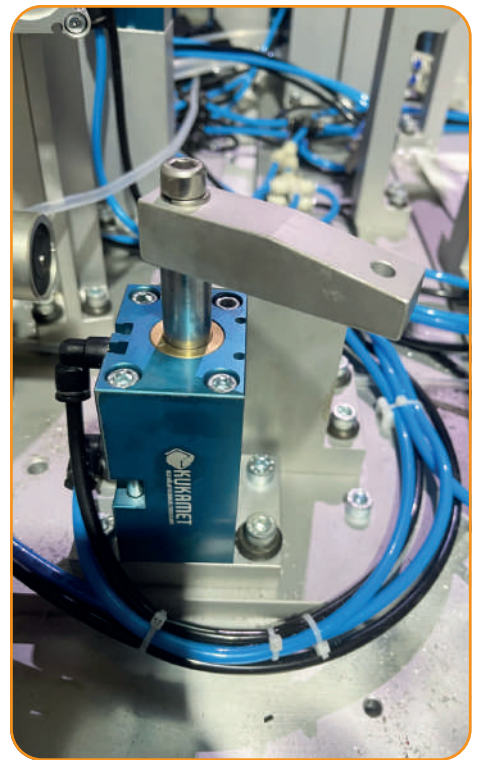
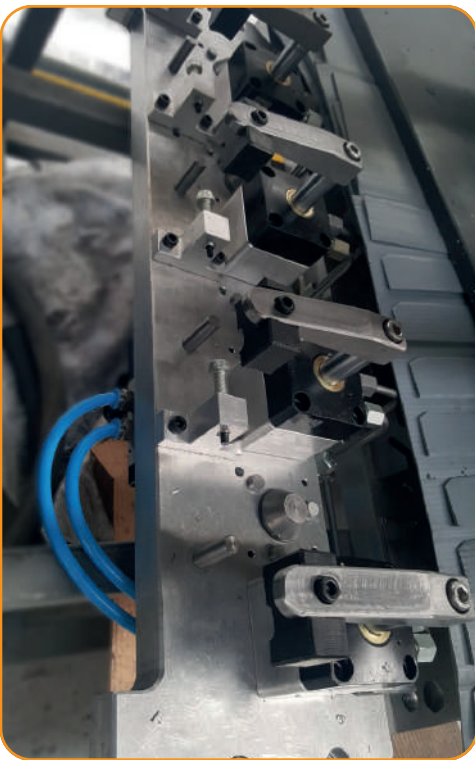
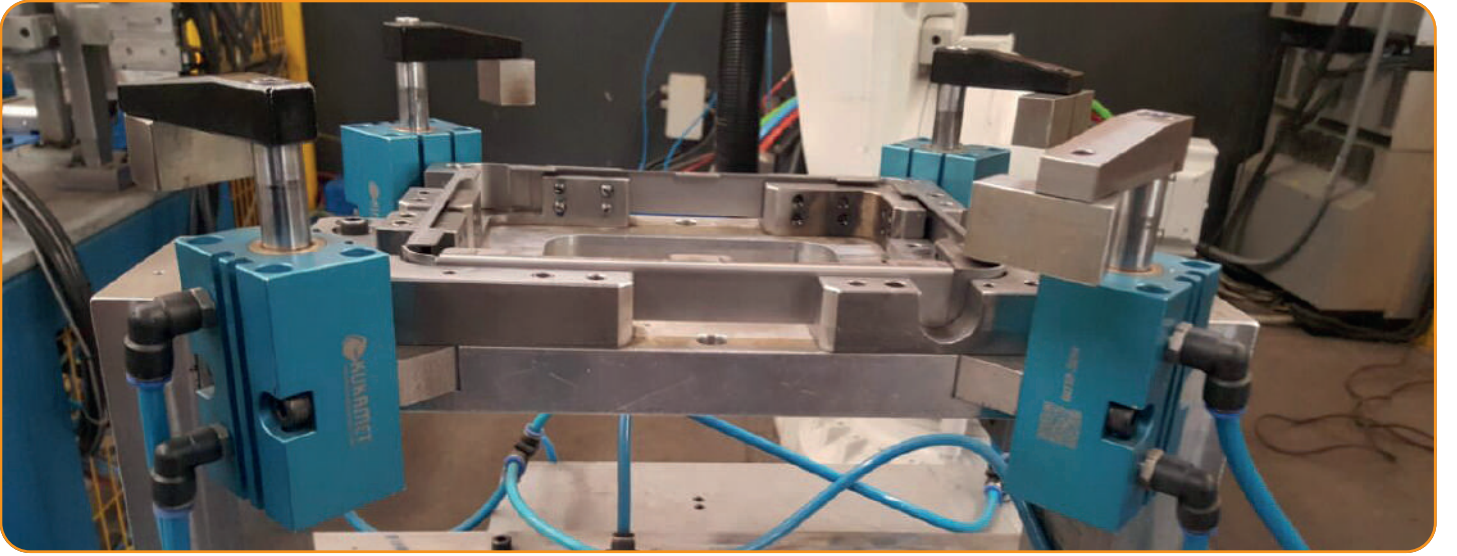
1- Mounting from above with socket bolt ( DIN 912 ) through to holes on the body.

**2- Gövde alt yüzündeki, klavuz çekilmiş delikler kullanılarak montaj.**

2- Mounting through to tapped holes on the lower surface of body.

MODEL NO	A	A2	B	B2	B3	C	C2	E	G	H	H2	H3	H4	H5	H6	M	N	N2	P	R	T	T1	X	Y Min	Y Max	PİSTON Ø
6017 - 25	40	4	14	10,5	12,5	34	54	29	80,5	58	94,5	124,5	15,6	30,9	15	M6	Ø5,1	M6	12	M5	5	5,5	27	54	70	25
6017 - 32	45	4,5	16	14,5	16,5	37,5	60	34	96	66,5	112	145	21,2	33,2	17	M8	Ø5,1	M6	14	G1/8	4,5	5,5	29,5	61	83	32
6017 - 40	55	5	16	19,5	24	32,5	60	40	104	72	119	148	21,2	38,8	17	M8	Ø5,5	M8	14	G1/8	6,5	7	24,5	69	91	40
6017 - 50	64	6	20	20	23	38	70	50	115	79	135	165	20,2	46,6	17	M10	Ø6,5	M8	20	G1/8	6	6,5	28	63	98	50





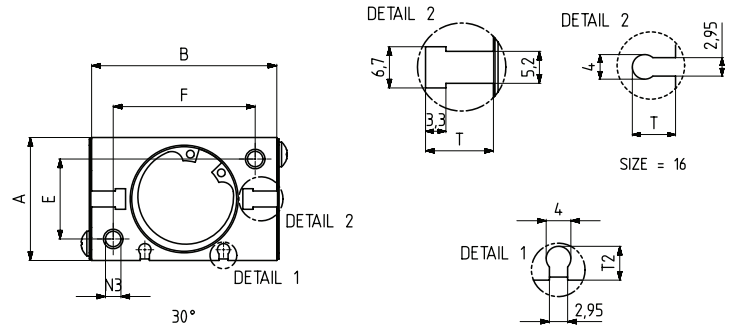

**6021**

MODEL NO	PİSTON Ø	Strok (mm)	Teorik Moment (Theorem Moment) (M)		Max. Tutma Uzaklığı (Max. Length of Gripping) (L)	Sıkma Kuvveti (Holding Force) (F)	Sıkma Kuvveti (N) (Clamping Force) (N) 5 bar / for 5 bar		Çene Açısı (Jaw Angle)	Çalışma Basınç Aralığı (Operation Pressure Range)	Max. Frekans (Max. Frequency)	AĞIRLIK (WEIGHT) (gr ±%)
			kapalı (closed)	açık (open)			kapalı (closed)	açık (open)				
6021 - 16	16	4	9 x P	12 x P	4	F = M / L x 0.85	10	15	-10° ~ 30°	1,5 - 7 bar	180 cycles/min	100
6021 - 20	20	6	17 x P	23 x P	6		20	30				200
6021 - 25	25	7	34 x P	44 x P	7		45	60				330
6021 - 32	32	8,5	61 x P	81 x P	8,5		85	100				520

L : Tutma Uzaklığı / Length of Gripping ( cm ) M : Teorik Moment / Theorem Moment ( N.cm )

F : Sıkma Kuvveti / Holding Force ( N ) P : Uygulama Basıncı / Operation Pressure ( bar )

Sıkma Kuvvetleri : P = 5 bar basınç ile L = 3 cm tutma uzaklığı durumunda geçerlidir / Clamping forces are valid in case of P = 5 bar pressure with gripping length L = 3 cm



### PNÖMATİK TUTUCU - AÇILI HAREKET

- Silindir çift etkili ve manyetik.
- Gövde mukavemetli alüminyumdan üretilmiştir.
- Tutucu çeneler çelikten üretilmiş ve sertleştirilmiştir.
- Piston konumunu izlemek için, gövde üzerinde "T" tip ve "C" tip sensörlere uygun kanallar mevcuttur.

### PNEUMATIC GRIPPER - ANGLED MOTION

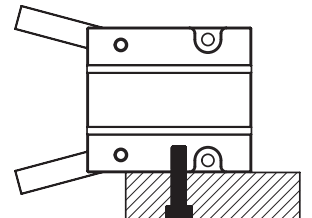
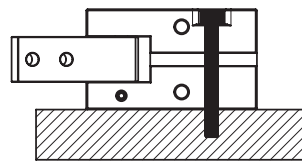
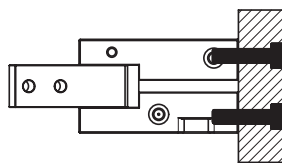
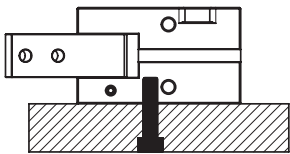
- Cylinder is double acting and magnetic.
- The body is made of strength aluminum.
- The gripper jaws made of steel and hardened.
- There are slots on the body, according to T type and C type sensors, for monitoring the position of piston.

### Montaj seçenekleri

\* Pnömatik tutucu ergonomik tasarımı sayesinde 4 farklı şekilde montaj yapılabilir.

### Mounting options

\* Pneumatic gripper can be mounted 4 different way through to ergonomic design.



MODEL NO	A	B	B2	E	E2	E3	F	F2	F3	H	H2	H3	H4	H5	H6	H7	J	M	M1 (H7)	N	N2	N3	R	T	T2	X1	X2
6021 - 16	22	34	6	14	14	10,5	26	24	28	46,5	64	25,5	13	19	24	7	9	M3	2	3,3	M4	M4	M5	6,8	4	3	8
6021 - 20	26	45	7	16	16	15	35	30	36	55	77	28	14,5	22	27,5	8	12	M4	2,5	4,2	M5	M5	M5	10	4,15	4	10
6021 - 25	32	52	9	20	20	18	40	36	36	58,5	84,5	28,5	15	22	29	8	14	M5	3	4,2	M5	M5	M5	10,5	4,5	5	12
6021 - 32	40	60	10	26	26	24	46	44	50	68	98	37,5	18	30	33,5	10	18	M6	4	5	M6	M6	M5	11	5,5	6	14



**6022**


MODEL NO	PİSTON Ø	Strok (mm)	Max. Tutma Uzaklığı (Max. Length of Gripping) (L)	Sıkma Kuvveti (N) (Clamping Force) (N) 5 bar / for 5 bar		Çalışma Basınç Aralığı (Operation Pressure Range)	Max. Frekans (Max. Frequency)	AĞIRLIK (WEIGHT) (gr ±%2)
				kapalı (closed)	açık (open)			
6022 - 16	16	4	4	24	18	1,5 - 7 bar	180 cycles/min	140
6022 - 20	20	6	6	47	35			260
6022 - 25	25	7	7	75	60			430
6022 - 32	32	8,5	8,5	100	85			700

L : Tutma Uzaklığı / Length of Gripping (cm) M : Teorik Moment / Theorem Moment (N.cm)

F : Sıkma Kuvveti / Holding Force (N) P : Uygulama Basıncı / Operation Pressure (bar)

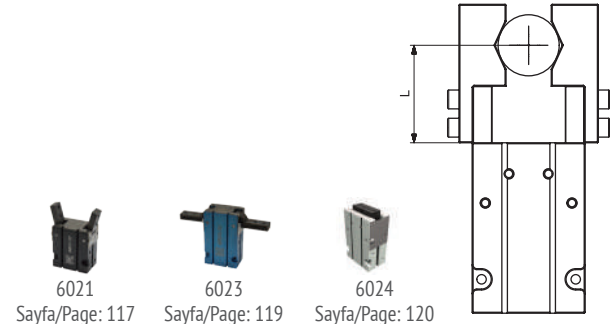
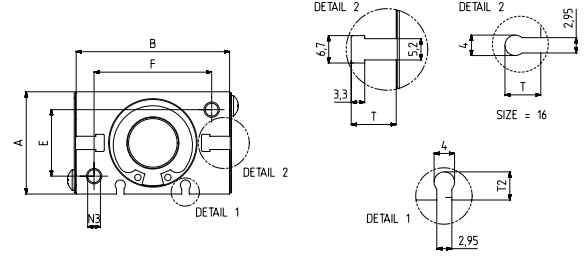
Sıkma Kuvvetleri : P = 5 bar basınç ile L = 3 cm tutma uzaklığı durumunda geçerlidir / Clamping forces are valid in case of P = 5 bar pressure with gripping length L = 3 cm


**PNÖMATİK TUTUCU - DİKEY PARALEL HAREKET**

- Silindir çift etkili ve manyetiktir.
- Gövde mukavemetli alüminyumdan üretilmiştir.
- Tutucu çeneler çelikten üretilmiş ve sertleştirilmiştir.
- Piston konumunu izlemek için, gövde üzerinde "T" tip ve "C" tip sensörlere uygun kanallar mevcuttur.
- Tutma eylemi, piston itme konumunda iken gerçekleştiği için daha fazla sıkıştırma kuvveti sağlanır.

**PNEUMATIC GRIPPER - VERTICAL PARALLEL MOTION**

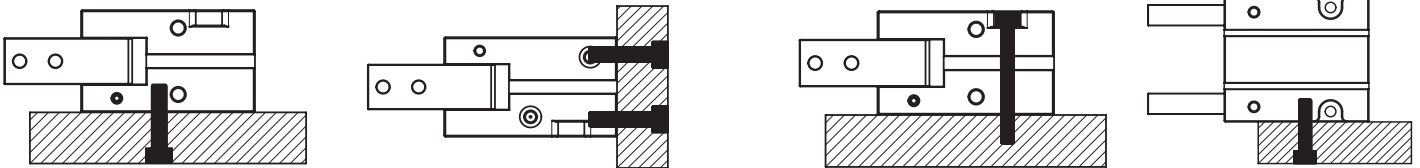
- Cylinder is double acting and magnetic.
- The body is made of strength aluminum.
- The gripper jaws made of steel and hardened.
- There are slots on the body, according to T type and C type sensors, for monitoring the position of piston.
- The closing action of the gripper is generated from the cylinder's thrust side, resulting in a higher gripping force.


**Montaj seçenekleri**

\* Pnömatik tutucu ergonomik tasarımı sayesinde 4 farklı şekilde montaj yapılabilir.

**Mounting options**

\* Pneumatic gripper can be mounted 4 different way through to ergonomic design.



MODEL NO	A	B	B2	E	E2	E3	F	F2	F3	H	H2	H3	H4	H5	H6	H7	J	L Min	L Max	M	M1 (H7)	N	N2	N3	R	T	T2	X1	X2
6022 - 16	22	34	6	14	14	10,5	26	24	28	61	76	25,5	13	19	24	7	11	25	33	M3	2	3,3	M4	M4	M5	6,8	4	3	8
6022 - 20	26	45	7	16	16	15	35	30	36	73,5	95,5	28	14,5	22	27,5	8	12	32	44	M4	2,5	4,2	M5	M5	M5	10	4,2	4	10
6022 - 25	32	52	9	20	20	18	40	36	40	80	104	28,5	15	22	29	8	14	37	51	M5	3	4,2	M5	M5	M5	11	4,5	5	12
6022 - 32	40	60	10	26	26	24	46	44	50	90,5	120,5	37,5	18	30	33,5	10	18	43	59	M6	4	5	M6	M6	M5	11	5,5	7	15



**6023**


MODEL NO	PİSTON Ø	Strok (mm)	Teorik Moment (Theorem Moment) (M)		Max. Tutma Uzaklığı (Max. Length of Gripping) (L)	Sıkma Kuvveti (Holding Force) (F)	Sıkma Kuvveti (N) (Clamping Force) (N) 5 bar / for 5 bar		Çene Açısı (Jaw Angle)	Çalışma Basınç Aralığı (Operation Pressure Range)	Max. Frekans (Max. Frequency)	AĞIRLIK (WEIGHT) (gr ±%)
			kapalı (closed)	açık (open)			kapalı (closed)	açık (open)				
6023 - 16	16	11,5	9 x P	12 x P	4	F = M / L x 0.85	10	15	-2 - 182°	1,5 - 7 bar	180 cycles/min	135
6023 - 20	20	15,5	17 x P	23 x P	6		20	30				260
6023 - 25	25	19	34 x P	44 x P	7		45	60				440
6023 - 32	32	22	61 x P	81 x P	8,5		85	100				770

L : Tutma Uzaklığı / Length of Gripping (cm) M : Teorik Moment / Theorem Moment (N.cm)

F : Sıkma Kuvveti / Holding Force (N) P : Uygulama Basıncı / Operation Pressure (bar)

Sıkma Kuvvetleri : P = 5 bar basınç ile L = 3 cm tutma uzaklığı durumunda geçerlidir / Clamping forces are valid in case of P = 5 bar pressure with gripping length L = 3 cm


**PNÖMATİK TUTUCU - 180° AÇILI HAREKET**

- Silindir çift etkili ve manyetik.
- Gövde mukavemetli alüminyumdan üretilmiştir.
- Tutucu çeneler çelikten üretilmiş ve sertleştirilmiştir.
- Piston konumunu izlemek için, gövde üzerinde "T" tip ve "C" tip sensörlere uygun kanallar mevcuttur.

**PNEUMATIC GRIPPER - 180° ANGLED MOTION**

- Cylinder is double acting and magnetic.
- The body is made of strength aluminum.
- The gripper jaws made of steel and hardened.
- There are slots on the body, according to T type and C type sensors, for monitoring the position of piston.

**Montaj seçenekleri**

\* Pnömatik tutucu ergonomik tasarımı sayesinde 4 farklı şekilde montaj yapılabilir.

**Mounting options**

\* Pneumatic gripper can be mounted 4 different way through to ergonomic design.



6021

Sayfa/Page: 117



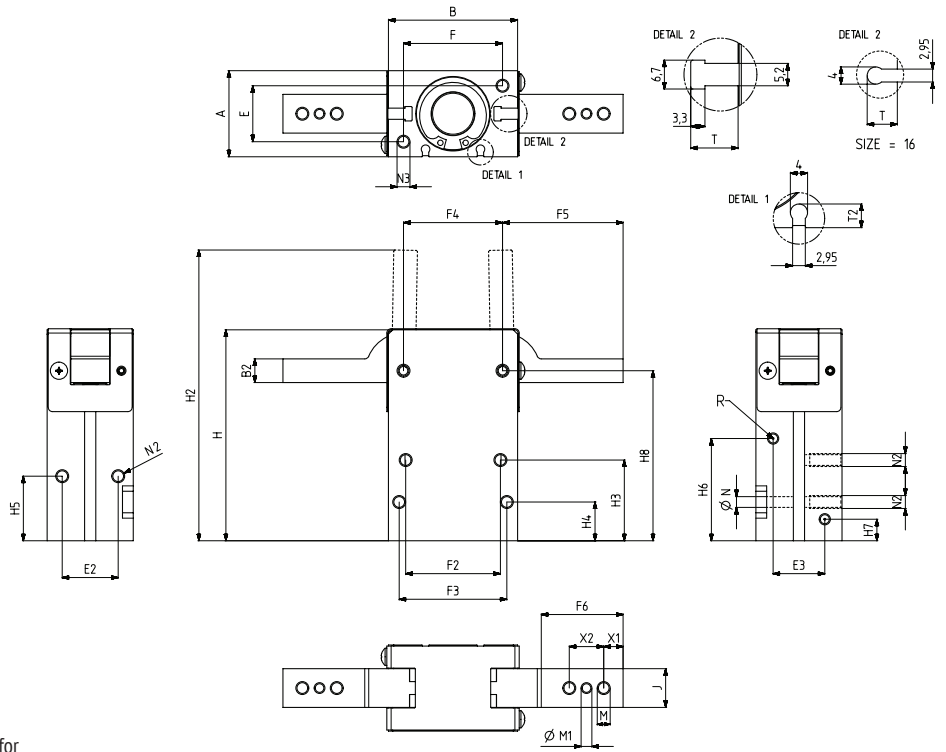
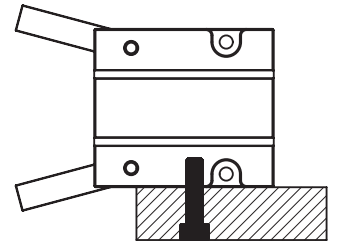
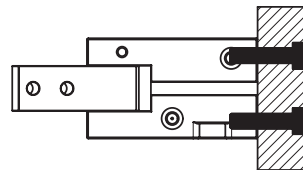
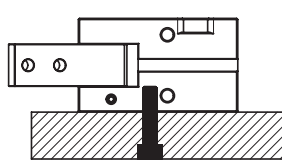
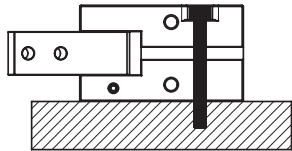
6022

Sayfa/Page: 118



6024

Sayfa/Page: 120



MODEL NO	A	B	B2	E	E2	E3	F	F2	F3	F4	F5	F6	H	H2	H3	H4	H5	H6	H7	H8	J	M	M1 (H7)	N	N2	N3	R	T	T2	X1	X2
6023 - 16	22	34	6	14	14	10,5	26	24	28	25,5	28	17,5	61,25	79	25,5	13	19	31	7	51,25	9	M3	2	3,3	M4	M4	M5	6,8	4	4	8
6023 - 20	26	45	7	16	16	15	35	30	36	34	35,5	22	73,5	95,5	28	14,5	22	37	8,25	60	12	M4	2,5	4,2	M5	M5	M5	10	4,15	4	10
6023 - 25	32	52	9	20	20	18	40	36	36	40	47	31	83	115	28,5	15	22	40,5	8	67	14	M5	3	4,2	M5	M5	M5	10,5	4,5	7	14
6023 - 32	40	60	10	26	26	24	46	44	50	46	56	38	98	135	37,5	18	30	47,5	10	79	18	M6	4	5	M6	M6	M5	11	5,5	9	16

6024



MODEL NO	PİSTON Ø	Strok (mm)	Max. Tutma Uzaklığı (Max. Length of Gripping) (L)	Sıkma Kuvveti (N) (Clamping Force) (N) 5 bar / for 5 bar		Çalışma Basınç Aralığı (Operation Pressure Range)	Max. Frekans (Max. Frequency)	AĞIRLIK (WEIGHT) (gr ±%2)
				kapalı (closed)	açık (open)			
6024 - 16	16	4	4	24	18	1,5 - 7 bar	180 cycles/min	140
6024 - 20	20	6	6	47	35			250
6024 - 25	25	7	7	75	60			410
6024 - 32	32	8,5	8,5	100	85			660

L : Tutma Uzaklığı / Length of Gripping (cm) M : Teorik Moment / Theorem Moment (N.cm)

F : Sıkma Kuvveti / Holding Force (N) P : Uygulama Basıncı / Operation Pressure (bar)

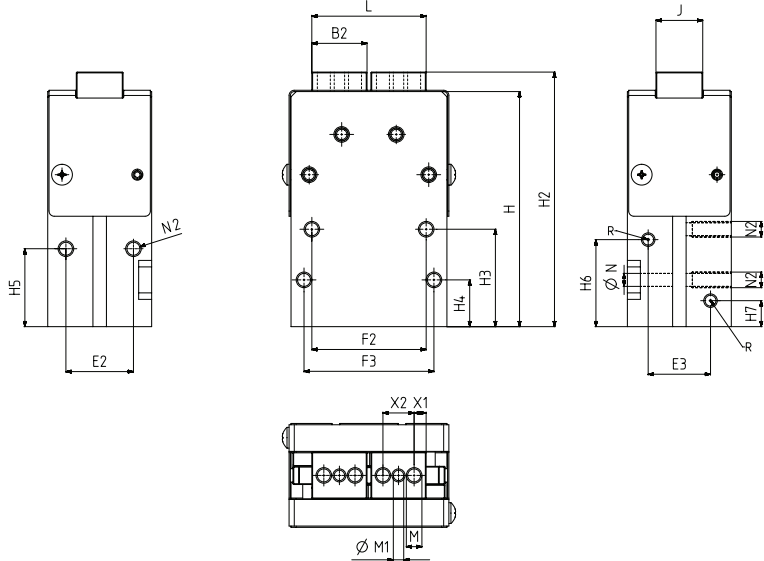
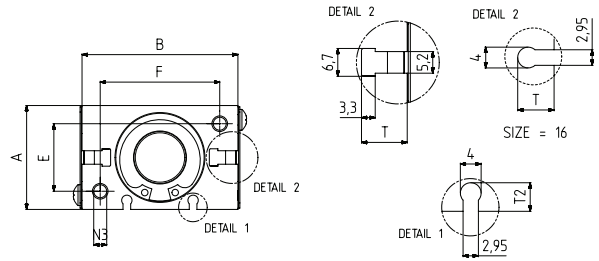
Sıkma Kuvvetleri : P = 5 bar basınç ile L = 3 cm tutma uzaklığı durumunda geçerlidir / Clamping forces are valid in case of P = 5 bar pressure with gripping length L = 3 cm

#### PNÖMATİK TUTUCU - YATAY PARALEL HAREKET

- Silindir çift etkili ve manyetiktir.
- Gövde mukavemetli alüminyumdan üretilmiştir.
- Tutucu çeneler çelikten üretilmiş ve sertleştirilmiştir.
- Piston konumunu izlemek için, gövde üzerinde "T" tip ve "C" tip sensörlere uygun kanallar mevcuttur.
- Tutma eylemi, piston itme konumunda iken gerçekleştiği için daha fazla sıkıştırma kuvveti sağlar.

#### PNEUMATIC GRIPPER - HORIZONTAL PARALLEL MOTION

- Cylinder is double acting and magnetic.
- The body is made of strength aluminum.
- The gripper jaws made of steel and hardened.
- There are slots on the body, according to T type and C type sensors, for monitoring the position of piston.
- The closing action of the gripper is generated from the cylinder's thrust side, resulting in a higher gripping force.



6021



6022



6023

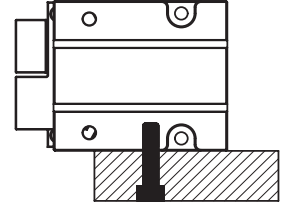
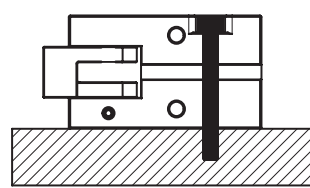
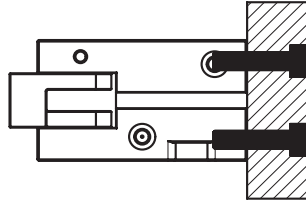
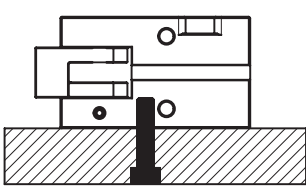
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#### Montaj seçenekleri

\* Pnömatik tutucu ergonomik tasarımı sayesinde 4 farklı şekilde montaj yapılabilir.

#### Mounting options

\* Pneumatic gripper can be mounted 4 different way through to ergonomic design.



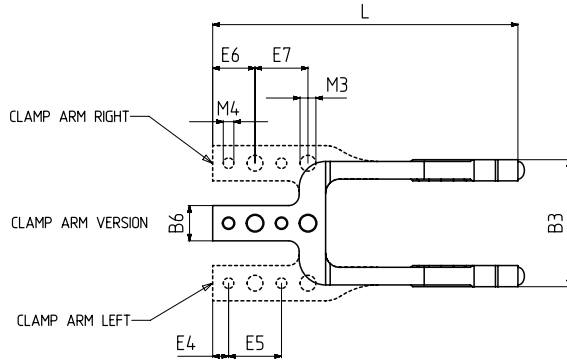
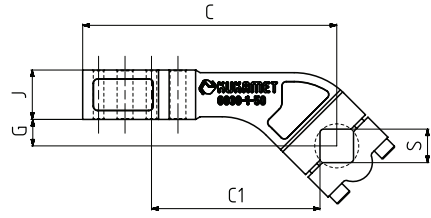
MODEL NO	A	B	B2	E	E2	E3	F	F2	F3	H	H2	H3	H4	H5	H6	H7	J	L Min	L Max	M	M1 (H7)	N	N2	N3	R	T	T2	X1	X2
6024 - 16	22	34	12	14	14	10,5	26	24	28	61	65	25,5	13	19	24	7	11	25	33	M3	2	3,3	M4	M4	M5	6,8	4	3	6
6024 - 20	26	45	16	16	16	15	35	30	36	73,5	78,5	28	14,5	22	27,5	8	12	32	44	M4	2,5	4,2	M5	M5	M5	10	4,2	4	8
6024 - 25	32	52	18	20	20	18	40	36	40	80	86	28,5	15	22	29	8	14	37	51	M5	3	4,2	M5	M5	M5	11	4,5	4	10
6024 - 32	40	60	21	26	26	24	46	44	50	90,5	98	37,5	18	30	33,5	10	18	43	59	M6	4	5	M6	M6	M5	11	5,5	4,5	12

6030-1



new

**Power Clamp Çene**  
Power Clamp Jaw



ORDERING EXAMPLE :

- 6030-1-50 (CLAMP ARM CENTER)
- 6030-1-50-R (CLAMP ARM RIGHT)
- 6030-1-50-L (CLAMP ARM LEFT)
- 6030-1-63 (CLAMP ARM CENTER)
- 6030-1-63-R (CLAMP ARM RIGHT)
- 6030-1-63-L (CLAMP ARM LEFT)

MODEL NO	AĞIRLIK (WEIGHT) (gr ±%)
6030-1 - 50	955
6030-1 - 50-R	1050
6030-1 - 50-L	1050
6030-1 - 63	1275
6030-1 - 63-R	1325
6030-1 - 63-L	1325



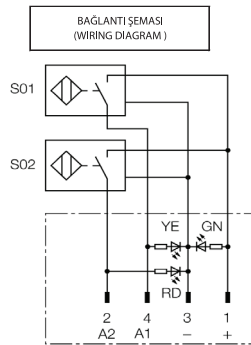
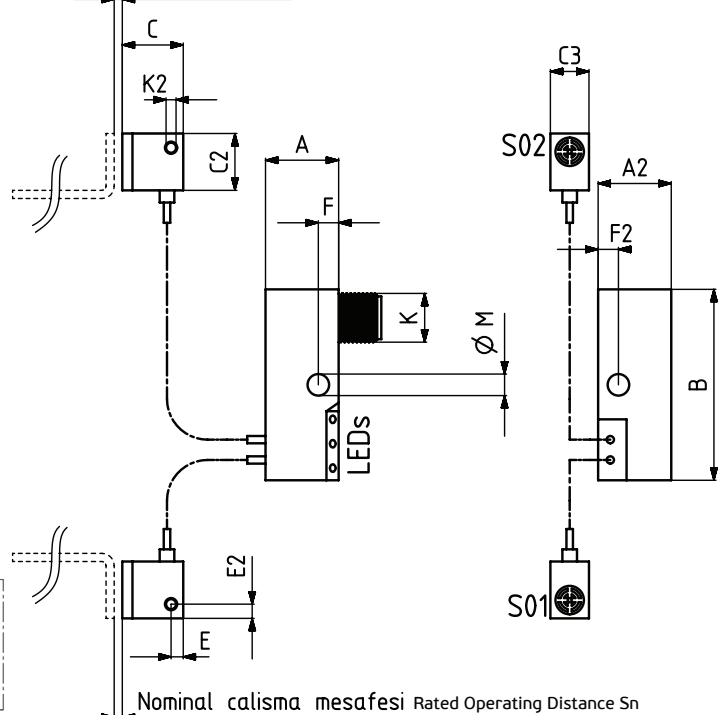
MODEL NO	B3	B6	C	C1	E4	E5	E6	E7	G	J	L	M3	"M4 (H7)"	S
6030-1 - 50	72	20	144	95,5	9	30	24	30	14	30	173	9	6	19
6030-1 - 50-R	72	20	144	95,5	9	30	24	30	14	30	173	9	6	19
6030-1 - 50-L	72	20	144	95,5	9	30	24	30	14	30	173	9	6	19
6030-1 - 63	86	20	144	94	9	30	24	30	14	30	177,5	9	6	22
6030-1 - 63-R	86	20	144	94	9	30	24	30	14	30	177,5	9	6	22
6030-1 - 63-L	86	20	144	94	9	30	24	30	14	30	177,5	9	6	22

150-690

ÜRÜN ADI VE KODU (PRODUCT NAME AND CODE)	MODEL NO	NOMİNAL ÇALIŞMA MESAFESİ (RATED OPERATING DISTANCE SN)	TEKRARLANABİLİRLİK (REPEATABILITY)	ORTAM SICAKLIĞI (AMBIENT TEMPERATURE)	ÇALIŞMA GERİLİMİ (OPERATING VOLTAGE)	ÇALIŞMA AKIMI (DC RATED OPERATIONAL CURRENT)	GÜÇ AÇIK GÖSTERGESİ (POWER-ON INDICATOR)	ANAHTARLAMA DURUMU (SWITCHING STATE)	AĞIRLIK (WEIGHT) (gr ±%)
TURCK NI2-Q9,5-AP6-0,1-FS4,4X3/S304	150 - 690	2mm	≤ 2 %	-25...+70 °C	10...30VDC	≤ 150 mA	YEŞİL	SARI / KIRMIZI	32



Nominal çalışma mesafesi Rated Operating Distance Sn



**Power Clamp Sensör**  
Power Clamp Sensor

ÜRÜN ADI VE KODU (PRODUCT NAME AND CODE)	MODEL NO	A	A2	B	C	C2	C3	E	E2	F	F2	K	K2	M
TURCK NI2-Q9,5-AP6-0,1-FS4,4X3/S304	150 - 690	18	18	47	15	14	9,5	3	3,5	5	5	M12x1	M3	5,3



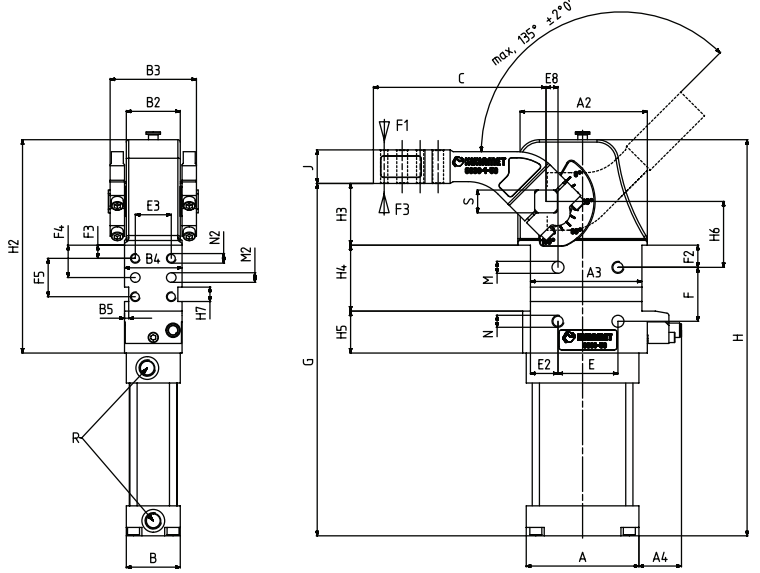
6031



PATENT NO: 2021/017142

new

MODEL NO	BASKI KUVVETİ (CLAMPING MOMENT) (at 5 bar) ( Nm ) F1	TUTMA KUVVETİ (HOLDING MOMENT) ( Nm ) F3	AĞIRLIK (WEIGHT) (gr ±%2)
6031 - 50	160	800	4210
6031 - 63	380	1500	5400

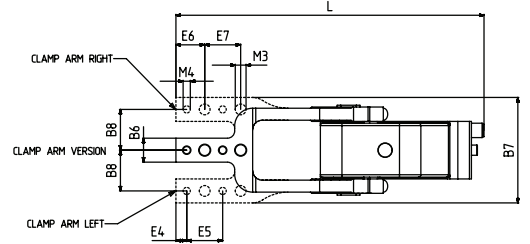


IP 5X DUST PROTECTION  
(IP 5X TOZA KARŞI KORUMA TESTİ)  
TS 3033 EN 60529



ORDERING EXAMPLE :

6031-50 (CLAMP ARM CENTER)  
6031-50-R (CLAMP ARM RIGHT)  
6031-50-L (CLAMP ARM LEFT)  
6031-63 (CLAMP ARM CENTER)  
6031-63-R (CLAMP ARM RIGHT)  
6031-63-L (CLAMP ARM LEFT)



Power clamp otomasyonlu veya otomasjonsuz fişturelerde qerdirme, kenetleme, merkezleme, delme, kaynaklama veya perçinleme gibi işlemler için kullanılan pnömatik bir üründür. Yıllardır farklı aşamalarda kullanılan bu ürünün odak noktası işlem sırasında sabitlenmek istenen parçayı tutma kabiliyeti ve otomasyona uygun olmasıdır.

#### KULLANIM ALANLARI:

- Otomotiv İmalatı
- Gıda Makinaları
- Tarım Makinaları
- Değirmen Makinaları
- Beyaz Eşya İmalatı başta olmak üzere her türlü kaynak, montaj ve boyu hatlarında kullanılabilir.

#### ÖZELLİKLERİ:

- Standart 80°C kadar ısıya dayanıklıdır. (Keçeler ve Oringler değişirse +200°C kadar ısıya dayanıklıdır.)
- 0-135° açı aralığı
- Boşluksuz çene baskısı
- Toz sızdırmazlık test sertifikası (IP5)
- Cüruf tutmayan alüminyum gövde (6082-T6 dan sıcak şekillendirilmiştir.)
- Sensör
- Hızlı ve kolay demonte ile bakım kolaylığı
- Sert eloksall kaplamalı oval silindir
- Yataklamalı üst kapak sayesinde mil doğrusalığı
- Kapaktaki tapanın sökülmesi ve çene açısının tek allen ile yapılması
- İşlenmiş yüzey sayesinde 4 yönden bağlantı kolaylığı
- Ayar civatasının özel tasarımı

#### AYAR CİVATASININ ÖZELLİKLERİ:

- Uç kısmındaki diş sayesinde mil ile bağlantısı güçlendirilmiştir.
- Dişin başlangıcında bulunan kanala o-ring takılarak hava kaçağı engellenmiştir.
- Piston mili ve ayar civatasının birbiri içinde dönmemesi için de pim kullanılarak bağlantı yapılmıştır. Bunun için ayar civatasına pim deliği açılmıştır.

Power clamp is a pneumatic product used for operations such as tensioning, clamping, centering, drilling, welding or riveting in fixtures with or without automation. The focus of this product, which has been used in different stages for years, is its ability to hold the part to be fixed during the process and its suitability for automation.

#### Specialized Applications / USAGE AREAS:

- Automotive Manufacturing
- Food Machinery
- Agricultural Machinery
- Milling Machines
- It can be used in all kinds of welding, assembling and painting lines, especially in White Goods Manufacturing

#### TECHNICAL FEATURES:

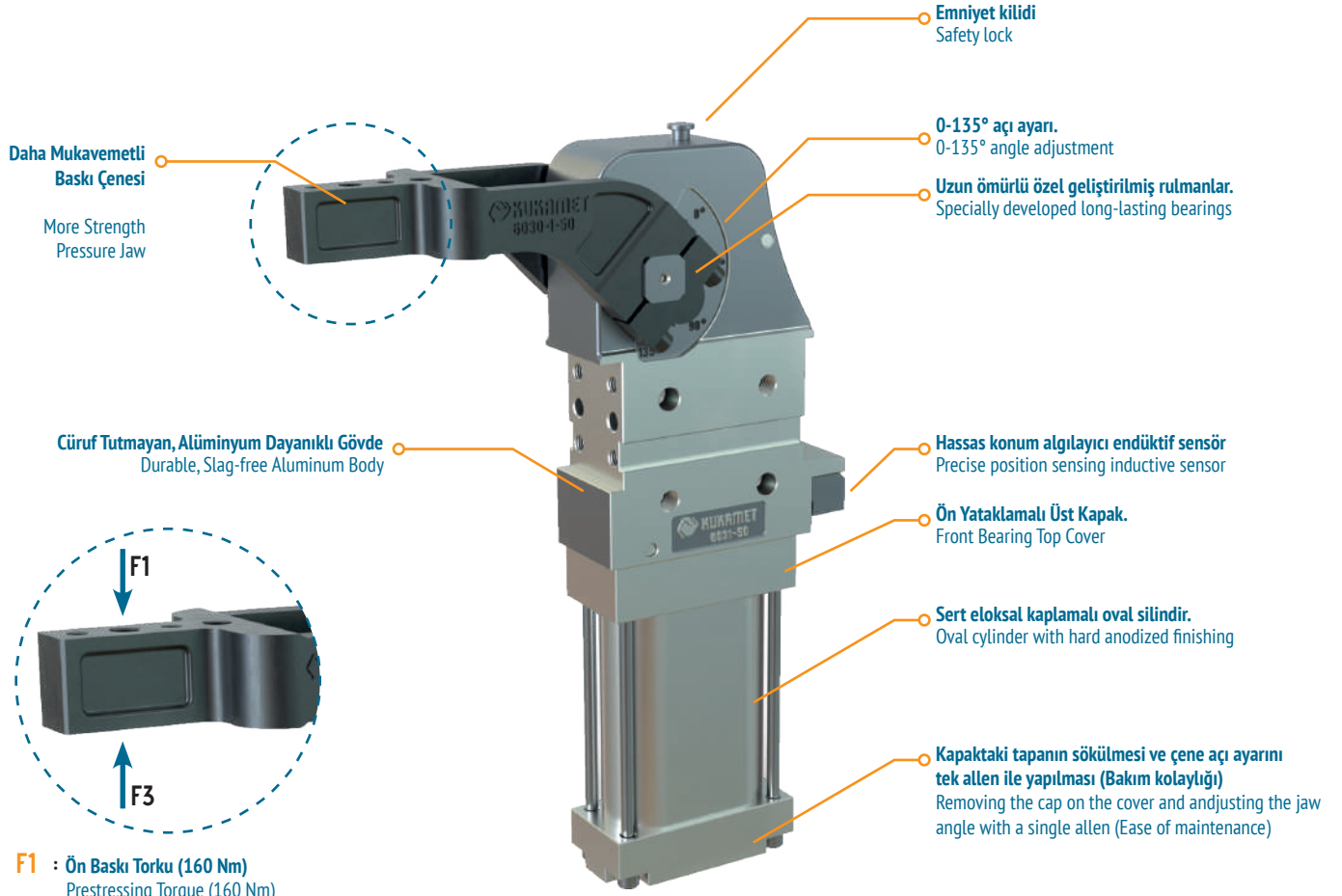
- Standard heat resistant up to 80°C heat resistant up to +200°C if the wiper rod seal and o-rings are changed
- 0-135° angle range
- Gapless jaw pressure
- Dust tightness test certificate (IP5)
- Slag-free aluminum body (Hot shaped from 6082-T6)
- Sensor
- Ease of maintenance with quick and easy disassembly
- Oval cylinder with hard anodized finishing
- Shaft straightness due to bearing top cover
- Removing the cap on the cover and adjusting the jaw angle with a single allen
- Thanks to the machined surface, ease of connection from 4 directions
- Special designed adjusting bolt

#### FEATURES OF ADJUSTMENT BOLT:

- Thanks to the thread on the end, its connection with the shaft is strengthened
- Air leakage is prevented by attaching an o-ring to the channel at the beginning of the tooth.
- The connection is made using a pin, not to allow rotating of the piston rod and the adjustment bolt inside of each other. For this purpose, a pin hole is drilled in the adjustment bolt.

MODEL NO	A	A2	A3	A4	B	B2	B3	B4	B5	B6	B7	B8	C	E	E2	E3	E4	E5	E6	E7	E8
6031 - 50	94	108	93	35,5	45	45	72	48	3,5	20	88	34	144	50	23	30	9	30	24	30	10
6031 - 63	112	111,5	93	32,5	52	52	86	54	3,5	20	94	37	144	50	23	30	9	30	24	30	10

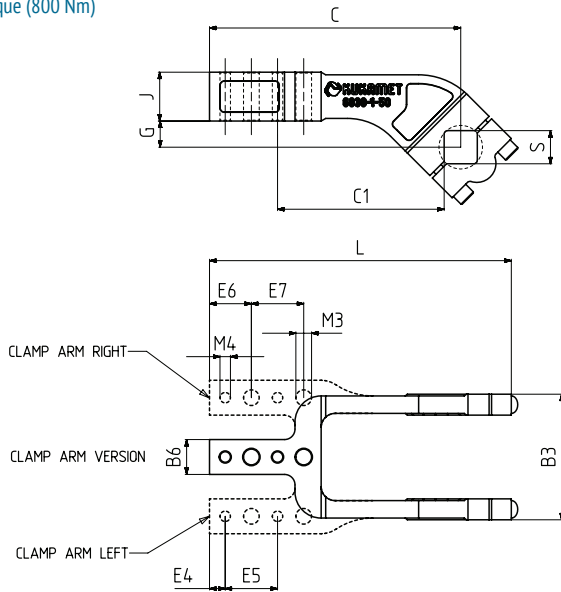
MODEL NO	F	F2	F3	F4	F5	G	H	H2	H3	H4	H5	H6	H7	J	L	M (H7)	N	M2 (H7)	N2	M3	M4 (H7)	R	S
6031 - 50	45	18,5	11	27	32	293	330,5	178	50,5	55	35	55	12	30	257	Ø10	M10	Ø8	M8	9	6	G1/4	19
6031 - 63	45	18,5	11	27	32	302	345,5	184	50,5	55	35	55	12	30	266	Ø10	M10	Ø8	M8	9	6	G1/4	22



**Power Clamp Çene**  
Power Clamp Jaw

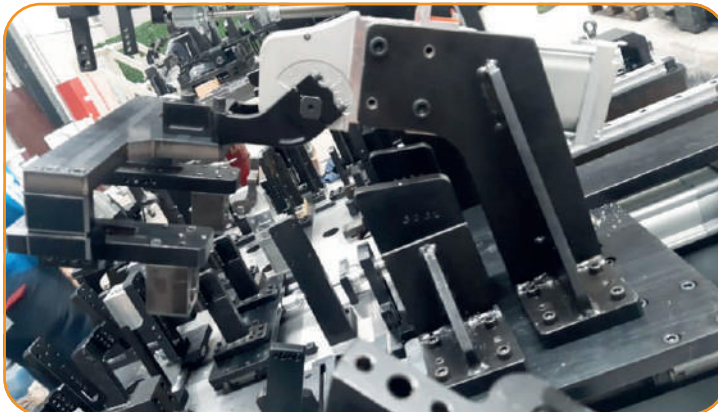


- Daha mukavemetli baskı çenesi
- More strength pressure jaw



ORDERING EXAMPLE :

- 6030-1-50 (CLAMP ARM CENTER)  
6030-1-50-R (CLAMP ARM RIGHT)  
6030-1-50-L (CLAMP ARM LEFT)  
6030-1-63 (CLAMP ARM CENTER)  
6030-1-63-R (CLAMP ARM RIGHT)  
6030-1-63-L (CLAMP ARM LEFT)



## Optik Ölçüm Teknolojileri için Bağlantı Elemanları

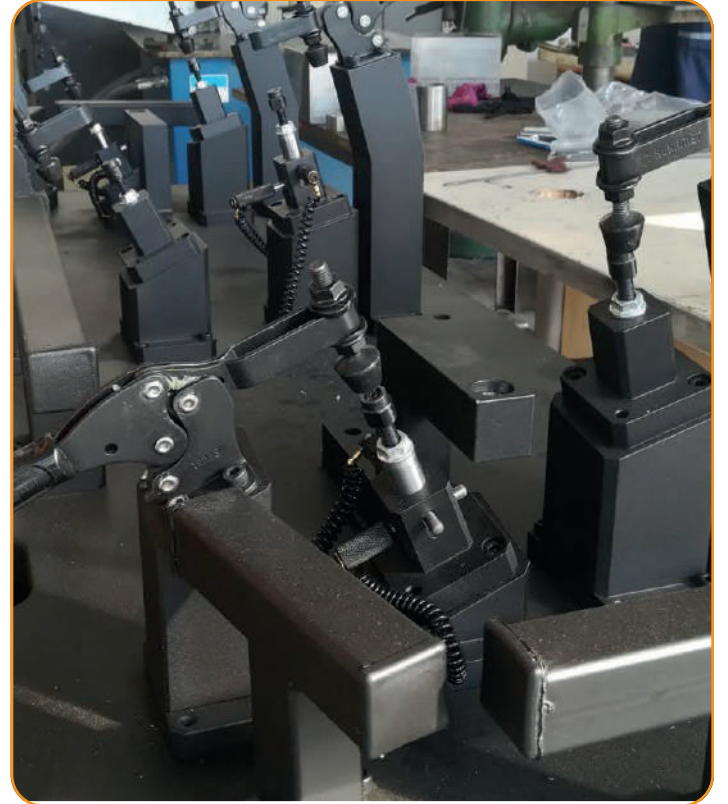
### Toggle Clamps For Optical Measurement Technology

**Ürün özellikleri;**

Optik ölçüm cihazları ile kullanıma uygundur. Işık ve lazer yansımalarını önleyici fosfat kaplama yapılmıştır.

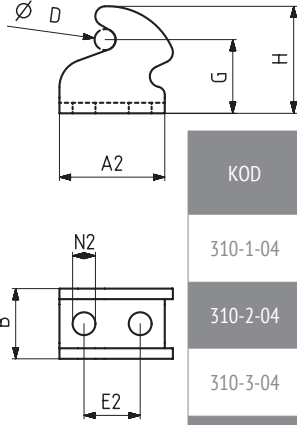
**Features of product;**

Suitable for usage with optical measurement devices, phosphate coated against reflexions of light and laser.





311

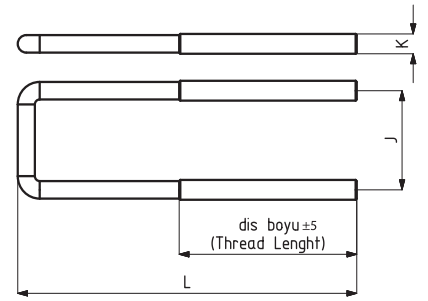


**Gerdirme Parçası**  
Stretcher Parts

KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%2)	A2	B	D	G	H	E2	N2
310-1-04	311-312-321-331-332-351-1	S310-1-04	B310-1-04	12	24,5	15,5	Ø 3,5	12,5	19	10	Ø 5
310-2-04	311-312-331-332-351-2	S310-2-04	B310-2-04	19	28,5	15,5	Ø 3,5	16,5	23	12	5,5 x 7,5
310-3-04	311-312-331-332-351-421-3	S310-3-04	B310-3-04	36	30	20	Ø 5,5	21	30,5	16	Ø 6,5
310-4-04	311-312-331-332-351-4-5 371-4	S310-4-04	B310-4-04	86	45	28	Ø 7	27	39	19,5	8,5 x 10

311

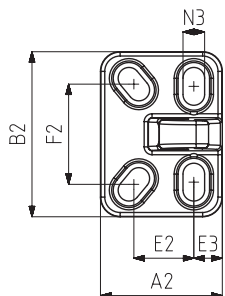
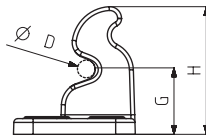
**U Kanca**  
U Hook



new

KOD	MODEL NO	"PASLANMAZ (STAINLESS)"	SİYAH (BLACK)"	AĞIRLIK (WEIGHT) (gr ± %2)"	J	K	L	"DIŞ BOYU (Thread length)"
150-63	"311-312-321-331-332-351-1 311-312-331-332-351-2"	S 150-63	B 150-63	14	23	M4	90	45
150-758	"311-312-321-331-332-351-1-1 311-312-331-332-351-2"	S150-758	B 150-758	10	23	M4	55	28
150-591	"311-312-321-331-332-351-1-1 311-312-331-332-351-2"	S 150-591	B150-591	12	23	M4	75	45
150-155	"311-312-321-331-332-351-1 311-312-331-332-351-2"	S 150-155	B 150-155	22	23	M4	140	45
150-08	311-312-331-332-351-3	S 150-08	B 150-08	39	30	M6	105	75
150-156	311-312-331-332-351-3	S 150-156	B 150-156	56	30	M6	155	75
150-34	311-312-331-332-351-4-341-3	-	B 150-34	101	43	M8	145	95
150-198	311-312-331-332-351-4	-	B 150-198	135	43	M8	195	65
150-35	311-312-331-332-351-4	-	B 150-35	187	43	M8	295	85
150-539	311-312-331-332-351-4	-	-	175	43	M8	250	80,5
150-148	341-4	-	-	222	50	M10	210	130
150-512	341-4	-	-	260	50	M10	260	130
150-650	371-4	-	B150-650	85	43	M8	120	65
150-200	311-312-331-332-351-5	-	B 150-200	257	45	M10	258	130
150-141	311-312-331-332-351-5	-	B 150-141	200	45	M10	180	110
150-516	311-312-331-332-351-5	-	B 150-516	240	45	M10	230	130
150-285	341-5	-	-	229	54	M12	146	65

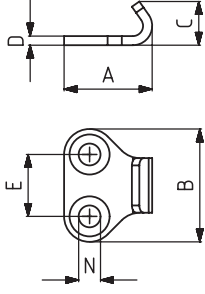
341



KOD	MODEL NO	AĞIRLIK (WEIGHT) (gr ±%2)	A2	B2	D	G	H	E2	F2	N3
340-3-03	341-3	210	49,5	67	Ø 8	27	52,5	24,5	41	8,5 x 14,5
340-4-03	341-4	400	62	84	Ø 10	33,5	65	30,5	51	11 x 19
340-5-03	341-5	510	66	84	Ø 12	33,5	65	31,5	51	11 x 19

**Gerdirme Parçası**  
Stretcher Parts

361

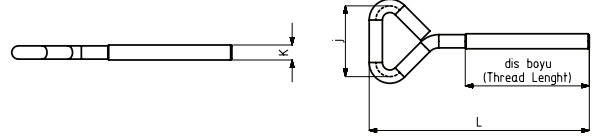


**Gerdirme Parçası**  
Stretcher Parts

KOD	MODEL NO	PASLANMAZ (STAINLESS)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	C	D	E	N
361-1-03	361-362-1	S 361 -1 -03	6	19,5	24,5	10	2	14	Ø 5
361-2-03	361-362-2-2-K	S 361 -2 -03	14	24	31	12	2,5	17	Ø 6
361-3-03	361-362-3-3-K	S 361 -3 -03	26	27	40	15	3	22	Ø 6

361

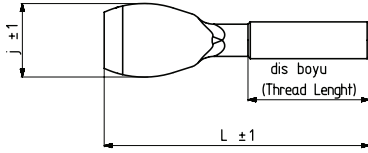
**Kanca**  
Hook



KOD	MODEL NO	PASLANMAZ (STAINLESS)	AĞIRLIK (WEIGHT) (gr ±%)	J	K	L	DİŞ BOYU (Thread length)
150 - 697	361 - 1	S 150-697	12	20	M5	50	23
150 - 267	361 - 2 - 361-2-K	S 150-267	24	28	M6	88,5	50
150 - 642	361 - 3 - 361-3-K	S 150-642	56	40	M8	95	40

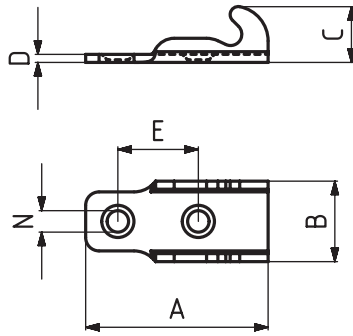
362

**Kanca**  
Hook

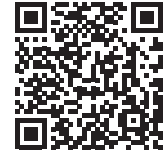


KOD	MODEL NO	PASLANMAZ (STAINLESS)	AĞIRLIK (WEIGHT) (gr ±%)	J	K	L	DİŞ BOYU (Thread length)
150 - 270	362-1	S 150-270	10	10,5	M6	57	25
150 - 498	362-2	S 150-498	20	14	M8	57,5	25

363



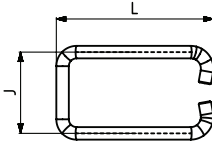
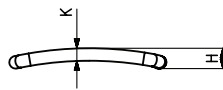
**Gerdirme Parçası**  
Stretcher Parts



KOD	MODEL NO	PASLANMAZ (STAINLESS)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	C	D	E	N
363-2-03	363-2	S 363-2-03	6	34	15	10,5	1,5	15	Ø 4

363

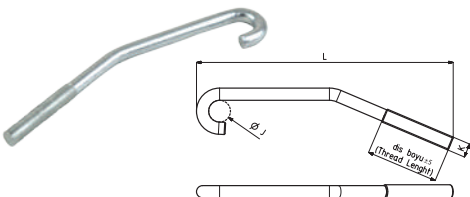
**Kanca**  
Hook



KOD	MODEL NO	PASLANMAZ (STAINLESS)	AĞIRLIK (WEIGHT) (gr ±%)	H	J	K	L
150 - 269	363-2	S 150-269	12	6,5	26	Ø4	50

411

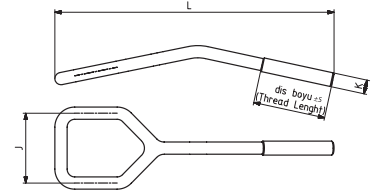
**C Kanca**  
C Hook



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%)	J	K	L	DİŞ BOYU (Thread length)
150 - 69	411-412 - 2	S 150-69	B 150-69	23	9	M6	122	50
150 - 13	411-412-413 - 3	S 150-13	B 150-13	54	12,5	M8	152	40
150 - 44	411-412 - 4	-	B 150-44	110	16	M10	197	55

421

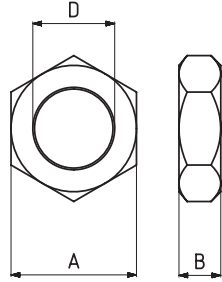
**C Kanca**  
C Hook



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%)	J	K	L	DİŞ BOYU (Thread length)
150-139	421-3	S 150-139	B 150-139	77	40	M8	159	40

510

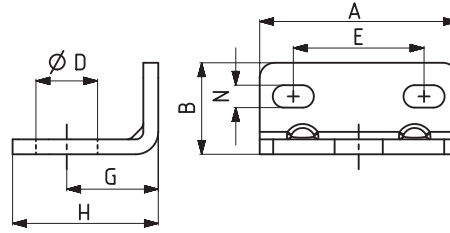
**Somun**  
Nut



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	D
150-327	511-0	S 150-....	B 150-....	11	17	6	M10 x 1
150-103	511-512-513-1	S 150-....	B 150-....	14	19	7	M12 x 1,5
150-74	511-512-513-2	S 150-....	B 150-....	19	24	8	M16 x 1,5
150-21	511-512-513-3	-	B 150-....	29	30	9	M20 x 1,5
150-50	511-512-513-5-6	-	B 150-....	62	36	10	M24 x 1,5
150-151	511-512-513-7	-	B 150-....	82	41	12	M27 x 1,5

511

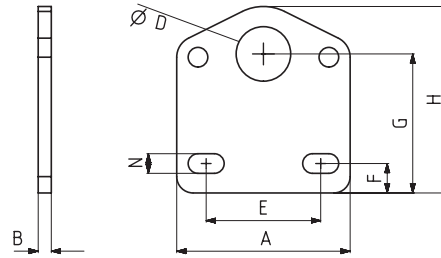
**Yatay Taban**  
Horizontal Base



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	Ø D	E	G	H	N
510-1-01	511-1	S 510-....	-	36	44	20	12,5	26,5	19,5	30,5	5,5 x 10,5
510-2-01	511-2	S 510-....	B 510-....	72	53	24,5	16,5	35	24,5	39	6 x 11
510-3-01	511-3	-	B 510-....	122	60	30	20,5	38	30,5	48	6,5 x 11
510-5-01	511-5 / 511-6	-	B 510-....	250	78	36	24,5	49,5	38	61	8,5 x 16
510-7-01	511-7	-	B 510-....	250	78	36	27,5	49,5	38	61	8,5 x 16

512

**Dik Taban**  
Vertical Base



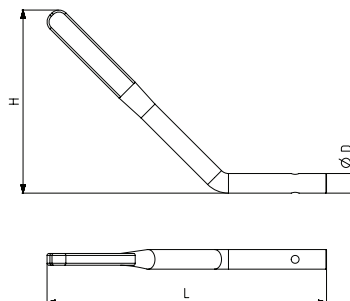
KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	Ø D	E	F	G	H	N
510-1-02	512-1	S 510-....	B 510-....	40	44	3	12,5	26,5	8,5	35	46	5,5 x 10,5
510-2-02	512-2	S 510-....	B 510-....	74	53	4	16,5	35	9	42,5	57	6 x 11
510-3-02	512-3	-	B 510-....	124	60	5	20,5	38	12,5	52	69	6,5 x 11
510-5-02	512-5 / 512-6	-	B 510-....	250	78	6	24,5	49,5	15	64,5	87,5	8,5 x 16
510-7-02	512-7	-	B 510-....	250	78	6	27,5	49,5	15	64,5	87,5	8,5 x 16

533-H

**Kol**  
Handle



new

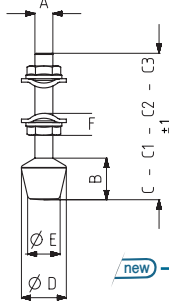


KOD	MODEL NO	AĞIRLIK (WEIGHT) (gr ±%)	Ø D	H	L
150-756	533-4-Ø14-H	105	10	93,5	142,5
150-757	533-4-Ø14-H	135	10	130	178
150-754	533-5-H	235	12	138	196
150-755	533-5-H	280	12	173	232



911

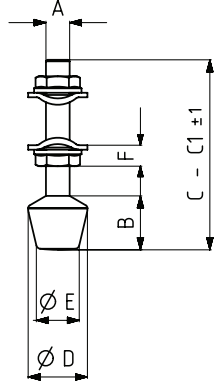
**Silikon Uç**  
Silicon Squeeze Part



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	SİYAH GALVANİZ (BLACK GALVANIZED)	AĞIRLIK (WEIGHT) (gr ±%)	A CIVATA DIN 933 (SCREW DIN 933)	B	C	C1	C2	C3	D	E	F
150-181	911-0	S 911 - ...	B 911 - ...	BG 911 - ...	7	M 4 x 25	7	31				10	8	6
150-547	911-0-C1	S 911 - ...	B 911 - ...	-	8	M 4 x 60	7	65,5				10	8	6
150-99	911-1	S 911 - ...	B 911 - ...	BG 911 - ...	12	M 5 x 35	10,5	43,5				12,5	9	7
150-545	911-1-C1	S 911 - ...	B 911 - ...	-	14	M 5 x 60	10,5	68,5				12,5	9	7
150-86	911-2	S 911 - ...	B 911 - ...	BG 911 - ...	23	M 6 x 40	14,5	50,5				16	10,5	8
150-245	911-2-C1	S 911 - ...	B 911 - ...	-	34	M 6 x 100	14,5	110,5				16	10,5	8
150-246	911-2-C2	S 911 - ...	B 911 - ...	-	41	M 6 x 120	14,5		130,5			16	10,5	8
150-546	911-2-C3	S 911 - ...	B 911 - ...	-	28	M 6 x 60	14,5			70,5		16	10,5	8
150-87	911-3	S 911 - ...	B 911 - ...	BG 911 - ...	46	M 8 x 50	18	63,5				20	14	10
150-247	911-3-C1	S 911 - ...	B 911 - ...	-	55	M 8 x 70	18	83,5				20	14	10
150-283	911-3-C2	S 911 - ...	B 911 - ...	-	75	M 8 x 130	18		143			20	14	10
150-641	911-3-C3	S 911 - ...	B 911 - ...	-	22	M 8 x 35	18			48,5		20	14	10
150-88	911-4	-	B 911 - ...	BG 911 - ...	97	M 10 x 70	23,5	87				26,5	17	13
150-217	911-4-C1	-	B 911 - ...	-	116	M 10 x 110	23,5	125				26,5	17	13
150-737	911-4-C2	-	B 911 - ...	-	82	M 10 x 40	23,5		56,5			26,5	17	13
150-116	911-5	-	B 911 - ...	BG 911 - ...	156	M 12 x 80	27,25	100				30	21	15
150-354	911-5-C1	-	B 911 - ...	-	174	M 12 x 110	27,25	130				30	21	15

BG911 NR

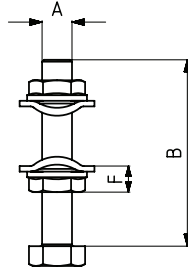
**Doğal Kauçuk Uç**  
Natural Rubber Squeeze Part



KOD	MODEL NO	AĞIRLIK (WEIGHT) (gr ±%)	A CIVATA DIN 933 (SCREW DIN 933)	B	C	D	E	F
BG150-181-NR	BG911-0-NR	7	M 4 x 25	7	31	10	8	6
BG150-99-NR	BG911-1-NR	12	M 5 x 35	10,5	43,5	12,5	9	7
BG150-86-NR	BG911-2-NR	23	M 6 x 40	14,5	50,5	16	10,5	8
BG150-546-NR	BG911-2-C3-NR	28	M 6 x 60	14,5	70,5	16	10,5	8
BG150-87-NR	BG911-3-NR	46	M 8 x 50	18	63,5	20	14	10
BG150-88-NR	BG911-4-NR	97	M 10 x 70	23,5	87	26,5	17	13
BG150-116-NR	BG911-5-NR	156	M 12 x 80	27,25	100	30	21	15

M911

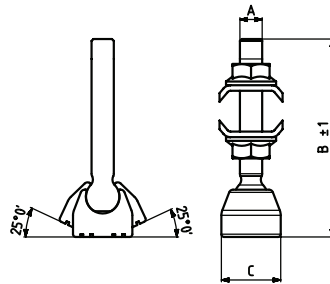
**Metal Civata Uç**  
Metal Screw Part



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%)	A CIVATA DIN 933 (SCREW DIN 933)	B	F
150-181-324-00	M911-0	S M911 - ...	B M911 - ...	7	M 4 X 25	25	6
150-99-263-00	M911-1	S M911 - ...	B M911 - ...	12	M 5 X 35	35	7
150-86-264-00	M911-2	S M911 - ...	B M911 - ...	23	M 6 X 40	40	8
150-87-265-00	M911-3	S M911 - ...	B M911 - ...	42	M 8 X 50	50	10
150-88-266-00	M911-4	-	B M911 - ...	89	M 10 X 70	70	13
150-116-328-00	M911-5	-	B M911 - ...	145	M 12 X 80	80	15

912

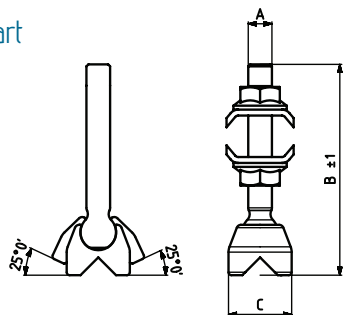
**Metal Mafsal Uç**  
Swivel Metal Squeeze Part  
PATENT NO: 20100115



MODEL NO	AÇI (ANGLE)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	C
912-2	25°	36	M6	53,5	Ø15
912-3	25°	70	M8	63,5	Ø20
912-4	25°	149	M10	90	Ø26
912-5	25°	223	M12	103	Ø30

913

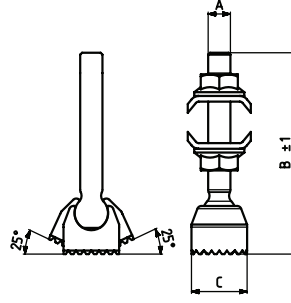
**Metal V Mafsal Uç**  
V Grooved Swivel Metal Squeeze Part  
PATENT NO: 20100115



MODEL NO	AÇI (ANGLE)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	C
913-2	25°	32	M6	53,5	Ø15
913-3	25°	66	M8	63,5	Ø20
913-4	25°	142	M10	90	Ø26
913-5	25°	212	M12	103	Ø30

914

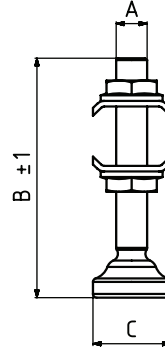
**Metal Tırtır Mafsal Uç**  
Knurled Swivel Metal Squeeze Part  
PATENT NO: 20100115



MODEL NO	AÇI (ANGLE)	AĞIRLIK (WEIGHT) (gr ±%2)	A	B	C
914 - 2	25°	33	M6	53,5	Ø15
914 - 3	25°	69	M8	63,5	Ø20
914 - 4	25°	148	M10	90	Ø26
914 - 5	25°	222	M12	103	Ø30

915

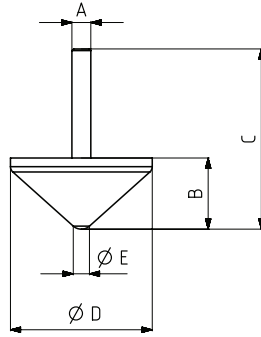
**Metal Sabit Uç** PATENT NO: 20100115  
Fixed Metal Squeeze Part



MODEL NO	AĞIRLIK (WEIGHT)(gr ±%2)	A	B	C
915 - 1	8	M5	43	Ø14
915 - 2	15	M6	53,5	Ø16
915 - 3	53	M8	64,5	Ø20
915 - 4	105	M10	86	Ø25
915 - 5	182	M12	98	Ø30

150-623

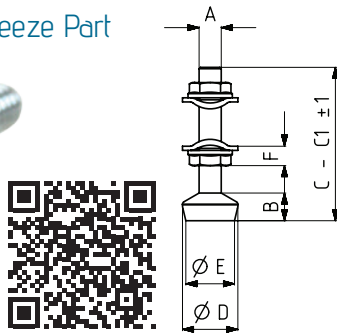
**NBR Baskı Ucu**  
NBR Squeeze Part



KOD	MODEL NO	PASLANMAZ (STAINLESS)	AĞIRLIK (WEIGHT) (gr ±%2)	A CIVATA DIN 933 (SCREW DIN 933)	B	C	D	E
150 - 623	510-520-530-550-620-640-660-670-3	S150 - 623	155	M8 x 50	30	76	60	6,5

916

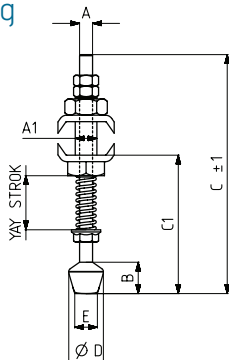
**Silikon Uç**  
Silicon Squeeze Part



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%2)	A CIVATA DIN 933 (SCREW DIN 933)	B	C	C1	D	E	F
150 - 324	916 - 0	S 916 - ....	B 916 - ....	6	M4 x 25	5	29	-	10	9	6
150 - 526	916 - 0 - C1	S 916 - ....	B 916 - ....	10	M4 x 60	5		63,9	10	9	6
150 - 263	916 - 1	S 916 - ....	B 916 - ....	16	M 5 x 35	7	40	-	12	10	7
150 - 588	916 - 1 - C1	S 916 - ....	B 916 - ....	16	M 5 x 60	7		65	12	10	7
150 - 264	916 - 2	S 916 - ....	B 916 - ....	23	M 6 x 40	10	46	-	16	13	8
150 - 265	916 - 3	S 916 - ....	B 916 - ....	46	M 8 x 50	12	57	-	20	16	10
150 - 266	916 - 4	-	B 916 - ....	98	M10 x 70	16	79	-	26	20	13
150 - 328	916 - 5	-	B 916 - ....	152	M12 x 80	19	91	-	30	24	15

917

**Çaylı Silikon Uç**  
Silicon Squeeze Part With Spring

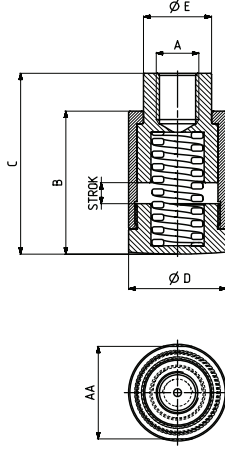


KOD	MODEL NO	SİYAH (BLACK)	YAY STROK	AĞIRLIK (WEIGHT) (gr ±%2)	A CIVATA DIN 933 (SCREW DIN 933)	A1	B	C	C1	D	E
150 - 545	917 - 3	B 917 - ....	8	37	M 5 x 60	M8	10,5	68,5	35,5	12,5	9
150 - 246	917 - 4	B 917 - ....	14	82	M 6 x 120	M10	14,5	130,5	55 - 93,5	16	10,5
150 - 283	917 - 5	B 917 - ....	19	140	M 8 x 130	M12	18	143	69-88	20	14



918

**Çaylı Metal Uç**  
Metal Squeeze  
Part With Spring

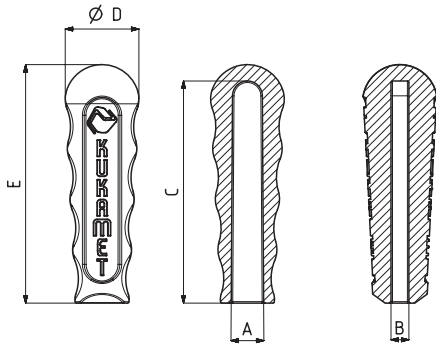


MODEL NO	F1 (N)	STROK	AĞIRLIK (WEIGHT) (gr ±%2)	A	AA	B	C MİN.	C MAX.	ØD	ØE
918 - 3	200	5	96	M8	22	34	38	43	23	16
918 - 4	250	5	93	M10	22	34	38	43	23	16
918 - 5	300	5	91	M12	22	34	38	43	23	16

921

**Poliüretan Sap**  
Polyurethane Handle

**Cadmium Çok**  
No Cadmium

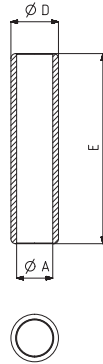


MODEL NO	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%2)	A	B	C	D	E
921 - 0	B 921 - ....	1	6,5	3	26,5	10,5	29
921 - 1	B 921 - ....	8	11	4	54	17,5	58
921 - 2	B 921 - ....	15	11	5	54	23	60
921 - 3	B 921 - ....	27	11	6	74	25	80
921 - 4	B 921 - ....	49	18	6	94	29	100
921 - 4	B 921 - ....	49	18	8	94	29	100
921 - 4	B 921 - ....	49	18	10	94	29	100



921-M

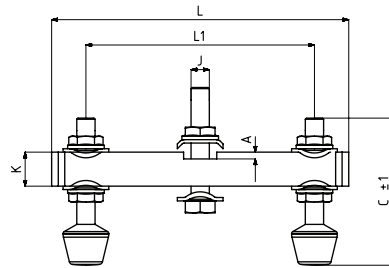
**Metal Sap**  
Metal Handle



KOD	MODEL NO	AĞIRLIK (WEIGHT) (gr ±%2)	A	D	E
921-1-2-M	110-210-310-330-410-510-710-810 - 1 - 2	44	12	16	60
921-1-2-M-C1	222-232-820 - 2	54	12	16	110
921-3-M	110-210-310-330-410-510-710-810 - 3	57	12	18	80
921-3-M-C1	110-210-310-330-410-510-710-810 - 3	90	12	18	130
921-4-M	110-210-310-330-410-4 / 110-210-310-5	164	19	25	100
921-4-M-C1	110-210-310-330-410-4 / 110-210-310-5	241	19	25	150

931

**Çapraz Baskı Grubu**  
Squeeze Part With Double Point

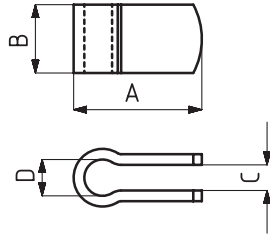


MODEL NO	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%2)	A	C	L	L1	J CIVATA DIN 933 (SCREW DIN 933)*	K
931 - 1	B 931 - ....	60	2,5	43,5	90	30 - 70	M5 x 30	10
931 - 2	B 931 - ....	142	2,5	50,5	110	30 - 80	M6 x 40	16
931 - 3	B 931 - ....	289	3	63,5	130	40 - 100	M8 x 45	20
931 - 4	B 931 - ....	463	4	87	160	50 - 120	M10 x 60	20
931 - 5	B 931 - ....	774	5	100	180	60 - 140	M12 x 70	25



941-G

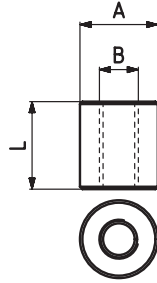
**Lama U Bağlantı Grubu**  
Bolt Retainers



MODEL NO	SİYAH (BLACK)	SİLİKON UÇ (SQUEEZE PART)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	C	D
941 - 1 - G	B 941 - ....	M5	6	25	10	5	Ø 6,5
941 - 2 - G	B 941 - ....	M6	10	25	13	5	Ø 6,5
941 - 2 - C1 - G	B 941 - ....	M6	16	35	13	6,5	Ø 6,5
941 - 3 - G	B 941 - ....	M8	20	30	16	6	Ø 8,5
941 - 4 - G	B 941 - ....	M10	35	37	20	8	Ø 10,5
941 - 5 - G	B 941 - ....	M12	61	40	25	10	Ø 12,5

951-G

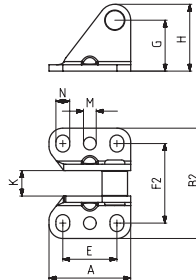
**Lama Uç Bağlantı Grubu**  
Sleeve



MODEL NO	SİYAH (BLACK)	SİLİKON UÇ (SQUEEZE PART)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	L
951 - 1 - G	B 951 - ....	M5	6	Ø 10	M5	12
951 - 2 - G	B 951 - ....	M6	10	Ø 12	M6	15
951 - 3 - G	B 951 - ....	M6	23	Ø 16	M8	18
951 - 4 - G	B 951 - ....	M8	32	Ø 18	M10	22
951 - 5 - G	B 951 - ....	M10	44	Ø 20	M12	27
951 - 6 - G	B 951 - ....	M12	94	Ø 25	M12	32

961

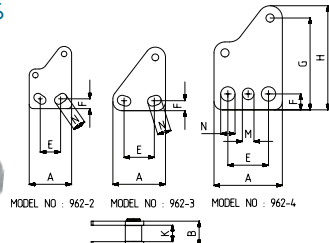
**Gerdirme Parçası**  
Stretcher Parts



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%)	A	E	G	H	K	M	N	F2	B2
961 - 2	411 - 2	S 961 - ....	B 961 - ....	50	31	15	26	31,5	10	-	6 x 9,5	32,5	47
961 - 3	411 - 3	S 961 - ....	B 961 - ....	65	38,5	22	24	31,5	12	-	7 x 10	37,5	52
961 - 4	411 - 4	-	B 961 - ....	210	50	30	40	49	16	8,5	10,5 x 15	60,5	84

962

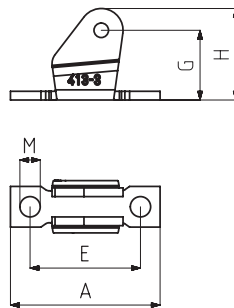
**Gerdirme Parçası**  
Stretcher Parts



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%)	A	B	E	F	G	H	K	M	N
962 - 2	412 - 2	S 962 - ....	B 962 - ....	51	31	15	15	7	40	45,5	10	-	6 x 9,5
962 - 3	412 - 3	S 962 - ....	B 962 - ....	65	38,5	18	22	7,3	39	46,5	12	-	7 x 10
962 - 4	412 - 4	-	B 962 - ....	220	50	24	30	11,5	67	76	16	8,5	Ø10,5

963

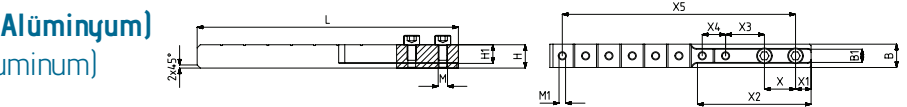
**Gerdirme Parçası**  
Stretcher Parts



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AĞIRLIK (WEIGHT) (gr ±%)	A	E	M	G	H
963-3	413-3	S 963 - ....	B 963 - ....	46	51,5	38	7	24	31,5

964

**Uzatma Çenesi (Malzeme: 7075 Alüminyum)**  
Extension Jaw (Material: 7075 Aluminum)



KOD	MODEL NO	AĞIRLIK (WEIGHT) (gr ±%)	B	B1	H	H1	L	M	M1	X	X1	X2	X3	X4	X5
964-1	111-112-113-211-212-213-1	35	12	5	15	9	94	M4	M5	15	5	34,5	20	12	83
964-2	111-112-113-211-212-213-2	62	15	6,5	15	12	135	M5	M5	20	10	52	25	15	120
964-3	111-112-113-211-212-213-3	83	15	8,5	15	12	168	M5	M5	20	10	73	25	15	150