





#### 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



#### KURUCUMUZUN MESAJI

30 yıllık tecrübemizle, bugün tüm dünyada otomotiv, savunma sanayii, beyaz eşya ana sanayileri tarafından kullanılan hızlı bağlantı elemanlarında tercih edilen markayız. Yenilikçi anlayışla üretimin GİZLİ KAHRAMANLARINI sizlere sunuyoruz.

#### FOUNDER'S MESSAGE

We are preferred brand for toggle clamps used by automotive industry, defense industry, white goods industry in all world with our 30 years of experience. We present SECRET HEROES of the production to you with our progressive understanding.

#### 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

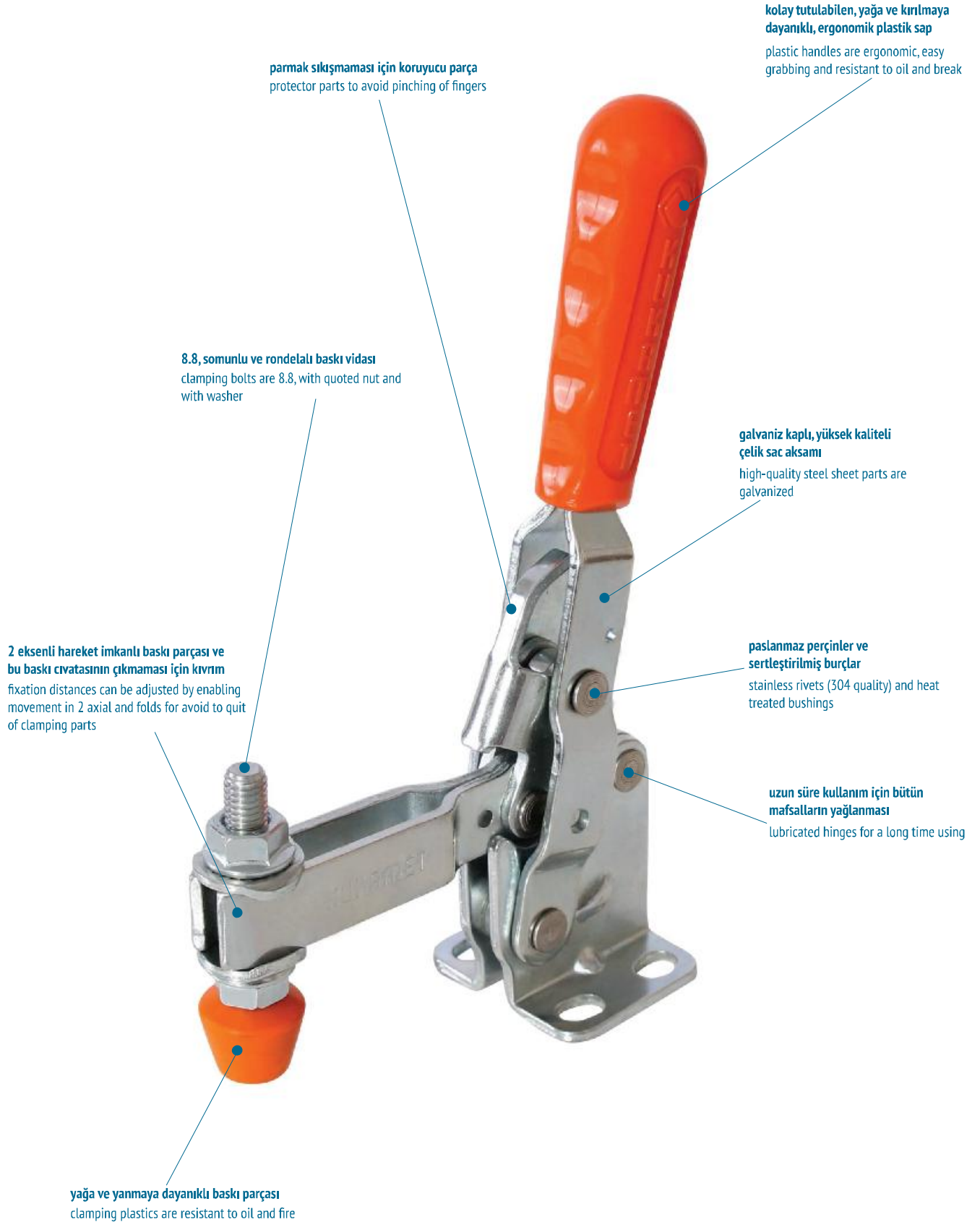
- \* Automotive Industries
- \* White goods Industries
- \* Machine Manufacturers
- \* Food Sector
- \* Plastics Sector
- \* Wood Sector
- \* Ceramics Sektor

#### 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



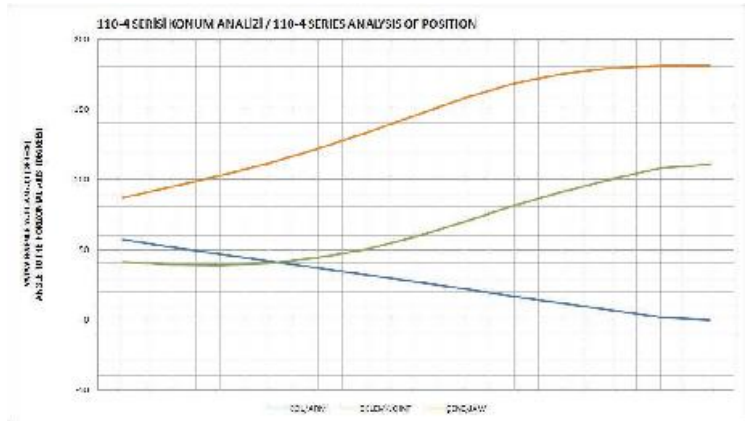
Ürün Product	Tanım Description	Sayfa No Page No
	<b>Çatay Bağlantı Elemanları</b> Horizontal Toggle Clamps	3-11
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	<b>Kompakt Bağlantı Elemanları</b> Compact Toggle Clamps	25
	<b>U Kancalı Bağlantı Elemanları</b> Latch Toggle Clamps With U Hook	26-32
	<b>C Kancalı Bağlantı Elemanları</b> Latch Toggle Clamps With C Hook	33-35
	<b>İtme Çekme Bağlantı Elemanları</b> Straight Line Push-Pull Type Toggle Clamps	36-43
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	<b>Pnömatik Tutucu Bağlantı Elemanları</b> Pneumatic Gripper	66-67
	<b>Carver</b> Carver	68-69
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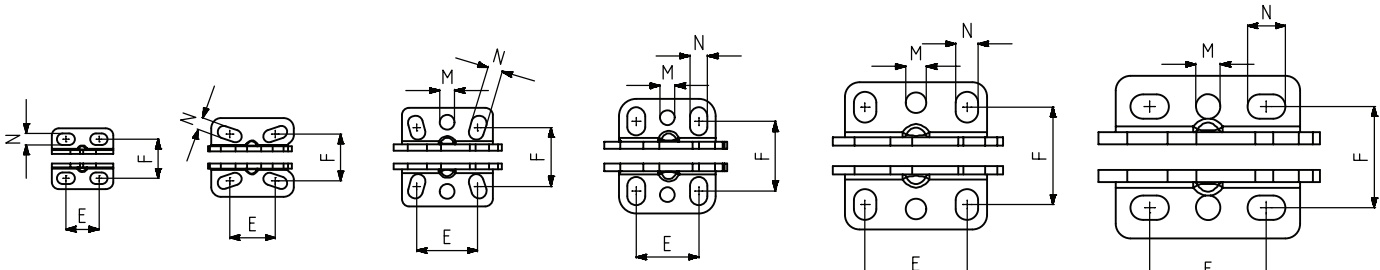
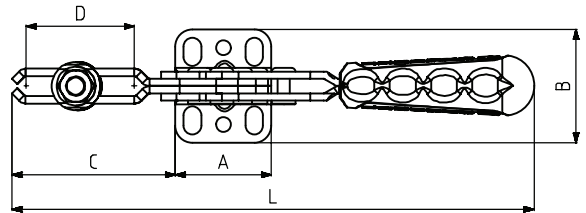
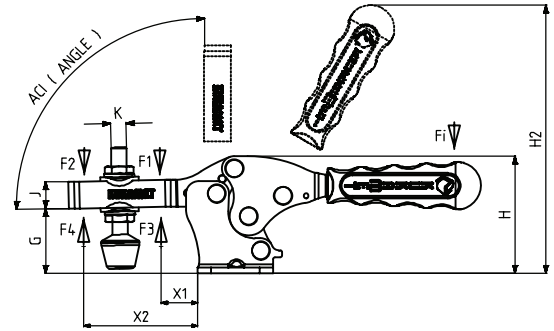
MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		BASKI VİDASI (SQUEEZE SCREW)	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
							(X1) VERİM (YIELD) (F1 : Fi)	(X2) VERİM (YIELD) (F2 : Fi)			
111 - 0	S 111 - ....	B 111 - ....	450	300	520	350	5:1	2:1	M4X25	90 °	50
111 - 1	S 111 - ....	B 111 - ....	850	650	1000	800	7:1	3:1	M5X35	90 °	125
111 - 2	S 111 - ....	B 111 - ....	1000	750	1200	1000	7:1	3:1	M6X40	90 °	225
111 - 3	S 111 - ....	B 111 - ....	2300	1250	2500	1350	8:1	4:1	M8X50	90 °	340
111 - 4	S 111 - ....	B 111 - ....	3500	1800	3650	2000	9:1	4:1	M10X70	90 °	810
111 - 5	S 111 - ....	B 111 - ....	4500	2000	5000	2125	10:1	5:1	M12X80	90 °	1520

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

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

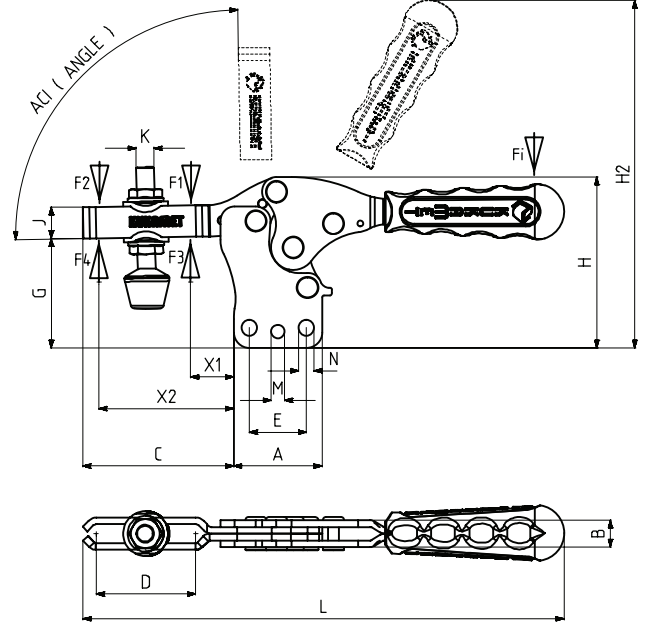


MODEL NO : 111-0	MODEL NO : 111-1	MODEL NO : 111-2	MODEL NO : 111-3	MODEL NO : 111-4	MODEL NO : 111-5											
MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	M	N	X1	X2
111 - 0	25	25	25.5	13	11-16	16	15	24	60	7.5	M4	82.5		4,5 x 7	11	18
111 - 1	33.5	32	43	28	13,5-23	17,5-20,5	21	40	95	10	M5	148		5 x 10	15	33
111 - 2	37	40	66	47	23,5-26	20-27,5	28	51	110	14	M6	184	6	6 x 10	19	54
111 - 3	39.5	46.5	68	42	25.5	24-32,5	34	61	136	14	M 8	215	6	7 x 11,5	25	53
111 - 4	58	60	100	73	41.5	36-43	45	82	175	19	M10	296	8.5	9 x 12,5	27	83
111 - 5	75	66	129	92	42-53	42	55	104	218	25.5	M12	345	10	10 x 15,5	37	107

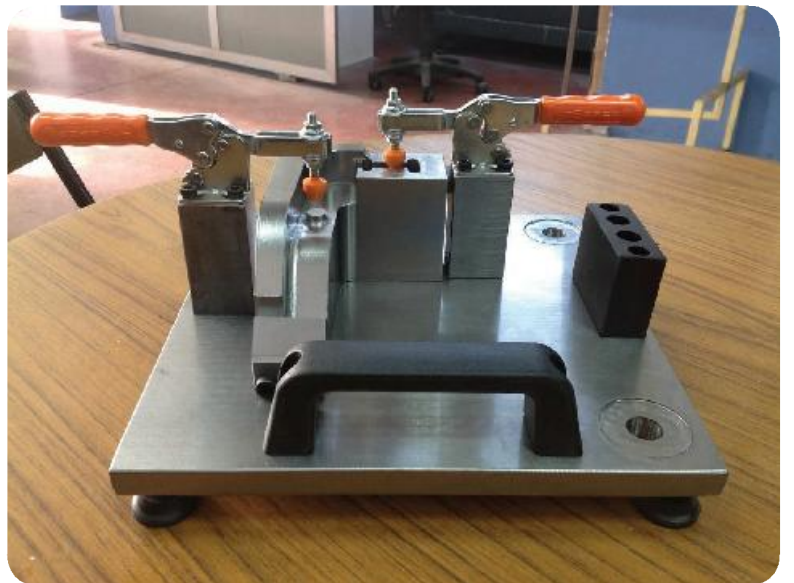
MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		BASKI VİDASI (SQUEEZE SCREW)	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
							(X1) VERİM (YIELD) (F1 : Fi)	(X2) VERİM (YIELD) (F2 : Fi)			
112-0	S 112 - ....	B 112 - ....	450	300	520	350	5:1	2:1	M4X25	90 °	50
112-1	S 112 - ....	B 112 - ....	850	650	1000	800	7:1	3:1	M5X35	90 °	125
112-2	S 112 - ....	B 112 - ....	1000	750	1200	1000	7:1	3:1	M6X40	90 °	225
112-3	S 112 - ....	B 112 - ....	2300	1250	2500	1350	8:1	4:1	M8X50	90 °	340
112-4	S 112 - ....	B 112 - ....	3500	1800	3650	2000	9:1	4:1	M10X70	90 °	810
112-5	S 112 - ....	B 112 - ....	4500	2000	5000	2125	10:1	5:1	M12X80	90 °	1520

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

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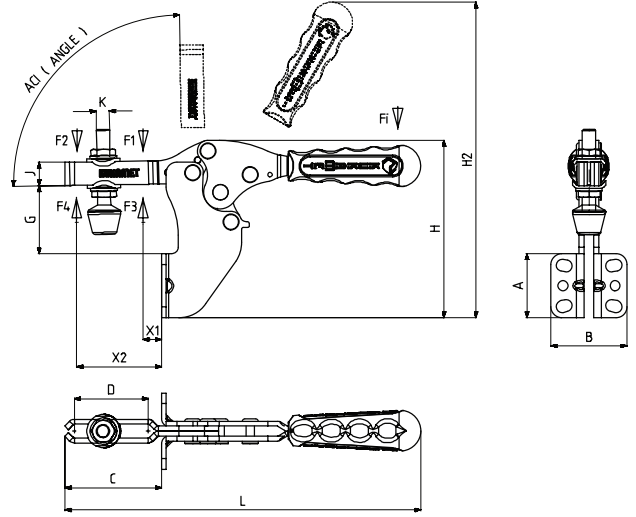
**Ayak Tipi: Dikey Tabanlı**  
 Body Mounting Base: Vertical



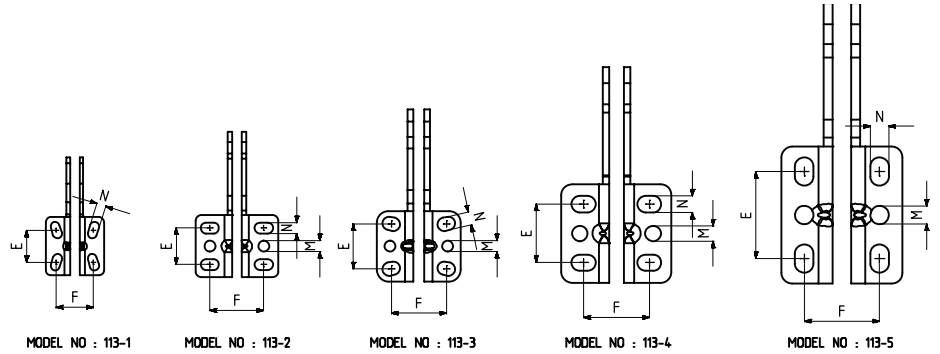
MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	M	N	X1	X2
112-0	25	7	25.5	13	16		22.5	32	68	7.5	M4	82.5		4.5	11	18
112-1	33.5	9	43	28	23		31	50	105	10	M5	148		5	15	33
112-2	37	10	66	47	24.5		41	64	123	14	M6	184	6	6	19	54
112-3	39.5	12	68	42	25.5		49	76	151	14	M8	215	6	7	25	53
112-4	58	16	100	73	41.5		65	102	195	19	M10	296	8.5	9	27	83
112-5	75	20	129	92	47.5		75	124	238	25.5	M12	345	10	10	37	107

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		BASKI VİDASI (SQUEEZE SCREW)	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
							(X1) VERİM (YIELD) (F1:Fi)	(X2) VERİM (YIELD) (F2:Fi)			
113-1	S 113-....	B 113-....	850	650	1000	800	7:1	3:1	M5X35	90 °	155
113-2	S 113-....	B 113-....	1000	750	1200	1000	7:1	3:1	M6X40	90 °	270
113-3	S 113-....	B 113-....	2300	1250	2500	1350	8:1	4:1	M8X50	90 °	420
113-4	S 113-....	B 113-....	3500	1800	3650	2000	9:1	4:1	M10X70	90 °	940
113-5	S 113-....	B 113-....	4500	2000	5000	2125	10:1	5:1	M12X80	90 °	1840

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



**Ayak Tipi: Yan Tabanlı**  
 Body Mounting Base: Side Ward



MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	M	N	X1	X2
113-1	32	32	39,5	28	13,5-21,5	19-21,5	22,5	73	128	10	M5	148		5x10	12	30
113-2	34	45	60	47	20	25,5-33,5	34	90	149	14	M6	184	6	6x10	13	48
113-3	38,5	46	58	42	24-25	27,5-32,5	41	107	183	14	M 8	215	6	7x9,5	16	44
113-4	54	60	91	73	32	32-40	46,5	135	230	19	M10	296	8,5	9x13	18	74
113-5	75	66	117	92	42-53	42	53	177	291	25,5	M12	345	10	10x15,5	25	95

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	F5 (N)	F6 (N)	F7 (N)	F8 (N)	Fi		AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
											(X1) VERİM (YIELD) (F1:Fi)	(C1) VERİM (YIELD) (F2:Fi)		
111-2-D	S 111-....	B 111-....	1000	750	300	220	1200	1000	350	250	7:1	3:1	90 °	200
111-3-D	S 111-....	B 111-....	2300	1250	560	400	2500	1350	740	530	8:1	4:1	90 °	300
111-4-D	S 111-....	B 111-....	3500	1800	900	700	3650	2000	1035	800	9:1	4:1	90 °	730
111-5-D	S 111-....	B 111-....	4500	2000	1250	1000	5000	2125	1350	1080	10:1	5:1	90 °	1420

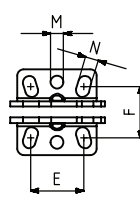
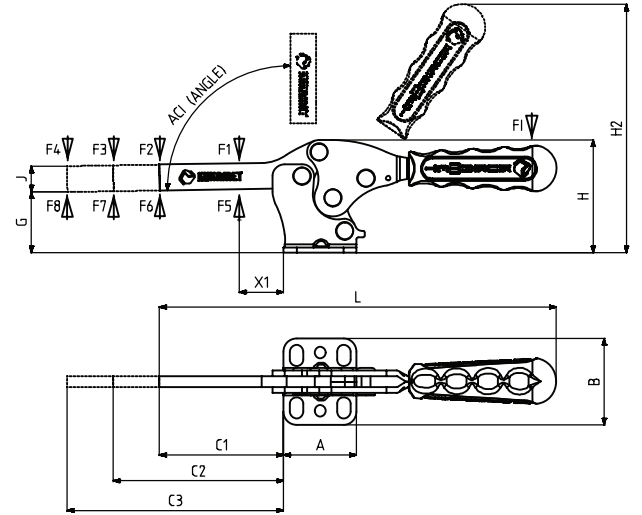
F1 - F2 - F3 - F4 : BASKI KUVVETİ ( EXERTING FORCE ), F5 - F6 - F7 - F8 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

111-D

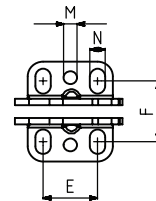


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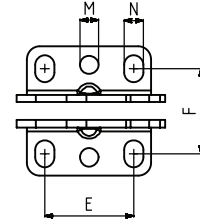
**Ayak Tipi: Yatay Tabanlı**  
 Body Mounting Base: Horizontal



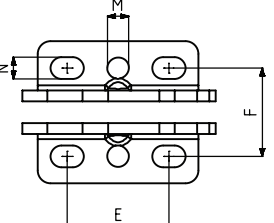
MODEL NO : 111-2-D



MODEL NO : 111-3-D



MODEL NO : 111-4-D



MODEL NO : 111-5-D



MODEL NO	A	B	B2	C1	C2	C3	D	E	F	G	H	H2	J	K	L	M	N	X1
111-2-D	37	40	5	66	116	166		23,5-26	20-27,5	28	51	110	14		184	6	6x10	19
111-3-D	39,5	46,5	6	68	118	168		25,5	24-32,5	34	61	136	14		215	6	7x11,5	25
111-4-D	58	60	8	100	150	200		41,5	36-43	45	82	175	19		296	8,5	9x12,5	27
111-5-D	75	66	10	129	179	229		42-53	42	55	104	218	25,5		345	10	10x15,5	37



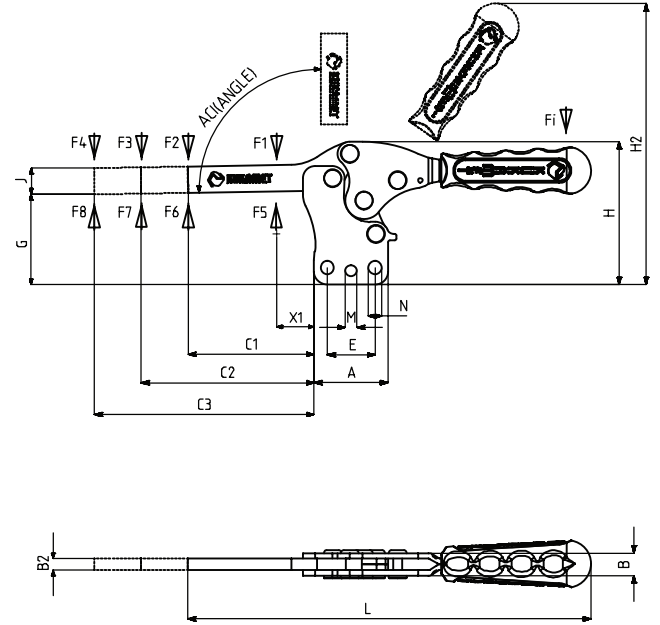
MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	F5 (N)	F6 (N)	F7 (N)	F8 (N)	Fi		AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
											(X1) VERİM (YIELD) (F1:Fi)	(C1) VERİM (YIELD) (F2:Fi)		
112-2-D	S 112 - ....	B 112 - ....	1000	750	300	220	1200	1000	350	250	7:1	3:1	90 °	200
112-3-D	S 112 - ....	B 112 - ....	2300	1250	560	400	2500	1350	740	530	8:1	4:1	90 °	300
112-4-D	S 112 - ....	B 112 - ....	3500	1800	900	700	3650	2000	1035	800	9:1	4:1	90 °	730
112-5-D	S 112 - ....	B 112 - ....	4500	2000	1250	1000	5000	2125	1350	1080	10:1	5:1	90 °	1420

F1 – F2 – F3 – F4 : BASKI KUVVETİ ( EXERTING FORCE ), F5 – F6 – F7 – F8 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

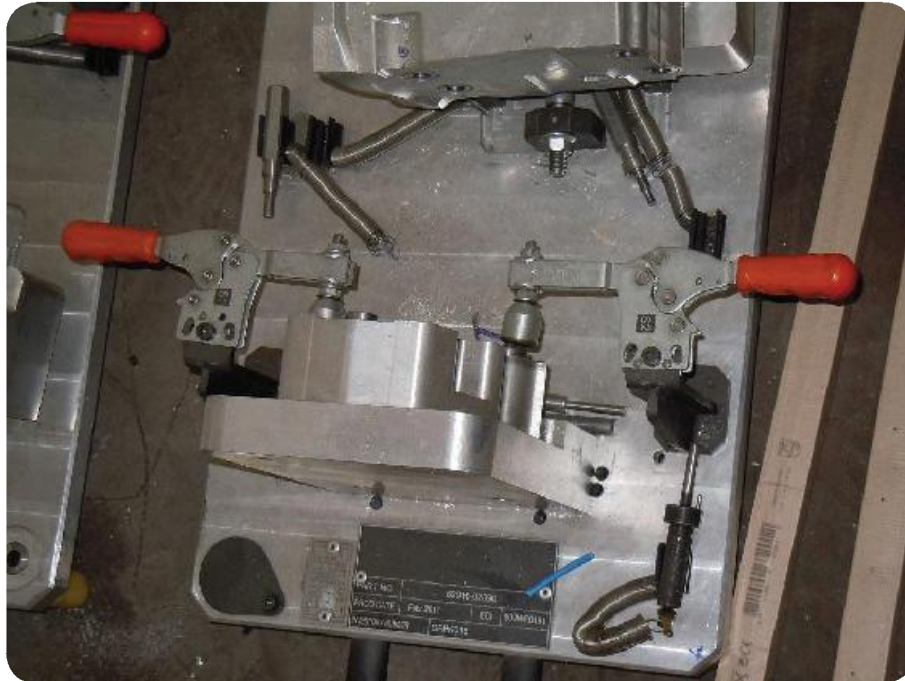
112-D



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



MODEL NO	A	B	B2	C1	C2	C3	D	E	F	G	H	H2	J	K	L	M	N	X1
112-2-D	37	10	5	66	116	166		24.5		41	64	123	14		184	6	6	19
112-3-D	39.5	12	6	68	118	168		25.5		49	76	151	14		215	6	7	25
112-4-D	58	16	8	100	150	200		41.5		65	102	195	19		296	8.5	9	27
112-5-D	75	20	10	129	179	229		47.5		75	124	238	25.5		345	10	10	37

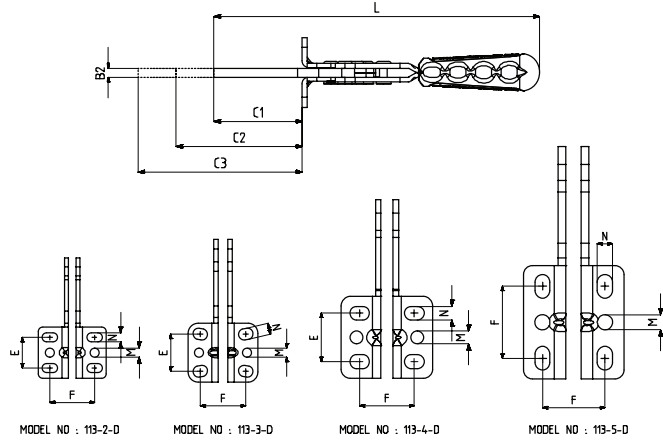
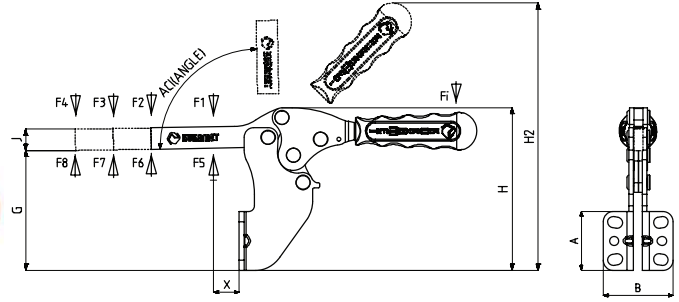
MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	F5 (N)	F6 (N)	F7 (N)	F8 (N)	Fi		AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
											(X1) VERİM (YIELD) (F1:Fi)	(C1) VERİM (YIELD) (F2:Fi)		
113-2-D	S 113 - ....	B 113 - ....	1000	750	300	220	1200	1000	350	250	7:1	3:1	90 °	250
113-3-D	S 113 - ....	B 113 - ....	2300	1250	560	400	2500	1350	740	530	8:1	4:1	90 °	370
113-4-D	S 113 - ....	B 113 - ....	3500	1800	900	700	3650	2000	1035	800	9:1	4:1	90 °	870
113-5-D	S 113 - ....	B 113 - ....	4500	2000	1250	1000	5000	2125	1350	1080	10:1	5:1	90 °	1720

F1 – F2 – F3 – F4 : BASKI KUVVETİ ( EXERTING FORCE ), F5 – F6 – F7 – F8 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

113-D



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**Ayak Tipi: Yan Tabanlı**  
 Body Mounting Base: Side Ward



MODEL NO	A	B	B2	C1	C2	C3	D	E	F	G	H	H2	J	K	L	M	N	X1
113-2-D	34	45	5	60	110	160		20	25,5-33,5	34	90	149	14		184	6	6x10	13
113-3-D	38,5	46	6	58	108	158		24-25	27,5-32,5	41	107	183	14		215	6	7x9,5	16
113-4-D	54	60	8	91	141	191		32	32-40	46,5	135	230	19		296	8,5	9x13	18
113-5-D	75	66	10	117	167	217		42-53	42	53	177	291	25,5		345	10	10x15,5	25

**KİLİTLİ/LOCKED**

111-L



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

112-L



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

113-L



**Ayak Tipi: Çan Tabanlı**  
Body Mounting Base: Side Ward



111-D-L



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

112-D-L



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

113-D-L



**Ayak Tipi: Çan Tabanlı**  
Body Mounting Base: Side Ward

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**Ayak Tipi: Yatay, Alçak Tabanlı**  
Body Mounting Base: Horizontal, Low Base

Ürün özellikleri ;

Yüksekliği otomatik ve kademesiz olarak ayarlanabilen çene sayesinde 40 mm kalınlığa kadar olan iş parçalarını baskı kuvveti değişmeden sıkıştırabilir. Sıkma kuvveti mekanizma üzerinde bulunan ayar vidasından ayarlanabilir.

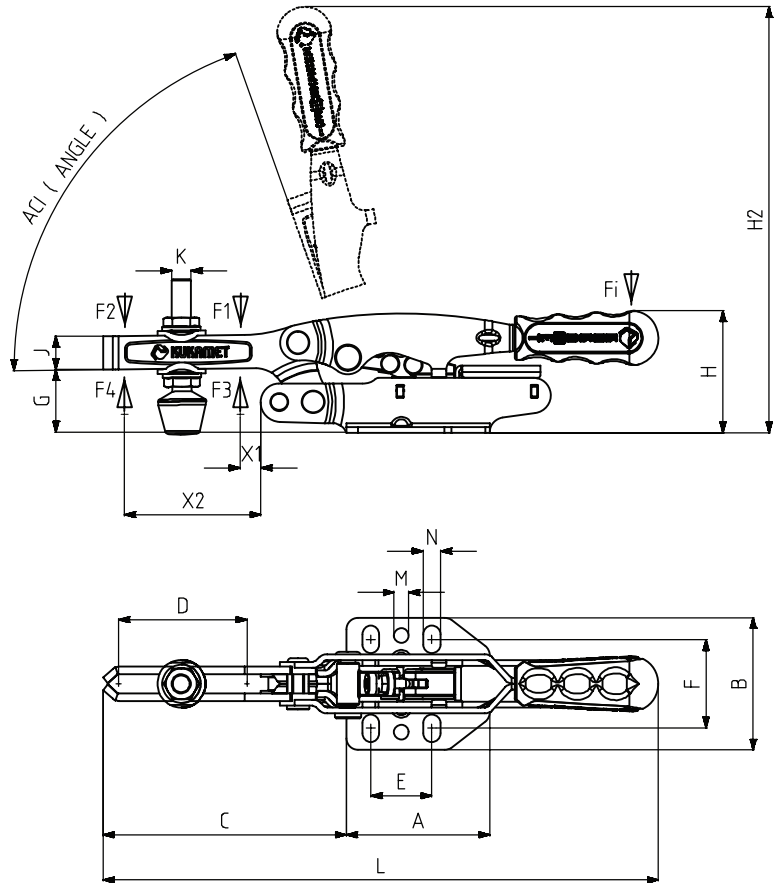
Features of products ;

The automatic toggle clamp automatically adjusts to the height of the particular work piece. The infinitely variable jaw height is up to 40 mm for the horizontal toggle clamp while the clamping force remains unchanged. Using the set screw on the cantilevered joint, the clamping force can be adjusted to your particular requirements



MODEL NO	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
						X1 VERİM (YIELD) (F1:Fi)	X2 VERİM (YIELD) (F2:Fi)		
121-3	B 121 - ....	2500	1250	2800	1400	9:1	4,5:1	71°	470

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

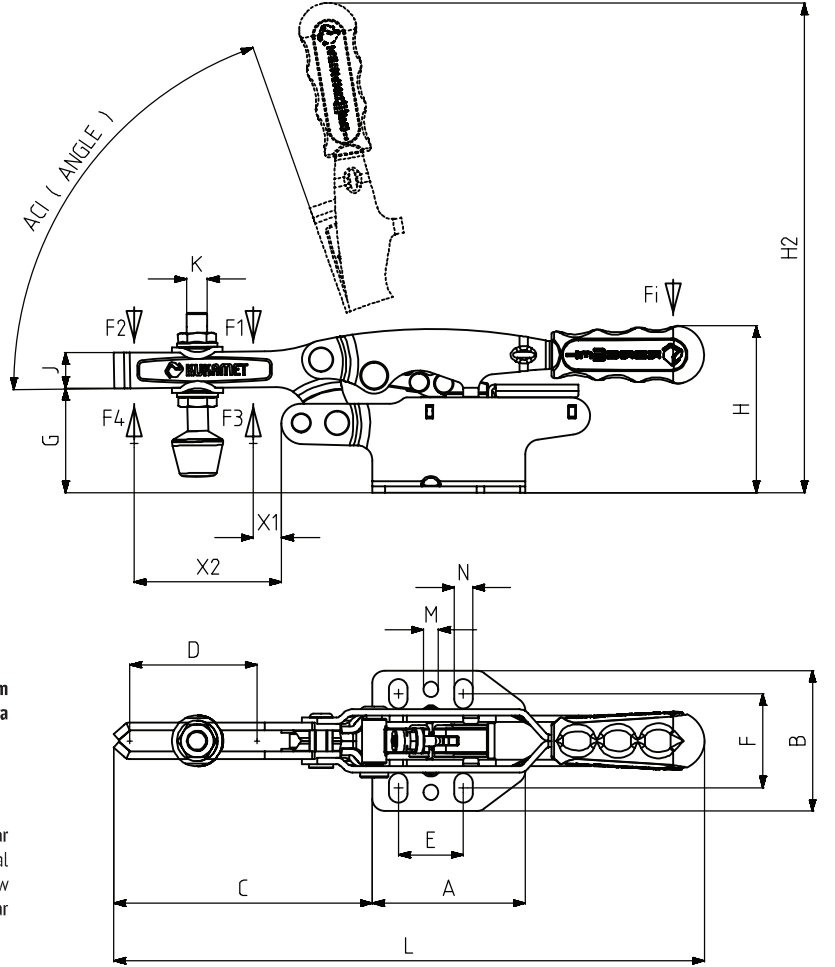


MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	M	N	X1	X2
121-3	60	55.5	101.5	50	25.5	32,5-41	26.5	51	187	14	M8	232	Ø6	7x11,5	16	50

122

MODEL NO	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
						X1 VERİM (YIELD) (F1:Fi)	X2 VERİM (YIELD) (F2:Fi)		
122 -3	B 122 - ....	2500	1250	2800	1400	9:1	4,5:1	71°	490

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



### Ayak Tipi: Yatay, Yüksek Tabanlı

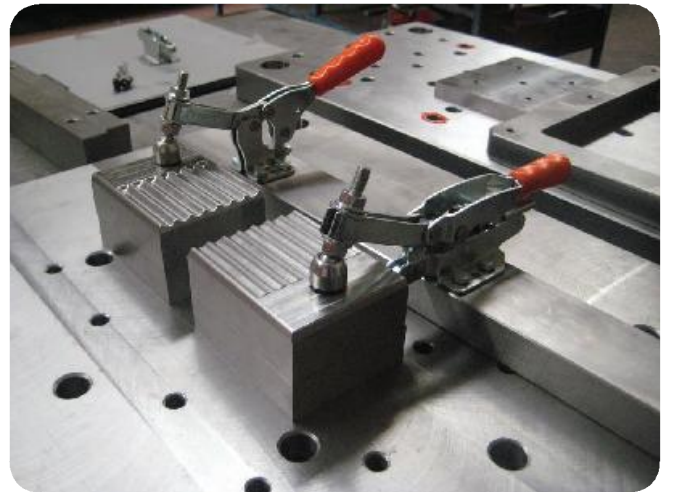
Body Mounting Base: Horizontal, High Base

#### Ürün özellikleri ;

Yüksekliği otomatik ve kademesiz olarak ayarlanabilen çene sayesinde 55 mm kalınlığa kadar olan iş parçalarını baskı kuvveti değişmeden sıkıştırabilir. Sıkma kuvveti mekanizma üzerinde bulunan ayar vidasından ayarlanabilir.

#### Features of products ;

The automatic toggle clamp automatically adjusts to the height of the particular work piece. The infinitely variable jaw height is up to 55 mm for the horizontal toggle clamp while the clamping force remains unchanged. Using the set screw on the cantilevered joint, the clamping force can be adjusted to your particular requirements



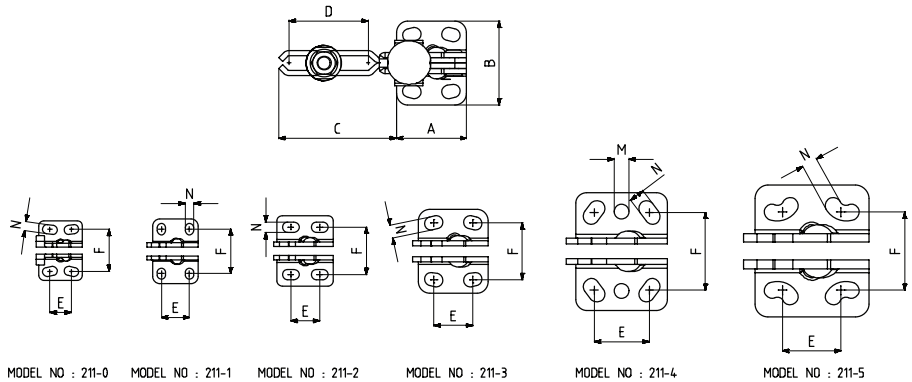
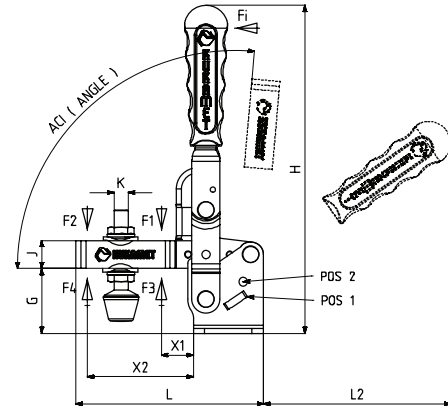
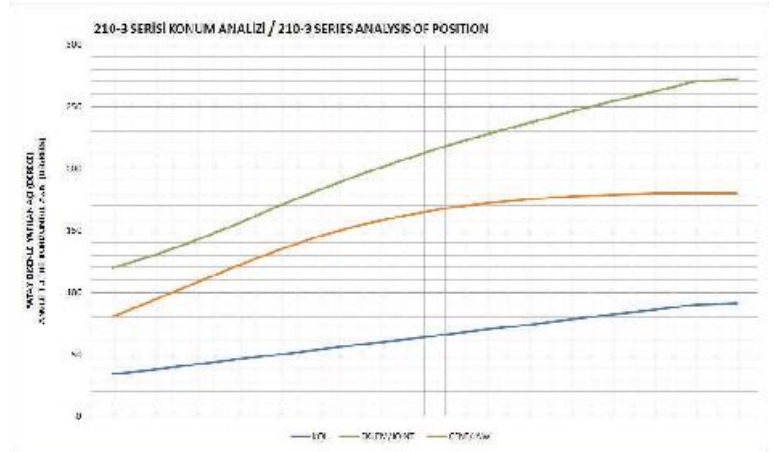
MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	M	N	X1	X2
122 -3	60	55,5	101,5	50	25,5	32,5-41	41	65,5	201,5	14	M8	232	Ø6	7x11,5	16	50

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		BASKI VİDASI (SQUEEZE SCREW)	AÇI (ANGLE) (+ 5 °)		AĞIRLIK (WEIGHT) (gr)
							(X1) VERİM (YIELD) (F1:Fi)	(X2) VERİM (YIELD) (F2:Fi)		POS1	POS2	
211-0	S 211 - ....	B 211 - ....	550	350	700	455	10:1	5:1	M4X25	115°		85
211-1	S 211 - ....	B 211 - ....	750	500	1000	680	12:1	8:1	M5X35	105°		155
211-2	S 211 - ....	B 211 - ....	1200	700	1400	925	12:1	7,5:1	M6X40	105°		235
211-3	S 211 - ....	B 211 - ....	2000	1400	2500	1560	11:1	8:1	M8X50	105°		410
211-4	S 211 - ....	B 211 - ....	3000	2000	3300	2200	11,5:1	8:1	M10X70	135°	105°	890
211-5	S 211 - ....	B 211 - ....	4500	2500	5000	3000	12:1	7:1	M12X80	135°	105°	1510

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

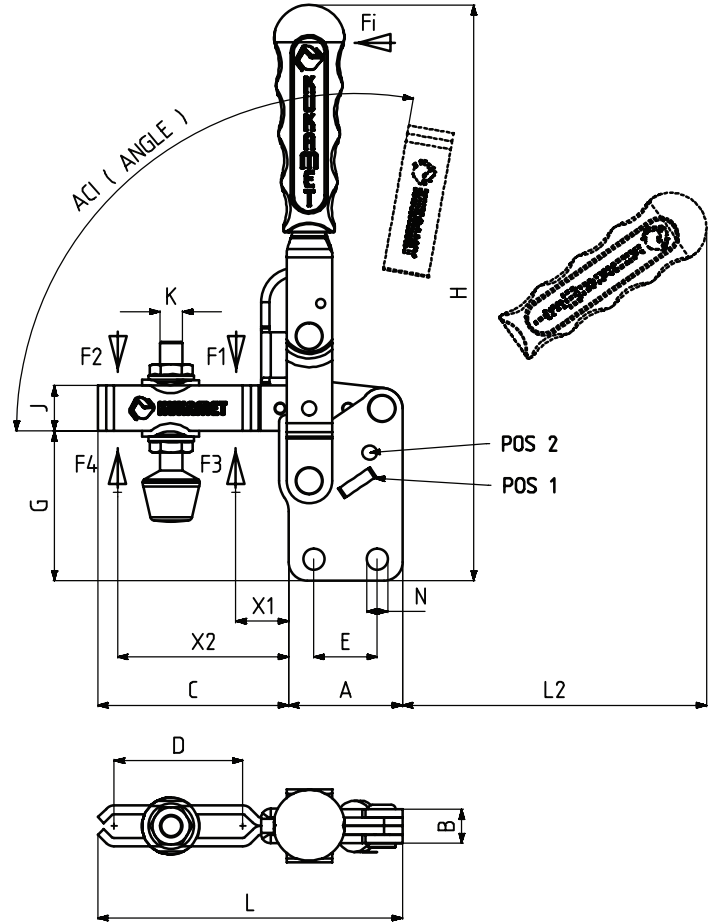


MODEL NO	A	B	C	D	E	F	G	H	J	K	L	L2	M	N	X1	X2
211-0	25	34	31	20	9 - 15,5	23,5 - 24	18	85	8	M4	56	50		5x8	11	22
211-1	26	37	44	26	16	24 - 27	23	125	10	M5	70	75		5x6,5	18	34
211-2	32	40	62	42	13 - 20	27	26	141	13	M6	94	85		6x9,5	20	50
211-3	40	47,5	67	42	19 - 25	31,5 - 32,5	37	187	16	M8	107	110		7,5x10,5	25	52
211-4	52	67	100	67	28 - 34,5	40 - 48,5	47	240	20	M10	152	160	8,5	9x14,5	34	82
211-5	65	75	130	88	24,5 - 45	44,5 - 52	58	263	25	M12	195	165		9x19,5	42	107

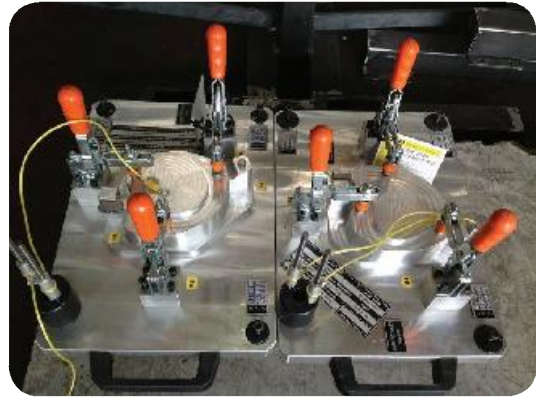
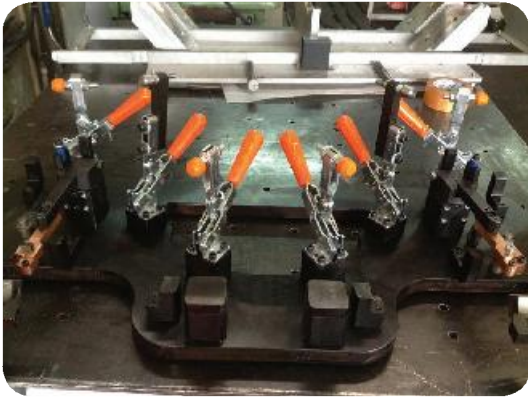
MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		BASKI VIDASI (SQUEEZE SCREW)	AÇI (ANGLE) (+ 5 °)		AĞIRLIK (WEIGHT) (gr)
							(X1) VERİM (YIELD) (F1:Fi)	(X2) VERİM (YIELD) (F2:Fi)		POS1	POS2	
212 - 0	S 212 - ....	B 212 - ....	550	350	700	455	10:1	5:1	M4X25	115°		85
212 - 1	S 212 - ....	B 212 - ....	750	500	1000	680	12:1	8:1	M5X35	105°		155
212 - 2	S 212 - ....	B 212 - ....	1200	700	1400	925	12:1	7,5:1	M6X40	105°		235
212 - 3	S 212 - ....	B 212 - ....	2000	1400	2500	1560	11:1	8:1	M8X50	105°		410
212 - 4	S 212 - ....	B 212 - ....	3000	2000	3300	2200	11,5:1	8:1	M10X70	135°	105°	890
212 - 5	S 212 - ....	B 212 - ....	4500	2500	5000	3000	12:1	7:1	M12X80	135°	105°	1510

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

212



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

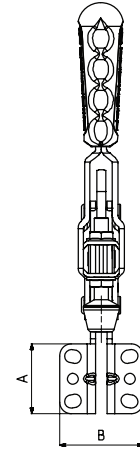
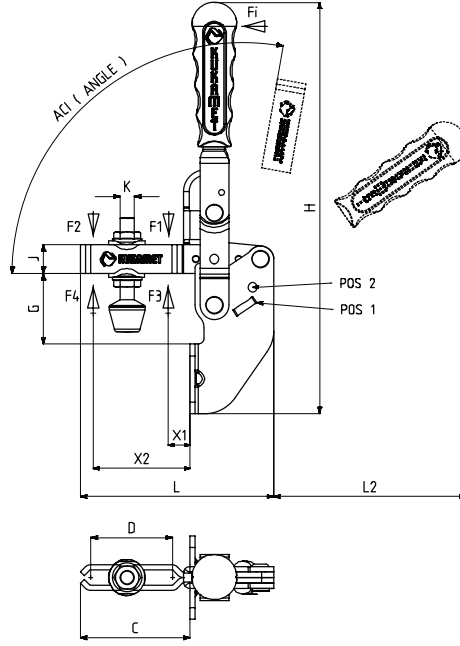


MODEL NO	A	B	C	D	E	F	G	H	J	K	L	L2	M	N	X1	X2
212 - 0	25	8	31	20	15.5		29.5	96.5	8	M4	56	50		5	11	22
212 - 1	26	10	44	26	16		35	137	10	M5	70	75		5	18	34
212 - 2	32	10	62	42	16.5		39	154	13	M6	94	85		6	20	50
212 - 3	40	12	67	42	22.5		52	202	16	M8	107	110		7.5	25	52
212 - 4	52	16	100	67	32		70	262	20	M10	152	160	8.5	9	34	82
212 - 5	65	20	130	88	42		82	286	25	M12	195	165		9	42	107

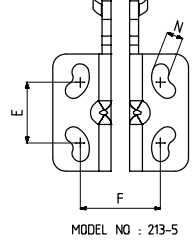
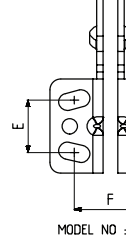
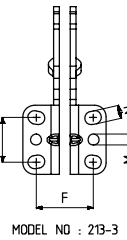
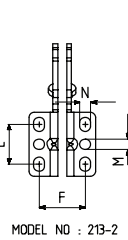
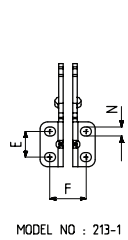
MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		BASKI VİDASI (SQUEEZE SCREW)	AÇI (ANGLE) (+ 5 °)		AĞIRLIK (WEIGHT) (gr)
							(X1) VERİM (YIELD) (F1:Fi)	(X2) VERİM (YIELD) (F2:Fi)		POS1	POS2	
213 - 1	S 213 - ....	B 213 - ....	750	500	1000	680	12:1	8:1	M5X35	135°	105°	170
213 - 2	S 213 - ....	B 213 - ....	1200	700	1400	925	12:1	7,5:1	M6X40	135°	105°	265
213 - 3	S 213 - ....	B 213 - ....	2000	1400	2500	1560	11:1	8:1	M8X50	105°		470
213 - 4	S 213 - ....	B 213 - ....	3000	2000	3300	2200	11,5:1	8:1	M10X70	135°	105°	1050
213 - 5	S 213 - ....	B 213 - ....	4500	2500	5000	3000	12:1	7:1	M12X80	135°	105°	1760

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

213

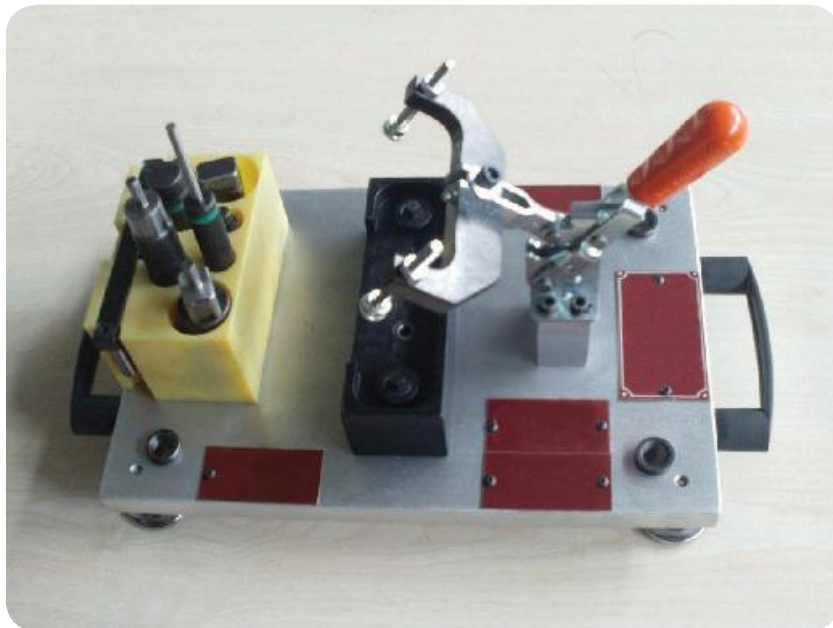


**Ayak Tipi: Yan Tabanlı**  
 Body Mounting Base: Side Ward



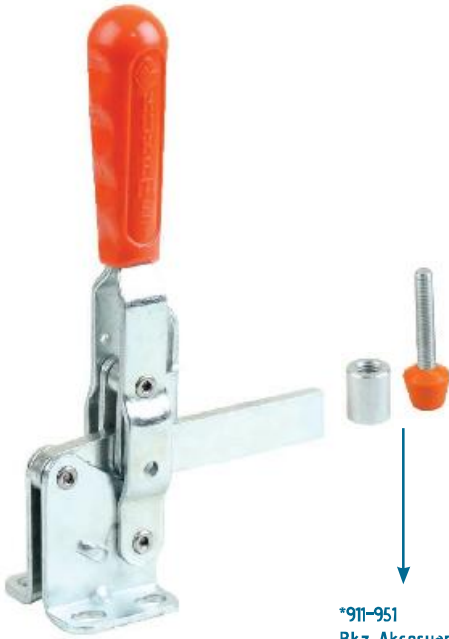
MODEL NO	A	B	C	D	E	F	G	H	J	K	L	L2	M	N	X1	X2
213 - 1	25	30,5	38	26	14	19 - 21	22,5	149,5	10	M5	70	75		5 x 6	12	28
213 - 2	35,5	37	57,5	42	20 - 24	25,5	25,5	175	13	M6	94	85	6	6 x 8	15	45
213 - 3	38,5	46	60,5	42	24 - 25	29 - 33	39	227,5	16	M 8	107	110	6	7 x 9	19	46
213 - 4	52	67	91	67	27 - 30,5	32 - 47,5	48	292	20	M10	152	160	8,5	9,5 x 17,5	24	72
213 - 5	65	75	119	88	24,5 - 45	44,5 - 52	59	328	25	M12	195	165		9 x 19,5	30	95



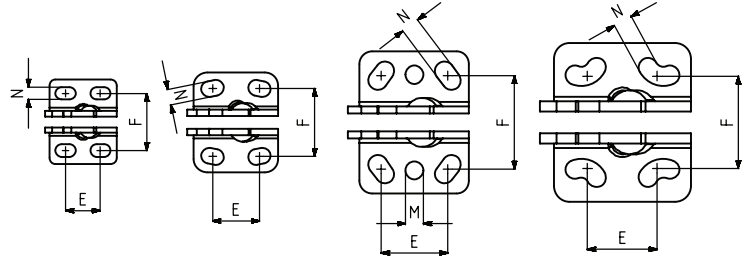
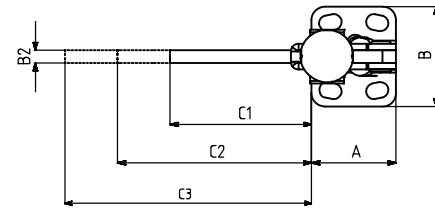
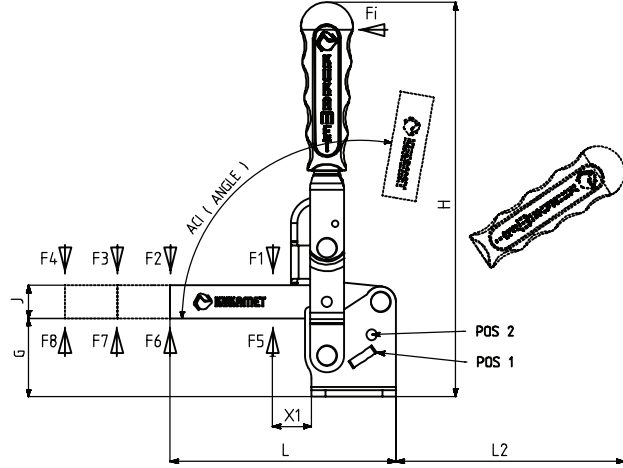


MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	F5 (N)	F6 (N)	F7 (N)	F8 (N)	Fi		AÇI (ANGLE) (+ 5 °)		AĞIRLIK (WEIGHT) (gr)
											(X1) VERİM (YIELD) (F1:Fi)	(C1) VERİM (YIELD) (F2:Fi)	POS1	POS2	
211-2-D	S 211 - ....	B 211 - ....	1200	700	350	250	1400	925	510	370	12:1	7,5:1	105°		210
211-3-D	S 211 - ....	B 211 - ....	2000	1400	700	500	2500	1560	910	680	11:1	8:1	105°		365
211-4-D	S 211 - ....	B 211 - ....	3000	2000	1100	850	3300	2200	1350	1080	11,5:1	8:1	135°	105°	785
211-5-D	S 211 - ....	B 211 - ....	4500	2500	1300	1000	5000	3000	1445	1190	12:1	7:1	135°	105°	1320

F1 - F2 - F3 - F4 : BASKI KUVVETİ ( EXERTING FORCE ), F5 - F6 - F7 - F8 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

**211-D**
**Ayak Tipi: Yatay Tabanlı**  
 Body Mounting Base: Horizontal


\*911-951  
 Bkz. Aksesuar Sayfası  
 \*911-951  
 Please See Accessories Page



MODEL NO : 211-2-D

MODEL NO : 211-3-D

MODEL NO : 211-4-D

MODEL NO : 211-5-D



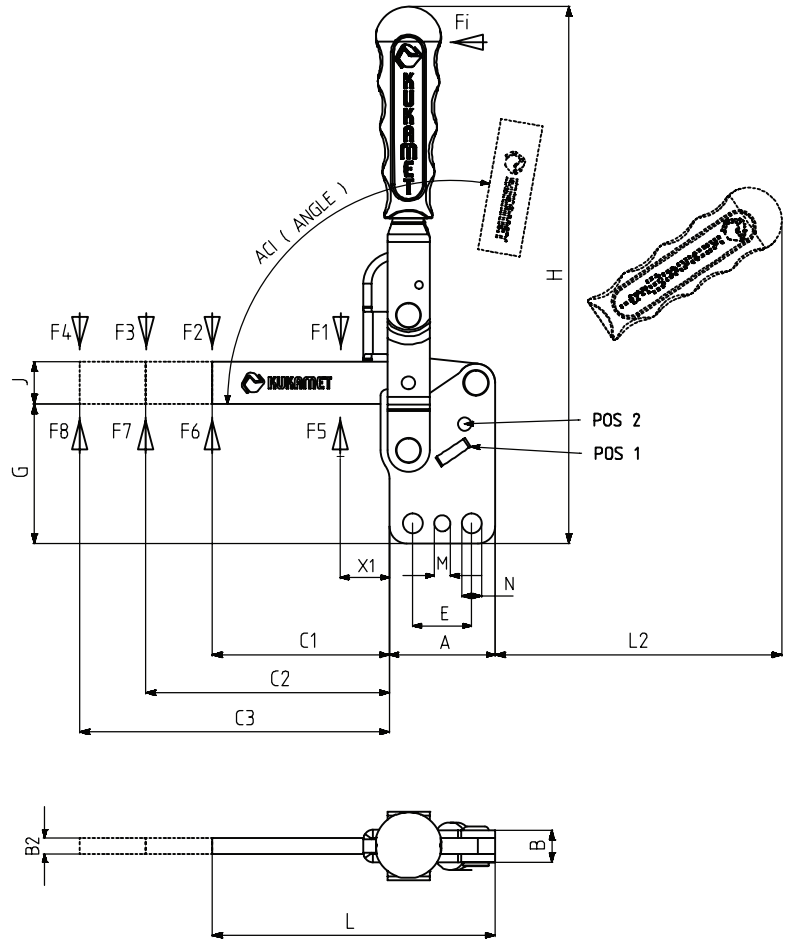
MODEL NO	A	B	B2	C1	C2	C3	D	E	F	G	H	J	L	L2	M	N	X1
211-2-D	32	40	5	62	112	162		13 - 20	27	26	141	13	94	85		6 x 9,5	20
211-3-D	40	47,5	6	67	117	167		19 - 25	31,5 - 32,5	37	187	16	107	110		7,5 x 10,5	25
211-4-D	52	67	8	100	150	200		28 - 34,5	40 - 48,5	47	240	20	152	160	8,5	9 x 14,5	34
211-5-D	65	75	10	130	180	230		24,5 - 45	44,5 - 52	58	263	25	195	165		9 x 19,5	42

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	F5 (N)	F6 (N)	F7 (N)	F8 (N)	Fi		AÇI (ANGLE) (+ 5 °)		AĞIRLIK (WEIGHT) (gr)
											(X1) VERİM (YIELD) (F1:Fi)	(C1) VERİM (YIELD) (F2:Fi)	POS1	POS2	
212-2-D	S 212 - ....	B 212 - ....	1200	700	350	250	1400	925	510	370	12:1	7,5:1	105°		210
212-3-D	S 212 - ....	B 212 - ....	2000	1400	700	500	2500	1560	910	680	11:1	8:1	105°		365
212-4-D	S 212 - ....	B 212 - ....	3000	2000	1100	850	3300	2200	1350	1080	11,5:1	8:1	135°	105°	785
212-5-D	S 212 - ....	B 212 - ....	4500	2500	1300	1000	5000	3000	1445	1190	12:1	7:1	135°	105°	1320

F1 - F2 - F3 - F4 : BASKI KUVVETİ ( EXERTING FORCE ) , F5 - F6 - F7 - F8 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

**212-D**
**Ayak Tipi: Dikey Tabanlı**  
 Body Mounting Base: Vertical


\*911-951  
 Bkz. Aksesuar Sayfası  
 \*911-951  
 Please See Accessories Page



MODEL NO	A	B	B2	C1	C2	C3	D	E	F	G	H	J	L	L2	M	N	X1
212-2-D	32	10	5	62	112	162		16,5		39	154	13	94	85	6	6	20
212-3-D	40	12	6	67	117	167		22,5		52	202	16	107	110		7,5	25
212-4-D	52	16	8	100	150	200		32		70	262	20	152	160	8,5	9	34
212-5-D	65	20	10	130	180	230		42		82	286	25	195	165		9	42

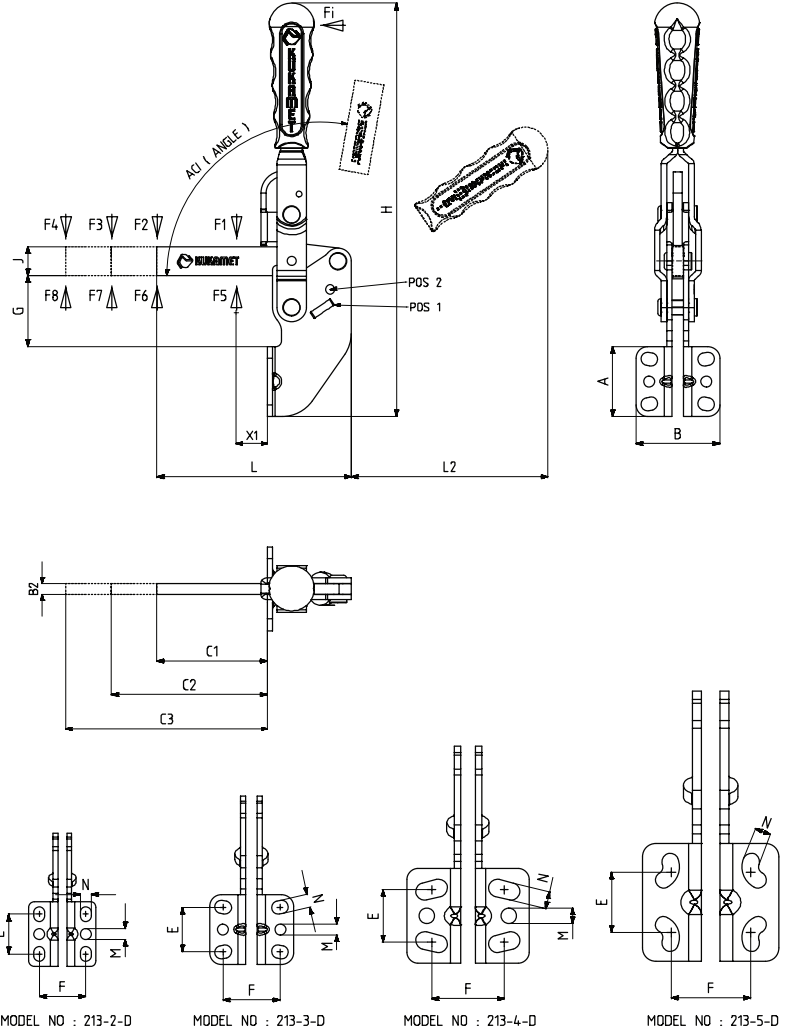
MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	F5 (N)	F6 (N)	F7 (N)	F8 (N)	Fi		AÇI (ANGLE) (+ 5 °)		AĞIRLIK (WEIGHT) (gr)
											(X1) VERİM (YIELD) (F1:Fi)	(C1) VERİM (YIELD) (F2:Fi)	POS1	POS2	
213 - 2-D	S 213 - ....	B 213 - ....	1200	700	350	250	1400	925	510	370	12:1	7,5:1	135°	105°	240
213 - 3-D	S 213 - ....	B 213 - ....	2000	1400	700	500	2500	1560	910	680	11:1	8:1	105°		430
213 - 4-D	S 213 - ....	B 213 - ....	3000	2000	1100	850	3300	2200	1350	1080	11,5:1	8:1	135°	105°	930
213 - 5-D	S 213 - ....	B 213 - ....	4500	2500	1300	1000	5000	3000	1445	1190	12:1	7:1	135°	105°	1640

F1 - F2 - F3 - F4 : BASKI KUVVETİ ( EXERTING FORCE ), F5 - F6 - F7 - F8 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

## 213-D Ayak Tipi: Yan Tabanlı Body Mounting Base: Side Ward



\*911-951  
Bkz. Aksesuar Sayfası  
\*911-951  
Please See Accessories Page



MODEL NO	A	B	B2	C1	C2	C3	D	E	F	G	H	J	L	L2	M	N	X1
213 - 2-D	35,5	37	5	58	108	158		20 - 24	25,5	25,5	175	13	94	85		6x8	15
213 - 3-D	38,5	46	6	61	111	161		24 - 25	29 - 33	39	227,5	16	107	110		7x9	19
213 - 4-D	52	67	8	91	141	191		27 - 30,5	32 - 47,5	48	292	20	152	160	8,5	9,5x17,5	24
213 - 5-D	65	75	10	119	169	219		24,5 - 45	44,5 - 52	59	228	25	195	165		9x19	30

**KİLİTLİ/LOCKED**

211-L



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

212-L

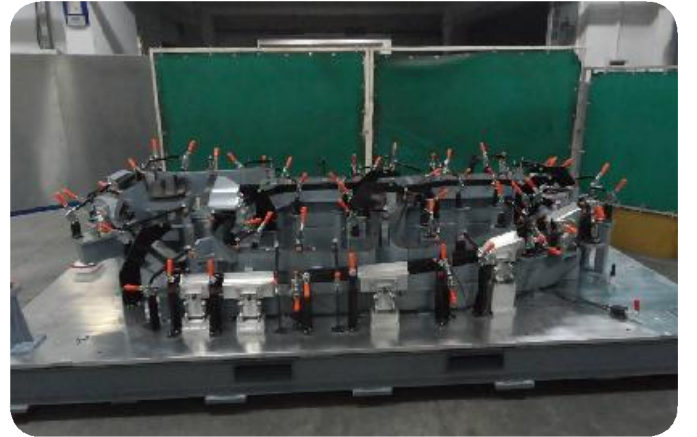
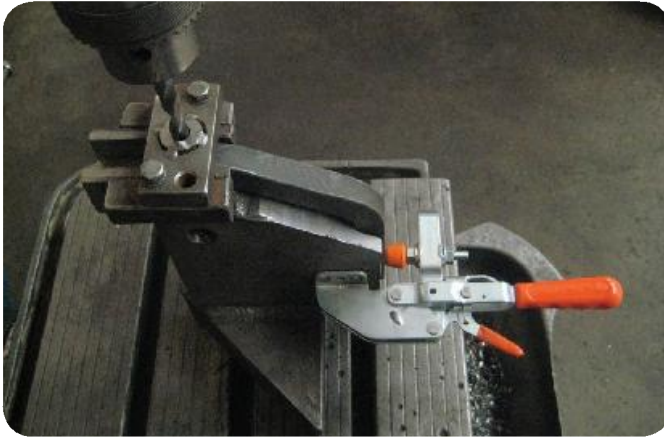


**Ayak Tipi: Dikey Tabanlı**  
Body Mounting Base: Vertical

213-L



**Ayak Tipi: Yan Tabanlı**  
Body Mounting Base: Side Ward



211-D-L



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

212-D-L



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

213-D-L

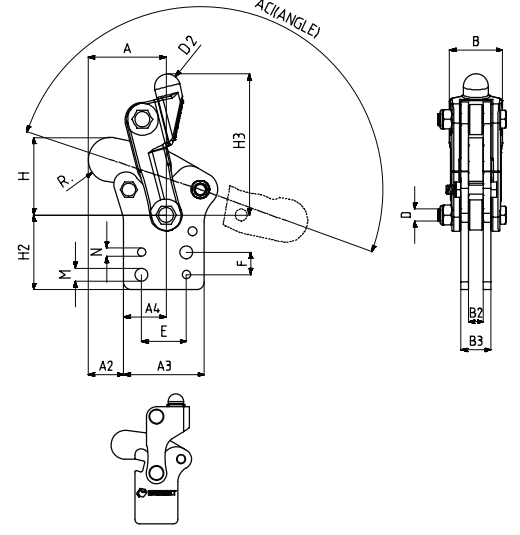


**Ayak Tipi: Yan Tabanlı**  
Body Mounting Base: Side Ward

222



MODEL NO	F1 (N)	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
222-2	2500	190	220
222-4	7000	190	960
222-6	11000	190	1810



MODEL NO : 2

MODEL NO : 222-2 KOL KAYNAKLI SAC / Welded steel arm  
MODEL NO : 222-4/6 KOL DOVME CELIK / Forged steel arm

**Ayak Tipi: Dikey Sabit Tabanlı**

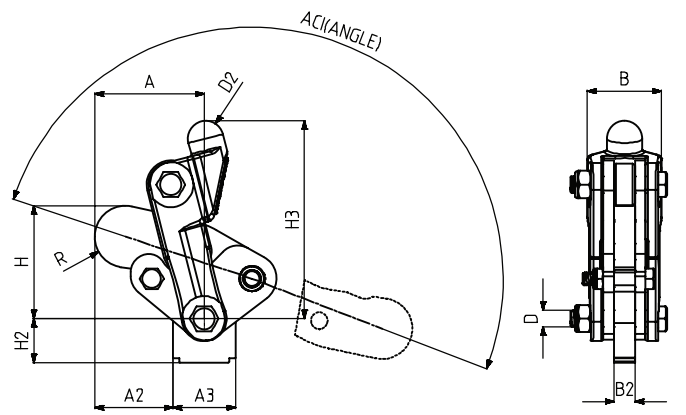
Body Mounting Base: Vertical and Fixed

MODEL NO	A	A2	A3	A4	B	B2	B3	D	D2	E	F	H	H2	H3	M	N	R
222-2	30.5	16	29	14.5	18.5	6	12	M6	Ø10			28.5	34	53			9.5
222-4	52	23.5	54	28.5	36	10	20	M8	Ø17	30	15	52	50	94.5	8.5	5.7	15
222-6	69	32	70	37	46	12	22	M10	Ø22	45	20	73	61.5	120	10.5	7.7	18.5

232



MODEL NO	F1 (N)	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
232-2	2500	190	200
232-4	7000	190	830
232-6	11000	190	1600



MODEL NO : 232-2 KOL KAYNAKLI SAC / Welded steel arm  
MODEL NO : 232-4/6 KOL DOVME CELIK / Forged steel arm

**Ayak Tipi: Dikey Oynar Tabanlı**

Body Mounting Base: Vertical Moving

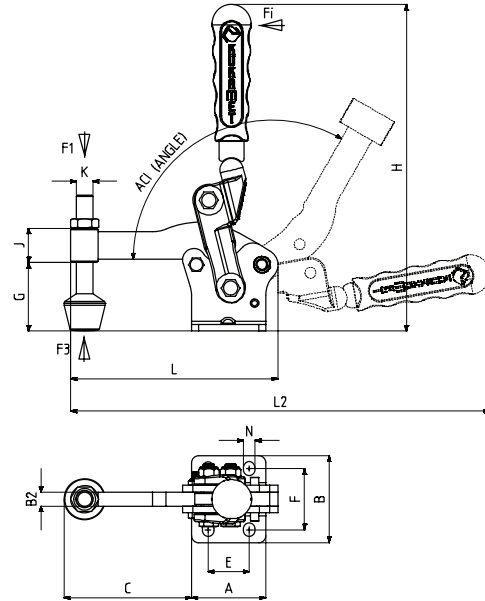
MODEL NO	A	A2	A3	B	B2	D	D2	H	H2	H3	R
232-2	30.5	16	20	18.5	6	M6	Ø10	28.5	20	53	9.5
232-4	52	37	30	36	10	M8	Ø17	52	23	94.5	15
232-6	69	51.5	35	46	12	M10	Ø22	73	30	120	18.5

241



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

MODEL NO	F1 (N)	F3 (N)	Fi	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
			VERİM (YIELD) (F1)		
241-4	1500	5000	5;1	120°	1340
241-6	2000	6000	5;1	120°	2340



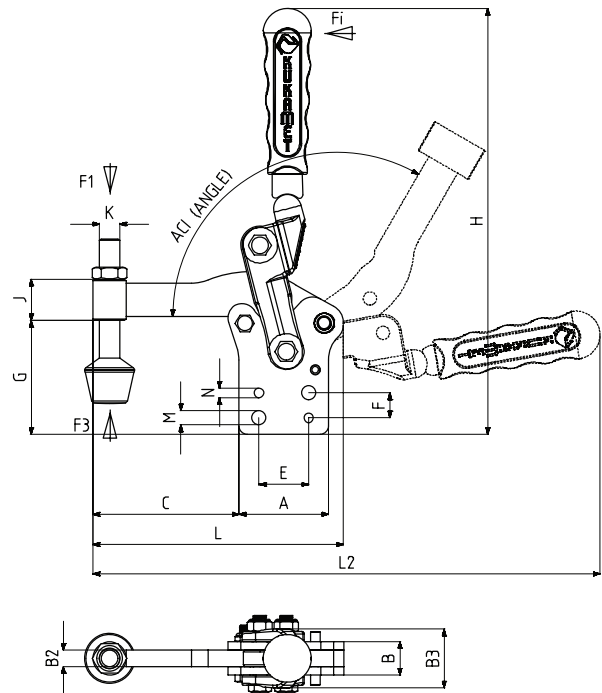
MODEL NO	A	B	B2	C	D	E	F	G	H	J	K	L	L2	M	N
241-4	54	63	10	88		30	43-46	49	238	27	M12	151	323		8.5X10
241-6	70	74	12	111		45	51-53	68	280	32	M12	191	390		10.5X11.5

242



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

MODEL NO	F1 (N)	F3 (N)	Fi	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
			VERİM (YIELD) (F1)		
242-4	1500	10000	5;1	120°	1340
242-6	2000	12000	5;1	120°	2340

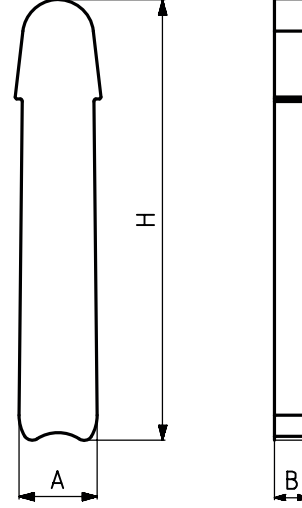


MODEL NO	A	B	B2	B3	C	D	E	F	G	H	J	K	L	L2	M	N
242-4	54	20	10	36	88		30	15	67.5	257	27	M12	151	323	8.5	5.7
242-6	70	22	12	46	111		45	20	91	303	32	M12	191	390	10.5	7.7

**UZATMA KOLU / EXTENSION BAR**

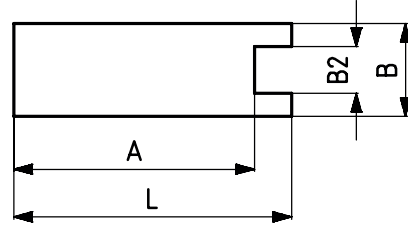
KOD	MODEL NO	A	B	H
222-232-2-06	222-232-2	11	5	65
222-232-240-4-06	222-232-4	18	8	105
222-232-240-6-06	222-232-6	18	10	114

\*921 Bkz. Aksesuar Sayfası  
\*921 Please See Accessories Page



**ÇENE UZATMA LAMASI / JAW EXTENSION BAR**

KOD	MODEL NO	A	B	B2	L	H
222-232-4-07	222-232-4	52	20	10.1	60	25
222-232-6-07	222-232-6	68	25	12.1	80	30

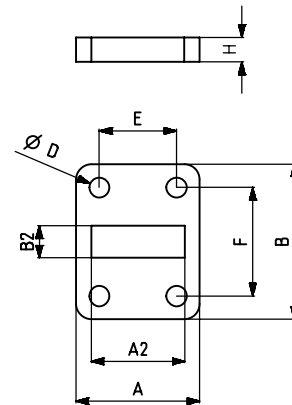


\*951  
Bkz. Aksesuar Sayfası  
\*951  
Please See Accessories Page



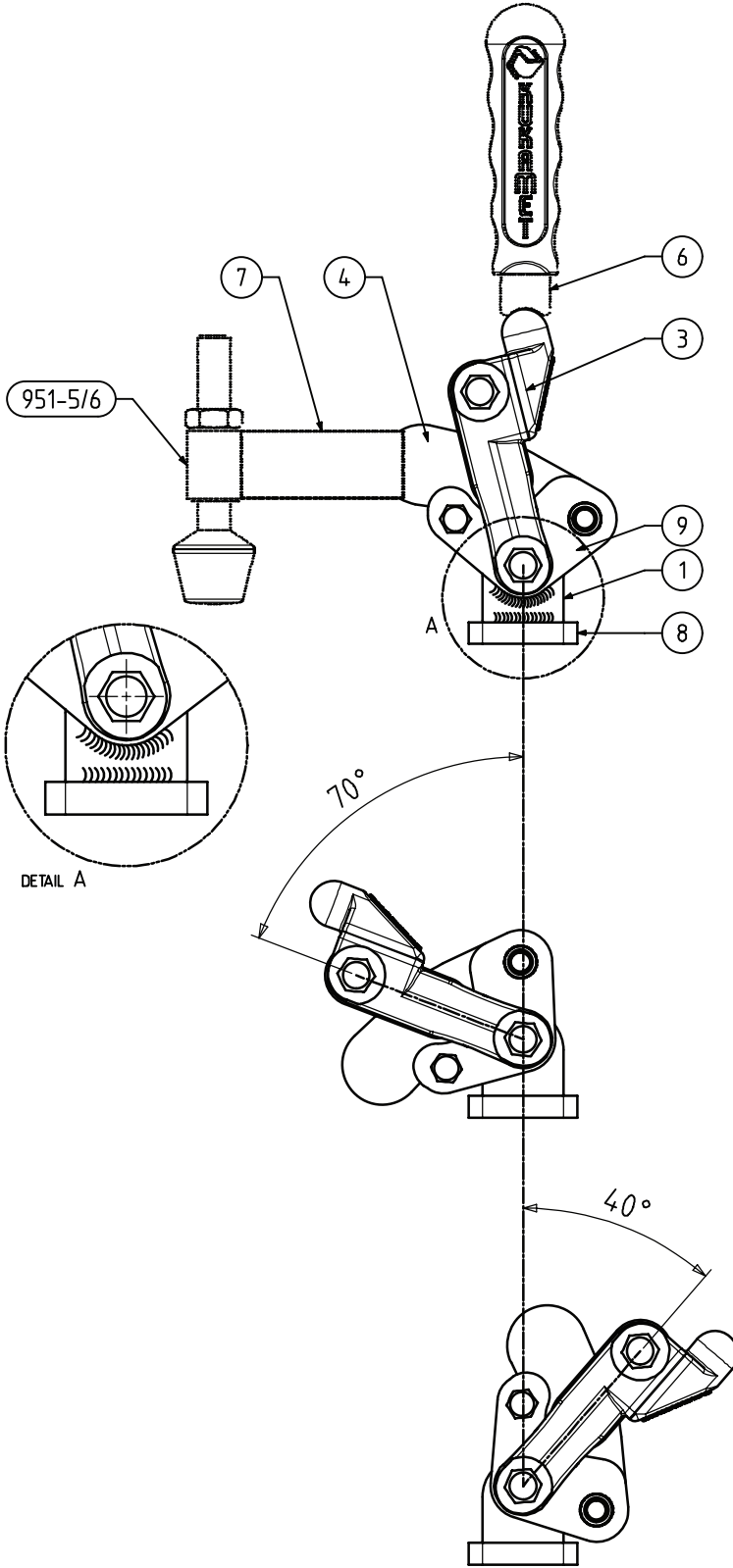
**TABAN PLAKASI / BASE PLATE**

KOD	MODEL NO	A	A2	B	B2	D	E	F	H
232-4-08	222-232-4	40	24.5	50	10.5	Ø6.5	25	35	8
232-6-08	222-232-6	50	28.5	60	12.5	Ø8.5	30	40	8





232-M



POSITIONING ANGLES



**MONTAJ TALİMATI**

ÜRÜN KONUMLAMASI YAPILDIKTAN SONRA;  
\* ÖNCE '1' NO'LU TABAN '8' NO'LU TABAN PLAKAYA VEYA ZEMİNE KAYNATILIR,  
\* SONRA '9' NO'LU DİŞ EKLEM '1' NO'LU TABANA KAYNATILIR.

**ÖNEMLİ UYARI !!**

\* KAYNAK HER İKİ TARAFA DA YAPILMALIDIR !!  
\* KAYNAK AYNI NOKTAYA YOĞUN ŞEKİLDE YAPILMAMALIDIR !!  
\* OLUŞACAK AŞIRI ISI PARÇANIN DEFORMASYONUNA SEBEP OLABİLİR !!

**KULLANIM DURUMUNA YA DA İHTİYACINA GÖRE;**

'6' NOLU UZATMA KOLU '3' NO'LU ÜRÜN KOLUNA;  
'7' NOLU ÇENE UZATMA LAMASI '4' NO'LU ÇENEYE KAYNATILABİLİR.

**MOUNTING INSTRUCTION**

AFTER MAKING PRODUCT POSITIONING;  
\* FIRSTLY PART NUMBER '1' IS WELDED TO PART NUMBER '8'  
\* SECOND PART NUMBER '9' ARE WELDED TO PART NUMBER '1'

**IMPORTANT NOTICE !!**

\* WELDING PROCESS MUST BE MADE ON BOTH SIDES !!  
\* WELDING PROCESS MUST NOT BE MADE DENSELY ON SAME POINT !!  
\* ULTRA HEAT DURING WELDING CAN CAUSE TO DEFORMATION "

**AT NECESSARY CASE;**

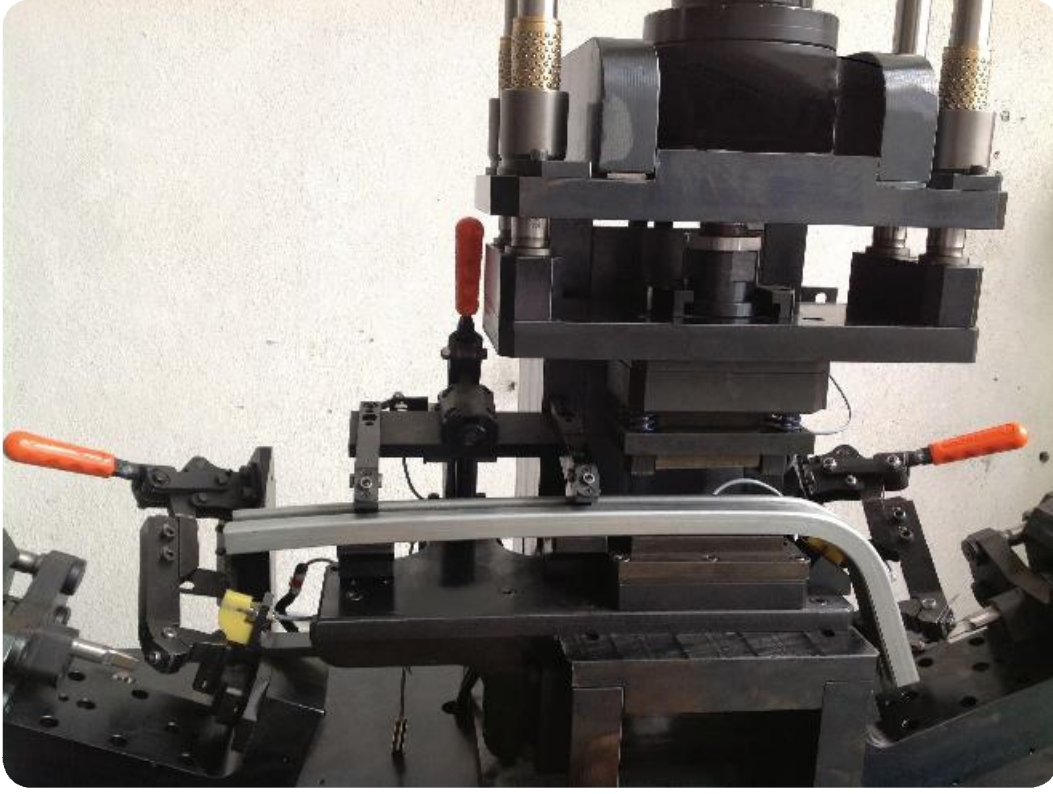
\* PART NUMBER '6' CAN BE WELDED TO PRODUCT ARM, PART NUMBER '3';  
\* PART NUMBER '7' CAN BE WELDED TO PRODUCT JAW, PART NUMBER '4'.

**MODÜLER BAĞLANTI ELEMANLARI ÖZELLİKLERİ ;**

MODÜLER BAĞLANTI ELEMANLARI , DÖVME ÇELİKTEN ÜRETİLMİŞ VE KARARTMA YAPILMIŞ KOL, SERTLEŞTİRİLMİŞ VE TAŞLANMIŞ PİMLER, SERTLEŞTİRİLMİŞ VE YAĞLANMIŞ BURÇLAR SAYESİNDE AĞIR YÜKLERE KARŞI DAYANIKLI VE UZUN ÖMÜRLÜ ÜRÜNLERDİR.

**GENERAL PROPERTIES OF MATERIAL**

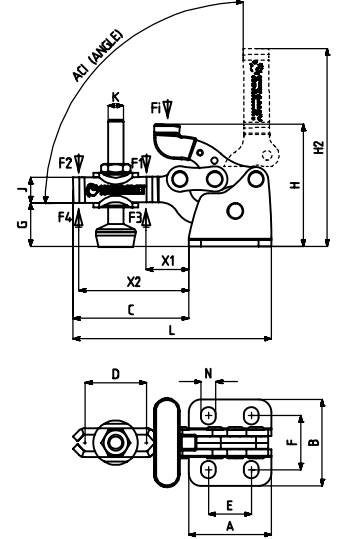
MODULER TOGGLE CLAMPS ARE RESISTANT AGAINST TO HEAVY LOADS AND PERENNIAL PRODUCT, THROUGH TO MADE OF FORGED STEEL AND BLUED ARM, HARDENED AND GRINDED PINS, HARDENED AND LUBRICATED BUSHES.



**new**
**251**

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

**251-L**

**Kilitli / Locked**


MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	M	N	X1	X2
251-2	26	27	36	17	13,5	16 - 18	14	38	62	8	M5	62		4,5x5,5	19	27
251-3	44	47	56	27	23	29 - 31	23	63	100	13	M8	100		7,5x8,5	27	43
251-4	64	63	79	37	35	38 - 41	35	93	143	19	M10	143		9x10,5	39	63

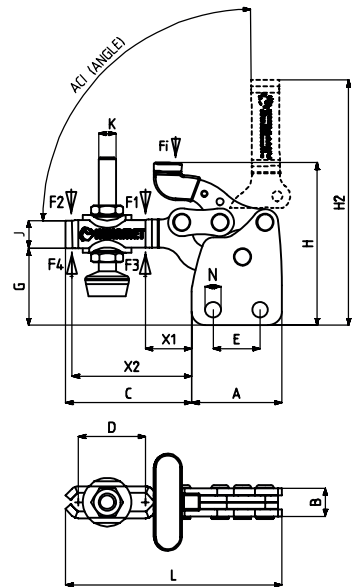
MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		AÇI (ANGLE) (+ 5°)	AĞIRLIK (WEIGHT) (gr)
							(X1) VERİM (YIELD) (F1:Fi)	(X2) VERİM (YIELD) (F2:Fi)		
251-2	S251-....	B251-....	470	380	700	560	3:1	2:1	90°	65
251-3	S251-....	B251-....	1400	1030	1625	1200	3:1	2:1	90°	270
251-4	S251-....	B251-....	2000	1370	3370	2445	4:1	2,5:1	90°	710

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

**new**
**252**

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

**252-L**

**Kilitli / Locked**


MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	M	N	X1	X2
252-2	26	8	36	17	13,5		22	47	71	8	M5	62		4,5	19	27
252-3	44	12	56	27	23		39	79	116,5	13	M8	100		7,5	27	43
252-4	64	16	79	37	35		56	114,5	164	19	M10	143		9	39	63

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		AÇI (ANGLE) (+ 5°)	AĞIRLIK (WEIGHT) (gr)
							(X1) VERİM (YIELD) (F1:Fi)	(X2) VERİM (YIELD) (F2:Fi)		
252-2	S252-....	B252-....	470	380	700	560	3:1	2:1	90°	65
252-3	S252-....	B252-....	1400	1030	1625	1200	3:1	2:1	90°	270
252-4	S252-....	B252-....	2000	1370	3370	2445	4:1	2,5:1	90°	710

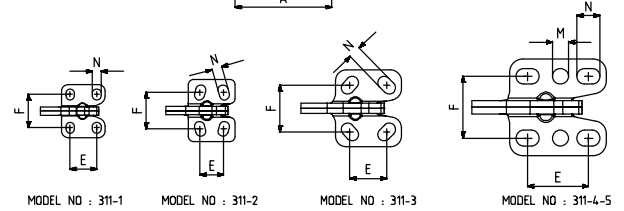
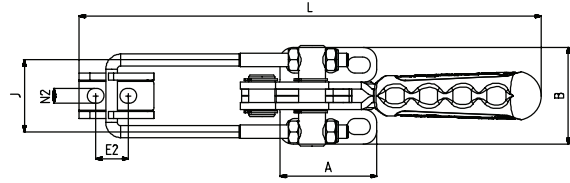
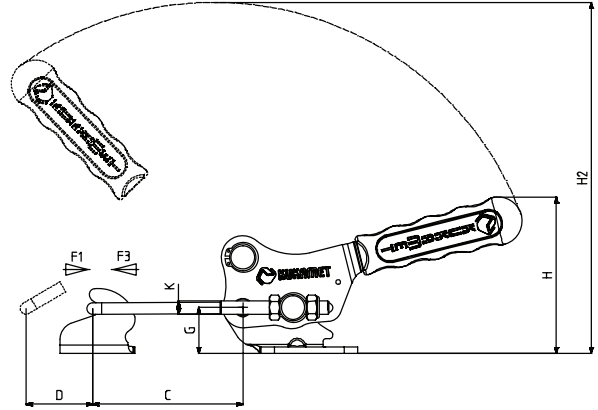
F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
311-1	S 311-....	B 311-....	1000	1500	40	135
311-2	S 311-....	B 311-....	1500	2000	35	175
311-3	S 311-....	B 311-....	2200	3200	35	335
311-4	S 311-....	B 311-....	7000	8000	50	815
311-5	S 311-....	B 311-....	10000	11000	70	1185

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

new

311



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



MODEL NO	A	B	C min.	C max.	D	E	E2	F	G	H	H2	J	K	L min.	L max.	M	N	N2
311-1	26	32	25	65	20	16	10	18,5 - 21,5	13	55	110	23	M4	125	165		5x6,5	5
311-2	28	37	25	60	25	13 - 15	10 - 14	19 - 24,5	17	58	120	23	M4	135	170		6 x 9	5,5 x 8
311-3	39,5	46	35	70	35	19 - 25	16	25 - 31	21,5	67	160	30	M6	175	210		7,5x11,5	6,5
311-4	58	58	45	95	44	32 - 41	18 - 21	37	27,5	91	200	43	M8	230	280	9,5	9,5x14	8,5x10
311-5	58	58	55	125	44	32 - 41	18 - 21	37	27,5	93,5	204,5	45	M10	241,5	311,5	9,5	9,5x14	8,5x10

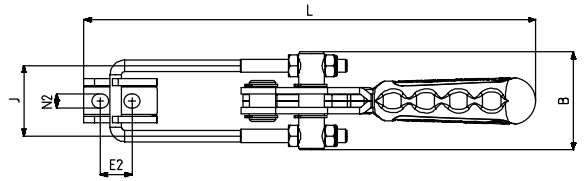
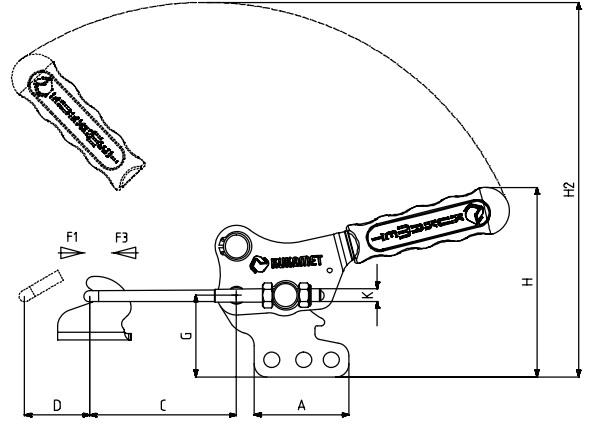
C Ölçüsü Kısa U Kanca İçindir. Bkz. Aksesuar Sayfası. / C Dimension is for short U Hook. Please See Accessories Page.

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
312-1	S 312-....	B 312-....	1000	1500	40	135
312-2	S 312-....	B 312-....	1500	2000	35	175
312-3	S 312-....	B 312-....	2200	3200	35	335
312-4	S 312-....	B 312-....	7000	8000	50	815
312-5	S 312-....	B 312-....	10000	11000	70	1185

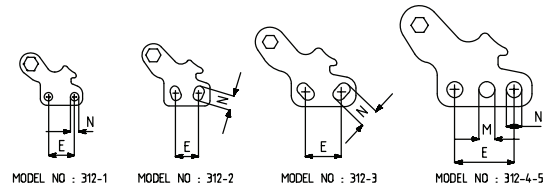
F1 : BASKI KUVVETİ ( EXERTING FORCE ), F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY )

new

312

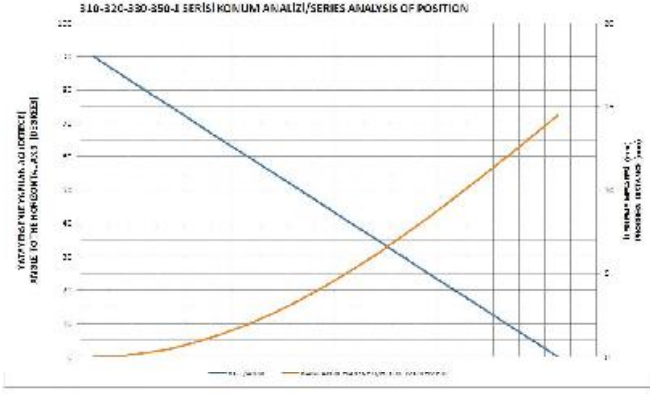


**Ayak Tipi: Dikey Tabanlı**  
 Body Mounting Base: Vertical



MODEL NO	A	B	C Min.	C Max.	D	E	E2	F	G	H	H2	J	K	L Min.	L Max.	M	N	N2
312-1	26	33	25	65	20	16	10		25	67	122	23	M4	125	165		5	5
312-2	28	33	25	60	25	13-15	10-14		31	72	134	23	M4	135	170		6 x 9	5,5 x 7,5
312-3	39,5	42	35	70	35	19-25	16		39,5	85	178	30	M 6	175	210		7,5x11,5	6,5
312-4	58	59	45	95	44	36,5	18-21		50	116	227	43	M8	230	280	9,5	9,5	8,5x10
312-5	58	65	55	125	44	36,5	18-21		50	116	227	43	M10	241,5	311,5	9,5	9,5	8,5x10

C Ölçüsü Kısa U Kanca İçindir. Bkz. Aksesuar Sayfası. / C Dimension is for short U Hook. Please See Accessories Page.



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

MODEL NO	A	B	C min.	C max.	D	E	E2	F	G	H	H2	J	K	L min.	L max.	N	N2
321-1	26	32	25	65	20	16	10	18,5-21,5	13	35	100	23	M4	125	165	5x6,5	5

331



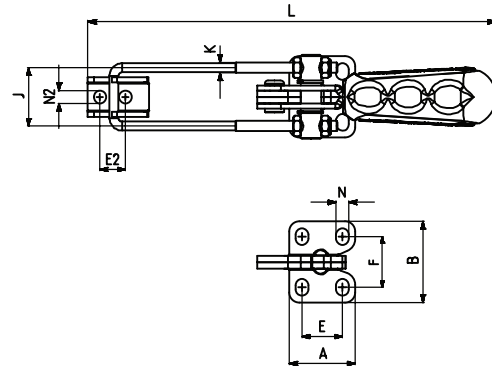
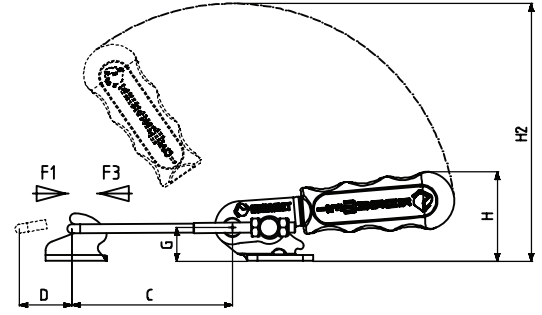
**Ayak Tipi: Yatay Tabanlı**  
Body Mounting Base: Horizontal

MODEL NO	A	B	C Min.	C Max.	D	E	E2	F	G	H	H2	J	K	L Min.	L Max.	N	N2
331-1	26	32	25	65	20	16	10	18,5-21,5	13	24	80	23	M4	102	142	5x6,5	5

C Ölçüsü Kısa U Kanca İçindir. Bkz. Aksesuar Sayfası. / C Dimension is for short U Hook. Please See Accessories Page.

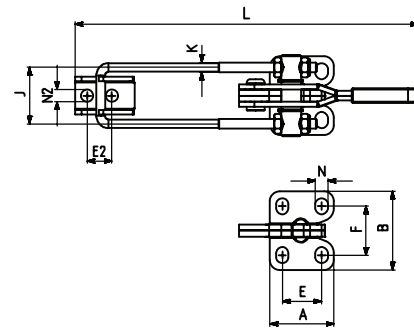
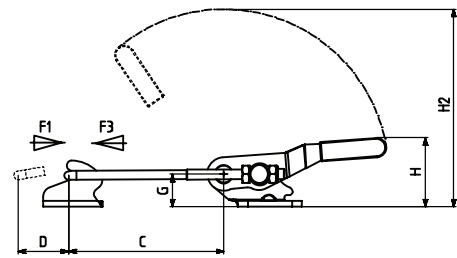
MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
321-1	S 321-....	B 321-....	1000	1500	40	115

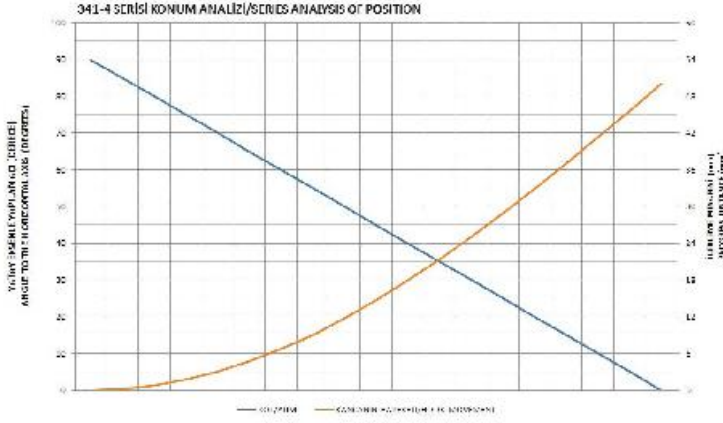
F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY )



MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
331-1	S 331-....	B 331-....	1000	1500	40	95

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





MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
341-4	B 341 - ....	15000	17000	90	1900
341-5	B 341 - ....	20000	25000	25	1970

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

new

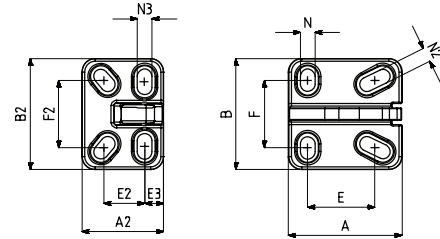
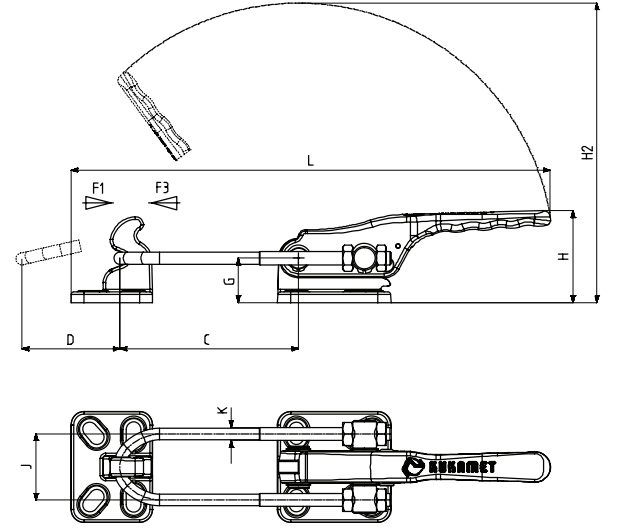


341

**Ayak Tipi: Döküm Gövdeli**  
 Body Mounting Base: Casting

**Ürün özellikleri;**  
 Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.  
 Taban, kol ve gerdirme parçası mukavemetli GGG-60 döküm malzemeden üretilmiştir. Ayrıca, siyah elektrostatik toz boya ile boyanmıştır.  
 Kanca ve pimler çelik malzemeden üretilmiştir. korozyon direnci için galvaniz kaplama yapılmıştır.

**Features of product;**  
 The products are strength and suitable for heavy duty.  
 The base, arm and stretching part made of strength, GGG-60 casting material. Also, painted with black electrostatic powder paint.  
 Hook and pins made of steel material. Coated galvanized for corrosion resistance.



MODEL NO	A	A2	B	B2	C Min.	C Max.	D	E	E2	E3	F	F2	G	H	H2	J	K	L Min.	L Max.	N	N2	N3
341-4	86	62	84	84	50	140	80	45 - 57	28 - 33	15	45 - 57	45 - 57	33.5	69	230	50	M10	275	365	11x17	11x24	11x19
341-5	86	66	84	84	45	70	80	45 - 57	28 - 35	20	45 - 57	45 - 57	33.5	89	230	54	M12	270	295	11x17	11x24	11x19

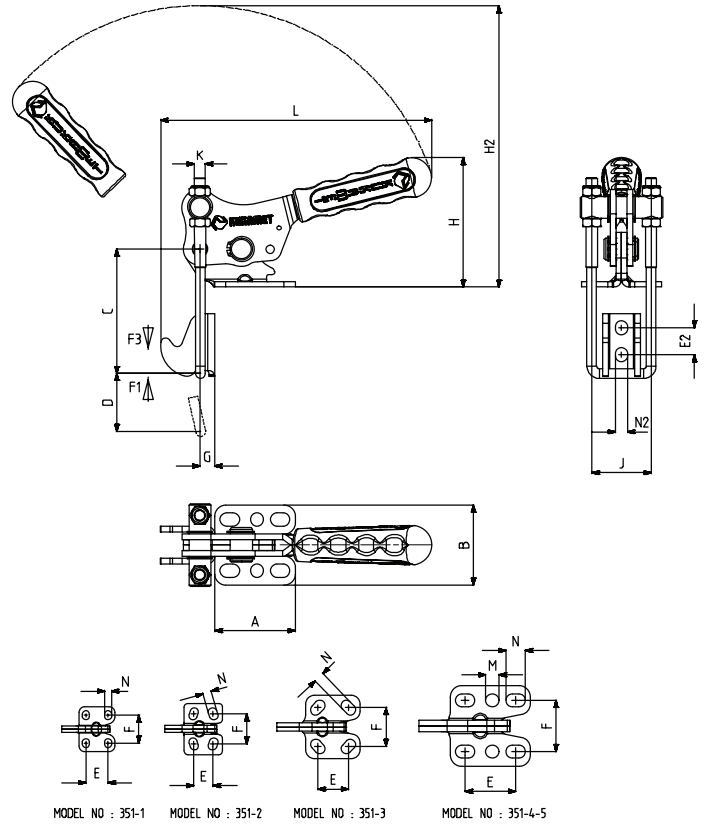
351

new

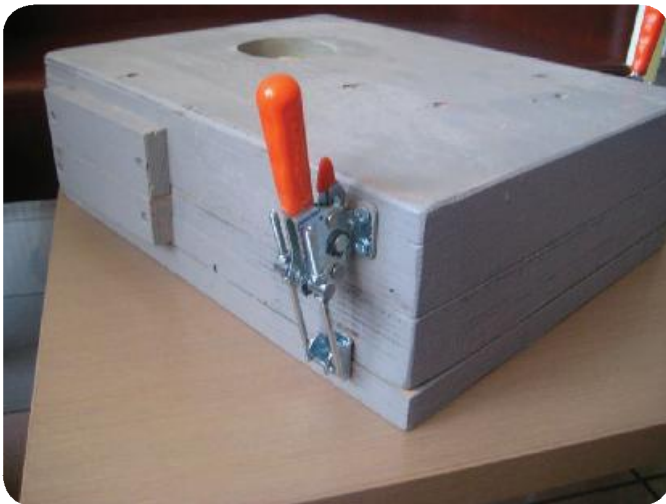


MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
351-1	S 351-....	B 351-....	1000	1500	40	135
351-2	S 351-....	B 351-....	1500	2000	35	175
351-3	S 351-....	B 351-....	2200	3200	35	335
351-4	S 351-....	B 351-....	7000	8000	50	815
351-5	S 351-....	B 351-....	10000	11000	70	1185

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



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



MODEL NO	A	B	C (min.)	C (max.)	D	E	E2	F	G	H	H2	J	K	L	M	N	N2
351-1	26	32	25	65	20	16	10	18,5 - 21,5	5.1	55	110	23	M4	104		5x6.5	5
351-2	28	37	25	60	25	13 - 15	10 - 14	19 - 24,5	6	58	120	23	M4	112.5		6 x 9	5,5 x 8
351-3	39.5	46	35	70	35	19 - 25	16	25 - 31	10.5	67	160	30	M 6	131		7,5x11,5	6.5
351-4	58	58	45	95	44	32 - 41	18 - 21	37	10	91	200	43	M8	195.5	9.5	9,5x14	8,5x10
351-5	58	58	55	125	44	32 - 41	18 - 21	37	10	93,5	204,5	43	M10	195.5	9.5	9,5x14	8,5x10

C Ölçüsü Kısa U Kanca İçindir. Bkz. Aksesuar Sayfası. / C Dimension is for short U Hook. Please See Accessories Page.



361

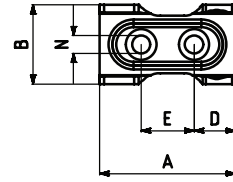
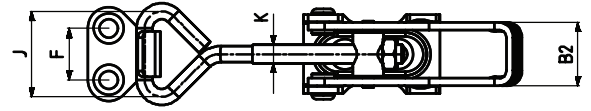
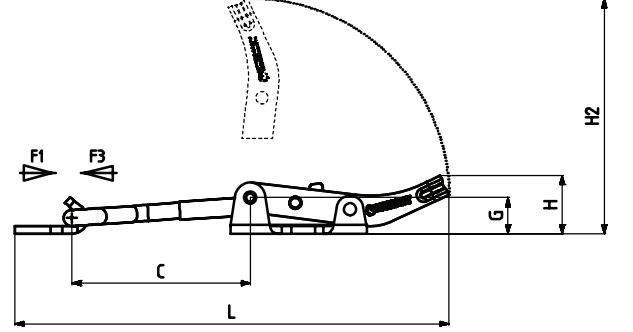
new



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

MODEL NO	PASLANMAZ (STAINLESS)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
361-2	S361-...	1500	1725	34	100

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



MODEL NO	A	B	B2	C Min	C Max	D	E	F	G	H	H2	J	K	L Min	L Max	M	N
361-2	45	26	21	26	60	13.75	17.5	17	12	19.5	78	28.5	M6	111	145		6

## KİLİTLİ / LOCKED

311-L

312-L

341-L

351-L



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



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



**Ayak Tipi: Döküm Gövdeli**  
Body Mounting Base: Casting



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

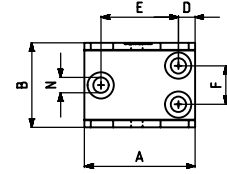
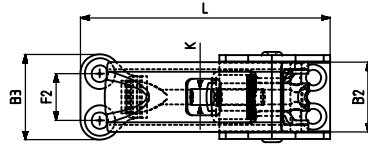
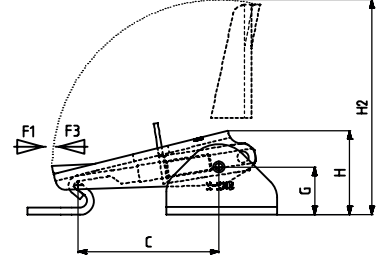
362

new



MODEL NO	PASLANMAZ (STAINLESS)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
362-1	S362 - ....	1400	1650	15	140
362-2	S362 - ....	1600	1800	15	160

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



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

MODEL NO	A	B	B2	B3	C Min	C Max	D	E	F	F2	G	H	H2	J	K	L Min	L Max	M	N
362-1	40	30,5	25	31	47	62	6	28	14	17	17	30	78		M6	86	101		5,5
362-2	40	30,5	25	31	47	62	6	28	14	17	17	30	78		M8	86	101		5,5

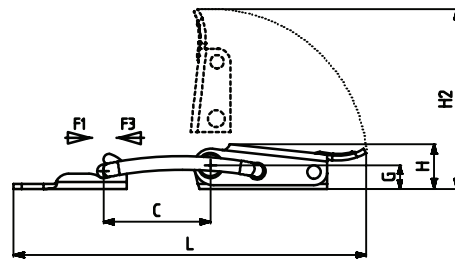
363

new

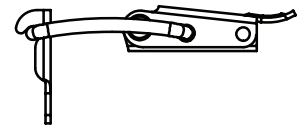


MODEL NO	PASLANMAZ (STAINLESS)	F1 (N)	F3 (N)	AĞIRLIK (WEIGHT) (gr)
363-2	S363-....	1500	1725	65

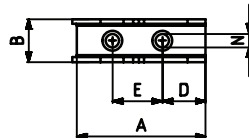
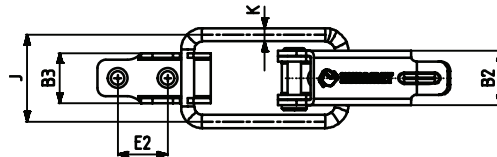
F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY )



POS 1



POS 2



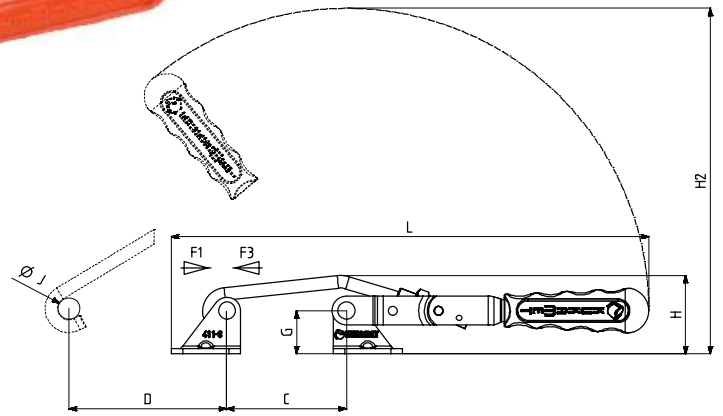
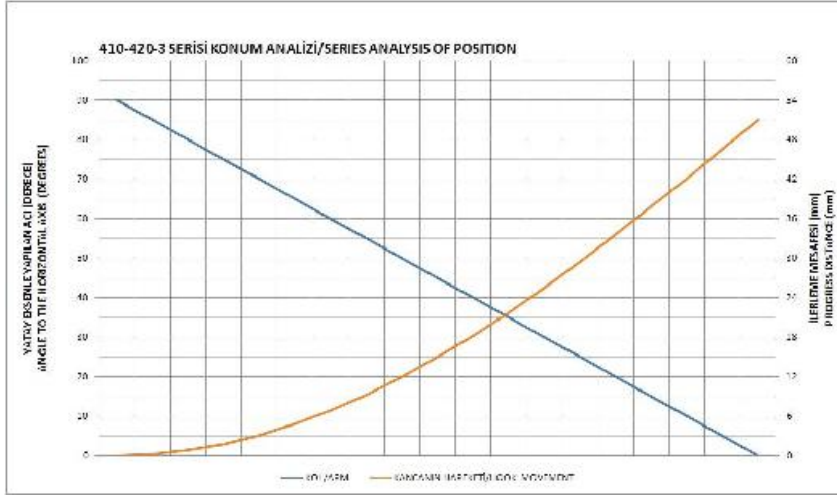
**Ayak Tipi: Yatay Tabanlı**  
Body Mounting Base: Horizontal

MODEL NO	A	B	B2	B3	C	D	E	E2	F	G	H	H2	J	K	L	M	N
363-2	38,3	13	16,3	15	32	13	15	15		7	13,5	54	25	4	106		4

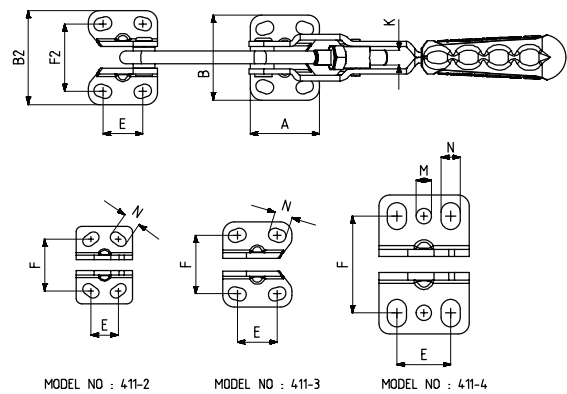
411

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
411-2	S 411 - ...	B 411 - ...	1500	1800	15	210
411-3	S 411 - ...	B 411 - ...	2000	2500	15	325
411-4	S 411 - ...	B 411 - ...	3500	4000	25	860

F1 : BASKI KUWETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY )



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



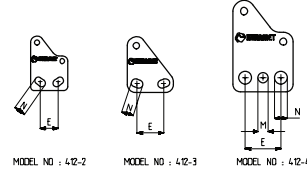
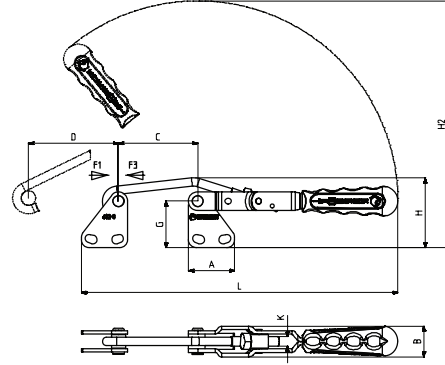
MODEL NO	A	B	B2	C min.	C max.	D	E	F	F2	G	H	H2	J	K	L min.	L max.	M	N
411-2	31	43	47	45	60	50	12 - 18	26,5 - 30,5	30,5 - 34,5	26	38	155	9	M6	200	215		6x9,5
411-3	38,5	47	52	60	75	80	19 - 25	31,5 - 33	36,5 - 38	24	42	190	12	M 8	255	270		7x10
411-4	50	77	84	75	100	130	30	49 - 58	56 - 65	40	61	253	16	M10	335	360	8,5	10,5x15

**412**

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

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
412-2	S 412 - ....	B 412 - ....	1500	1800	15	210
412-3	S 412 - ....	B 412 - ....	2000	2500	15	325
412-4	S 412 - ....	B 412 - ....	3500	4000	25	860

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



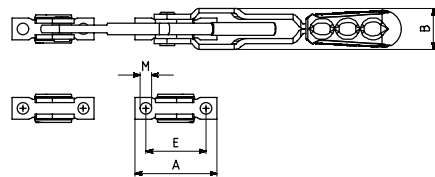
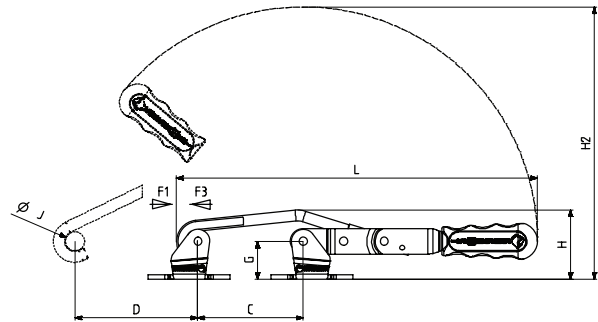
MODEL NO	A	B	C Min.	C Max.	D	E	F	G	H	H2	J	K	L Min.	L Max.	M	N
412-2	31	21.5	45	60	50	12-18		40	52	169	9	M6	200	215		6 x 9,5
412-3	38.5	25.5	60	75	80	19-25		39	57	205	12	M8	255	270		7x10
412-4	50	34	75	100	130	30		67	88	280	16	M10	335	360	8.5	10,5x15

**413**

**Ayak Tipi: U Tabanlı**  
 Body Mounting Base: U Base

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
413-3	S 413 - ....	B 413 - ....	2000	2500	15	285

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



MODEL NO	A	B	B2	C Min.	C Max.	D	E	F	G	H	H2	J	K	L Min.	L Max.	M	N
413-3	51.5	25.5		60	75	80	38		24	42	170	12	M8	255	270	7	

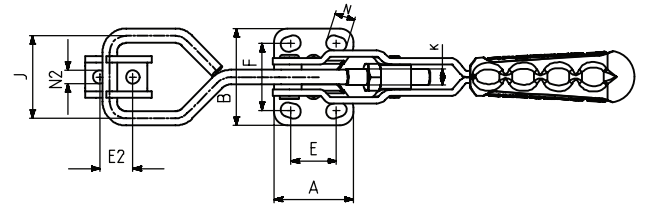
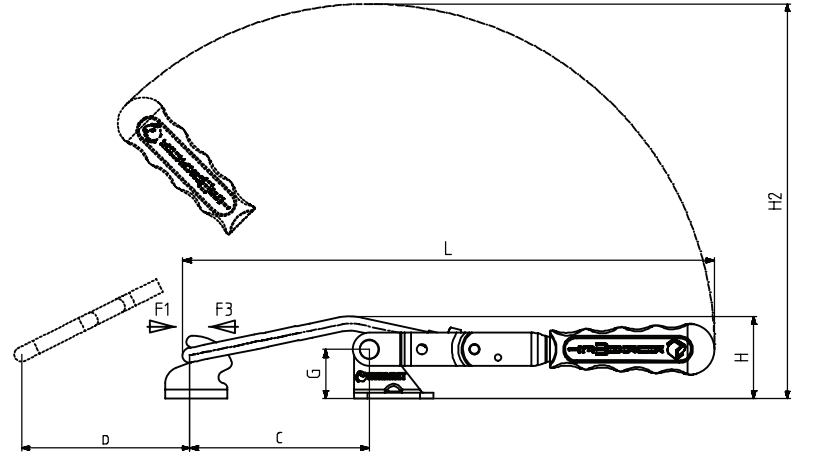
421

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	STROK	AĞIRLIK (WEIGHT) (gr)
421-3	S 421 - ....	B 421 - ....	2000	2500	20	320

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



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

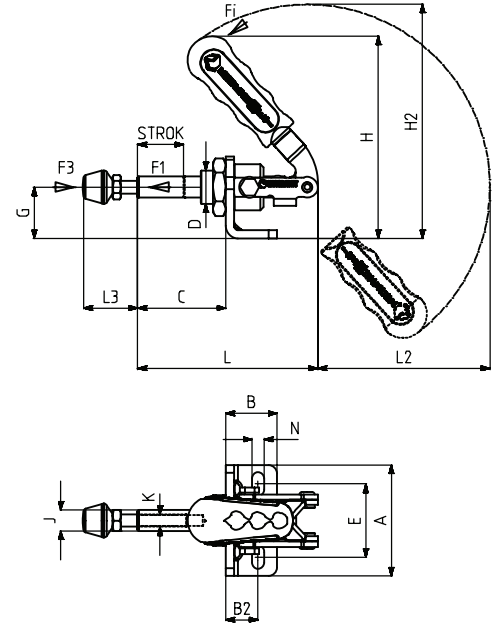


MODEL NO	A	B	C Min.	C Max.	D	E	E2	F	G	H	H2	J	K	L Min.	L Max.	M	N	N2
421-3	38.5	47	77	97	80	19-25	16	31,5-33	24	40	190	40	M 8	255	275		7x10	6.5

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	BASKI VİDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr)
					VERİM YIELD (F1:Fi)			
511-0	S 511 - ....	B 511 - ....	550	700	20:1	M4X25	15	87
511-1	S 511 - ....	B 511 - ....	800	970	24:1	M5X35	22	130
511-2	S 511 - ....	B 511 - ....	1500	1700	26:1	M6X40	27	270
511-3	S 511 - ....	B 511 - ....	2500	2640	27:1	M8X50	38	490
511-5	S 511 - ....	B 511 - ....	3500	3700	38:1	M10X70	53	960
511-6	S 511 - ....	B 511 - ....	4500	4650	38:1	M10X70	53	1070

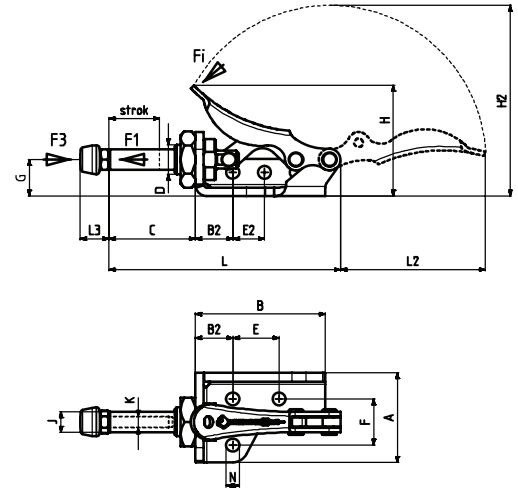
F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

511



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

511-0



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

new

MODEL NO	A	B	B2	C	D	E	E2	F	G	H	H2	J	K	L	L2	L3 Min	L3 Max	M	N
511-0	31	45	13	30	M10 x 1	16	11	16	13	38,5	67	7	M4	80	50,5	10	25		4,5
511-1	45	20	11,5	34	M12 x 1,5	22,5 - 32,5			19,5	72,5	85	8	M5	69	60	15	38		5,5x10,5
511-2	53	24,5	15,5	42	M16 x 1,5	30 - 40			24,5	96	111	10	M6	86	80	19	46		6x11
511-3	60	30	17,5	56	M20 x 1,5	33,5 - 42,5			30,5	137	120	12	M8	116	80	24	58		6,5x11
511-5	78	36	21	75	M24 x 1,5	42 - 57			38	152	179	14	M10	155	135	32	74		8,5x16
511-6	78	36	21	75	M24 x 1,5	42 - 57			38	152	179	16	M10	155	135	32	74		8,5x16

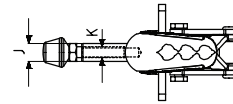
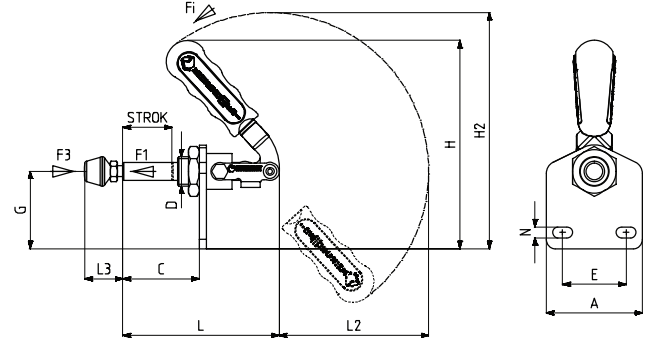
512



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

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	BASKI VİDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr)
					VERİM (YIELD) (F1:Fi)			
512-1	S 512 - ....	B 512 - ....	800	970	24:1	M5X35	22	130
512-2	S 512 - ....	B 512 - ....	1500	1700	26:1	M6X40	27	270
512-3	S 512 - ....	B 512 - ....	2500	2640	27:1	M8X50	38	490
512-5	S 512 - ....	B 512 - ....	3500	3700	38:1	M10X70	53	960
512-6	S 512 - ....	B 512 - ....	4500	4650	38:1	M10X70	53	1070

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



MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	L2	L3 Min	L3 Max	M	N
512-1	45		34	M12 x 1,5	22,5 - 32,5		35	88	100	8	M5	69	60	15	38		5,5X10,5
512-2	53		42	M16 x 1,5	30 - 40		42,5	114	129	10	M6	86	80	19	46		6x11
512-3	60		56	M20 x 1,5	33,5 - 42,5		52	158,5	141	12	M 8	116	80	24	58		6,5x11
512-5	78		75	M24 x 1,5	42 - 57		64,5	178,5	206	14	M10	155	135	32	74		8,5x16
512-6	78		75	M24 x 1,5	42 - 57		64,5	178,5	206	16	M10	155	135	32	74		8,5x16

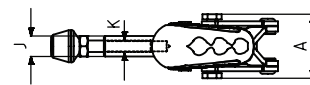
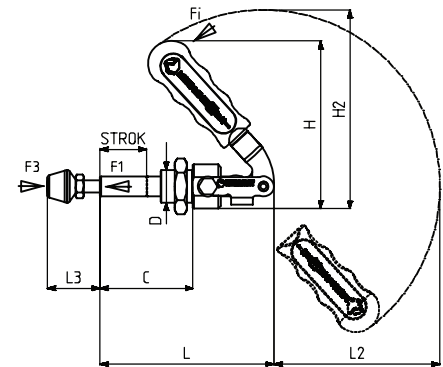
513



**Ayak Tipi: Tabansız**  
 Body Mounting Base: No Base

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	BASKI VİDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr)
					VERİM (YIELD) (F1:Fi)			
513-1	S 513 - ....	B 513 - ....	800	970	24:1	M5X35	22	90
513-2	S 513 - ....	B 513 - ....	1500	1700	26:1	M6X40	27	190
513-3	S 513 - ....	B 513 - ....	2500	2640	27:1	M8X50	38	360
513-5	S 513 - ....	B 513 - ....	3500	3700	38:1	M10X70	53	660
513-6	S 513 - ....	B 513 - ....	4500	4650	38:1	M10X70	53	780

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

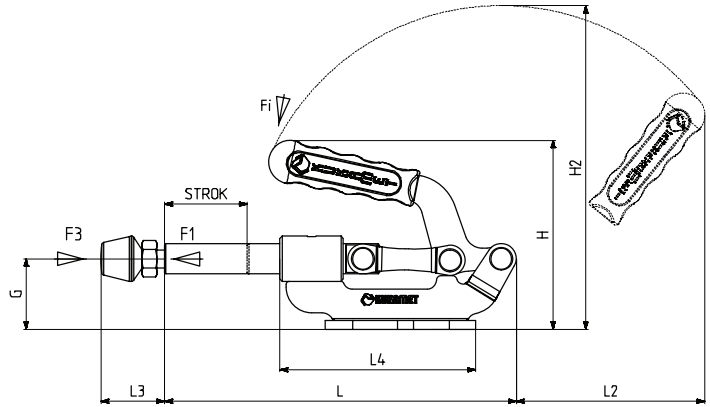
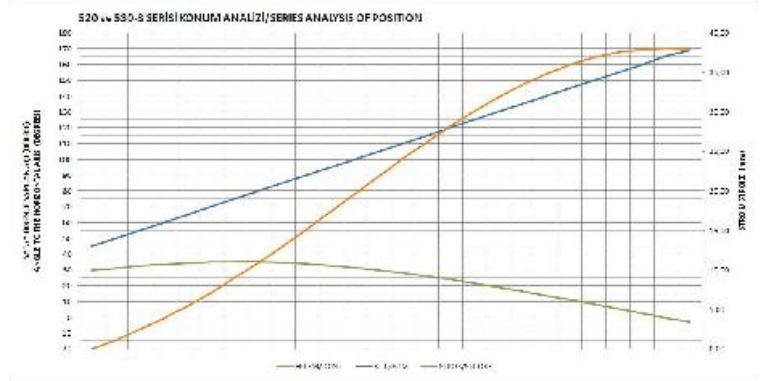


MODEL NO	A	B	C	D	F	G	H	H2	J	K	L	L2	L3 Min	L3 Max	M	N
513-1	24,5		37	M12 x 1,5			62,5	75	8	M5	69	60	15	38		
513-2	28		46	M16 x 1,5			81,5	97	10	M6	86	80	19	46		
513-3	34		61	M20 x 1,5			100	102	12	M 8	116	80	24	58		
513-5	42		81	M24 x 1,5			131	159	14	M10	155	135	32	74		
513-6	46		81	M24 x 1,5			131	159	16	M10	155	135	32	74		

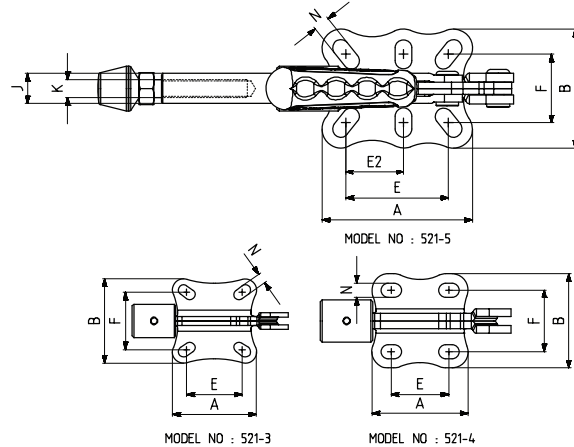
MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	BASKI VİDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr)
				VERİM (YIELD) (F1:Fi)			
521 - 3 (mil 12)	B 521 - ....	2500	2960	16:1	M8X50	38	390
521 - 3 (mil 14)	B 521 - ....	2500	3200	16:1	M8X50	38	405
521 - 4 (mil 16)	B 521 - ....	4500	6650	23:1	M10X70	47	810
521 - 4 (mil 18)	B 521 - ....	4500	7200	23:1	M10X70	47	825
521 - 5 (mil 20)	B 521 - ....	7500	15000	30:1	M12X80	55	1425

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

521



**Ayak Tipi: Yatay Tabanlı, Kaynaklı**  
 Body Mounting Base: Horizontal, With Welding



MODEL NO	A	B	C	D	E	E2	F	G	H	H2	J	K	L	L2	L3 Min	L3 Max	M	N
521 - 3 (mil 12)	56	56			32,5 - 41		35 - 41	32	88	142	12	M8	154	85	24	58		7 x 12
521 - 3 (mil 14)	56	56			32,5 - 41		35 - 41	32	88	142	14	M8	154	85	24	58		7 x 12
521 - 4 (mil 16)	64	62			34,5 - 42,5		41	40	107	179	16	M10	186	105	32	81		9,5 x 13,5
521 - 4 (mil 18)	64	62			34,5 - 42,5		41	40	107	179	18	M10	186	105	32	81		9,5 x 13,5
521 - 5 (mil 20)	100	79			61,5 - 75	34,5 - 41,5	37 - 54	47	125	216	20	M12	234	125	39	94		11 x 22

521-5'de baskı ucu dahil değildir.

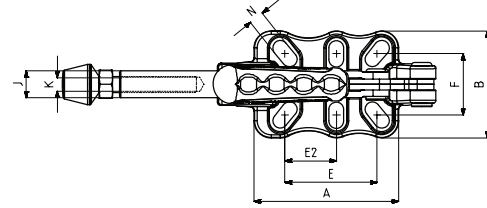
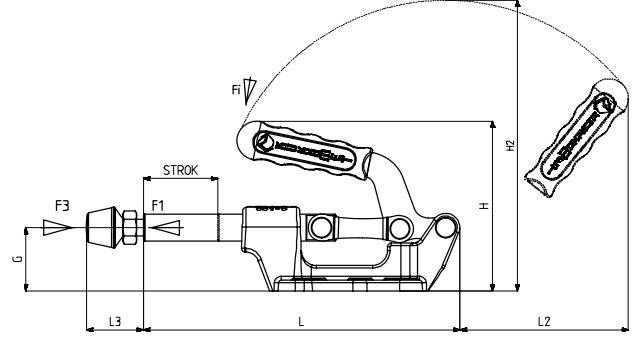




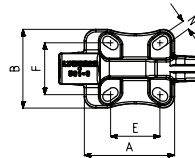

**531**

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	BASKI VİDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr)
				VERİM (YIELD) (F1:Fi)			
531 - 3 (mil 12)	B 531 - ....	2500	3700	16:1	M8X50	38	635
531 - 3 (mil 14)	B 531 - ....	2500	4000	16:1	M8X50	38	645
531 - 4 (mil 16)	B 531 - ....	4500	8100	23:1	M10X70	47	1140
531 - 4 (mil 18)	B 531 - ....	4500	8800	23:1	M10X70	47	1150
531 - 5 (mil 20)	B 531 - ....	7500	18450	30:1	M12X80	55	1835

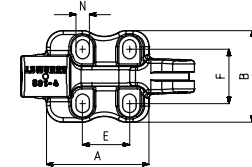
F1 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY )  
 Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )



MODEL NO : 531-5



MODEL NO : 531-3



MODEL NO : 531-4

### Ayak Tipi: Yatay Tabanlı, Döküm Gövdeli

Body Mounting Base: Horizontal, Casting

#### Ürün özellikleri;

Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir. Gövde mukavemetli GGG-60 döküm malzemeden üretilmiş ve siyah elektrostatik toz boya ile boyanmıştır. Mil, yüksek aşınma direnci ve korozyon direnci için sert krom kaplı malzemeden üretilmiştir. Mekanizma parçaları çelik malzemeden üretilmiş ve korozyon direnci için galvaniz kaplama yapılmıştır.

#### Features of product;

The products are strength and suitable for heavy duty. The body made of strength, GGG-60 casting material and painted with black electrostatic powder paint. The rod made of hard chrome plated material for high wear resistance and corrosion resistance. The mechanism parts made of steel material and Coated galvanized for corrosion resistance.



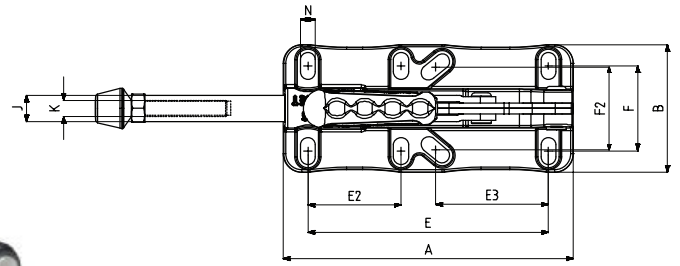
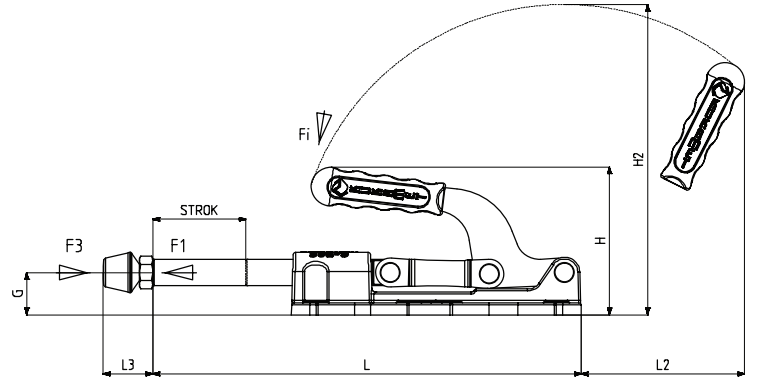
MODEL NO	A	B	C	D	E	E2	F	G	H	H2	J	K	L	L2	L3 Min	L3 Max	M	N
531 - 3 (mil 12)	67	58			32,5 - 41		35 - 41	32	88	142	12	M8	155	85	24	58		7 x 12
531 - 3 (mil 14)	67	58			32,5 - 41		35 - 41	32	88	142	14	M8	155	85	24	58		7 x 12
531 - 4 (mil 16)	76	68			34,5		36 - 44	39	107	177	16	M10	187	105	32	81		10 x 14
531 - 4 (mil 18)	76	68			34,5		36 - 44	39	107	177	18	M10	187	105	32	81		10 x 14
531 - 5 (mil 20)	107	79			61,5 - 75	34,5 - 41,5	37 - 54	47	125	216	20	M12	235	125	39	94		11 x 22

531-5'de baskı ucu dahil değildir.

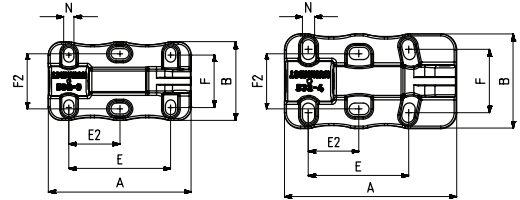


MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	BASKI VIDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr)
				VERİM (YIELD) (F1:Fi)			
532 - 3 (mil 12)	B532-....	2500	3700	16:1	M8X50	38	590
532 - 3 (mil 14)	B532-....	2500	4000	16:1	M8X50	38	610
532 - 4 (mil 16)	B532-....	4500	8100	23:1	M10X70	47	1030
532 - 4 (mil 18)	B532-....	4500	8800	23:1	M10X70	47	1060
532 - 5 (mil 20)	B532-....	7500	18450	30:1	M12X80	100	2870

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



MODEL NO : 532-5



MODEL NO : 532-3

MODEL NO : 532-4



### Ayak Tipi: Yatay Tabanlı, Döküm Gövdeli

Body Mounting Base: Horizontal, Casting

#### Ürün özellikleri;

Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir. Gövde mukavemetli GGG-60 döküm malzemeden üretilmiş ve siyah elektro statik toz boya ile boyanmıştır. Mil, yüksek aşınma direnci ve korozyon direnci için sert krom kaplı malzemeden üretilmiştir. Mekanizma parçaları çelik malzemeden üretilmiş ve korozyon direnci için galvaniz kaplama yapılmıştır.

#### Features of product;

The products are strength and suitable for heavy duty. The body made of strength, GGG-60 casting material and painted with black electrostatic powder paint. The rod made of hard chrome plated material for high wear resistance and corrosion resistance. The mechanism parts made of steel material and Coated galvaniz for corrosion resistance.

MODEL NO	A	B	C	D	E	E2	E3	F	F2	G	H	H2	J	K	L	L2	L3 Min	L3 Max	M	N
532 - 3 (mil 12)	107	59			76,5	35,5 - 41		36,5 - 42,5	41	17,5	73	127	12	M8	156	81	24	58		8x13,5
532 - 3 (mil 14)	107	59			76,5	35,5 - 41		36,5 - 42,5	41	17,5	73	127	14	M8	156	81	24	58		8x13,5
532 - 4 (mil 16)	130	71			74,5 - 75,5	35 - 41		41,5 - 53	41,5	20,5	86	159	16	M10	188	94	32	81		9x15
532 - 4 (mil 18)	130	71			74,5 - 75,5	35 - 41		41,5 - 53	41,5	20,5	86	159	18	M10	188	94	32	81		9x15
532 - 5 (mil 20)	218	96			180,5	70	80 - 90	55 - 73	54 - 70,5	31,8	111	234	20	M12	322	122	39	94		11x20,5

532-5'de baskı ucu dahil değildir.

551

new

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	STROK	AĞIRLIK (WEIGHT) (gr)
				VERİM (YIELD) (F1:Fi)		
551-3	B 551 - ....	2500	3200	14:1	23	530

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



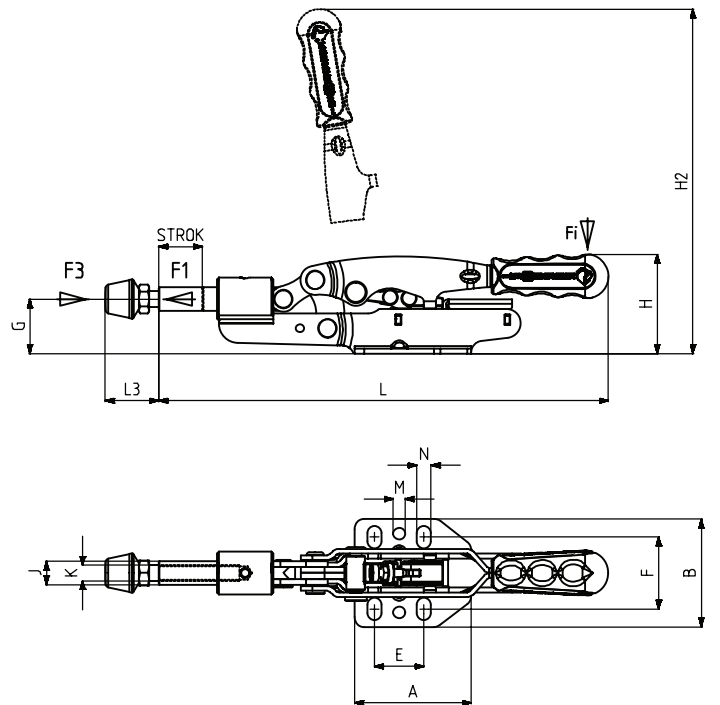
**Ürün özellikleri ;**

Otomatik mesafe ayarı sayesinde 16 mm kalınlığa kadar olan iş parçalarını baskı kuvveti değişmeden sıkıştırabilir. Sıkma kuvveti mekanizma üzerinde bulunan ayar vidasından ayarlanabilir.

**Features of product;**

The automatic toggle clamp automatically adjusts to the distance of the particular work piece. The infinitely variable jaw distance is up to 16 mm for the push pull toggle clamp while the clamping force remains unchanged. Using the set screw on the cantilevered joint, the clamping force can be adjusted to your particular requirements.

**Ayak Tipi: Yatay, Alçak Tabanlı**  
Body Mounting Base: Horizontal, Low Base



MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	L3 Min	L3 Max	M	N
551-3	60	55.5			25.5	32,5-41	28	51	187	12	M8	231	24	58	Ø6	7x11,5


 552


 new

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	STROK	AĞIRLIK WEIGHT (gr)
				VERİM (YIELD) (F1:Fi)		
552-3	B 552-....	2500	3200	14:1	23	555

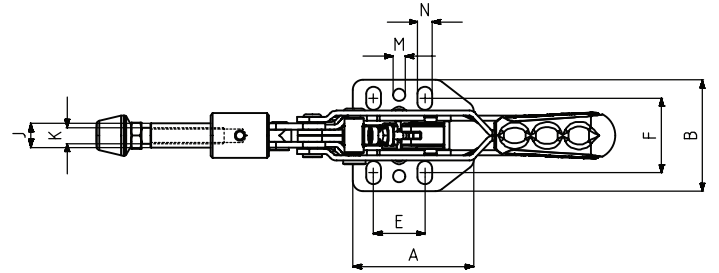
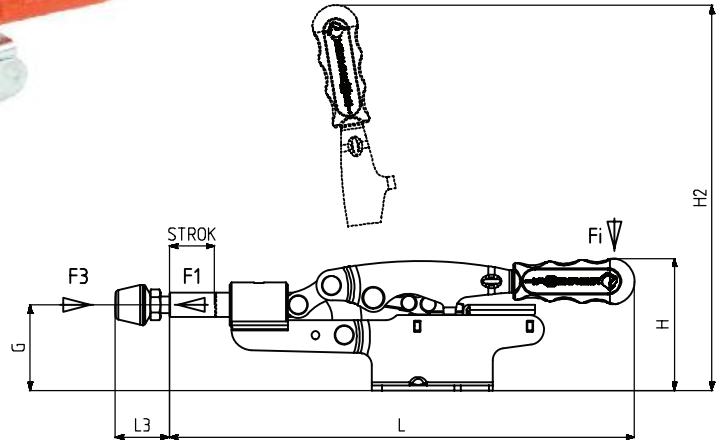
F1 : BASKI KUVVETİ ( EXERTING FORCE ), F3 : TUTMA KAPASİTESİ ( HOLDING CAPACITY )  
 Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )



**Ayak Tipi: Yatay, Yüksek Tabanlı**  
 Body Mounting Base: Horizontal, High Base

**Ürün özellikleri ;**  
 Otomatik mesafe ayarı sayesinde 16 mm kalınlığa kadar olan iş parçalarını baskı kuvveti değişmeden sıkıştırabilir. Sıkma kuvveti mekanizma üzerinde bulunan ayar vidasından ayarlanabilir.

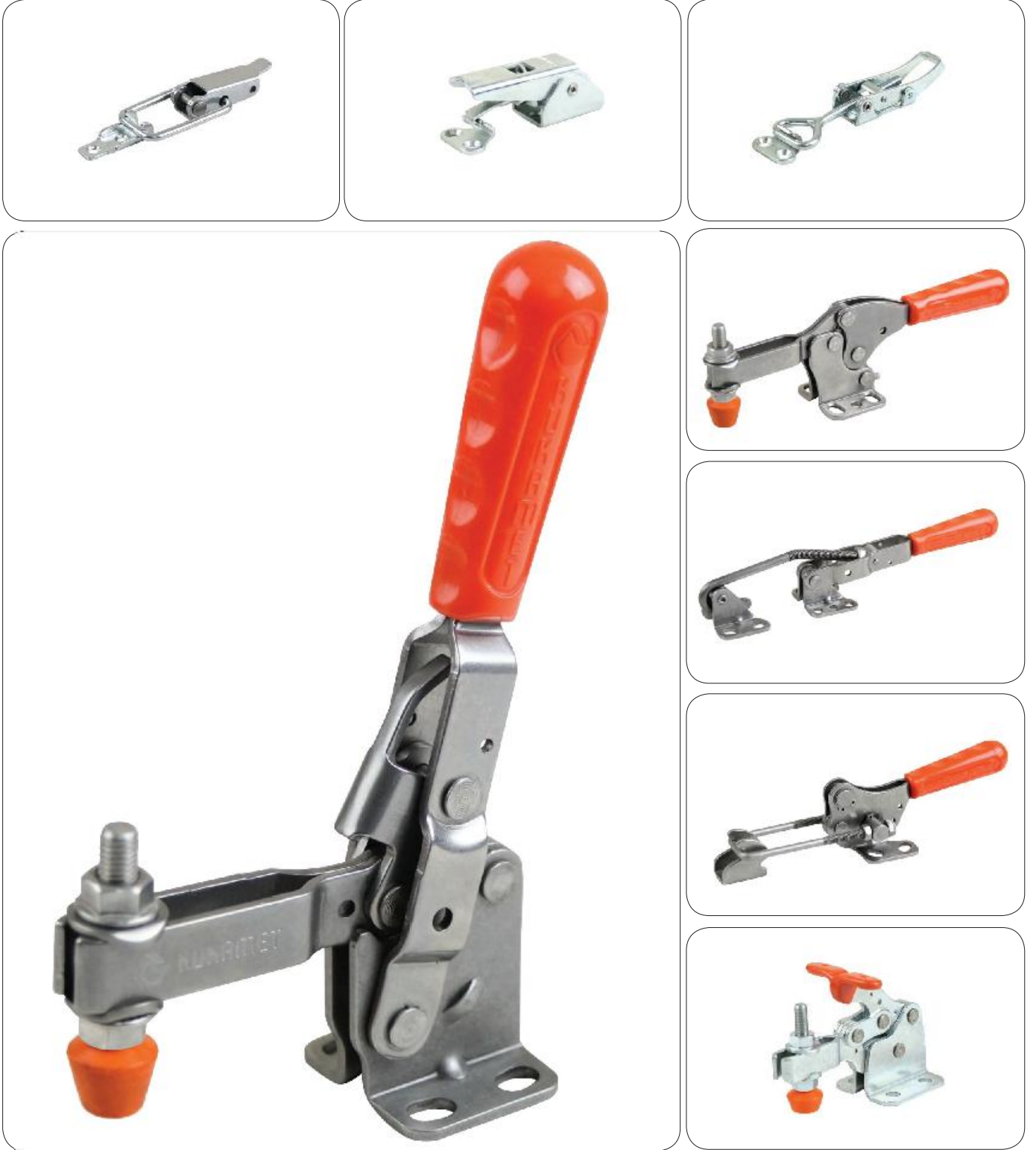
**Features of product;**  
 The automatic toggle clamp automatically adjusts to the distance of the particular work piece. The infinitely variable jaw distance is up to 16 mm for the push pull toggle clamp while the clamping force remains unchanged. Using the set screw on the cantilevered joint, the clamping force can be adjusted to your particular requirements.

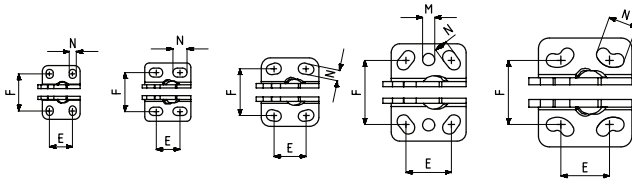
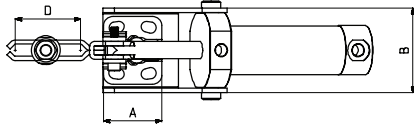
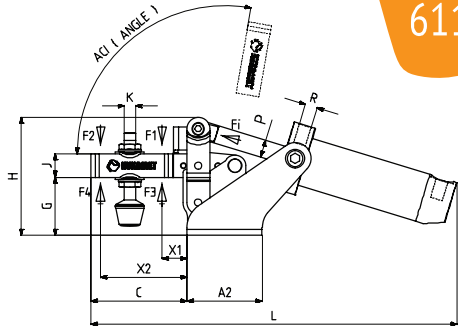


MODEL NO	A	B	C	D	E	F	G	H	H2	J	K	L	L3 Min	L3 Max	M	N
552-3	60	55.25			25.5	32,5-41	42.5	65.5	201,5	12	M8	231	24	58	Ø6	7x11,5

**Nem, su ve diğer dış etkenlerden dolayı oluşan korozyon ve asitlere karşı dayanıklı bağlantı elemanları**

Corrosion and acid resistant toggle clamps due to moisture, water and other external factors



**611**


MODEL NO : 611-1    MODEL NO : 611-2    MODEL NO : 611-3    MODEL NO : 611-4    MODEL NO : 611-5

MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fİ (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)	BAR
611-1-Ø16	S 611 - ....	B 611 - ....	600	400	1000	680	120	0.09	95	275	6
611-1-Ø20	S 611 - ....	B 611 - ....	750	500	1000	680	190	0.14	95	360	6
611-2	S 611 - ....	B 611 - ....	1200	700	1400	925	300	0.25	95	535	6
611-3	S 611 - ....	B 611 - ....	2000	1400	2500	1560	500	0.51	95	860	6
611-4	S 611 - ....	B 611 - ....	3000	2000	3300	2200	750	1.04	95	1690	6
611-5	S 611 - ....	B 611 - ....	4500	2500	5000	3000	1100	2	95	3090	6

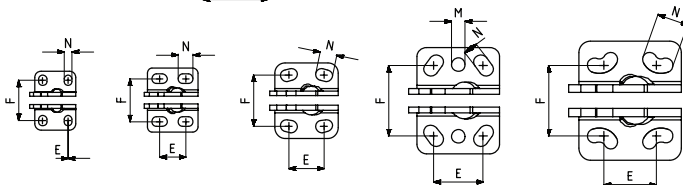
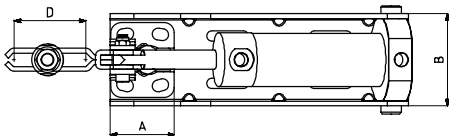
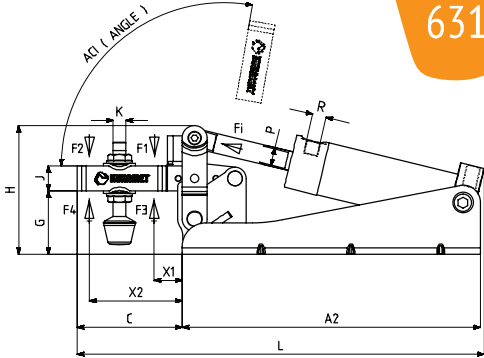
F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fİ : UYGULAMA KUVVETİ ( APPLIED FORCE )

 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, Ön Bağlantılı**  
 Body Mounting Base: Horizontal, Tied Front

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

MODEL NO	A	A2	B	C	D	E	F	G	H	J	K	L	M	N	X1	X2	P	R	PİSTON Ø
611-1-Ø16	26	34	44	42	26	16	24-27	25	52	10	M5	185		5 x 6,5	16	32	6	G1/4	16
611-1-Ø20	26	34	44	44	26	16	24-27	25	52	10	M5	192		5 x 6,5	16	32	8	G1/8	20
611-2	32	42	51	60	42	13-20	27	29	61	13	M6	225		6x9,5	18	48	10	G1/8	25
611-3	40	52	58	66,5	42	19-25	31,5-32,5	40	81	16	M 8	253,5		7,5x10,5	25	52	12	G1/8	32
611-4	52	95	77	98,5	67	28-34,5	40-48,5	50	104	20	M10	323	8,5	9x14,5	32	80	16	G1/8	40
611-5	65	134	92	124	88	24,5-45	44,5-52	62	128	25	M12	399		9x19,5	36	101	20	G1/8	50

**631**


MODEL NO : 631-1    MODEL NO : 631-2    MODEL NO : 631-3    MODEL NO : 631-4    MODEL NO : 631-5

MODEL NO	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fİ (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)	BAR
631-1	B 631 - ....	750	500	1000	680	190	0.14	95	470	6
631-2	B 631 - ....	1200	700	1400	925	300	0.25	95	765	6
631-3	B 631 - ....	2000	1400	2500	1560	500	0.51	95	1100	6
631-4	B 631 - ....	3000	2000	3300	2200	750	1.04	95	2020	6
631-5	B 631 - ....	4500	2500	5000	3000	1100	2	95	3610	6

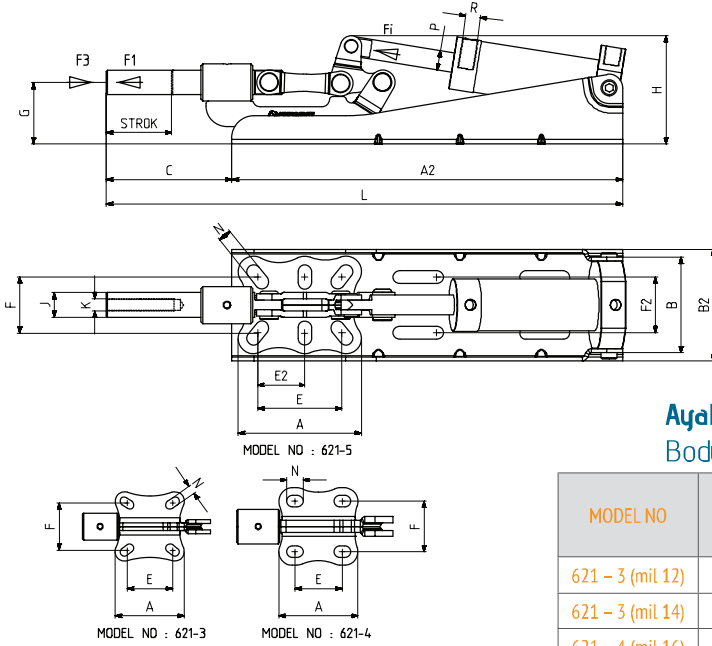
F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ) , F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ) , Fİ : UYGULAMA KUVVETİ ( APPLIED FORCE )

 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, Arka Bağlantılı**  
 Body Mounting Base: Horizontal, Tied Behind

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

MODEL NO	A	A2	B	C	D	E	F	G	H	J	K	L	M	N	X1	X2	P	R	PİSTON Ø
631-1	26	155	44	42	26	16	24 - 27	25	52	10	M5	198		5 x 6,5	16	32	8	G1/8	20
631-2	32	171	51	60	42	13 - 20	27	29	61	13	M6	232		6 x 9,5	18	48	10	G1/8	25
631-3	40	188	58	66,5	42	19 - 25	31,5 - 32,5	40	81	16	M 8	257		7,5x10,5	25	52	12	G1/8	32
631-4	52	227	77	98,5	67	28 - 34,5	40 - 48,5	50	104	20	M10	330	8,5	9x14,5	32	80	16	G1/8	40
631-5	65	275	92	125	88	24,5 - 45	44,5 - 52	62	128	25	M12	400		9x19,5	36	101	20	G1/8	50


**621**

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

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	F <sub>i</sub> (N)	V <sub>n</sub> (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr)	BAR
621 - 3 (mil 12)	B 621 - ....	2500	2960	300	0.25	33	1140	6
621 - 3 (mil 14)	B 621 - ....	2500	3200	500	0.51	33	1310	6
621 - 4 (mil 16)	B 621 - ....	4500	6650	750	1.04	40	2230	6
621 - 4 (mil 18)	B 621 - ....	4500	7200	750	1.04	40	2260	6
621 - 5 (mil 20)	B 621 - ....	7500	15000	1100	2	48	3860	6

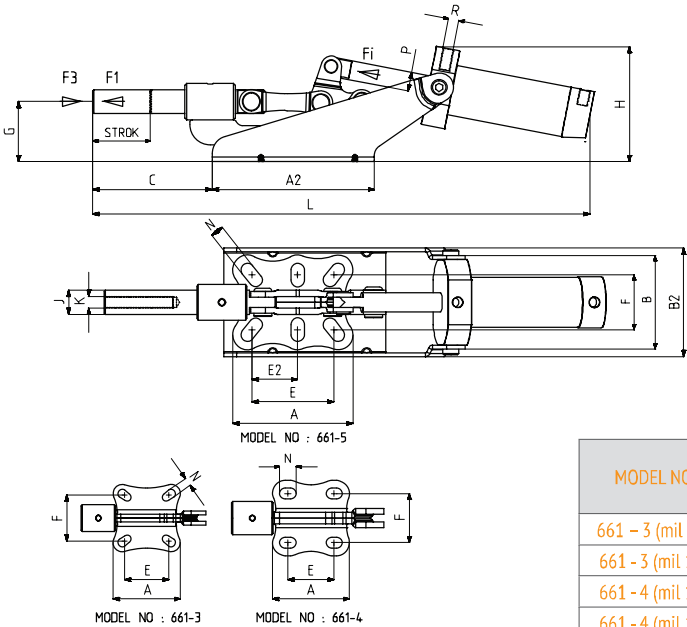
 F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ), F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), F<sub>i</sub> : UYGULAMA KUVVETİ ( APPLIED FORCE )

 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 )

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

Pneumatic cylinders are double acting, magnetic and cushioning.

MODEL NO	A	A2	B	B2	C	D	E	E2	F	F2	G	H	J	K	L	M	N	P	R	PİSTON Ø
621 - 3 (mil 12)	56	226	51	68	70		32,5 - 41		35 - 41	35	35	65	12	M8	296		7 x 12	10	G1/8	25
621 - 3 (mil 14)	56	243	58	68	70		32,5 - 41		35 - 41	35	35	71,5	14	M8	314		7 x 12	12	G1/8	32
621 - 4 (mil 16)	64	289	77	78	84		34,5 - 42,5		41	41	43	89	16	M10	375		9,5x13,5	16	G1/8	40
621 - 4 (mil 18)	64	289	77	78	84		34,5 - 42,5		41	41	43	89	18	M10	375		9,5x13,5	16	G1/8	40
621 - 5 (mil 20)	100	355	79	92,25	101		61,5 - 75	34,5 - 41,5	37 - 54	45	51	105	20	M12	460		11 x 22	20	G1/8	50


**661**

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

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	F <sub>i</sub> (N)	V <sub>n</sub> (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr)	BAR
661 - 3 (mil 12)	B 661 - ....	2500	2960	300	0.25	33	860	6
661 - 3 (mil 14)	B 661 - ....	2500	3200	500	0.51	33	1010	6
661 - 4 (mil 16)	B 661 - ....	4500	6650	750	1.04	40	1800	6
661 - 4 (mil 18)	B 661 - ....	4500	7200	750	1.04	40	1830	6
661 - 5 (mil 20)	B 661 - ....	7500	15000	1100	2	48	3220	6

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

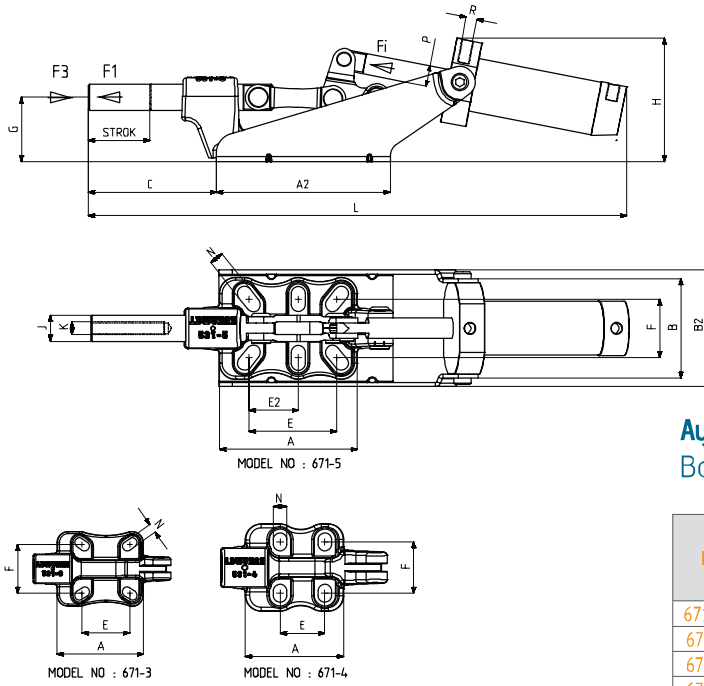
 V<sub>n</sub> , 6 BAR BASINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( V<sub>n</sub> , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

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

Pneumatic cylinders are double acting, magnetic and cushioning.

MODEL NO	A	A2	B	B2	C	D	E	E2	F	G	H	J	K	L	M	N	P	R	PİSTON Ø
661 - 3 (mil 12)	56	90	51	68	70		32,5 - 41		35 - 41	35	72	12	M8	292		7 x 12	10	G1/8	25
661 - 3 (mil 14)	56	100	58	68	70		32,5 - 41		35 - 41	35	79	14	M8	312		7 x 12	12	G1/8	32
661 - 4 (mil 16)	64	115	77	78	84		34,5 - 42,5		41	43	100	16	M10	372		9,5 x 13,5	16	G1/8	40
661 - 4 (mil 18)	64	115	77	78	84		34,5 - 42,5		41	43	100	18	M10	372		9,5 x 13,5	16	G1/8	40
661 - 5 (mil 20)	100	170	79	92	101		61,5 - 75	34,5 - 41,5	37 - 54	51	110	20	M12	456		11 x 22	20	G1/8	50




**671**

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

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fİ (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr)	BAR
671 - 3 (mil 12)	B 671 - ....	2500	3700	300	0,25	33	1090	6
671 - 3 (mil 14)	B 671 - ....	2500	4000	500	0,51	33	1250	6
671 - 4 (mil 16)	B 671 - ....	4500	8100	750	1,04	40	2130	6
671 - 4 (mil 18)	B 671 - ....	4500	8800	750	1,04	40	2140	6
671 - 5 (mil 20)	B 671 - ....	7500	18450	1100	2	48	3640	6

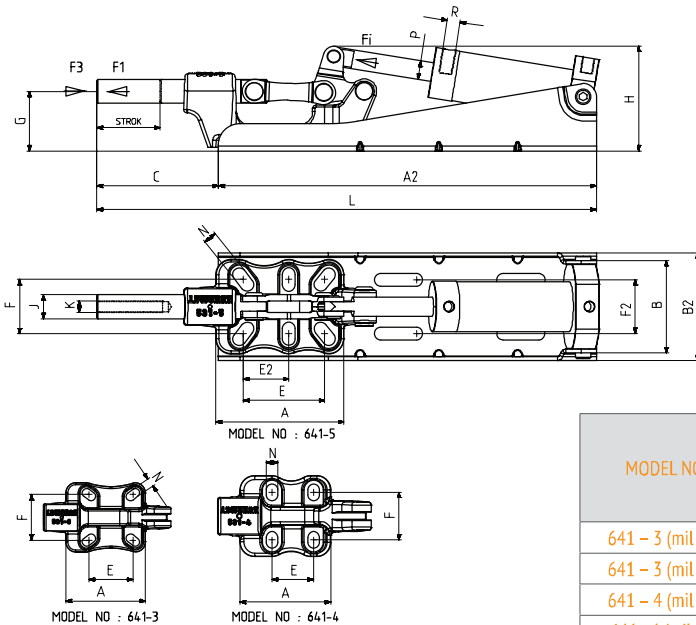
**Pistonlar çift etkili, manyetik ve yastıklıdır.**

Pneumatic cylinders are double acting, magnetic and cushioning.

F1 - F2 : BASKI KUVVETİ (EXERTING FORCE), F3 - F4 : 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 )

MODEL NO	A	A2	B	B2	C	D	E	E2	F	G	H	J	K	L	M	N	P	R	PİSTON Ø
671 - 3 (mil 12)	67	90	51	68	70		32,5 - 41		35 - 41	35	72	12	M8	292		7 x 12	10	G1/8	25
671 - 3 (mil 14)	67	100	58	68	70		32,5 - 41		35 - 41	35	79	14	M8	312		7 x 12	12	G1/8	32
671 - 4 (mil 16)	76	115	77	78	84		34,5		36 - 44	42	100	16	M10	372		10 x 14	16	G1/8	40
671 - 4 (mil 18)	76	115	77	78	84		34,5		36 - 44	42	100	18	M10	372		10 x 14	16	G1/8	40
671 - 5 (mil 20)	107	170	79	92	101		61,5 - 75	34,5 - 41,5	37 - 54	51	110	20	M12	456		11 x 22	20	G1/8	50


**641**

**Ayak Tipi: Çatay Tabanlı, Döküm Gövdeli, Arka Bağlantılı**  
 Body Mounting Base: Horizontal, Casting, Tied Behind

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fİ (N)	Vn (dm <sup>3</sup> )	STROK	AĞIRLIK (WEIGHT) (gr)	BAR
641 - 3 (mil 12)	B 641 - ....	2500	3700	300	0,25	33	1370	6
641 - 3 (mil 14)	B 641 - ....	2500	4000	500	0,51	33	1550	6
641 - 4 (mil 16)	B 641 - ....	4500	8100	750	1,04	40	2560	6
641 - 4 (mil 18)	B 641 - ....	4500	8800	750	1,04	40	2570	6
641 - 5 (mil 20)	B 641 - ....	7500	18450	1100	2	48	4280	6

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

Pneumatic cylinders are double acting, magnetic and cushioning.

F1 - F2 : BASKI KUVVETİ (EXERTING FORCE), F3 - F4 : 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 )

MODEL NO	A	A2	B	B2	C	D	E	E2	F	F2	G	H	J	K	L	M	N	P	R	PİSTON Ø
641 - 3 (mil 12)	67	226	51	68	70		32,5 - 41		35 - 41	35	35	65	12	M8	296		7 x 12	10	G1/8	25
641 - 3 (mil 14)	67	243	58	68	70		32,5 - 41		35 - 41	35	35	72	14	M8	314		7 x 12	12	G1/8	32
641 - 4 (mil 16)	76	289	77	78	84		34,5		36 - 44	41	42	87	16	M10	375		10x14	16	G1/8	40
641 - 4 (mil 18)	76	289	77	78	84		34,5		36 - 44	41	42	87	18	M10	375		10x14	16	G1/8	40
641 - 5 (mil 20)	107	355	79	92	101		61,5 - 75	34,5 - 41,5	37 - 54	45	51	105	20	M12	460		11 x 22	20	G1/8	50

651

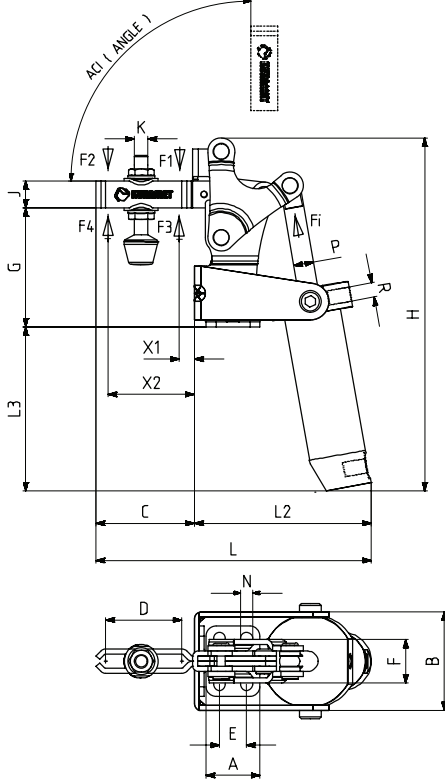
new

MODEL NO	PASLANMAZ (STAINLESS)	SIYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)	BAR
651-2	S 651 - ....	B 651 - ....	1200	700	1400	925	300	0.25	90 °	570	6
651-3	S 651 - ....	B 651 - ....	2000	1400	2500	1560	500	0.51	90 °	910	6
651-4	S 651 - ....	B 651 - ....	3000	2000	3300	2200	750	1.04	90 °	1945	6
651-5	S 651 - ....	B 651 - ....	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 )

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



MODEL NO : 651-2

MODEL NO : 651-3

MODEL NO : 651-4

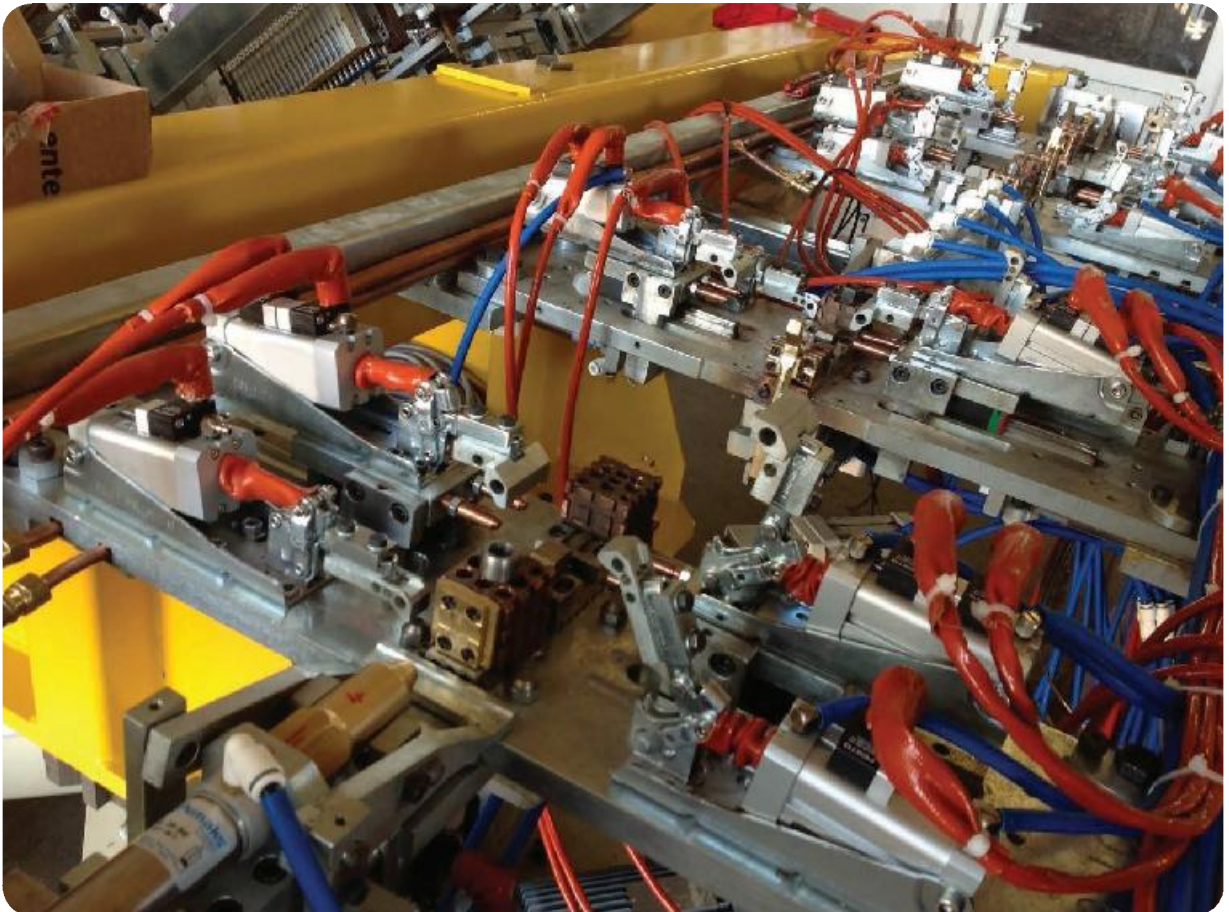
MODEL NO : 651-5

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

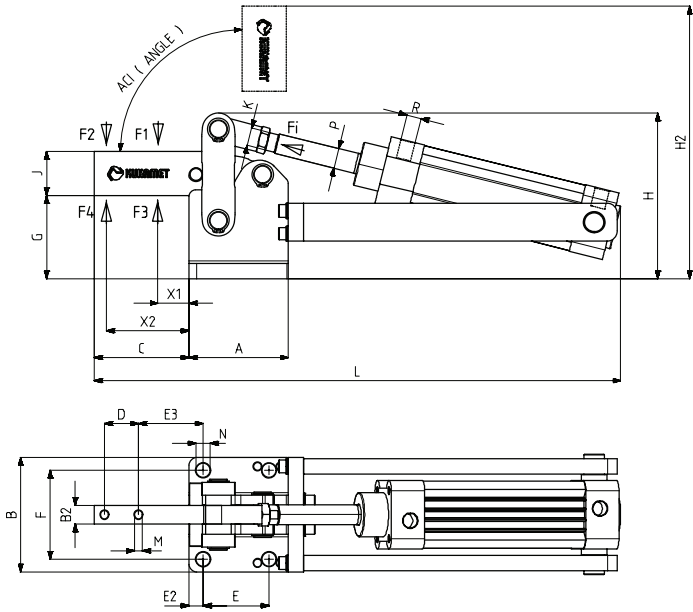
Pneumatic cylinders are double acting, magnetic and cushioning.



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	25-29	25-29	65	180	13	M6	146	92	82	6x8	12	42	10	G1/8	25
651-3	32	32	60	57	42	16	16	23,5-27,5	23,5-27,5	70,5	210	16	M8	164	106	98	7x9	15	42	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	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	20	G1/8	50



681



MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE)	AĞIRLIK (WEIGHT) (gr)	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 ), 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 )

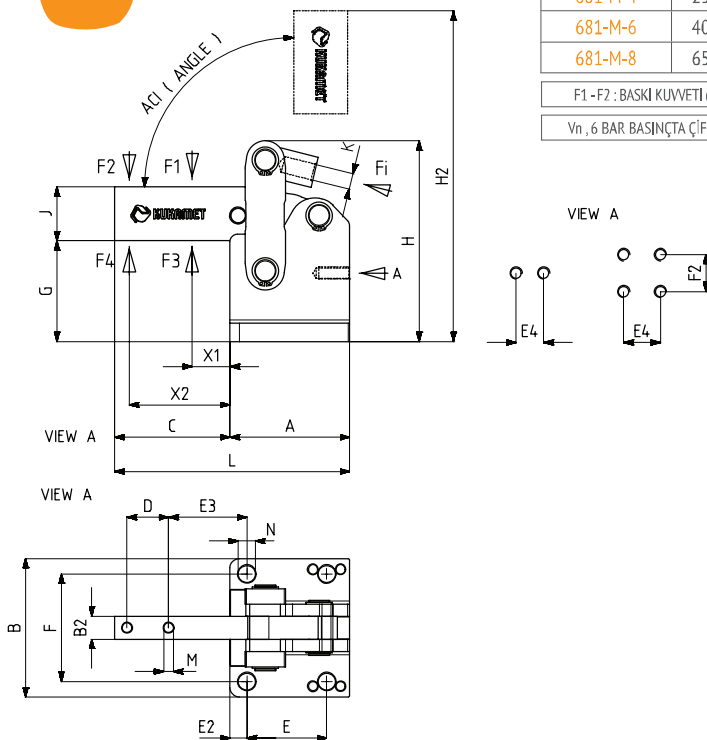


**Ayak Tipi: Yatay Tabanlı**  
Body Mounting Base: Horizontal

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

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	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	16	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	20	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	20	G3/8	63	125

681-M



MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE)	AĞIRLIK (WEIGHT) (gr)
681-M-4	2500	1800	9000	6000	750	1.28	90°	2800
681-M-6	4000	2400	18000	12000	1150	2.5	90°	4600
681-M-8	6500	4000	30000	20000	1850	5.13	90°	11300

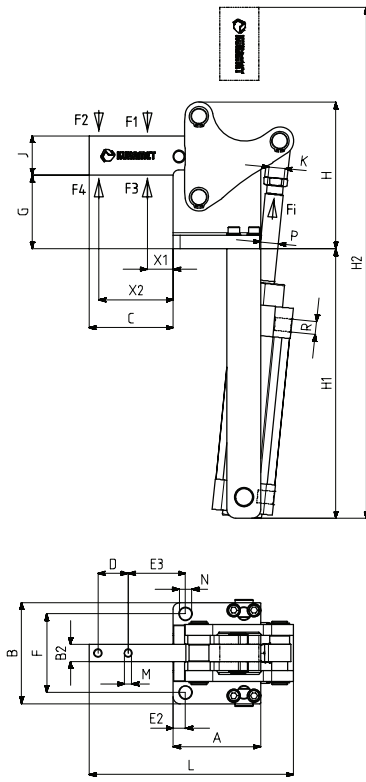
F1 - F2 : BASKI KUVVETİ ( EXERTING FORCE ), F3 - F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

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

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	STROK
681-M-4	77	90	15	75	27	52	10	47	18	70		65,5	131	216	35	M12X1,25	152	6,2	11	18	64	16	G1/4	40	80
681-M-6	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-M-8	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


**682**

MODEL NO	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AÇI (ANGLE)	AĞIRLIK (WEIGHT) (gr)	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	6000	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 BAŞINÇTA ÇİFT HAREKET İÇİN HAVA TÜKETİM MİKTARIDIR ( Vn , AIR CONSUMPTION PER DOUBLE STROKE IN dm<sup>3</sup> AT 6 BAR )

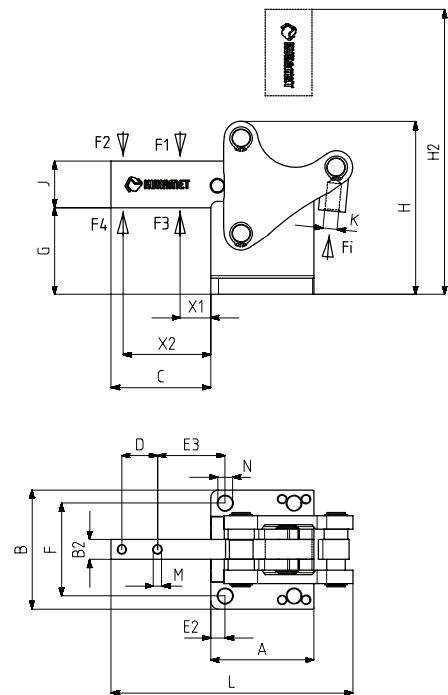
### Ayak Tipi: Yatay Tabanlı

#### Body Mounting Base: Horizontal


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

Pneumatic cylinders are double acting, magnetic and cushioning.

MODEL NO	A	B	B2	C	D	E	E2	E3	F	G	H	H1	H2	J	K	L	M	N	X1	X2	P	R	PİSTON Ø	STROK
682-4	77	90	15	75	27		10	47	70	65,5	130,5	240	371	35	M12X1,25	182	6,2	11	18	64	16	G1/4	40	80
682-6	93	105	20	85	26		11	54	83	71	157,5	287	445	40	M16X1,50	219	8,2	12,5	18	69	20	G1/4	50	100
682-8	125	145	30	115	40		15	67	115	94	212	333	545	60	M16X1,50	288	12,2	16,5	18	92	20	G3/8	63	125

**682-M**


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

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

 Vn , 6 BAR BAŞINÇTA 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

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	STROK
682-M-4	77	90	15	75	27		10	47	70	65,5	131	216	35	M12X1,25	182	6,2	11	18	64	16	G1/4	40	80
682-M-6	93	105	20	85	26		11	54	83	71	158	249	40	M16X1,50	219	8,2	12,5	18	69	20	G1/4	50	100
682-M-8	125	145	30	115	40		15	67	115	94	212	336	60	M16X1,50	288	12,2	16,5	18	92	20	G3/8	63	125

691

new

MODEL NO	SİYAH BLACK	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi (N)	Vn (dm <sup>3</sup> )	AĞIRLIK WEIGHT (gr)	BAR
691-1	B691-.....	300	1000	1000	1000	300	0,25	641	6
691-2	B691-.....	500	1400	2000	2000	500	0,51	1173	6
691-3	B691-.....	1500	2000	3000	3000	750	1,04	2440	6

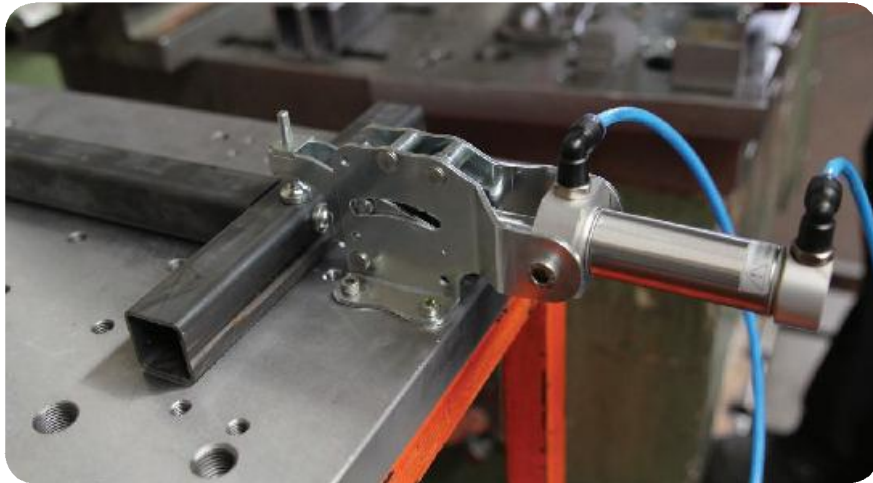
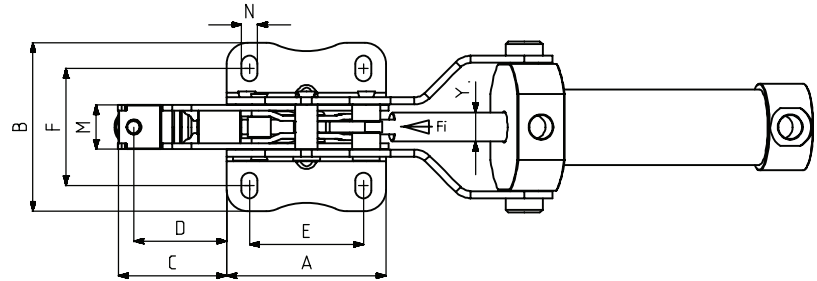
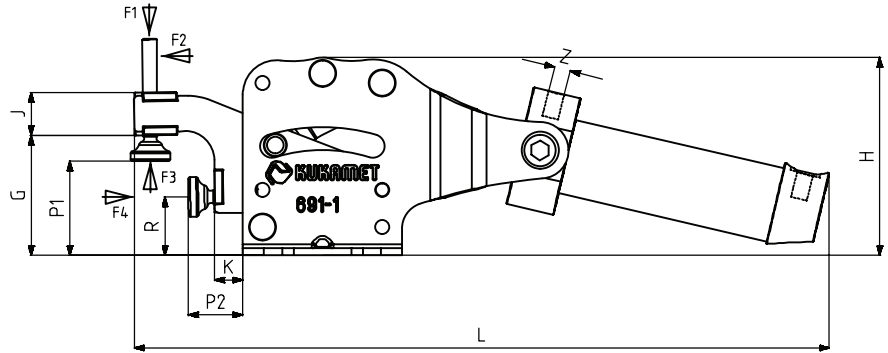
F1-F2 : BASKI KUVVETİ ( EXERTING FORCE ), F3-F4 : TUTMA KAPASİTESİ ( HOLDING CAPACITY ), Fi : UYGULAMA KUVVETİ ( APPLIED FORCE )

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.

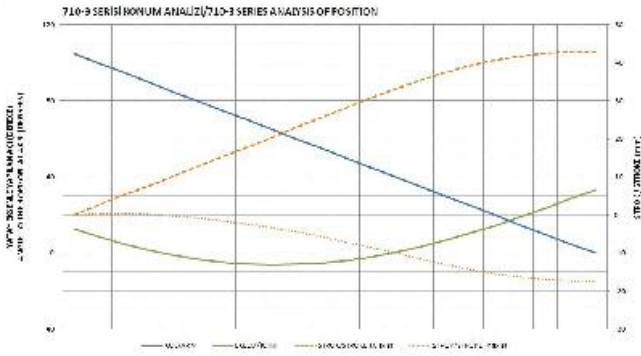
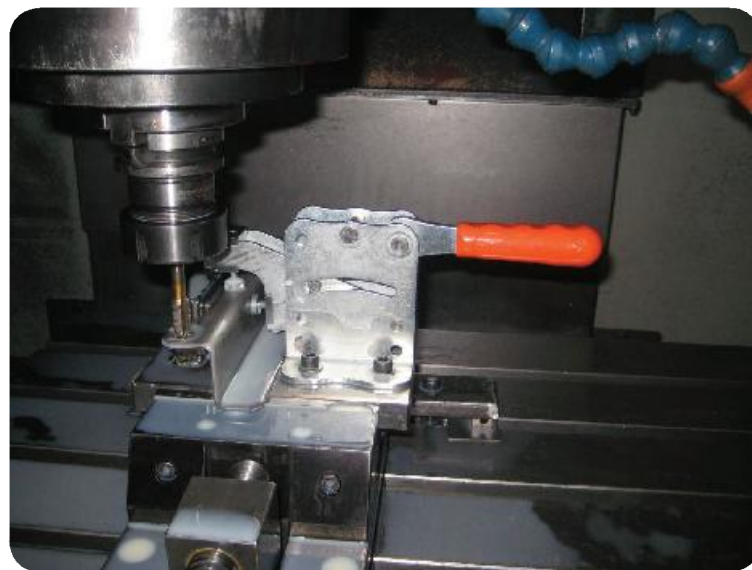
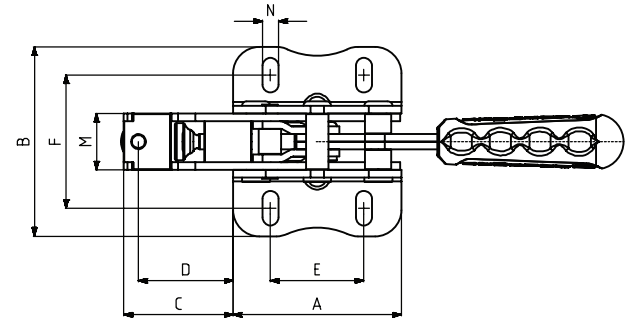
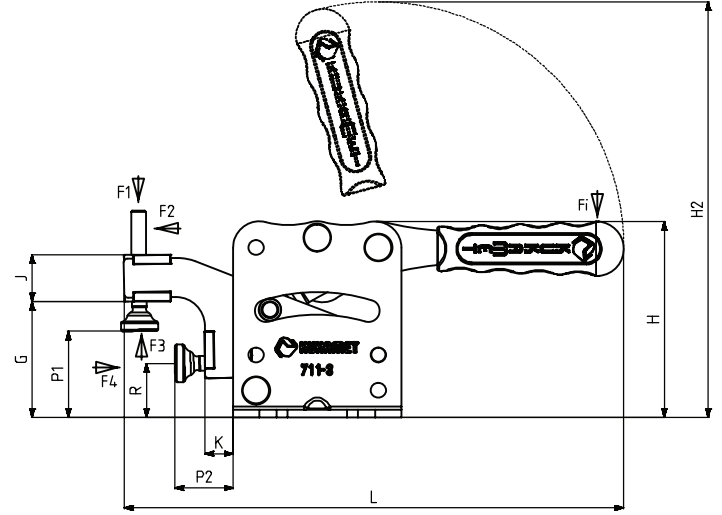


MODEL NO	A	B	C	D	E	F	G	H	J	K	L	M	N	P1 Min.	P1 Max.	P2 Min.	P2 Max.	R	Y	Z	PİSTON Ø
691-1	56	59	38	32,5	40	37,5 - 44,5	42	70	16	10	244	15,65	5,5 x 9	15	33	19	37	20,5	10	G1/8	25
691-2	75	79	48	41	50	49,5 - 62,5	52	88	20	12	291	20	6,5 x 13	24	41	22	39	24,5	12	G1/8	32
691-3	90	101	58	50	50	61 - 81	62	105	25	15	356,5	30	8,5 x 18,5	23	49	28	54	29	16	G1/8	40

**711**

MODEL NO	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		AĞIRLIK (WEIGHT) (gr)
						VERİM (YIELD) (F1:Fi)	VERİM (YIELD) (F2:Fi)	
711-1	B711-.....	1000	1000	1000	1000	14:1	8:1	400
711-2	B711-.....	2000	2000	2000	2000	17:1	9:1	790
711-3	B711-.....	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 )


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


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	38	32.5	40	37,5 - 44,5	42	70	148	15	10	175	16	5,5 x 9	15	33	19	37	20,5
711-2	75	79	48	41	50	49,5 - 62,5	52	88	186	20	12	222	20	6,5 x 13	24	41	22	39	24,5
711-3	90	101	58	50	50	61 - 81	62	105	222	25	15	267	30	8,5 x 18,5	23	49	28	54	29

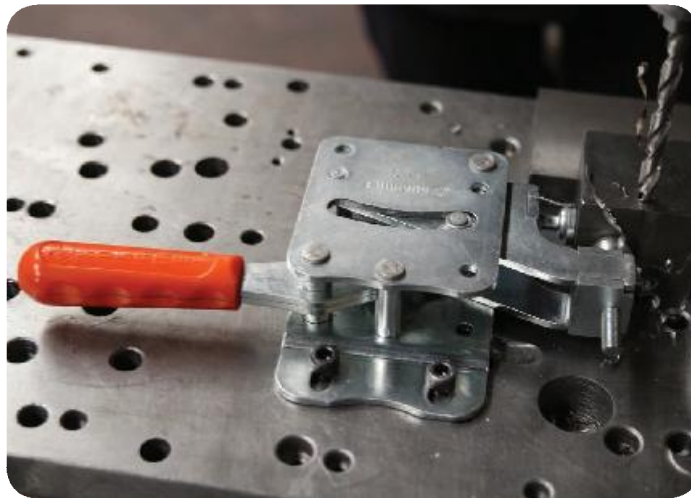
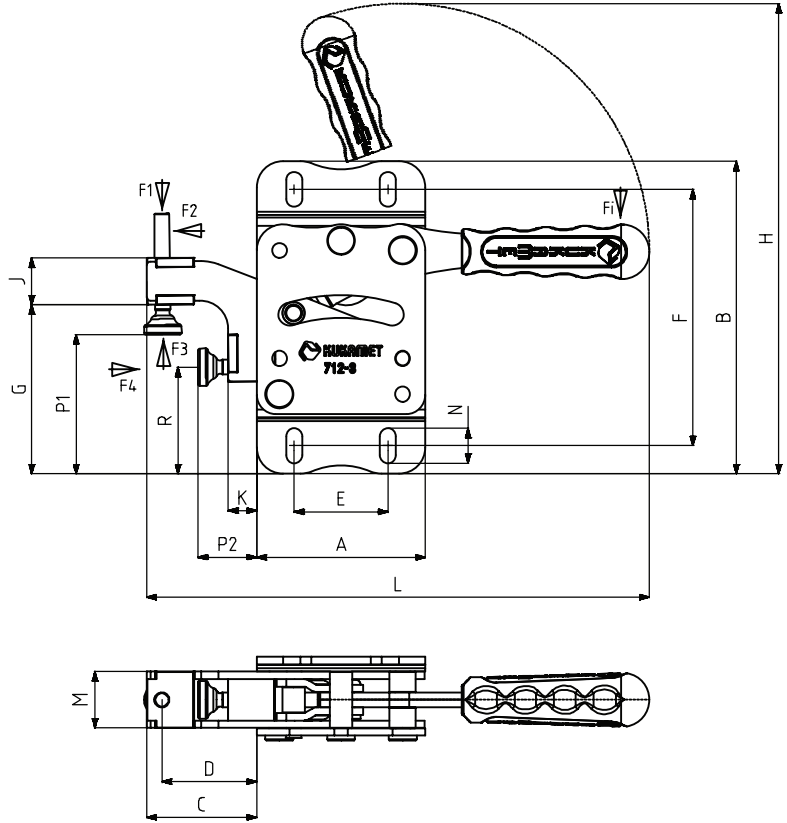
712

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	F3 (N)	F4 (N)	Fi		AĞIRLIK (WEIGHT) (gr)
						VERİM (YIELD) (F1:Fi)	VERİM (YIELD) (F2:Fi)	
712-1	B712-.....	1000	1000	1000	1000	14:1	8:1	405
712-2	B712-.....	2000	2000	2000	2000	17:1	9:1	800
712-3	B712-.....	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



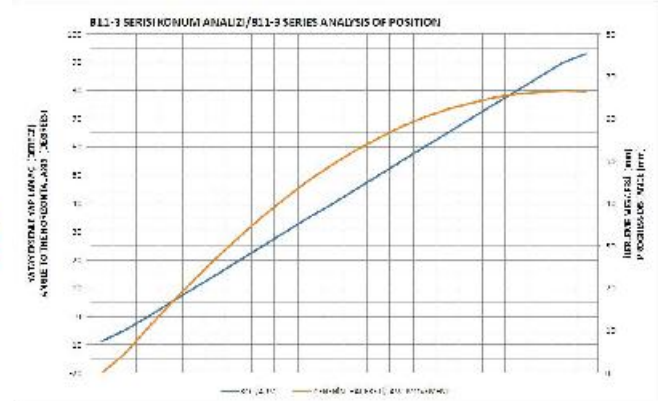
MODEL NO	A	B	C	D	E	F	G	H	J	K	L	M	N	P1 Min.	P1 Max.	P2 Min.	P2 Max.	R
712-1	56	106	38	32.5	40	84,5 – 91,5	58	164	15	10	175	16	5,5 x 9	34	49	19	37	37
712-2	75	136	48	41	50	106,5 – 120	75	209	20	12	222	20	6,5 x 13	47	64	22	39	47,5
712-3	90	166	58	50	50	126,5 – 146,5	90	250	25	15	267	30	8,5 x 18,5	52	74	28	54	57



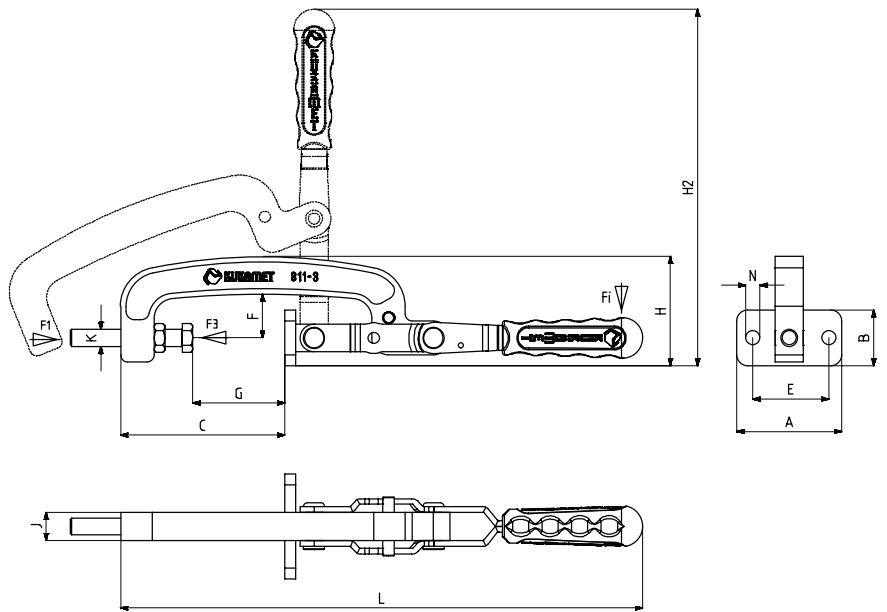
811

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	AĞIRLIK (WEIGHT) (gr)
				VERİM (YIELD) (F1:Fi)	
811-1	B811-.....	1000	2500	27:1	570
811-2	B811-.....	3500	4500	36:1	1045
811-3	B811-.....	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



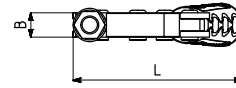
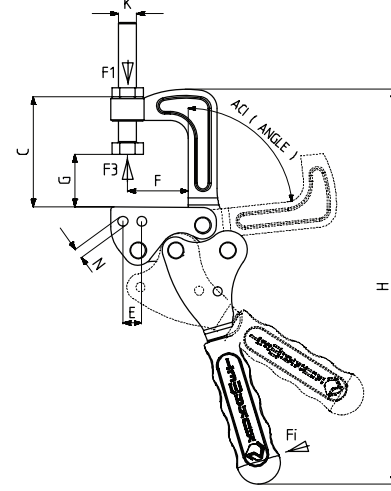
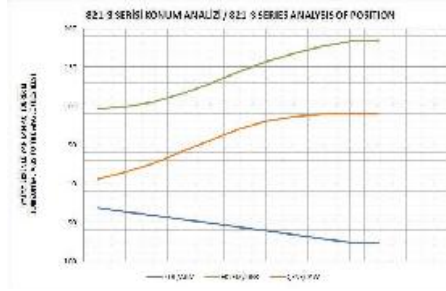
MODEL NO	A	B	C	D	E	F	G Min.	G Max.	H	H2	J	K	L	M	N
811-1	58	35	75		40	24	20	48	60	185	12	8	262		8
811-2	68	38	100		45	28	35	68	69	265	16	10	337		8
811-3	78	38	118		54	31	21	80	77	253	20	12	372		10



821

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	AÇI (ANGLE)	AĞIRLIK (WEIGHT) (gr)
				VERİM (YIELD) (F1:Fi)		
821-2	B821-.....	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

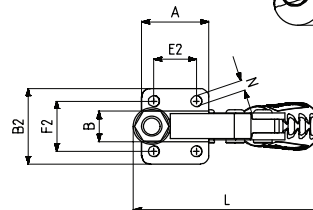
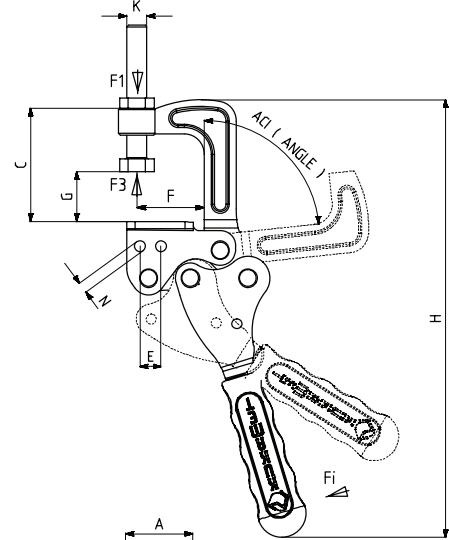
Body Mounting Base: Vertical

MODEL NO	A	B	C	D	E	F	G min.	G max.	H	J	K	L	M	N
821-2		15	72		12.5	31	0	50	261		12	107		6.5

822

MODEL NO	SİYAH (BLACK)	F1 (N)	F3 (N)	Fi	AÇI (ANGLE)	AĞIRLIK (WEIGHT) (gr)
				VERİM (YIELD) (F1:Fi)		
822-2	B822-.....	3500	4000	9:1	85	830

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



### Ayak Tipi: Yatay Tabanlı

Body Mounting Base: Horizontal

MODEL NO	A	B	B2	C	D	E	E2	F	F2	G min.	G max.	H	J	K	L	M	N
822-2	40	15	45	68		12.5	25.5	31	30	0	50	261		12	107		6.5

## Optik Ölçüm Teknolojileri için Bağlantı Elemanları

### Toggle Clamps For Optical Measurement Technology

**Ürün özellikleri;**

**Optik ölçüm cihazları ile kullanıma uygundur. ışık ve lazer yansımalarını önleyici karartma yapılmıştır.**

**Features of product;**

**Suitable for usage with optical measurement devices. Blued against to reflexions of light and laser.**



**6011**

**new**

MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	BASKI VİDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr)	BAR
6011 - 25R	200	0,1	M5	19,5	326	6
6011 - 25L	200	0,1	M5	19,5	326	6
6011 - 32R	300	0,23	M8	25	537	6
6011 - 32L	300	0,23	M8	25	537	6
6011 - 40R	600	0,4	M8	25	680	6
6011 - 40L	600	0,4	M8	25	680	6
6011 - 50R	900	0,96	M10	39	1160	6
6011 - 50L	900	0,96	M10	39	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 - KARE GÖVDE**

- Silindir çift etkili ve manyetik.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksall kaplama yapılmıştır.
- Piston milini yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.
- Piston milini, 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 )

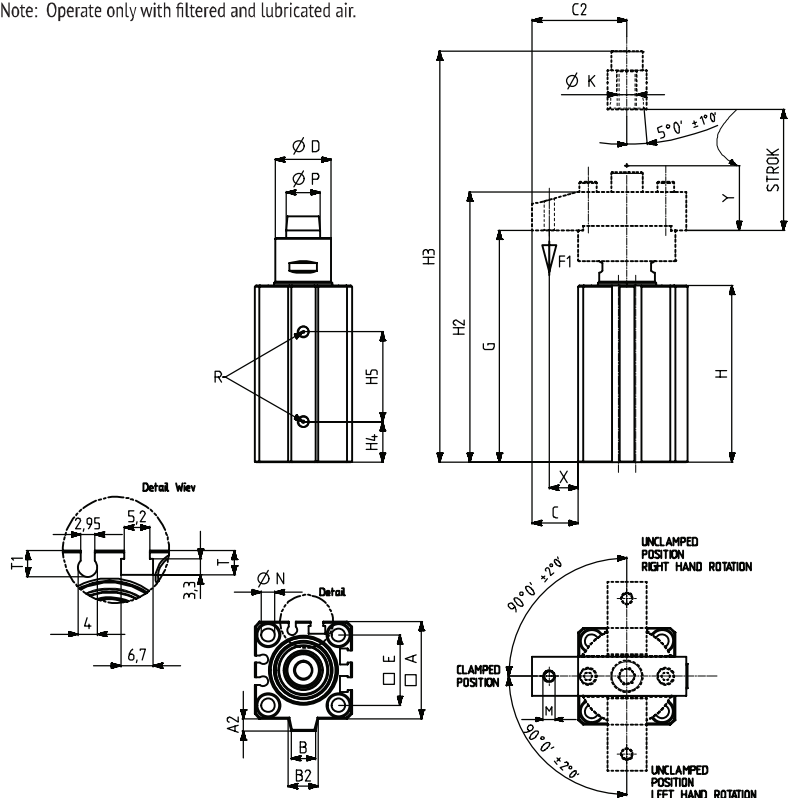
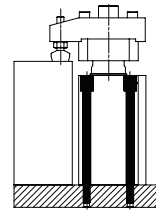
- 1-) Piston milini koruma adaptörü ( 6010-5 )
- 2-) Koruma adaptörü için sıkma kolu ( 6010-6 )
- 3-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )

**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 )


**Montaj seçenekleri**  
 Mounting options


- Gövde üzerindeki deliklerden imbus cıvata ( 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	5	10	12,5	19	39	23	29	95,5	73	111,5	141	17	37	M8	M5	5,5	14	M5	5	5,5	12	10	25
6011 - 25L	40	5	10	12,5	19	39	23	29	95,5	73	111,5	141	17	37	M8	M5	5,5	14	M5	5	5,5	12	10	25
6011 - 32R	45	4,5	14,5	16,5	32,5	55	29	34	113	80	135	172	22	44,5	M10	M8	5,5	16	G1/8	4,5	5,5	22,5	10,5	32
6011 - 32L	45	4,5	14,5	16,5	32,5	55	29	34	113	80	135	172	22	44,5	M10	M8	5,5	16	G1/8	4,5	5,5	22,5	10,5	32
6011 - 40R	52	5	17,5	22	29	55	29	40	114	80	136	173,5	19,5	46	M10	M8	5,5	16	G1/8	5	5,5	19	13	40
6011 - 40L	52	5	17,5	22	29	55	29	40	114	80	136	173,5	19,5	46	M10	M8	5,5	16	G1/8	5	5,5	19	13	40
6011 - 50R	64	6	20	23	43	75	37	50	149	105	174	227	25	65,5	M12	M10	6,5	20	G1/4	6	6,5	33	20	50
6011 - 50L	64	6	20	23	43	75	37	50	149	105	174	227	25	65,5	M12	M10	6,5	20	G1/4	6	6,5	33	20	50

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

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

**6012**
**new**


MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	BASKI VİDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr.)	BAR
6012 - 25R	170	0,15	M6	27	600	6
6012 - 25L	170	0,15	M6	27	600	6
6012 - 32R	270	0,28	M8	30	800	6
6012 - 32L	270	0,28	M8	30	800	6
6012 - 40R	450	0,47	M8	30	920	6
6012 - 40L	450	0,47	M8	30	920	6
6012 - 50R	700	0,76	M12	31	1000	6
6012 - 50L	700	0,76	M12	31	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 - BLOK GÖVDE**

- Silindir çift etkili ve manyetikdir.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksal kaplama yapılmıştır.
- Piston mili 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 )

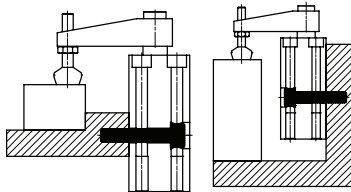
- 1-) Sıkma kolu ( 6010-1 )
- 2-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )

**PNEUMATIC SWING CLAMP - BLOCK BODY**

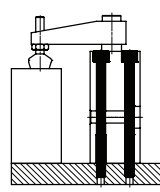
- Cylinder is double acting and magnetic.
- The body is made of strength aluminum. Anodised for Corrosion resistance.
- The piston rod is hard chrome plated and shapely polished for to high wear resistance and corrosion resistance.
- There are slots on the body, according to T type sensors, for monitoring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

Accessories : (not included in the price)

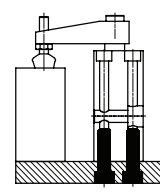
- 1-) Squeezing arm ( 6010-1 )
- 2-) Squeeze part ( 911, 912, 913, 914, 915, 916 )

**Montaj seçenekleri**  
 Mounting options


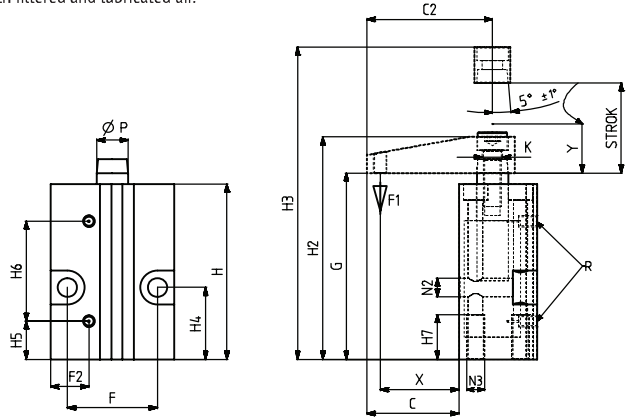
- 1-Gövde ön ve arka yüzeyindeki delikler kullanılarak montaj.  
1- Mounting through to holes on the front and rear surface of body.



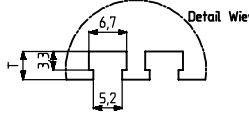
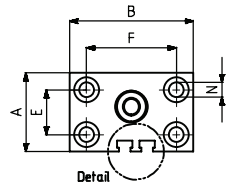
- 2-Gövde üst yüzeyindeki deliklerden imbus civata ( DIN 912 ) ile yukarıdan montaj.  
2-Mounting from above with socket bolt ( DIN 912 ) through to holes on the top surface of body



- 3-Gövde alt yüzeyindeki, klavuz çekilmiş delikler kullanılarak montaj.  
3-Mounting through to tapped holes on the lower surface of body.



SIZE = 25 - 32 - 40 - 50



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	83	78	99	126	32	17	44,5	20	M8	M6	6,5	8,5	M8	14	M5	5	35	17	25
6012 - 25L	35	55	41	56	20	40	17	83	78	99	126	32	17	44,5	20	M8	M6	6,5	8,5	M8	14	M5	5	35	17	25
6012 - 32R	45	60	49	69	30	45	18	99	90	118	148	43	22	50	20	M8	M8	6,5	8,5	M8	16	G1/8	6,5	40	14	32
6012 - 32L	45	60	49	69	30	45	18	99	90	118	148	43	22	50	20	M8	M8	6,5	8,5	M8	16	G1/8	6,5	40	14	32
6012 - 40R	55	70	54,5	79	37	52	22	96	90	115	145	40	20	50	25	M8	M8	8,5	8,5	M10	16	G1/8	8	45,5	17	40
6012 - 40L	55	70	54,5	79	37	52	22	96	90	115	145	40	20	50	25	M8	M8	8,5	8,5	M10	16	G1/8	8	45,5	17	40
6012 - 50R	65	85	58,5	90	46	66	25	106	102	131,5	162,5	47	27	53,5	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	106	102	131,5	162,5	47	27	53,5	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 yapabilir.**  
 Note: Swing clamps can squeezing only during the "Y" stroke.

**6013**

**new**

MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	BASKI VİDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr)	BAR
6013 - 25R	170	0,14	M6	27	450	6
6013 - 25L	170	0,14	M6	27	450	6
6013 - 32R	270	0,28	M8	30	550	6
6013 - 32L	270	0,28	M8	30	550	6
6013 - 40R	450	0,47	M8	30	700	6
6013 - 40L	450	0,47	M8	30	700	6
6013 - 50R	700	0,74	M12	30	850	6
6013 - 50L	700	0,74	M12	30	850	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 )

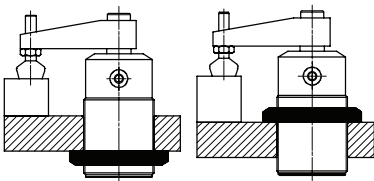
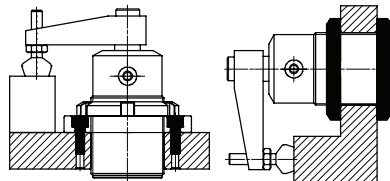
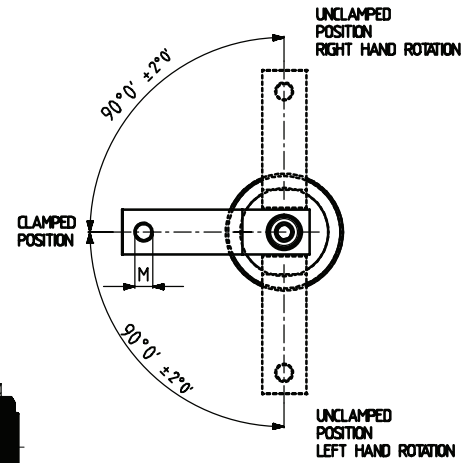
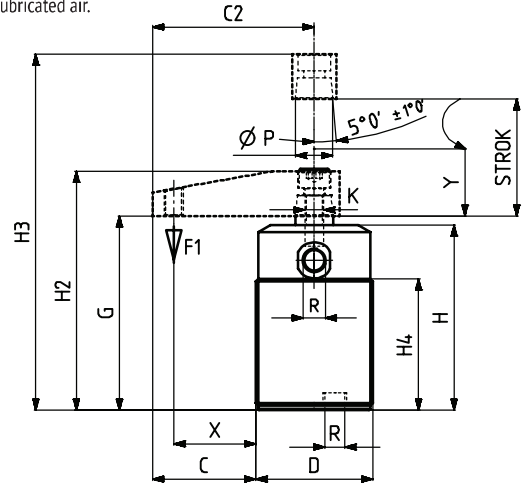
- 1-) Sıkma kolu ( 6010-1 )
- 2-) Bağlantı somunu ( 6010-3 )
- 3-) Bağlantı flanşı ( 6010-4 )
- 4-) Baskı ucu ( 911, 912, 913, 914, 915, 916 )

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

**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


MODEL NO	C	C2	D	G	H	H2	H3	H4	K	M	P	R	X	Y	PİSTON Ø
6013 - 25R	36	56	M 40 x 1,5	73	70	89	116	45	M8	M6	14	M5	30	17	25
6013 - 25L	36	56	M 40 x 1,5	73	70	89	116	45	M8	M6	14	M5	30	17	25
6013 - 32R	44	69	M 50 x 1,5	83	79	102	132	56	M8	M8	16	G1/8	35	14	32
6013 - 32L	44	69	M 50 x 1,5	83	79	102	132	56	M8	M8	16	G1/8	35	14	32
6013 - 40R	51,5	79	M 55 x 1,5	87	83	106	136	60	M8	M8	16	G1/8	42,5	17	40
6013 - 40L	51,5	79	M 55 x 1,5	87	83	106	136	60	M8	M8	16	G1/8	42,5	17	40
6013 - 50R	57,5	90	M 65 x 1,5	92,1	87	118	148	65	M10	M12	20	G1/8	47,5	22	50
6013 - 50L	57,5	90	M 65 x 1,5	92,1	87	118	148	65	M10	M12	20	G1/8	47,5	22	50

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

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

**6014**

**new**

MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	BASKI VİDASI (SQUEEZE SCREW)	STROK	AĞIRLIK (WEIGHT) (gr)	BAR
6014 - 25R	170	0,15	M6	27	500	6
6014 - 25L	170	0,15	M6	27	500	6
6014 - 32R	270	0,28	M8	30	650	6
6014 - 32L	270	0,28	M8	30	650	6
6014 - 40R	450	0,47	M8	30	800	6
6014 - 40L	450	0,47	M8	30	800	6
6014 - 50R	700	0,78	M12	32	920	6
6014 - 50L	700	0,78	M12	32	920	6

F1 -F2 : 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 milî yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.

Aksesuarlar : ( fiyata dahil değildir )

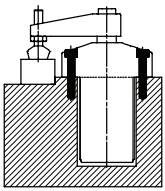
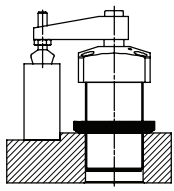
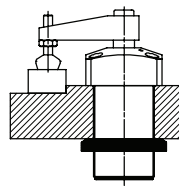
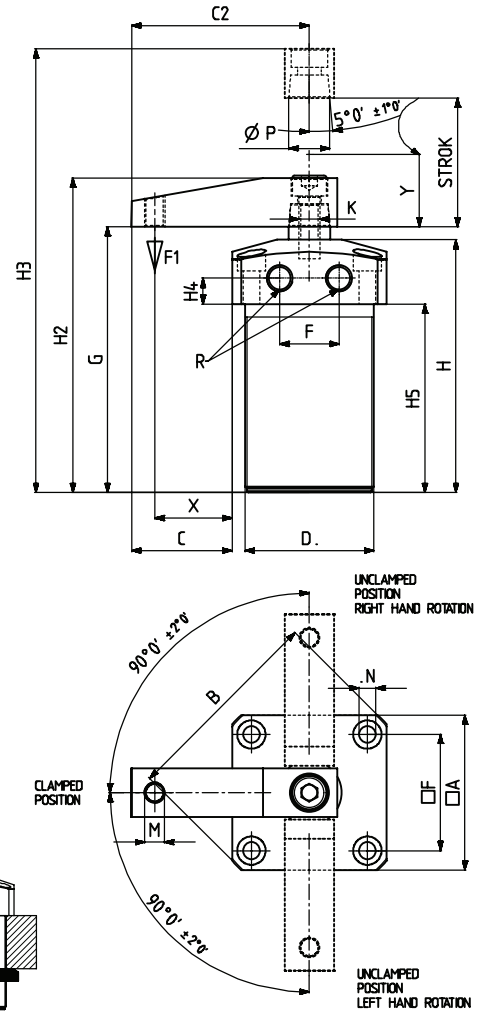
- 1-) Sıkma kolu ( 6010-1 )
- 2-) Bağlantı somunu ( 6010-3 )
- 3-) Bağlantı flanşı ( 6010-4 )
- 4-) Baskı ucu ( 911,912,913,914,915,916 )

## PNEUMATIC SWING CLAMP - BODY WITH FLANGE CONNECTION

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

**Montaj seçenekleri**  
 Mounting options

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

 2-Gövdeyi klavuz çukülmiş bir delik içine vidalama ve bağlantı somunu ile sıkarak montaj.  
 2-By screwing the body into a tapped hole and mounting with connection nut.

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


MODEL NO	A	B	C	C2	D	F	G	H	H2	H3	H4	K	M	ØN	P	R	X	Y	PİSTON Ø
6014 - 25R	50	66	31	56	M 40 x 1,5	37	92	87	108	135	11,5	M8	M6	5,5	14	M5	25	17	25
6014 - 25L	50	66	31	56	M 40 x 1,5	37	92	87	108	135	11,5	M8	M6	5,5	14	M5	25	17	25
6014 - 32R	60	80	39	69	M 50 x 1,5	45	103	98	122	152	10	M8	M8	6,5	16	G1/8	30	14	32
6014 - 32L	60	80	39	69	M 50 x 1,5	45	103	98	122	152	10	M8	M8	6,5	16	G1/8	30	14	32
6014 - 40R	65	87	46,5	79	M 55 x 1,5	50	103	98	122	152	10,5	M8	M8	6,5	16	G1/8	37,5	17	40
6014 - 40L	65	87	46,5	79	M 55 x 1,5	50	103	98	122	152	10,5	M8	M8	6,5	16	G1/8	37,5	17	40
6014 - 50R	75	100	52,5	90	M 65 x 1,5	58	110	105	135,5	167,5	10,5	M10	M12	8,5	20	G1/8	42,5	15	50
6014 - 50L	75	100	52,5	90	M 65 x 1,5	58	110	105	135,5	167,5	10,5	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 squeeze only during the "Y" stroke.

**6015**

**new**

MODEL NO	F1 (N)	Vn (dm <sup>3</sup> )	BASKI VİDASI (SQUEEZE SCREW)	AĞIRLIK (WEIGHT) (gr)	BAR
6015 - 25	230	0,13	M6x40	580	6
6015 - 32	370	0,25	M8x50	950	6
6015 - 40	560	0,46	M8x50	1200	6
6015 - 50	760	0,79	M12x80	1900	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 - FLANŞ BAĞLANTILI GÖVDE**

- Silindir çift etkilidir.
- Gövde mukavemetli alüminyumdan üretilmiştir. Korozyon direnci için eloksallı kaplama yapılmıştır.
- Piston mili yüksek aşınma ve korozyon direnci için sert krom kaplama yapılmış ve parlatılmıştır.
- Mekanizmanın parçaları çelikten üretilmiş ve karartma yapılmıştır.

Aksesuarlar : ( fiyata dahil değildir )

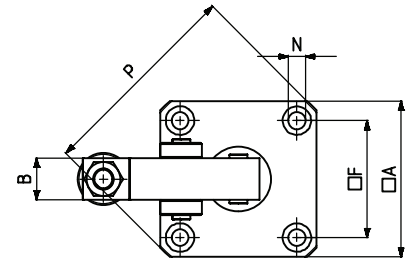
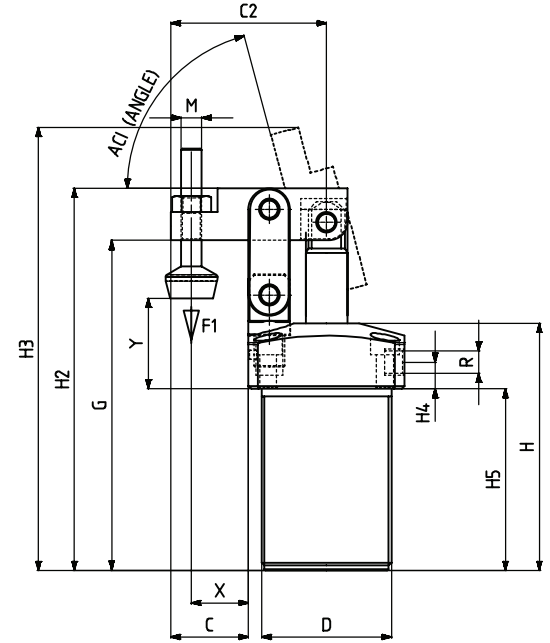
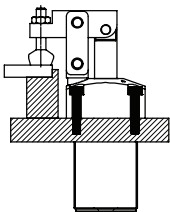
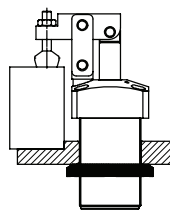
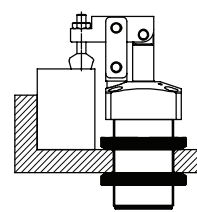
- 1-) Bağlantı somunu ( 6010-3 )
- 2-) Bağlantı flanş ( 6010-4 )
- 3-) Baskı ucu ( 911,912,913,914,915,916 )

**PNEUMATIC TOGGLE CLAMP - BODY WITH FLANGE CONNECTION**

- 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 mechanism are made of steel and blued.

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 )


**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.  
 2-By screwing the body into a tapped hole and mounting with connection nut.

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

MODEL NO	A	B	C	C2	D	F	G	H	H2	H3	H4	H5	M	ØN	P	R	X	Y Min	Y Max	PISTON Ø
6015 - 25	50	16	23	48	M 40 x 1,5	37	113	87	130	144	11,5	62	M6	5,5	66	M5	16	20	39	25
6015 - 32	60	16	30	60	M 50 x 1,5	45	130	98	150	170	10	73	M8	6,5	80	G1/8	22	18	42	32
6015 - 40	65	16	33,5	66	M 55 x 1,5	50	135	98	160	180	10,5	73	M8	6,5	87	G1/8	23,5	26	47	40
6015 - 50	75	20	41,5	79	M 65 x 1,5	58	146	105	176	200	10,5	80	M12	8,5	100	G1/8	26	2	45	50

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



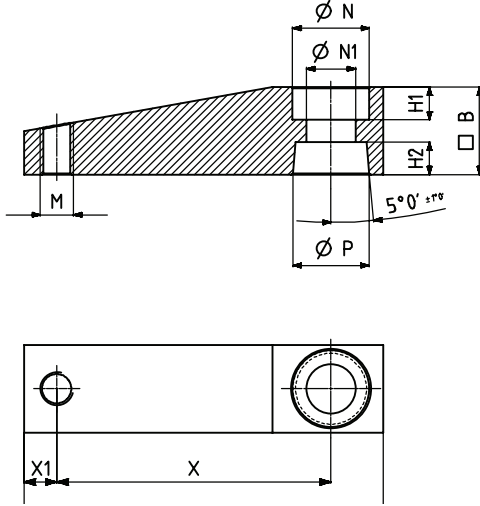
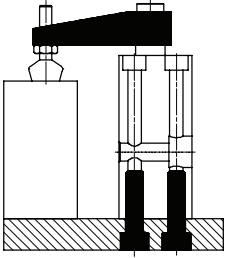
**6010**


## Sıkma Kolu

### Squeezing Arm

#### Montaj seçenekleri

#### Mounting options.



MODEL NO	B	H1	H2	L	M	ØN	ØN1	ØP	X	X1
6010-1-25	16	6	6	66	M6	14	9	14	50	6
6010-1-32	19	7	9	80	M8	14	9	16	60	9
6010-1-40	19	7	9	90	M8	14	9	16	70	9
6010-1-50	25,5	9	10	105	M12	17	11	20	80	10

#### NOT:

- Mukavemetli alüminyumdan üretilmiştir, korozyon direnci için eloksallı kaplama yapılmıştır.

Aksesuarlar : ( fiyata dahil değildir )

1-) Sıkma vidası ( 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 strength aluminum. Anodised for Corrosion resistance.

Accessories : (not included in the price)

3-) Squeezing screw ( 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.


**6010**


## Sıkma Kolu Adaptörü

### Squeezing Arm Adapter

#### NOT:

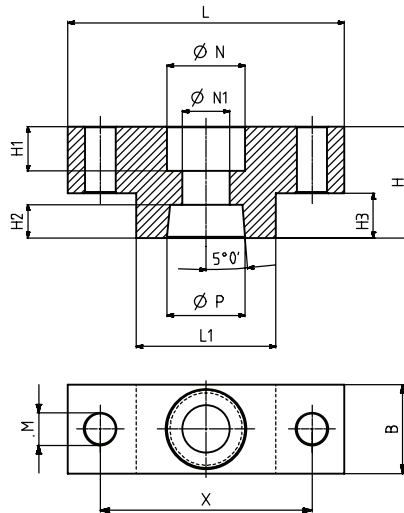
- Mukavemetli alüminyumdan üretilmiştir, korozyon direnci için eloksallı kaplama yapılmıştır.

- Özel yapıdaki sıkma kollarının montajı için kullanılır.

#### NOTE:

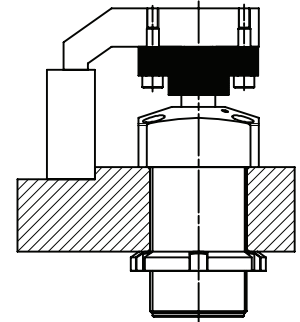
- Made of strength aluminum. Anodised for Corrosion resistance.

- Used for mounting of special construction squeezing arm.



#### Montaj seçenekleri

#### Mounting options.



MODEL NO	B	H	H1	H2	H3	L	L1	M	ØN	ØN1	ØP	X
6010-2-25	16	20	8	6	8	50	25	5,5	14	8,5	14	38
6010-2-32-40	19	25	11	9	10	60	30	7	14	8,5	16	45
6010-2-50	25	30	14	10	12	65	30	9	17	10,5	20	48

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

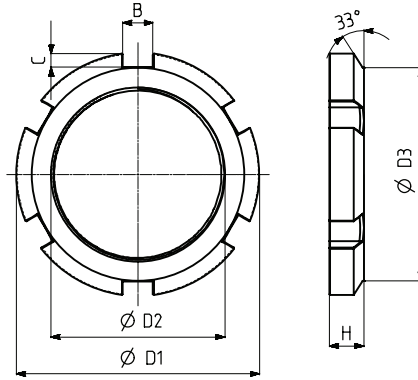
1-) Mounting as a connection element between an individual squeezing arm and the piston rod.

6010

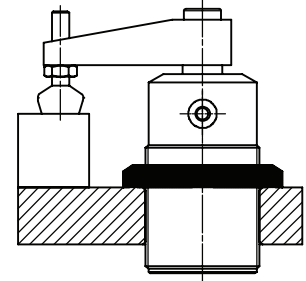


**Bağlantı Somunu (DIN 70852)**  
Connection Nut (DIN 70852)

MODEL NO	B	C	ØD1	ØD2	ØD3	H
6010-3-25	7	3,3	56	M 40 x 1,5	49	8
6010-3-32	8	3,8	68	M 50 x 1,5	60	8
6010-3-40	8	3,8	75	M 55 x 1,5	67	8
6010-3-50	11	4,3	85	M 65 x 1,5	76	9



**Montaj seçenekleri**  
Mounting options.



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

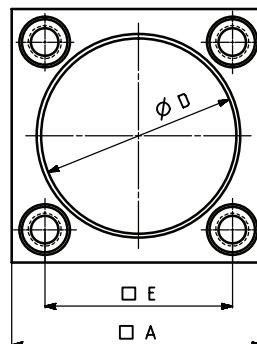
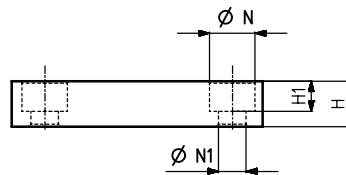
1-) Mounting with connection nut from above locking swing clamp on fixture.  
2-) The key, will be used for squeeze DIN 1810 A

6010

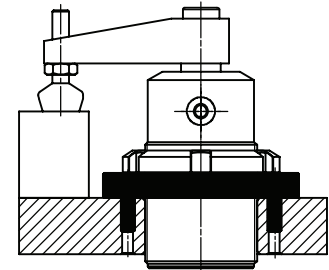


**Bağlantı Flanşı**  
Connection Flange

MODEL NO	A	E	ØD	H	H1	ØN	ØN1
6010-4-25	50	37	M 40 x 1,5	9	6	9	5,5
6010-4-32	60	45	M 50 x 1,5	12	7	11	6,5
6010-4-40	65	50	M 55 x 1,5	12	7	11	6,5
6010-4-50	75	58	M 65 x 1,5	15	9	13	8,5



**Montaj seçenekleri**  
Mounting options.



1-) Döner tip pnömatis bağlanı elemanı flanşı içine vidalayarak montaj.  
2-) Gövdeyi fiyör üzerine kilitlemek için bağlantı somunu ile montaj.  
3-) Flanş 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.

**NOT:**

- Çelikten üretilmiştir, korozyon direnci için galvaniz (Cr3) kaplama yapılmıştır.  
Avantajları :  
- Fiyör üzerine dış açılmasına gerek kalmadan montaj imkanı sağlar.

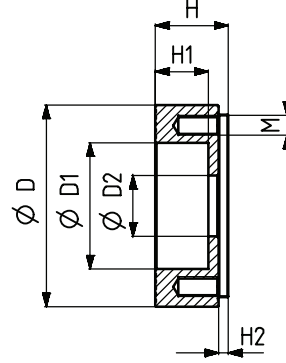
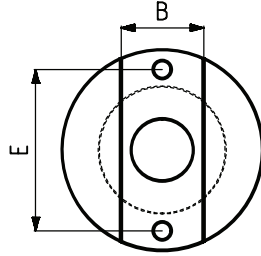
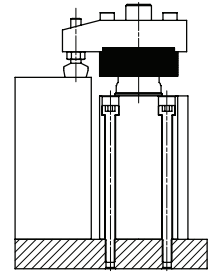
Not : 6014 ve 6015 numaralı ürünlerin montaj deliklerinin merkezleri ile aynıdır.

**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.

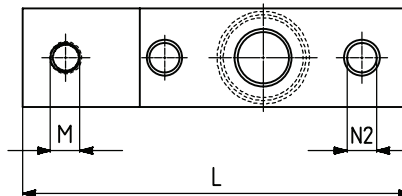
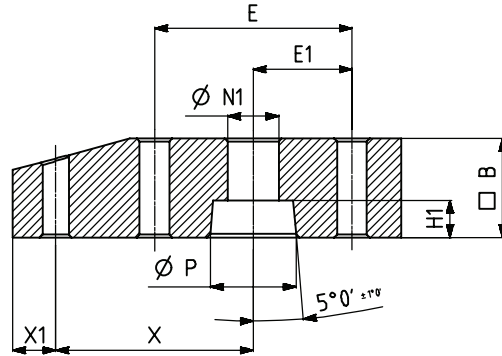
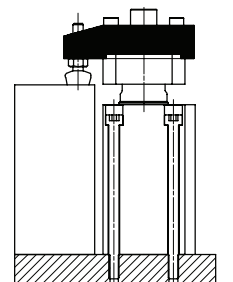
**6010**

**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.

MODEL NO	B	E	ØD	ØD1	ØD2	H	H1	H2	M
6010-5-25	16,4	32	40	25	14,1	14,5	10,5	2	M4
6010-5-32	22,6	41,3	50	32	16,1	16,5	11	3	M5
6010-5-40	22,6	41,4	50	32	16,1	17,9	11	3,8	M6
6010-5-50	25,8	46,5	59	39	20,1	33	25	5,1	M6

**6010**

**Sıkma Kolu (Koruma Adaptörü için)**  
 Squeezing Arm (For Product Adapter)

**Montaj seçenekleri**  
 Mounting options.


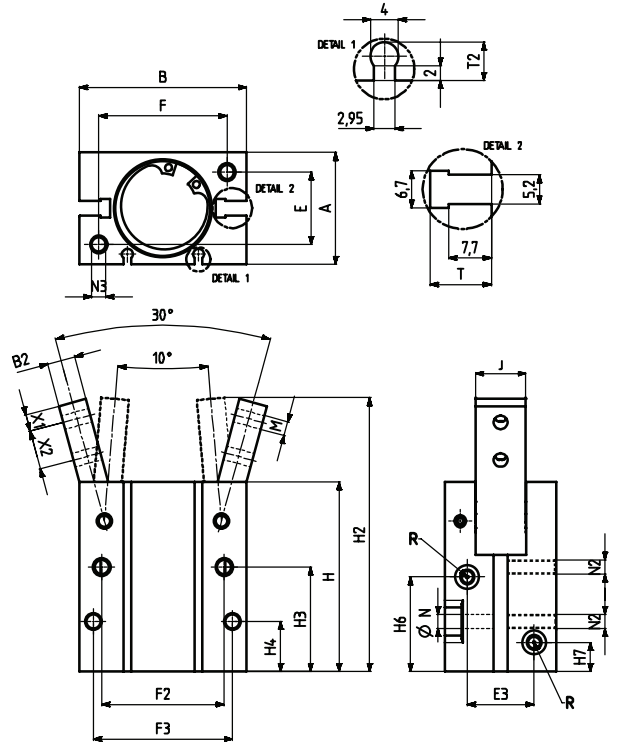
MODEL NO	B	E	E1	H1	L	M	ØN1	ØN2	P	X	X1
6010-6-25	16	32	16	6	63,5	M5	8,3	4,8	14	32	7
6010-6-32	22	41,3	20,65	9	80	M8	10,5	5,7	16	45	10
6010-6-40	22	41,4	20,7	9	82	M8	10,5	6,4	16	45	10
6010-6-50	25	46,5	23,25	12	105	M10	12,5	6,4	20	65	10

**6021**

MODEL NO	PİSTON Ø	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)	Ağırlık (Weight) (gr)
		kapalı (closed)	açık (open)			kapalı (closed)	açık (open)				
6021 - 16	16	9 x P	12 x P	4	F = M / L x 0.85	13	17	-10° ~ 30°	1,5 - 7 bar	180 cycles/min	103
6021 - 20	20	17 x P	23 x P	6		16	22				193
6021 - 25	25	34 x P	44 x P	7		28	37				327
6021 - 32	32	61 x P	81 x P	8,5		42	56				525

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 )


**PNÖMATİK TUTUCU – AÇILI HAREKET ( V )**

- Silindir çift etkili ve manyetikdir.
- 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 ( V )**

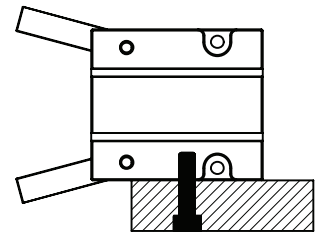
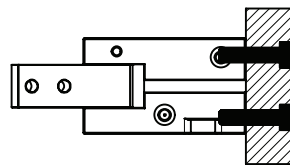
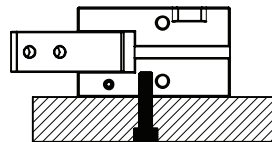
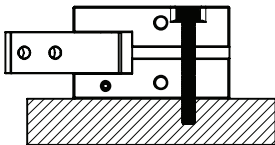
- Cylinder is double acting and magnetic.
- The body is made of strength aluminum.
- The gripper jaws made of steel and hardened.
- There are slots on the body, according to T type and C type sensors, for monitoring the position of piston.

**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	N	N2	N3	R	T	T2	X1	X2
6021 - 16	22	34	6	14	14	10,5	26	24	28	43,5	61	25,5	13	18	23,5	7	9	M3	3,3	M4	M4	M5	7,2	4,3	3	8
6021 - 20	26	45	7	16	16	15	35	30	36	55	77	29	13	19	26,5	8	12	M4	4,2	M5	M5	M5	10	4,3	4	10
6021 - 25	32	52	9	20	20	18	40	36	36	58	84	28,5	15	21,5	29	8	14	M5	5	M6	M6	M5	11	4,3	5	12
6021 - 32	40	60	10	26	26	24	46	44	50	68	98	37,5	18	30	34	10,5	18	M6	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)	Ağırlık (Weight) (gr)
				kapalı (closed)	açık (open)			
6022 - 16	16	8	4	18	24	1,5 - 7 bar	180 cycles/min	144
6022 - 20	20	12	6	35	47			255
6022 - 25	25	14	7	60	75			419
6022 - 32	32	16	8.5	85	100			719

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

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

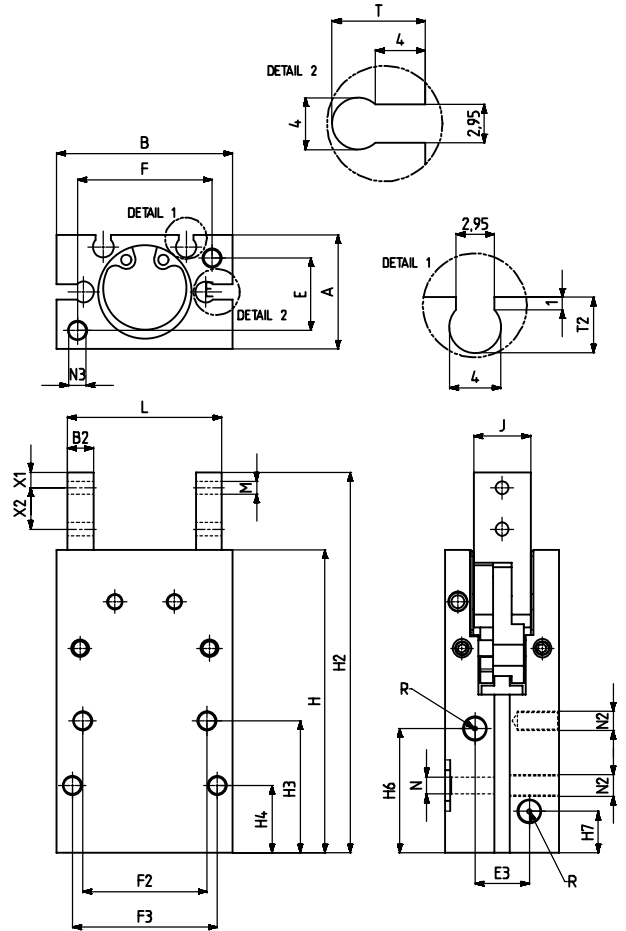
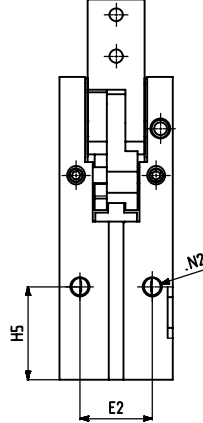
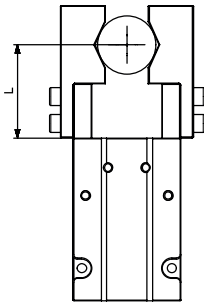
Sıkma Kuvvetleri : P = 5 bar basınç ile L = 3 cm tutma uzunluğu durumunda geçerlidir / Clamping forces are valid in case of P = 5 bar pressure with gripping length L = 3 cm

**PARALEL TUTUCU**

- Silindir çift etkili ve manyetikdir.
- 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.

**PARALEL GRIPPER**

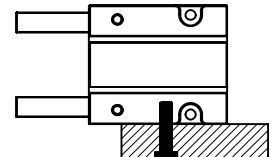
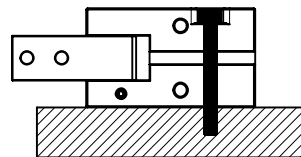
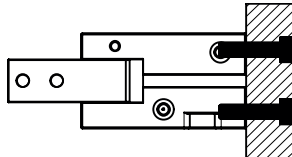
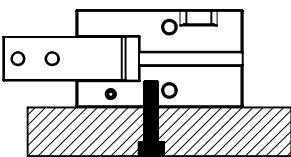
- Cylinder is double acting and magnetic.
- The body is made of strength aluminum.
- The gripper jaws made of steel and hardened.
- There are slots on the body, according to T type and C type sensors, for monitoring the position of piston.
- The closing action of the gripper is generated from the cylinder's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


**Montaj seçenekleri**

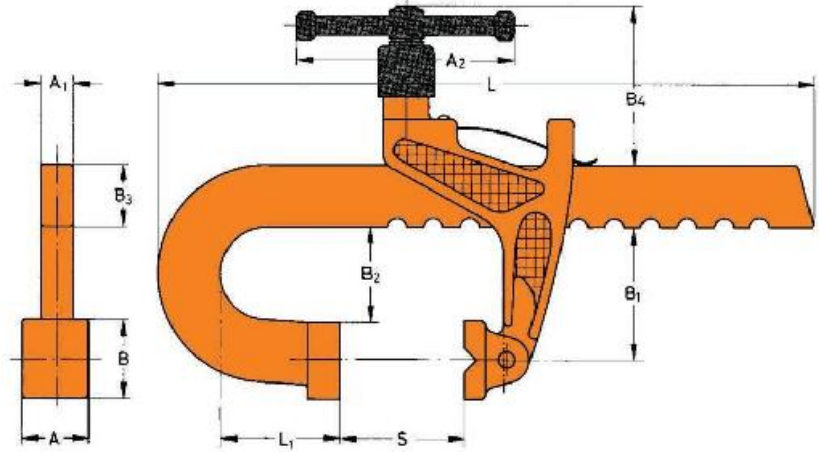
- Pnömatik tutucu ergonomik tasarımı sayesinde 4 farklı şekilde montaj yapılabilir.

**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	N	N2	N3	R	T	T2	X1	X2
6022 - 16	22	34	5	14	14	10,5	26	24	28	58,5	73,5	25,5	13	18	23,5	7	11	25	33	M3	3,3	M4	M4	M5	7	4,3	3	8
6022 - 20	26	45	6	16	16	15	35	30	36	69,5	88	29	13	19	26,5	8	12	32	44	M4	4,2	M5	M5	M5	10	4,3	4	10
6022 - 25	32	52	8	20	20	18	40	36	36	78,5	102,5	28,5	15	21,5	29	8	14	37	51	M5	4,2	M5	M6	M5	11	4,3	5	12
6022 - 32	40	60	10	26	26	24	46	44	50	90,5	120,5	37,5	18	30	34	10,5	18	43	59	M6	5	M6	M6	M5	11	5,5	7	15


**Carver Bağlantı Elemanı – Askı tipi**
**Ürün özellikleri :**

- a-) Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.  
 b-) Hareketli çene iş parçasına doğru kaydırılır, mandal en yakın çentiğe oturduktan sonra sıkma vidası ile çene sıkıştırılır.

- 1.Yaylı çene baskı kalktığında bile aynı konumunda kalır.
- 2.Hareketli çene yapısı sayesinde açılı yüzeylerde güvenli sıkıştırma sağlar.
- 3.Çalışan parçalar kaynak çapağına karşı korumalıdır.
- 4.Minimum vidalama ile maksimum çene hareketi sağlar.
- 5.Sıkıştırılan iş parçası sabit kalır, hareket edemez.

**Kullanım Alanları :**

- Üretim
- Kaynak
- Makine
- Bakım-Onarım
- Takımhane

**Carver Clamps - Rack Type**
**Features of products :**

- b-) The products are strenght and suitable for heavy duty.  
 a-) The operator slides the spring loaded moveable jaw toward the workpiece to the nearest notch where it locks into the detent. Hand tightening the screw advances the clamp jaw.

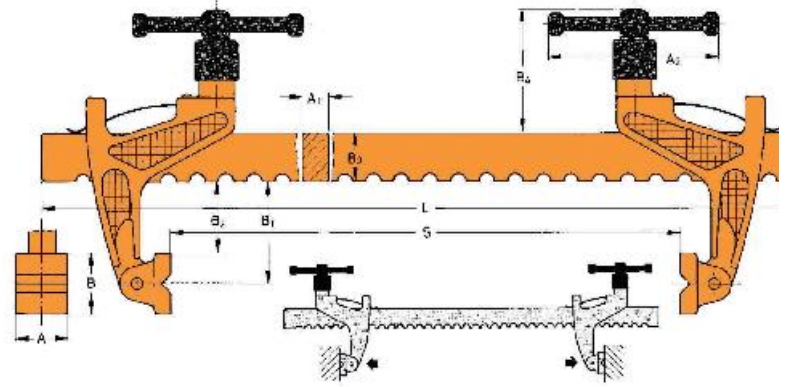
- 1.Spring-loaded jaw stays in position when pressure removed.
- 2.Jaw moves to security clamp angled surfaces.
- 3.Working parts not exposed to weld spatter.
- 4.No long screws to bend.
- 5.Tightening action cannot rotate workpiece.

**Usage Areas**

- Fabrication
- Welding
- Machining
- Maintenance
- toolroom

MODEL NO	Tutma Kuvveti Holding Force (N)	Tutma Kapasitesi Capacity (S) (mm)	Çene Uzunluğu Reach (B1) (mm)	Ağırlık Weight (gr)
T186-150	11300	0 - 150	60	1400
T186-300		0 - 300	60	1800
T186-500		0 - 500	60	2500
T186-750		0 - 750	60	3200
T321-250	5650	0 - 250	120	2000
T321-600		0 - 600	120	3500
T290-225	18000	0 - 225	90	5500
T290-450		0 - 450	90	7000
T290-750		0 - 750	90	8500
T290-1000		0 - 1000	90	10500
T285-225	9000	0 - 225	200	7100
T285-450		0 - 450	200	8500
T285-750		0 - 750	200	10000
T285-1000		0 - 1000	200	11500
T257-150	27000	0 - 150	115	9800
T257-300		0 - 300	115	10900
T257-450		0 - 450	115	12200
T257-600		0 - 600	115	13100
T257-900		0 - 900	115	15800
T257-1350		0 - 1350	115	19100

MODEL NO	A	A1	A2	B	B2	B3	B4	L	L1
T186-150	25	13	76	32	43	33	76	245	20
T186-300	25	13	76	32	43	33	76	395	20
T186-500	25	13	76	35	43	30	76	625	30
T186-750	25	13	76	35	43	30	76	875	30
T321-250	25	13	76	35	102	33,5	76	360	25
T321-600	25	13	76	32	98	30	76	715	8
T290-225	40	20	140	60	65	40	105	420	65
T290-450	40	20	140	60	65	40	105	655	65
T290-750	40	20	140	60	65	40	105	955	65
T290-1000	40	20	140	60	65	40	105	1205	65
T285-225	40	20	140	60	180	40	105	420	65
T285-450	40	20	140	60	180	40	105	655	65
T285-750	40	20	140	60	180	40	105	955	65
T285-1000	40	20	140	60	180	40	105	1205	65
T257-150	51	22	187	60	85	51	127	403	100
T257-300	51	22	187	60	85	51	127	555	100
T257-450	51	22	187	60	85	51	127	710	100
T257-600	51	22	187	60	85	51	127	850	100
T257-900	51	22	187	60	85	51	127	1165	100
T257-1350	51	22	187	60	85	51	127	1615	100


**Carver Bağlantı Elemanı – Bar tipi**
**Ürün özellikleri :**

- a-) Ağır iş uygulamalarında kullanıma uygun mukavemetli ürünlerdir.  
 b-) Hareketli çene iş parçasına doğru kaydırılır, mandal en yakın çentiğe oturduktan sonra sıkma vidası ile çene sıkıştırılır.

- 1.Yaylı çene baskı kalktığı anda bile aynı konumunda kalır.
- 2.Hareketli çene yapısı sayesinde açılı yüzeylerde güvenli sıkıştırma sağlar.
- 3.Çalışan parçalar kaynak çapağına karşı korumalıdır.
- 4.Minimum vidalama ile maksimum çene hareketi sağlar.
- 5.Sıkıştırılan iş parçası sabit kalır, hareket edemez.
- 6.Basitce ters dönebilen çeneler sayesinde dışa doğru sıkıştırma sağlanır .

**Kullanım Alanları :**

- Üretim
- Kaynak
- Makine
- Bakım-Onarım
- Takımhane

**Carver Clamp - Bar Type**
**Features of products :**

- a-) The products are strenght and suitable for heavy duty.  
 b-) The operator slides the spring loaded moveable jaw toward the workpiece to the nearest notch where it locks into the detent. Hand tightening the screw advances the clamp jaw.

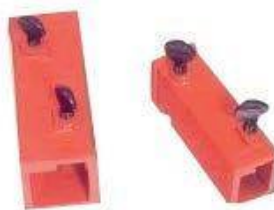
- 1.Spring-loaded jaw stays in position when pressure removed.
- 2.Jaw moves to security clamp angled surfaces.
- 3.Working parts not exposed to weld spatter.
- 4.No long screws to bend.
- 5.Tightening action cannot rotate workpiece.
- 6.Simple reverse jaws for a spreading action

**Usage Areas**

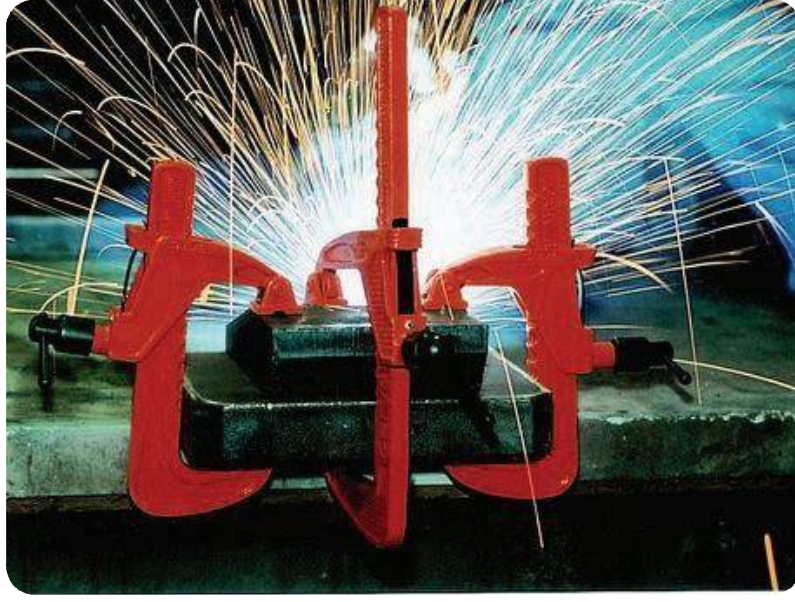
- Fabrication
- Welding
- Machining
- Maintenance
- Toolroom

MODEL NO	Tutma Kuvveti Holding Force (N)	Tutma Kapasitesi Capacity (S) (mm)		Çene Uzunluğu Reach (B1) (mm)	Ağırlık Weight (gr)
		Min	Max		
T186-600	11300	215	600	60	3400
T186-900			900	60	4400
T186-1500			1500	60	5800
T186-2100			2100	60	7600
T186-2400			2400	60	8800
T321-600	5650	140	600	120	3500
T321-900			900	120	4500
T321-1500			1500	120	5900
T321-2100			2100	120	7700
T321-2400			2400	120	8900
T290-900	18000	250	900	90	10500
T290-1200			1200	90	12100
T290-1500			1500	90	14000
T290-2100			2100	90	18000
T285-900	9000	150	900	200	11500
T285-1200			1200	200	13000
T285-1500			1500	200	15000
T285-2100			2100	200	19000
T257-2100	27000	305	2100	115	27200
T257-2700			2700	115	32000

MODEL NO	A	A1	A2	B	B2	B3	B4	L
T186-600	25	12	76	32	44	30	76	710
T186-900	25	12	76	32	44	30	76	1020
T186-1500	25	12	76	32	44	30	76	1625
T186-2100	25	12	76	32	44	30	76	2235
T186-2400	25	12	76	32	44	30	76	2540
T321-600	25	12	76	32	104	30	76	710
T321-900	25	12	76	32	104	30	76	1020
T321-1500	25	12	76	32	104	30	76	1625
T321-2100	25	12	76	32	104	30	76	2235
T321-2400	25	12	76	32	104	30	76	2540
T290-900	38	20	140	51	65	40	105	1070
T290-1200	38	20	140	51	65	40	105	1390
T290-1500	38	20	140	51	65	40	105	1690
T290-2100	38	20	140	51	65	40	105	2290
T285-900	38	20	140	51	180	40	105	1070
T285-1200	38	20	140	51	180	40	105	1390
T285-1500	38	20	140	51	180	40	105	1690
T285-2100	38	20	140	51	180	40	105	2290
T257-2100	51	22	187	63,5	83	52	127	2335
T257-2700	51	22	187	63,5	83	52	127	2945

**Aksesuar / Accessories**
**Çubuk Bağlantısı / Bar Connection**


KOD	MODEL NO	Ağırlık Weight (gr)
T186	T186 - T321	700
T285	T290 - T285	1300



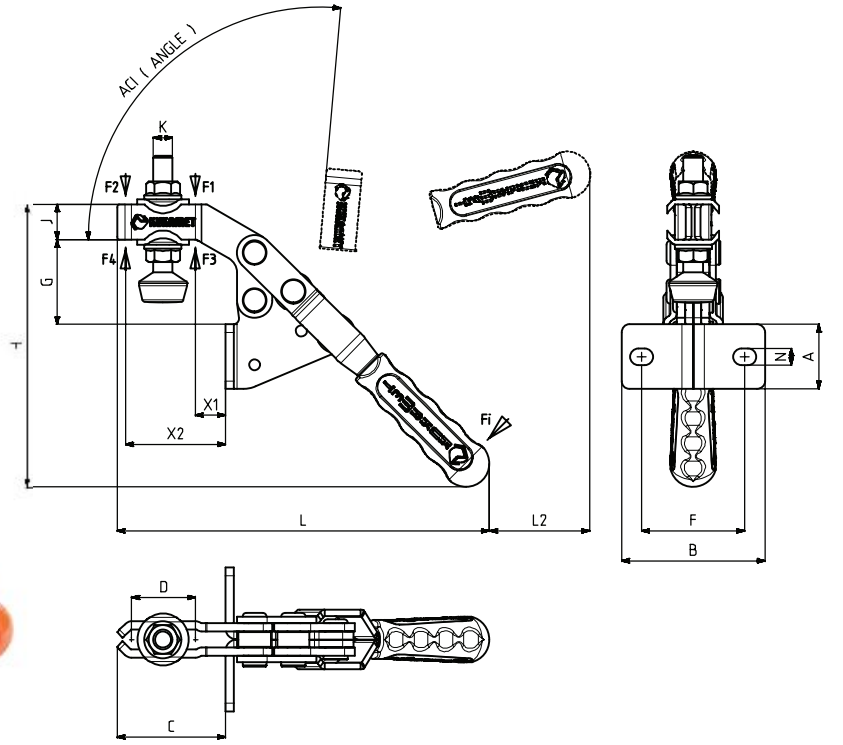


MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	F1 (N)	F2 (N)	F3 (N)	F4 (N)	Fi		BASKI VIDASI (SQUEEZE SCREW)	AÇI (ANGLE) (+ 5 °)	AĞIRLIK (WEIGHT) (gr)
							(X1) VERİM (YIELD) (F1 : Fi)	(X2) VERİM (YIELD) (F2 : Fi)			
133 -5	S 133 - ....	B 133 - ....	4500	3250	5000	3500	8,5:1	6:1	M12X80	90 °	1191

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

133

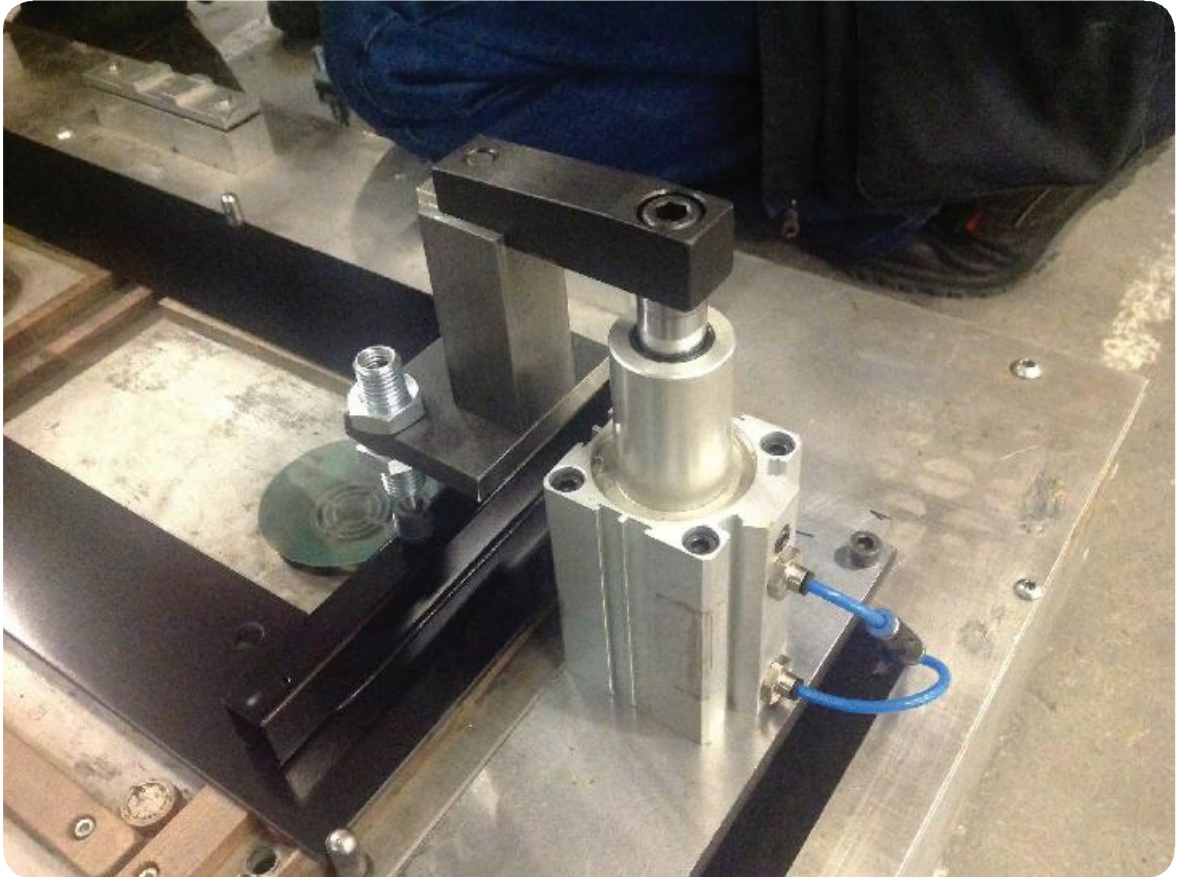
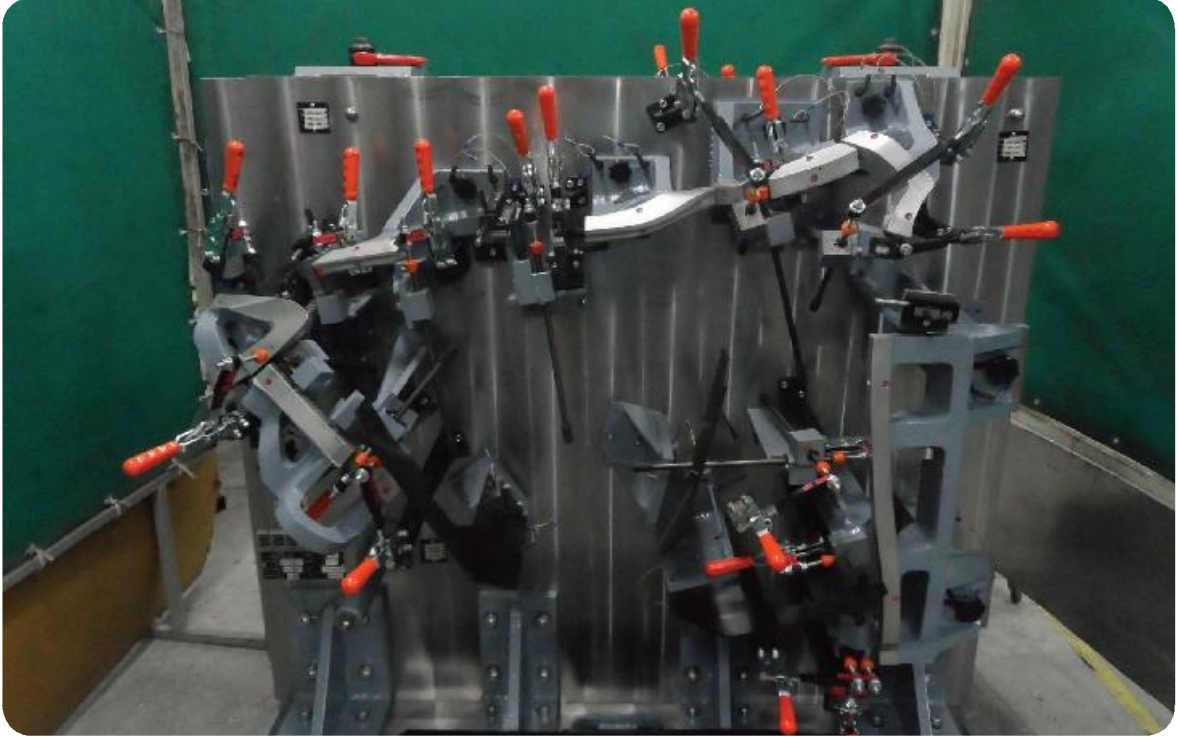
new



**Ayak Tipi: Yan Tabanlı**  
Body Mounting Base: Side Ward



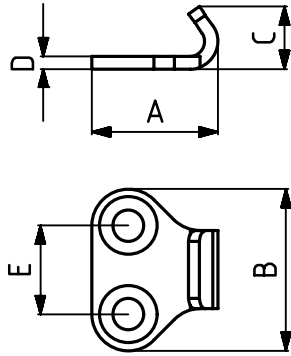
MODEL NO	A	B	C	D	F	G	H	J	K	L	L2	N	X1	X2
133 -5	40	89	67,5	20	60-68	52,5	180	22	M12	233	62	10,5 x 14,5	21	56



361



**Gerdirme Parçası**  
Stretcher Parts

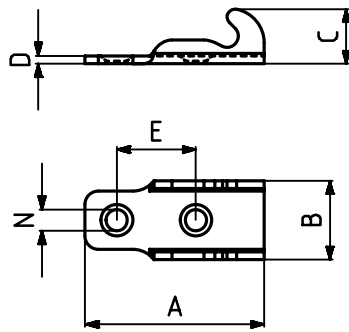


KOD	MODEL NO	A	B	C	D	E
361-362-2-03	361-362-2	24	31	12	2,5	17

363



**Gerdirme Parçası**  
Stretcher Parts

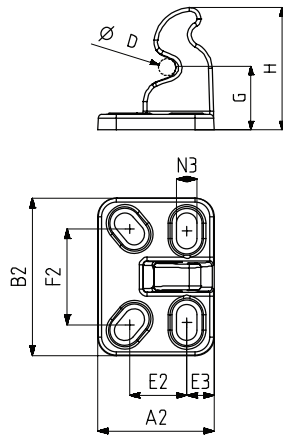


KOD	MODEL NO	A	B	C	D	E	N
363-2-03	363-2	34	15	10,5	1,5	15	4

341



**Gerdirme Parçası**  
Stretcher Parts

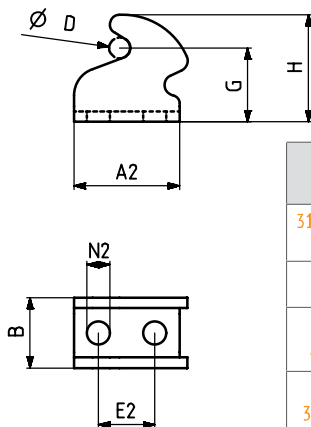


KOD	MODEL NO	SİYAH (BLACK)	A2	B2	D	G	H	E2	F2	N3
340-4-03--	341-4	B341-4-03	62	84	Ø10	33,5	65	28 - 33	45 - 57	11x19
340-5-03--	341-5	B341-5-03	66	84	Ø12	33,5	65	28 - 35	45 - 57	11x19

311



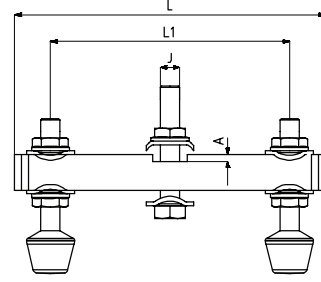
**Gerdirme Parçası**  
Stretcher Parts



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A2	B	D	G	H	E2	N2
310-320-330 350-1-04	311 - 312 - 321 331 - 351 - 1	S 310-320-330 350-1-04	B310-320-330 350-1-04	24,5	15,5	Ø 3,5	12,5	19	10	5
310 350-2-04	311 - 312 351 - 2	S 310 350-2-04	B 310 350-2-04	28,5	15,5	Ø 3,5	16,5	23	10 - 14	5,5x7,5
310-350 420-3-04	311 - 312 - 351 421 - 3	S 310-350 420-3-04	B 310-350 420-3-04	30	20	Ø 5,5	21	30,5	16	6,5
310 350-4-5-04	311 - 312 351-4 - 5	S 310 350-4-5-04	B 310 350-4-5-04	45	28	Ø 7	27	39	18 - 21	8,5x10

931

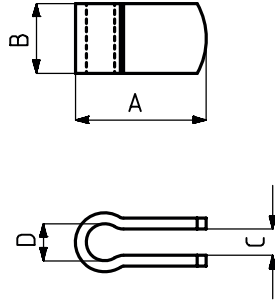
**Çapraz Baskı Grubu**  
Squeeze Part With Double Point



MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	L	L1	J	(GR)
931-1	S 931 - ....	B 931 - ....	2,5	90	30-70	M5	75
931-2	S 931 - ....	B 931 - ....	2,5	110	30-80	M6	105
931-3	S 931 - ....	B 931 - ....	3	130	40-100	M8	210
931-4	S 931 - ....	B 931 - ....	4	160	50-120	M10	480
931-5	S 931 - ....	B 931 - ....	5	180	60-140	M12	750

941

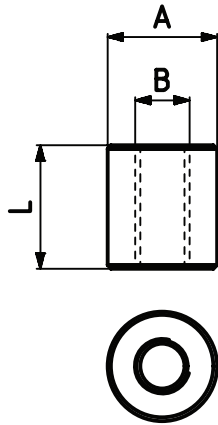
**Lama U Bağlantı Grubu**  
Bolt Retainers



MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	PLS. UÇ	A	B	C	D
941-2	S 941 - ....	B 941 - ....	M6x40	25	13	5	Ø6,5
941-3	S 941 - ....	B 941 - ....	M8x50	30	16	6	Ø8,5
941-4	S 941 - ....	B 941 - ....	M10x70	37	20	8	Ø10,5
941-5	S 941 - ....	B 941 - ....	M12x80	40	25	10	Ø12,5

951

**Lama Uç Bağlantı Grubu**  
Sleeve

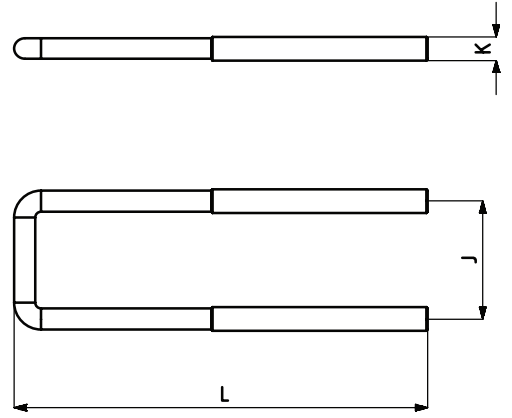


MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	B	L
951-1	S 951 - ....	B 951 - ....	Ø10	M5	12
951-2	S 951 - ....	B 951 - ....	Ø12	M6	15
951-3	S 951 - ....	B 951 - ....	Ø16	M8	18
951-4	S 951 - ....	B 951 - ....	Ø18	M10	22
951-5	S 951 - ....	B 951 - ....	Ø20	M12	27
951-6	S 951 - ....	B 951 - ....	Ø25	M12	32



311

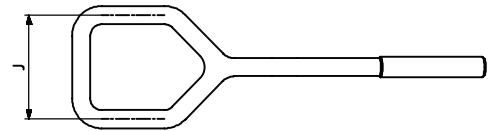
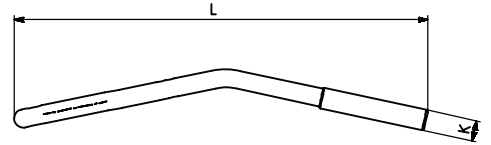
**U Kanca**  
U Hook



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	J	K	L
150-63	311-312-321-331-351-1 311-312-351-2	S 150-63	B 150-63	23	M4	90
150-155	311-312-321-331-351-1 311-312-351-2	S 150-55	B 150-55	23	M4	140
150-08	311-312-351-3	S 150-08	B 150-08	30	M6	105
150-156	311-312-351-3	S 150-156	B 150-156	30	M6	155
150-34	311-312-351-4	S 150-34	B 150-34	43	M8	145
150-198	311-312-351-4	S 150-198	B 150-198	43	M8	195
150-35	311-312-351-4	S 150-35	B 150-35	43	M8	295
150-148	341-4	S 150-148	B 150-148	50	M10	210
150-141	311-312-351-5	S 150-141	B 150-141	45	M10	180
150-285	341-5	S 150-285	B 150-285	54	M12	146

421

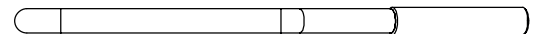
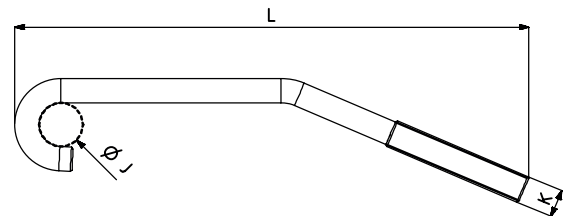
**C Kanca**  
C Hook



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	J	K	L
150-139	421-3	S 150-139	B 150-139	40	M8	159

411

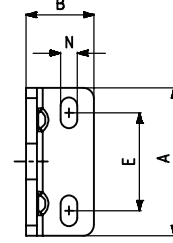
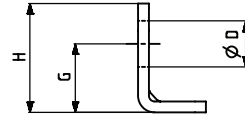
**C Kanca**  
C Hook



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	J	K	L
150-69	411-412-2	S 150-69	B 150-69	9	M6	117
150-13	411-412-3	S 150-13	B 150-13	12,5	M8	147
150-44	411-412-4	S 150-44	B 150-44	16	M10	197

511

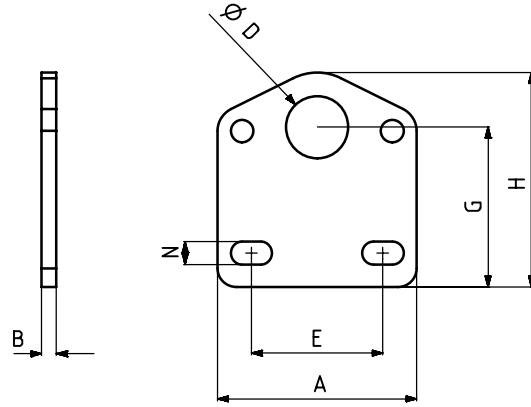
**Yatay Taban**  
Horizontal Base



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	B	Ø D	E	G	H	N
510-1-01	511-1	S 511 - ....	B 511 - ....	45	20	12,5	22,5 - 32,5	19,5	30,5	5,5x10,5
510-2-01	511-2	S 511 - ....	B 511 - ....	53	24,5	16,5	30 - 40	24,5	39	6x11
510-3-01	511-3	S 511 - ....	B 511 - ....	60	30	20,5	33,5 - 42,5	30,5	48	6,5x11
510-5-6-01	511-5 511-6	S 511 - ....	B 511 - ....	78	36	24,5	42 - 57	38	61	8,5x16

512

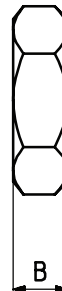
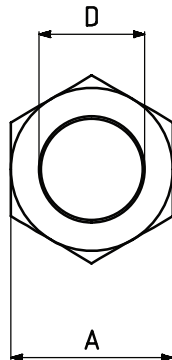
**Dik Taban**  
Vertical Base



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	B	Ø D	E	G	H	N
510-1-02	512-1	S 512 - ....	B 512 - ....	45	3	12,5	22,5 - 32,5	35	46	5,5x10,5
510-2-02	512-2	S 512 - ....	B 512 - ....	53	4	16,5	30 - 40	42,5	57	6x11
510-3-02	512-3	S 512 - ....	B 512 - ....	60	5	20,5	33,5 - 42,5	52	69	6,5x11
510-5-6-02	512-5 512-6	S 512 - ....	B 512 - ....	78	6	24,5	42 - 57	64,5	87,5	8,5x16

511-512  
513

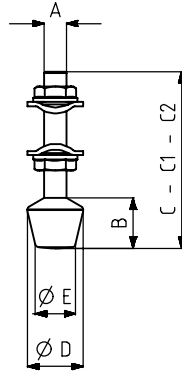
**Somun**  
Nut



KOD	MODEL NO	A	B	D
150-327	511-0	17	6	M10X1
150-103	511-512-1	19	7	M12X1.5
150-74	511-512-2	24	8	M16X1.5
150-21	511-512-3	30	9	M20X1.5
150-50	511-512-5-6	36	10	M24X1.5

911

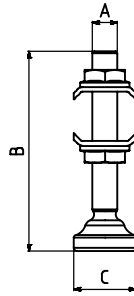
**Lastik Silikon Uç**  
Rubber Silicon Squeeze Part



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	B	C	D	E
150-181	911 - 0	S 911 - ....	B 911 - ....	M 4	7	31	10	8
150-99	911 - 1	S 911 - ....	B 911 - ....	M 5	10,5	43,5	12,5	9
150-86	911 - 2	S 911 - ....	B 911 - ....	M 6	14,5	50,5	16	10,5
150-245	911 - 2- C1	S 911 - ....	B 911 - ....	M 6	14,5	110,5	16	10,5
150-246	911 - 2- C2	S 911 - ....	B 911 - ....	M 6	14,5	130,5	16	10,5
150-87	911 - 3	S 911 - ....	B 911 - ....	M 8	18	63,5	20	14
150-247	911 - 3- C1	S 911 - ....	B 911 - ....	M 8	18	83,5	20	14
150-283	911 - 3- C2	S 911 - ....	B 911 - ....	M 8	18	143	20	14
150-88	911 - 4	S 911 - ....	B 911 - ....	M10	23,5	87	26,5	17
150-217	911 - 4- C1	S 911 - ....	B 911 - ....	M10	23,5	125	26,5	17
150-116	911 - 5	S 911 - ....	B 911 - ....	M12	27,25	100	30	21

915

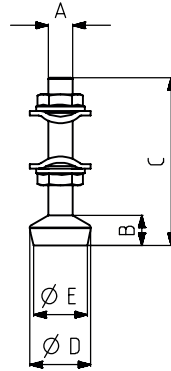
**Metal Sabit Uç**  
Fixed Metal Foot Spindle



MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	B	C
915-1	S915-1	B915-1	M5	43	Ø14
915-2	S915-2	B915-2	M6	53,5	Ø16
915-3	S915-3	B915-3	M8	64,5	Ø20
915-4	S915-4	B915-4	M10	86	Ø25
915-5	S915-5	B915-5	M12	98	Ø30

916

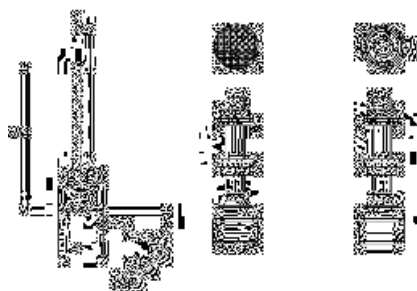
**Lastik Silikon Uç**  
Rubber Silicon Squeeze Part



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	B	C	D	E
150-324	916 - 0	S 916 - ....	B 916 - ....	M 4	5	29	10	9
150-263	916 - 1	S 916 - ....	B 916 - ....	M 5	7	40	12	10
150-264	916 - 2	S 916 - ....	B 916 - ....	M 6	10	46	16	13
150-265	916 - 3	S 916 - ....	B 916 - ....	M 8	12	57	20	16
150-266	916 - 4	S 916 - ....	B 916 - ....	M10	16	79	26	20
150-328	916 - 5	S 916 - ....	B 916 - ....	M12	19	91	30	24

912

**Metal Mafsal Uç**  
Swivel Metal Foot Spindle



913

**Metal V Mafsal Uç**  
V Grooved Swivel Metal Foot Spindle



914

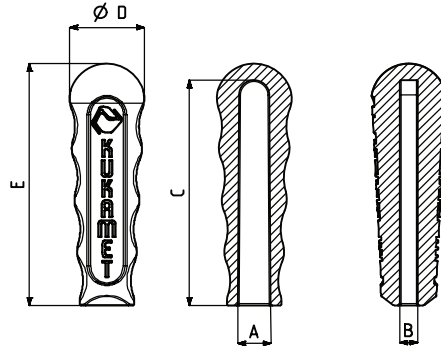
**Metal Tırtır Mafsal Uç**  
Knurled Swivel Metal Foot Spindle



MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	AÇI (ANGLE)	A	B	C
912-913-914 - 2	S 912-913-914-2	B 912-913-914-2	25°	M6	53,5	Ø15
912-913-914 - 3	S 912-913-914-3	B 912-913-914-3	25°	M8	64,5	Ø20
912-913-914 - 4	S 912-913-914-4	B 912-913-914-4	25°	M10	90	Ø26,5
912-913-914 - 5	S 912-913-914-5	B 912-913-914-5	25°	M12	104	Ø30

921

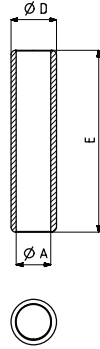
**Poliüretan Sap**  
Polyurethane Handle



MODEL NO	A	B	C	D	E
921-1	11	4	54	17,5	58
921-2	11	5	54	23	60
921-3	11	6	74	25	80
921-4	18	6	94	29	100
		8			
		10			

921-M

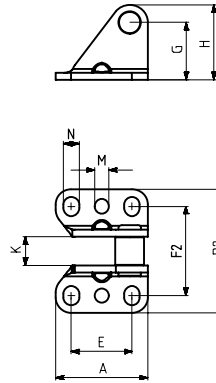
**Metal Sap**  
Metal Handle



KOD	MODEL NO	A	D	E
921-1-2-M	110-210-310-410	11,5	16	60
	510 710-810-1-2			
921-1-2-M-C1	222-232-820-2	11,5	16	110
921-3-M	110-210-310-410 510-710-810-3	12	18	80
921-3-M-C1	222-232-240-4	12	18	130
921-4-M	110-210-310-410 510-4	19	25	100
921-4-M-C1	222-232-240-6	19	25	150

961

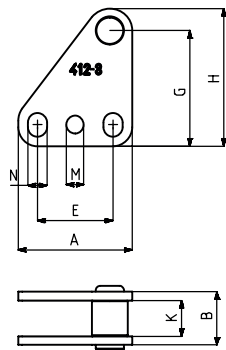
**Gerdirmeye Parçası**  
Stretcher Parts



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	E	G	H	K	M	N	F2	B2
961-2	411-2	S 961 - ....	B 961 - ....	31	12 - 18	26	31,5	10		6x9,5	30,5 - 34,5	47
961-3	411-3	S 961 - ....	B 961 - ....	38,5	19 - 25	24	31,5	12		7x10	36,5 - 38	52
961-4	411-4	S 961 - ....	B 961 - ....	50	30	40	49	16	8,5	10,5x15	56 - 65	84

962

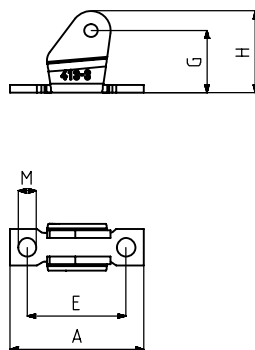
**Gerdirmeye Parçası**  
Stretcher Parts



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	B	E	G	H	K	M	N
962-2	412-2	S 962 - ....	B 962 - ....	31	15	12 - 18	40	45,5	10		6x9,5
962-3	412-3	S 962 - ....	B 962 - ....	38,5	18	19 - 25	39	46,5	12		7x10
962-4	412-4	S 962 - ....	B 962 - ....	50	24	30	67	76	16	8,5	10,5x15

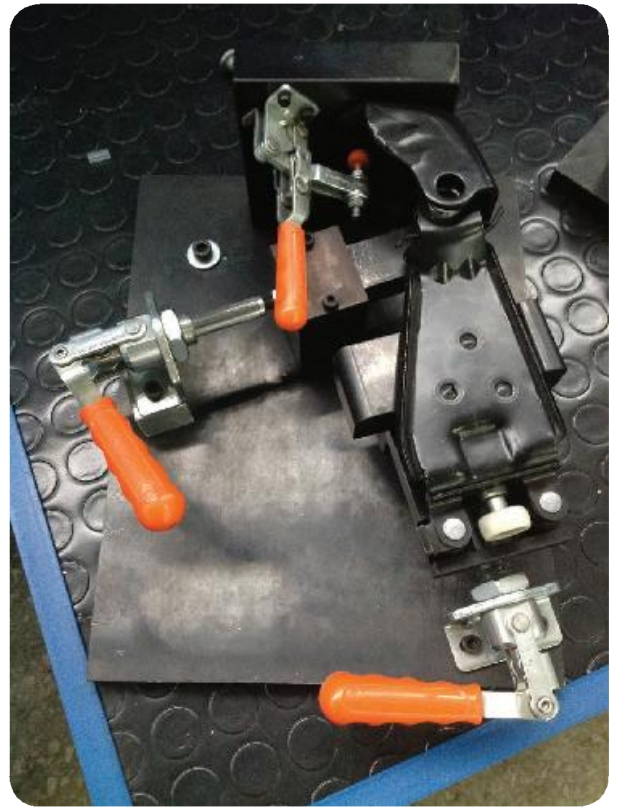
963

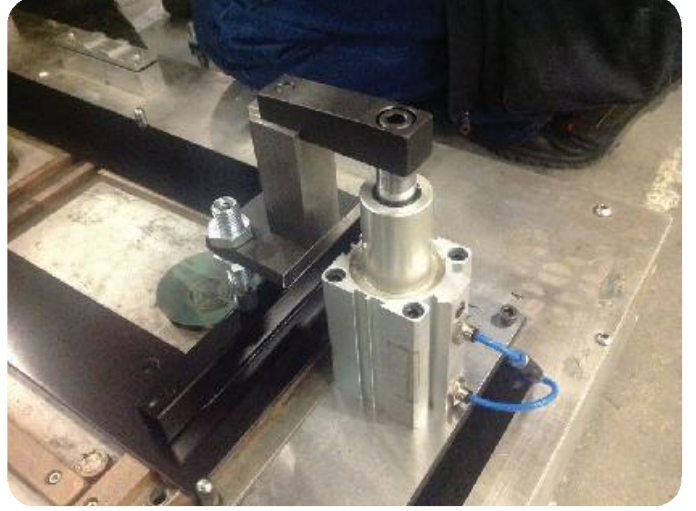
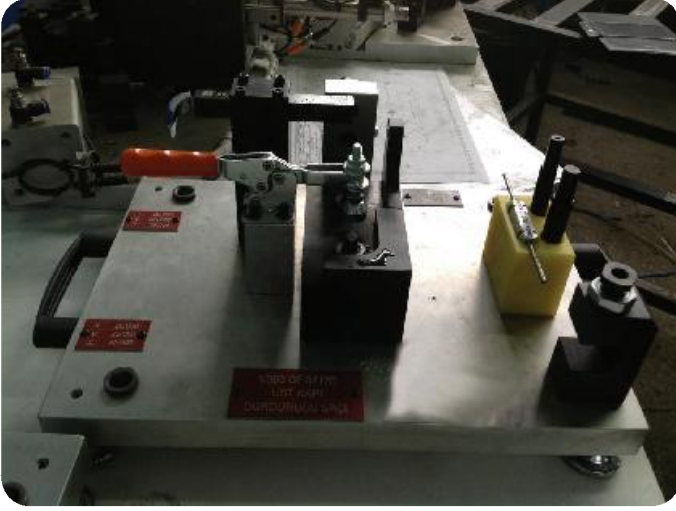
**Gerdirmeye Parçası**  
Stretcher Parts



KOD	MODEL NO	PASLANMAZ (STAINLESS)	SİYAH (BLACK)	A	E	M	G	H
963-3-03	963-3	S 963-3 - ....	B 963-3 - ....	51,5	38	Ø7	24	31,5









Mercedes-Benz  
Türk A.Ş.



FORD OTOSAN



TOFAŞ TÜRK OTOMOBİL FABRİKASI A.Ş.

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