

**Kaldırma ve Taşıma Sistemlerinde  
Profesyonel Çözümler**

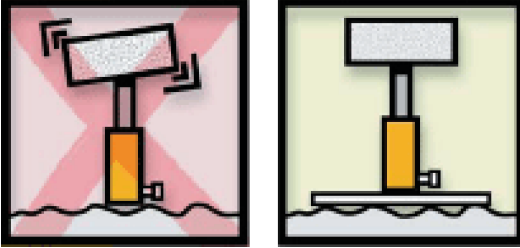
Professional Solutions in  
Material Handling

MADE  
IN  
**SPAIN**  
MADE



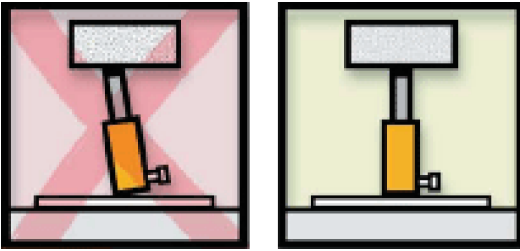
## Güvenlik Talimatları

### Safety Instructions



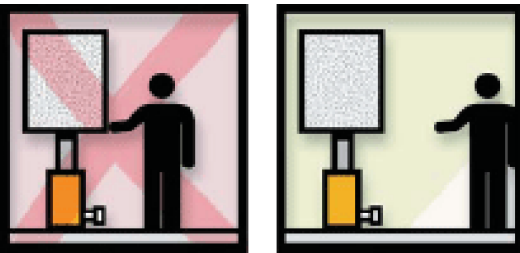
Silindir sağlam ve yatay yüzeyde olmalıdır.

Position the cylinder on a solid, even and horizontal surface



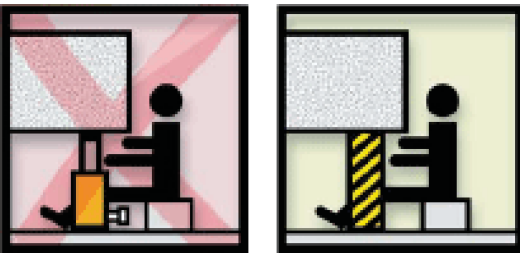
Silindiri eğimli yerlerde kullanmayınız.

Never use the cylinder on a slope.



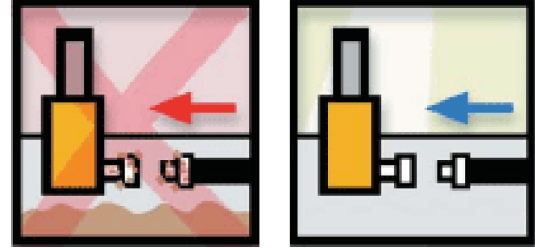
Operasyon süresince yük ile güvenli mesafe aralığını koruyunuz.

Keep a safe distance from the load during operation.



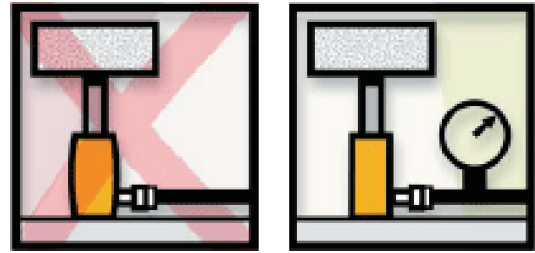
Hiçbir şekilde yükün altına girmeyiniz.

Never position any part of your body under the load.



Kaplinlerin temiz ve bağlantının emniyetli bir şekilde tamamlandığından emin olunuz.

Clean couplers before connecting and make sure the connections are securely tightened.

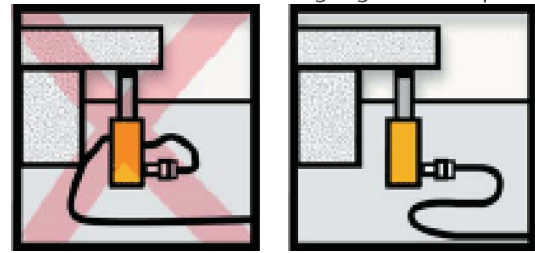


Silindir nominal kapasitesini asla aşmayınız.

Basınç kontrolü için kesinlikle ölçü aleti kullanılması tavsiye edilir.

Never exceed the rated capacity of the cylinder.

It is recommended to use a gauge to check pressure



Hortumlarda sert kıvrımlar olmasını önleyiniz ve üzerlerine obje düşürmeyiniz.

Prevent hoses from sharp bending and do not drop objects on them.



Piston tamamen geri çekilene kadar kaplin bağlantısını asla kesmeyiniz.

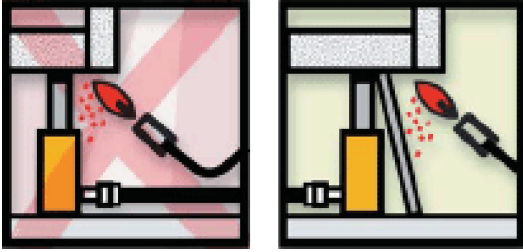
Never disconnect couplers unless the piston is fully retracted.

## Bilgilendirme

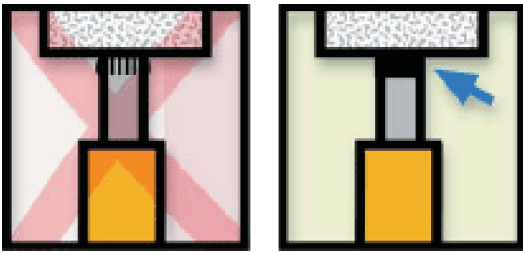
### Information

Güvenlik, kullanıcı ve bakım talimatlarını dikkatlice okuyunuz. Bu basit kurallara uyulmaması kullanıcı yaralanmalarına neden olur.

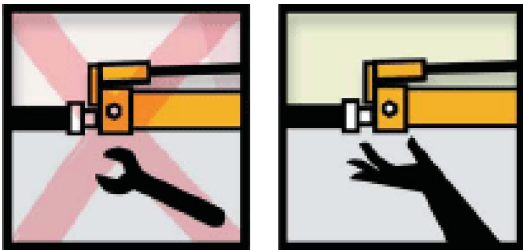
Read carefully the safety, user and maintenance instructions provided with the equipment. If these basic rules are not followed injury to the user, the hydraulic equipment or the load to be lifted may result.



Aşırı ısıdan ve 65°C üzeri sıcaklıktan kaçının.  
Avoid extreme heat and temperatures over 65°C

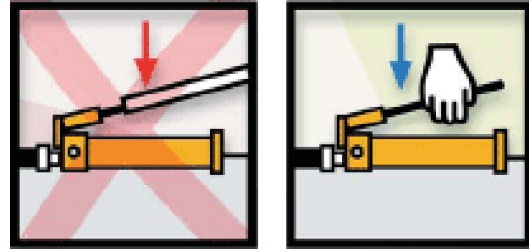


Silindiri başlık olmadan kullanmayınız.  
Başlık yükün merkezlenmesinde yardımcı olur.  
Never use cylinders without a saddle.  
The saddle helps centre the load.

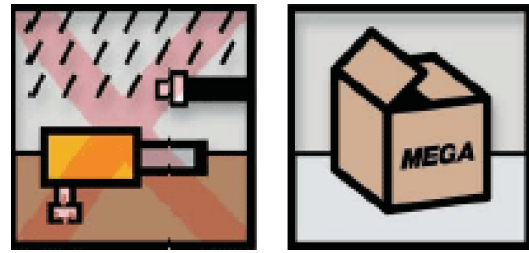


Bağlantı rakorlarını sıkarken aşırı kuvvet uygulanmaktan kaçının. Alet kullanmayınız.

Never use excessive tightening force that may damage the fittings. Do not use tools.

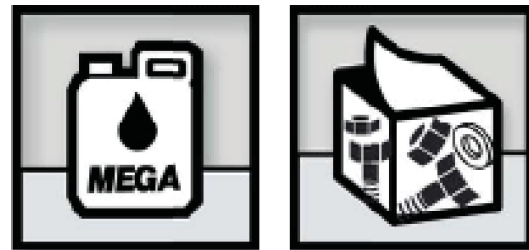


El pompaları ve krikolarda uzatma kolu kullanmayınız.  
Never use extensions on hand pumps or jacks.  
Use only the lever provided.



Cihaz bir kez kullanıldıktan sonra, onu temizleyiniz ve silindir pistonu tamamen dış etkilerden korunacak bir yerde saklayınız.

Once the device has been used, clean it and put away the cylinder piston completely in a place protected from aggressive environment.

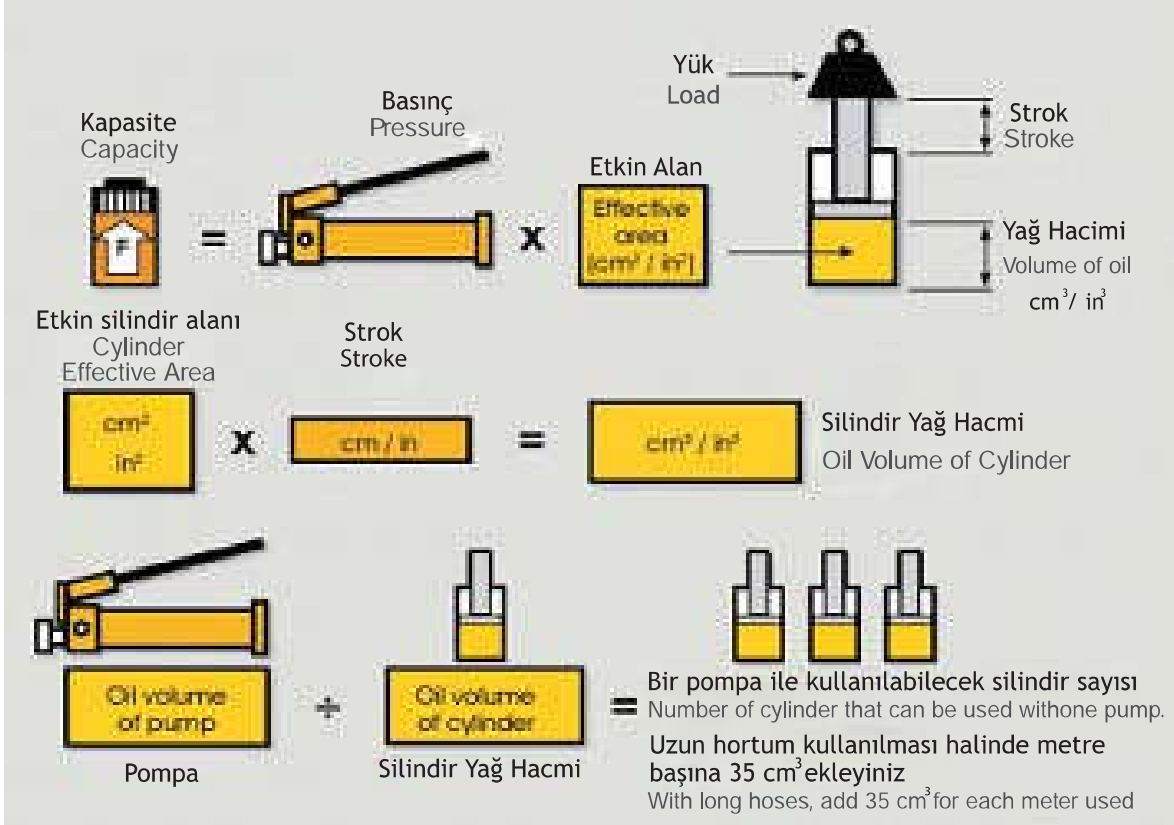


Uygun yağ kullanınız.  
Yağ fazlalığı pompayı etkisiz hale getirir.  
**ÇOK ÖNEMLİ** : Fren hidrolik yağı kullanmayınız.

Oil will render the pump inoperative.  
VERY IMPORTANT: Never use brake fluid.

# Hidrolik Formüller

## Hydraulic Formulas



## Dönüşüm Faktörleri

### Conversion factors

Aşağıda ölçü birim dönüşümlerini ve denklik tablosunu göreceksiniz. Katalogdaki ölçülerin tam olarak metrik (mm) ve inç olarak yaklaşık olduğunu unutmayınız.

We provide you with this measurement unit converter and the corresponding equivalency tables. Please note that the dimensions of this catalogue are exact in the metric system (mm) and approximate in inches.

#### Basınç (Pressure):

1 bar= 14.5psi

1 psi= 0.069 bar

1 bar= 9.8 N/c2

1kPa= 0.145 psi

#### Hacim (Volume):

1 cm3= 0.061 in3

1 in3= 16.387 cm3

1 litter= 61.02 in3

1 litter= 0.264 gal

1 USgal= 3785 cm3 / 3.785 l / 231 in3

#### Ağırlık (Weight):

1 kg= 2.205 lbs

1 libre (lb)= 0.4536 kg

1 ton= 1000 kg

1 ton = 2205 lbs

#### Alan (Area):

1 mm= 0.039 in

1 in= 25.4 mm

1 cm2= 0.155 in2

1 in2= 6.542 cm2

#### Diğer (Others):

1 hp= 0.746 kw

1 kW= 1.359 hp

1 Nm= 0.102 kg/m

1 Nm= 0.73756 Ft.lbs

1 Ft.lbs= 1.355818 Nm

1 kN= 225 lbs

#### Sıcaklık (Temperature):

C° a F° F°=(C°x1.8) + 32

F° a C° C°=(F°-32) / 18

mm	inç Inches
1.59	1/16
3.18	1/8
4.76	3/16
6.35	1/4
7.94	5/16
9.53	3/8
11.11	7/16
12.7	1/2
14.29	9/16
15.88	5/8
17.6	11/16
19.05	3/4
20.64	13/16
22.23	7/8
23.81	15/16
25.4	1

## Tek Tesirli, Yay Geri Dönümlü Silindir

### Single-Acting, Spring Return

CSRA : Genel Amaçlı / General Purpose

CSR : Düşük Yükseklik / Low Height



- Çalışma basıncı : 700 kg/cm<sup>2</sup>/10.000psi
- Bronz yataklıdır
- Üzerinde A-5507-H kaplin bulunmaktadır
- 20-40kg arasındaki tiplerde taşıma kulpu mevcuttur.
- Daha ağır tiplerde taşıma halkaları mevcuttur.
- Tüm pistonlar modele göre nitrülenmiş veya krom kaplanmıştır.

Böyle pistonlar krozyona dayanıklı ve uzun ömürlü olur.

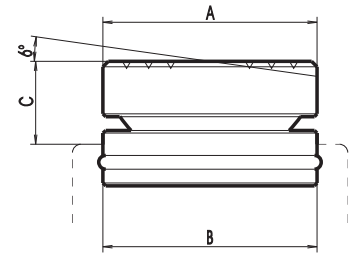
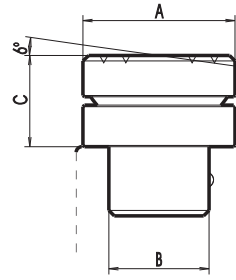
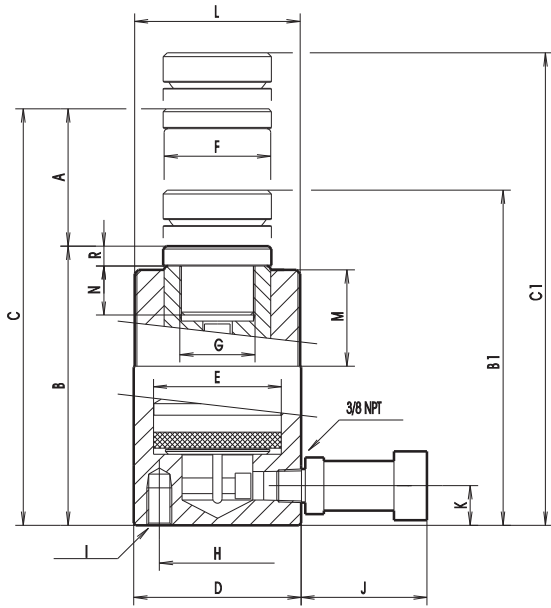
- Working pressure: 700 kg/cm<sup>2</sup>/10.000 psi.
- With built-in bronze guide for easier sliding of piston.
- They are also equipped with a high flow female quick coupler with dust cap, ref. A-5507-H.
- Carry handles on models weighing from 20 kg/44 lbs to 40 kg/88 lbs. Heavier models are fitted with eye hooks for transport.
- All pistons have a salt bath nitriding treatment or hard chrome plating, depending on the model to resist corrosion and for longer life



Kesit Görüntü  
Cross Section View

Kapasite capacity tn	Ref.	Strok Stroke A		Kapasite Maximum capacity kN	Piston Tesir Alanı Effective area cm <sup>2</sup> in <sup>2</sup>		Oynar Başlıklı with tilting saddle B <sub>1</sub> , C <sub>1</sub>							
		mm.	in.		B	B <sub>1</sub>	C	C <sub>1</sub>						
5	CSRA-5A	25	1	48,5	7,06	1,09	110	4 <sup>11/32</sup>	125	4 <sup>15/16</sup>	135	5 <sup>5/16</sup>	150	5 <sup>7/8</sup>
	CSRA-5B	75	2 <sup>15/16</sup>				160	6 <sup>15/16</sup>	175	6 <sup>7/8</sup>	235	9 <sup>1/4</sup>	250	9 <sup>7/8</sup>
	CSRA-5C	125	4 <sup>15/16</sup>				212	8 <sup>3/8</sup>	227	8 <sup>15/16</sup>	337	13 <sup>1/4</sup>	352	13 <sup>7/8</sup>
	CSRA-5D	175	6 <sup>7/8</sup>				273	10 <sup>3/4</sup>	288	11 <sup>5/16</sup>	448	17 <sup>5/8</sup>	463	18 <sup>1/4</sup>
	CSRA-5E	225	8 <sup>7/8</sup>				324	12 <sup>3/4</sup>	339	13 <sup>11/32</sup>	549	21 <sup>5/8</sup>	564	22 <sup>3/16</sup>
11	CSRA-11A	25	1	109,1	15,9	2,46	119	4 <sup>11/16</sup>	139	5 <sup>1/2</sup>	144	5 <sup>11/16</sup>	164	6 <sup>7/16</sup>
	CSRA-11B	50	2				144	5 <sup>11/16</sup>	164	6 <sup>7/16</sup>	194	7 <sup>5/8</sup>	214	8 <sup>7/8</sup>
	CSRA-11C	100	3 <sup>15/16</sup>				194	7 <sup>5/8</sup>	214	9 <sup>7/16</sup>	294	11 <sup>9/16</sup>	314	12 <sup>3/8</sup>
	CSRA-11D	150	5 <sup>15/16</sup>				244	9 <sup>5/8</sup>	264	10 <sup>3/8</sup>	394	15 <sup>1/2</sup>	414	16 <sup>5/16</sup>
	CSRA-11E	200	7 <sup>7/8</sup>				298	11 <sup>3/4</sup>	318	12 <sup>1/2</sup>	498	19 <sup>5/8</sup>	518	20 <sup>3/8</sup>
	CSRA-11F	250	9 <sup>7/8</sup>				348	13 <sup>3/4</sup>	368	14 <sup>1/2</sup>	598	23 <sup>1/2</sup>	618	24 <sup>5/16</sup>
16	CSRA-16A	25	1	163	23,75	3,68	124	4 <sup>7/8</sup>	144	5 <sup>11/16</sup>	149	5 <sup>7/8</sup>	169	6 <sup>11/16</sup>
	CSRA-16B	50	2				149	5 <sup>7/8</sup>	169	6 <sup>5/8</sup>	199	7 <sup>7/8</sup>	219	8 <sup>5/8</sup>
	CSRA-16C	100	3 <sup>15/16</sup>				200	7 <sup>7/8</sup>	220	8 <sup>11/16</sup>	300	11 <sup>13/16</sup>	320	12 <sup>5/8</sup>
	CSRA-16D	150	5 <sup>15/16</sup>				252	9 <sup>15/16</sup>	272	10 <sup>11/16</sup>	402	15 <sup>7/8</sup>	422	16 <sup>5/8</sup>
	CSRA-16E	200	7 <sup>7/8</sup>				309	12 <sup>6/32</sup>	329	13	509	20	529	20 <sup>7/8</sup>
	CSRA-16F	250	9 <sup>7/8</sup>				362	14 <sup>1/4</sup>	382	16	612	24 <sup>1/64</sup>	632	24 <sup>7/8</sup>
23	CSRA-23A	25	1	227,7	33,08	5,12	140	5 <sup>1/2</sup>	163	6 <sup>7/16</sup>	165	6 <sup>1/2</sup>	188	7 <sup>3/8</sup>
	CSRA-23B	50	2				165	6 <sup>1/2</sup>	188	7 <sup>3/8</sup>	215	8 <sup>1/2</sup>	238	9 <sup>3/8</sup>
	CSRA-23C	100	3 <sup>15/16</sup>				216	8 <sup>1/2</sup>	239	9 <sup>7/16</sup>	316	12 <sup>7/16</sup>	339	13 <sup>5/16</sup>
	CSRA-23D	150	5 <sup>15/16</sup>				267	10 <sup>1/2</sup>	290	11 <sup>7/16</sup>	417	16 <sup>3/8</sup>	440	17 <sup>5/16</sup>
	CSRA-23E	200	7 <sup>7/8</sup>				324	12 <sup>3/4</sup>	347	13 <sup>11/16</sup>	524	20 <sup>5/8</sup>	547	21 <sup>1/2</sup>
	CSRA-23F	250	9 <sup>7/8</sup>				375	14 <sup>3/4</sup>	398	15 <sup>11/16</sup>	625	14 <sup>5/8</sup>	648	25 <sup>1/2</sup>
31	CSRA-31B	50	2	303,1	44,18	6,84	194	7 <sup>5/8</sup>	219	8 <sup>5/8</sup>	244	9 <sup>5/8</sup>	269	10 <sup>5/8</sup>
	CSRA-31D	150	5 <sup>15/16</sup>				294	11 <sup>9/16</sup>	319	12 <sup>9/16</sup>	444	17 <sup>1/2</sup>	469	18 <sup>7/16</sup>
	CSRA-31E	200	7 <sup>7/8</sup>				344	13 <sup>9/16</sup>	369	14 <sup>1/2</sup>	544	21 <sup>3/8</sup>	569	22 <sup>3/8</sup>
55	CSRA-55B	50	2	539	78,54	12,17	169	6 <sup>5/8</sup>	194	7 <sup>5/8</sup>	219	8 <sup>5/8</sup>	244	9 <sup>5/8</sup>
	CSRA-55C	100	3 <sup>15/16</sup>				219	8 <sup>5/8</sup>	244	9 <sup>5/8</sup>	319	12 <sup>9/16</sup>	344	13 <sup>9/16</sup>
	CSRA-55D	150	5 <sup>15/16</sup>				269	10 <sup>5/8</sup>	294	11 <sup>9/16</sup>	419	16 <sup>1/2</sup>	444	17 <sup>1/2</sup>
93	CSRA-93B	50	2	910,9	132,73	20,57	190	7 <sup>1/2</sup>	221	8 <sup>11/16</sup>	240	9 <sup>7/16</sup>	271	10 <sup>11/16</sup>
	CSRA-93D	150	3 <sup>15/16</sup>				290	11 <sup>7/16</sup>	321	12 <sup>5/8</sup>	440	17 <sup>5/16</sup>	471	18 <sup>9/16</sup>
11	CSR-11	38	1 <sup>1/2</sup>	109,1	15,9	2,46	90	3 <sup>9/16</sup>	106	4 <sup>3/16</sup>	128	5 <sup>1/16</sup>	144	5 <sup>11/16</sup>
23	CSR-23	41	1 <sup>5/8</sup>	227,7	33,18	5,14	99	3 <sup>7/8</sup>	109	4 <sup>11/16</sup>	140	5 <sup>1/2</sup>	160	6 <sup>5/16</sup>
31	CSR-31	60	2 <sup>3/8</sup>	303,1	44,18	6,84	120	4 <sup>3/4</sup>	140	5 <sup>1/2</sup>	180	7 <sup>1/8</sup>	200	7 <sup>7/8</sup>
55	CSR-55	53	2 <sup>1/8</sup>	539	78,54	12,17	127	5	152	6	180	7 <sup>1/8</sup>	205	8 <sup>1/16</sup>
93	CSR-93	56	2 <sup>3/16</sup>	910,9	132,73	20,57	142	5 <sup>5/8</sup>	174	6 <sup>7/8</sup>	198	7 <sup>13/16</sup>	230	9 <sup>1/16</sup>





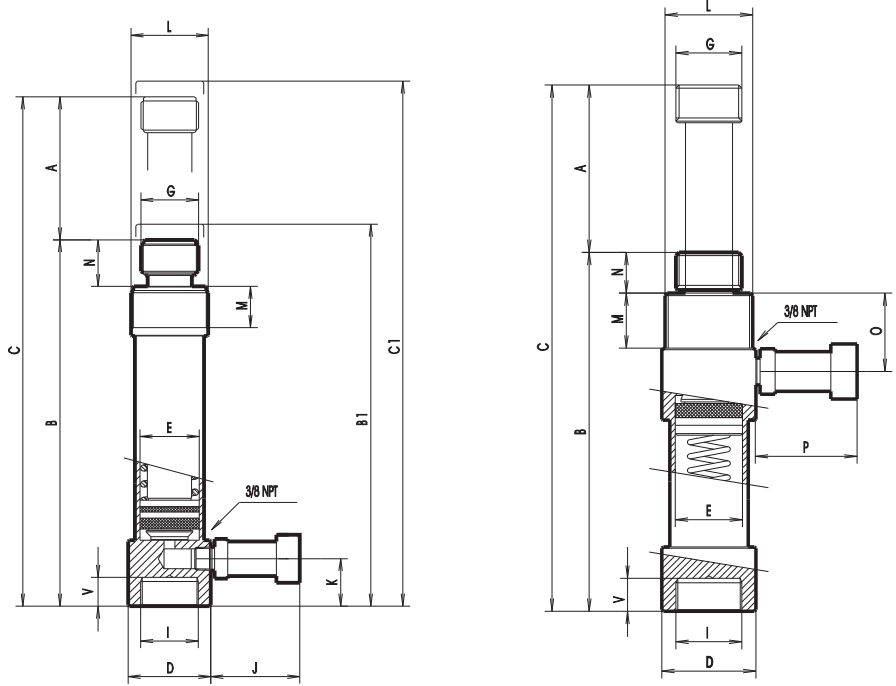
- Oynar Başlık ( Opsiyonel )
- Tilting saddle ( Optional )

Ref.	Kullanılan Silindir Used with	Ölçüler Dimensions mm/in.					
		A		B		C	
BCSRA-5	CSRA-5	26	1 1/32	17,4	11/16	15	19/32
BCSRA-11	CSRA-11, CSRA-16	40	1 9/16	22,1	7/8	20	25/32
BCSRA-23	CSRA-23, CSRA-31	55	2 11/64	36,3	1 7/16	23	29/32
BCSRA-55	CSRA-55	65	2 9/16	56	2 13/64	25	1
BCSRA-93	CSRA-93	80	3 6/32	73,5	2 7/8	31	1 7/32

Ölçüler Dimensions mm/in.												Yağ Hacmi Oil volume		Ağırlık Weight	
D	E	F	G	H	I	J	K	L	M	N	R	cm <sup>3</sup>	in <sup>3</sup>	Kg.	lbs.
40 9/16	30 1 3/16	26 1 1/32	3/4-16UNF	25 63/64	1/4-20UNC	70 2 3/4	20 25/32	1 1/2-16UN	29 1 9/64	16 5/8	6 15/64	18	1,1	1	2,2
												54	3,3	1,45	3,2
												90	5,5	1,92	4,2
												126	7,7	2,48	5,6
												162	9,9	2,94	6,5
60 1 1/32	45 1 49/64	39 1 17/32	1-8UNC	40 1 9/16	5/16-18UNC	70 2 3/4	20 25/32	2 1/4-14UNS	27 1 1/16	17 11/16	6 15/64	40	2,45	2,4	5,3
												80	4,9	2,9	6,4
												160	9,75	3,9	8,6
												240	14,65	4,9	10,8
												320	19,5	6	13,2
70 3/4	55 2 11/64	46 1 13/16	1-8UNC	48 1 7/8	3/8-16UNC	70 2 3/4	20 25/32	2 3/4-16UN	30 1 3/16	17 11/16	10 25/64	60	3,65	3,45	7,6
												120	7,3	4,15	9,15
												240	14,65	5,55	12,2
												360	22	7	15,4
												480	29,3	8,6	19
85 1 1/32	65 2 9/16	54 2 1/8	1 1/2-16UN	59 2 5/16	1/2-13UNC	70 2 3/4	20 25/32	3 5/16-12UNS	49 1 15/16	25 1	10 25/64	600	36,6	10,1	22,3
												83	5,05	5,8	12,8
												166	10,1	6,8	15
												332	20,2	8,95	19,7
												498	30,4	11,1	24,5
100 15/16	75 2 61/64	57,15 2 1/4	1 1/2-16UN	---	---	70 2 3/4	37 1 7/16	3 5/16-12UNS	51 2	25 1	10 25/64	664	40,5	13	28,7
												830	50,6	15,5	34,2
												220	13,4	11	24,2
												660	40,3	16,7	36,8
												880	53,7	19,5	43
130 1/64	100 3 15/16	80 3 6/32	---	95 3 3/4	1/2-13UNC	70 2 3/4	20 25/32	5-12UN	45 1 25/32	---	2 6/64	392	23,9	15,9	36
												784	47,8	20,6	45,4
												1176	71,8	25,3	55,8
175 7/8	130 5 1/8	105 4 9/64	---	---	---	70 2 3/4	47 1 27/32	6 7/8-12UN	50 1 31/32	---	2 6/64	664	40,5	32,3	71,2
												1992	121,6	49,3	108,7
15/16	45-1 9/16	39-1 17/32	---	---	---	70-2 3/4	23-15/16	---	---	---	2- 6/64	60	3,66	3	6,6
1 1/16	55-2 11/64	54-2 1/8	---	---	---	70-2 3/4	23-15/16	---	---	---	2- 6/64	97	6	5,1	11,2
104-4 1/8	75-2 61/64	57-2 1/4	---	---	---	70-2 3/4	23-15/16	---	---	---	2,5-3/32	265	16,18	7,7	16,9
136-5 3/8	100-3 15/16	80-3 6/32	---	---	---	70-2 3/4	24-31/32	---	---	---	2,5-3/32	420	25,7	14	30,8
174-6 7/8	130-5 1/64	105-4 9/64	---	---	---	70-2 3/4	27,5-1 1/16	---	---	---	2,5-3/32	750	45,8	24	52,8

## CC: İtme - PUSHING 5-20t CT: Çekme - PULLING 2,5-10t

- Çalışma basıncı 700 bar  
Üzerinde toz kapaklı A-5507-H kaplin bulunmaktadır
- Tüm pistonlar modele bağlı olarak endüksiyonla sertleştirilmiş ve nitrürlenmiştir.
- Working pressure: 700 kg/cm<sup>2</sup>/10.000 psi.  
Each ram is equipped with a female quick coupler with air dust cap, ref. A-5507-H.
- All pistons have an induction hardening treatment or a salt nitriding process depending on the model



Kesit görüntü  
Cross section view ( CC )

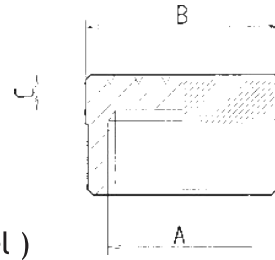
Kapasite capacity t	Ref.	Strok Stroke		Kapasite Maximum capacity kN	Piston tesir alanı Effective area		Otnar başlık ile With Tilting Saddle B <sub>1</sub> , C <sub>1</sub>							
		mm.	in.		cm <sup>2</sup>	in <sup>2</sup>	B	B <sub>1</sub>	C	C <sub>1</sub>				
5	CC-5A	50	2	55	8,04	1,24	177	6 15/16	184	7 5/16	227	8 15/16	235	9 1/4
	CC-5B	115	4 1/2				284	11 3/16	292	11 1/2	399	15 11/16	407	16
10	CC-10A	50	2	99,6	14,52	2,25	191	7 1/2	201	7 15/16	241	9 1/2	251	9 7/8
	CC-10B	135	5 5/16				332	13 1/16	342	13 7/16	467	18 3/8	477	18 3/4
20	CC-20A	50	2	194	28,27	4,38	216	8 1/2	228	9	266	10 1/2	278	10 15/16
	CC-20B	130	5 1/8				364	14 5/16	376	14 13/16	494	19 7/16	506	19 15/16
2,5	CT-2,5	127	5	29,1	4,24	0,65	270	10 5/8	---	---	397	15 5/8	---	---
5	CT-5	138	5 7/16	51,1	7,45	1,15	311	12 1/4	---	---	449	17 11/16	---	---
10	CT-10	138	5 7/16	99	14,41	2,23	318	12 1/2	---	---	456	17 15/16	---	---

# Tek tesirli, Yay geri dönüşlü

## Single-acting, spring return

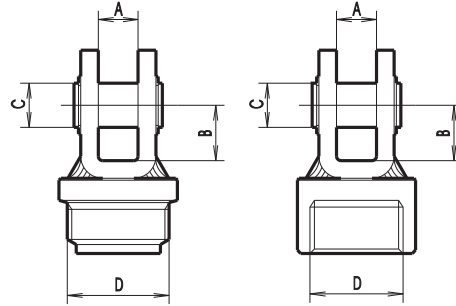


Kesit görüntü  
Cross section view ( CT )



- Yivli Başlık ( Opsiyonel )
- Grooved saddle ( optional )

Ref.	Kullanım Used with	Ölçüler Dimensions mm/in.				
		A	B	C		
A-5142	CC-5 SERIES	M26 x 2	32	1 17/64	8	5/16
A-5042	CC-10 SERIES	M42 x 2,5	54	2 7/8	10	25/64
A-5242	CC-20 SERIES	M60 x 2,5	74	2 29/32	12	15/32



- Çekme ve itme için opsiyonel ataçmanlar
- Attachments for pulling and pushing pistons ( optional )

Ref.	Kullanım Used with	Ölçüler Dimensions mm/in.						
		A		B		C		D
A-5188 A-5189	CC-5, CT-2,5 SERIES	18	23/32	25	1	20	25/32	M26 x 2
A-5088 A-5089	CC-10, CT-5 SERIES	18	23/32	25	1	20	25/32	M42 x 2,5
A-5288 A-5289	CC-20, CT-10 SERIES	18	23/32	30	1 3/16	20	25/32	M60 x 2,5

Ölçüler Dimensions mm/in.													Yağ Hacmi Oil volume		Ağırlık Weight								
D	E	G	I	J	K	L	M	N	O	P	V	cm <sup>3</sup>	in <sup>3</sup>	Kg.	lbs.								
45	1 49/64	32	1 1/4	M26 x 2	M26 x 2	70	33	1 5/16	M38 x 1,5	22	7/8	20	13/16	----	----	18	11/16	40	2,44	1,35	3		
						30	30	1 3/16											92	5,61	2,2	4,9	
60	2 11/32	43	1 11/16	M42 x 2,5	M42 x 2,5	70	38	1 1/2	M56 x 2	36	1 7/16	26	1 1/32	----	----	21	13/16	73	4,45	2,4	5,3		
						23/4	35	1 3/8											196	11,96	4,35	9,6	
79	3 1/8	60	2 11/32	M60 x 2,5	M60 x 2,5	70	44	1 3/4	M84 x 2	48	1 7/8	30	1 3/16	----	----	23	7/8	141	8,6	5,5	12,1		
						23/4	40	1 9/16											368	22,46	10	2,2	
45	1 49/64	32	1 1/4	M26 x 2	M26 x 2	----	----	----	M38 x 1,5	24	15/16	21	1 13/16	70	2 3/4	70	2 3/4	16	5/8	54	3,29	2,25	5
60	2 11/32	43	1 11/16	M42 x 2,5	M42 x 2,5	----	----	----	M56 x 2	35	1 3/8	24	15/16	70	2 3/4	70	2 3/4	21	13/16	103	6,28	3,9	8,6
79	3 1/8	60	2 3/8	M60 x 2,5	M60 x 2,5	----	----	----	M84 x 2	35	1 3/8	27	1 1/16	70	2 3/4	70	2 3/4	21	13/16	199	12,14	8	17,6

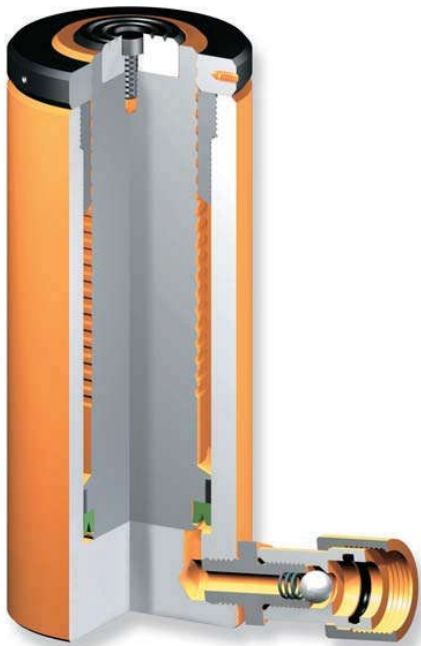
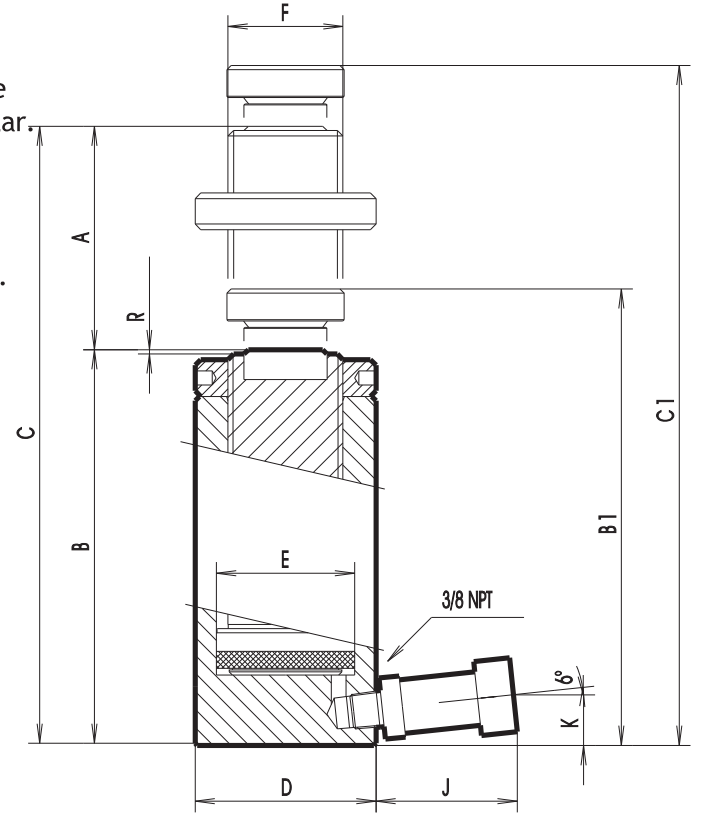


# Emniyet Kilitli Hidrolik Silindirler

With Security Lock Nut

**CSF 31 - 500 t**

- Çalışma basıncı : 700 kg/cm<sup>2</sup>/10.000psi
- Bronz yataklıdır
- Yük kaldırıldıktan sonra emniyet somunu dişli piston üzerinde aşağı kadar indirilerek yükün mekanik olarak taşınmasını sağlar.
- 20-40kg arasındaki tiplerde taşıma kulpu mevcuttur. Daha ağır tiplerde taşıma halkaları mevcuttur.
- Tüm pistonlar korozyona dayanıklı olması için nitrürlenmiştir.
- Working pressure: 700 kg/cm<sup>2</sup>/10.000 psi.
- The mechanical lock of load is effected by a safety lock nut at the piston extension desired.
- With built-in bronze guide for easier sliding of piston.
- Carry handles on models weighing from 20 kg/44 lbs to 40 kg/88 lbs. Heavier models are fitted with eye hooks for transport.
- All pistons have a salt bath nitriding treatment to resist corrosion



Kapasite Capacity t	Ref.	Strok Stroke		Kapasite Maximum capacity kN	Piston Tesir Alanı Effective area		Oynar Başlıklı With Tilting Saddle B <sub>1</sub> , C <sub>1</sub>					
		mm.	in.		cm <sup>2</sup>	in <sup>2</sup>	B	B <sub>1</sub>	C			
31	CSF-31D	150	5 15/16	303,1	44,18	6,84	272	10 11/16	294	11 9/16	422	16 5/8
55	CSF-55D	150	5 15/16	539	78,54	12,17	293	11 1/2	318	12 1/2	443	17 7/16
93	CSF-93D	150	5 15/16	910,9	132,73	20,57	326	12 13/16	356	14	476	18 3/4
200	CSF-200D	150	5 15/16	1945,8	283,52	43,95	374	14 3/4	424	16 11/16	524	20 5/8
300	CSF-300D	150	5 15/16	2976,5	433,73	67,24	435	17 1/8	500	19 11/16	585	23
	CSF-300F	250	9 7/8				545	21 7/16	610	24	795	31 5/16
400	CSF-400D	150	5 15/16	4017,1	585,35	90,75	450	17 11/16	528	20 3/4	600	23 5/8
	CSF-400F	250	9 7/8				560	22	638	25 1/8	810	31 7/8
500	CSF-500D	150	5 15/16	5014	730,6	113,27	475	18 11/16	563	22 3/16	625	24 5/8
	CSF-500F	250	9 7/8				585	23	673	26 1/2	835	32 7/8

# Tek Tesirli Yük Geri Dönüslü

## Single-acting, Load ,Return

Ağır endüstride ağır yüklerle uzun süreli çalışmalarda kullanılır.

Mekanik kilitleme sayesinde kaldırma-  
dan sonra pompa sistemden ayrılabilir

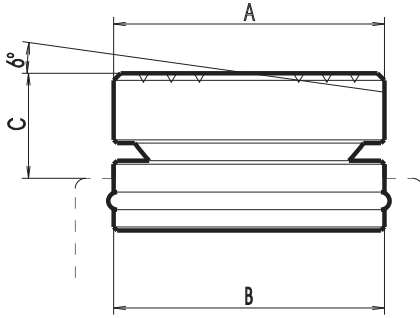
Yük altında güvenli çalışma sağlar.

Particularly recommended for foundations support in construction, bridge building and maintenance of heavy machinery in periods public works or steel industry specially.

when load must be kept on hold for long The safety lock nut allows disconnection of the pump and ensure total safety conditions when operating under the load.



■ Oynar Başlık (opsiyonel) With tilting saddle ( Optional )



Ref.	Kullanım Used with	Ölçüler Dimensions mm/in.					
		A		B		C	
BCSB-31	CSF-31 SERIES	55	2 11/64	39	1 17/32	22	55/64
BCSRA-55	CSF-55 SERIES	65	2 9/16	56	2 13/64	25	1
BCSRA-93	CSF-93 SERIES	80	3 6/32	73,5	2 7/8	31	1 7/32
BCSB-200	CSF-200 SERIES	138	5 7/16	124	4 7/8	50	2
BCSB-300	CSF-300 SERIES	155	6 1/64	130	5 1/8	65	2 9/16
BCSB-400	CSF-400 SERIES	185	7 9/32	160	6 5/16	78	3 5/64
BCSB-500	CSF-500 SERIES	205	8 1/16	180	7 3/32	88	3 15/32

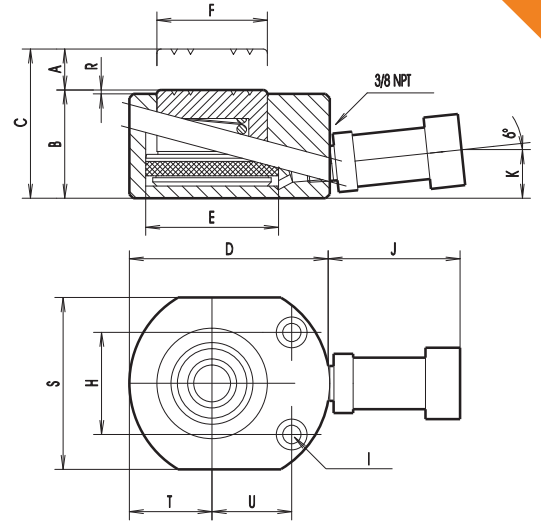
Ölçüler Dimensions mm/in.												Yağ Hacmi Oil volume		Ağırlık Weight		
C <sub>1</sub>	D	E	F	J	K	R	cm <sup>3</sup>		in <sup>3</sup>		Kg.	lbs.				
444	17 1/2	100	3 15/16	75	2 61/64	TR 2 1/4 x 5	70	2 3/4	23	15/16	2	5/64	660	40,3	14,5	32
468	18 7/16	130	5 1/8	100	3 15/16	TR 80 x 5	70	2 3/4	23	15/16	2	5/64	1176	71,8	27,2	60
506	19 15/16	175	6 7/8	130	5 1/8	TR 105 x 5	70	2 3/4	47	1 27/32	2	5/64	1992	121,6	56,4	125
574	22 5/8	242	9 9/16	190	7 1/2	TR 160x 5	70	2 3/4	62	2 7/16	5	3/16	4252	259,6	125	275
650	25 5/8	302	11 7/8	235	9 1/4	TR 180 x 5	70	2 3/4	78	3 1/16	5	3/16	6506	397,2	222	490
860	33 7/8												10843	662	269	593
678	26 11/16	349	13 3/4	270	10 5/8	TR 220 x 5	70	2 3/4	88	3 7/16	5	3/16	8780	536	315	695
888	35												14633	894	383	845
713	28 1/16	392	15 7/16	305	12	TR 260 x 5	70	2 3/4	91	3 9/16	5	3/16	10960	669	427	940
923	36 5/16												18265	1115	515	1135

## Basık Silindirler

### Flat Cylinders

#### CSE 5-93t

- Çalışma basıncı : 700 kg/cm<sup>2</sup>/10.000psi  
Tabanında montaj için delik mevcuttur.
- Tüm pistonlar korozyona dayanıklı olması için nitrülenmiştir.
- Working pressure: 700 kg/cm<sup>2</sup>/10.000 psi.  
With mounting holes in the base.
- All pistons have a salt bath nitriding treatment to resist corrosion



Cross section view

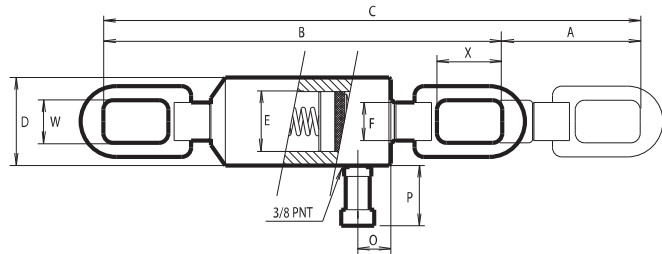
Nominal capacity #	Ref.	Strok Stroke		Kapasite Maximum capacity kN	Piston Tesir Alanı Effective area		B		C	
		mm.	in.		cm <sup>2</sup>	in <sup>2</sup>				
5	CSE-5	6,5	1/4	48,5	7,06	1,09	34	1 3/8	40,5	1 19/32
11	CSE-11	11	7/16	109,1	15,9	2,46	44,5	1 3/4	55,5	2 3/8
23	CSE-23	11	7/16	227,7	33,08	5,12	54	2 1/8	65	2 9/16
31	CSE-31	12	15/32	303,1	44,18	6,84	60	2 11/32	72	2 27/32
55	CSE-55	16	5/8	539	78,54	12,17	72	2 27/32	88	3 15/32
93	CSE-93	16	5/8	910,9	132,73	20,57	88	3 15/32	104	4 3/8

## Çekme Silindirleri

### Pulling Cylinders

#### CTN

- Çalışma basıncı : 700 kg/cm<sup>2</sup>/10.000psi  
Tüm pistonlar krom kaplama olup, korozyona dayanıklıdır.  
Çekme ve germe operasyonları için dizayn edilmiştir.  
Her iki taraftaki bağlantı gözleri, ataçmana kaynaklanan plakalara bağlanarak kullanılır.  
Tek tesirli yay geri dönüşlü  
Çalışma alanı dar yerlerde kullanılır.  
Yay geri dönüşü sayesinde kullanıldığı yerden rahatça çıkartılabilir.



All pistons have a hard chrome plating treatment to resist corrosion.

Designed for pulling and tensioning applications, they can be used in those operations where two heavy pieces have to be put one near the other.

They are fitted with clevis eyes on both ends which are linked to attachments welded onto the plates to join or weld.

Kapasite capacity #	Ref.	Strok Stroke		Kapasite Maximum capacity kN	Piston Tesir Alanı Effective area		B		C		D	
		mm.	in.		cm <sup>2</sup>	in <sup>2</sup>						
10	CTN-10	127	5	98,95	14,42	2,23	475	18 11/16	625	24 9/16	85	3 11/16
30	CTN-30	150	5 15/16	331,8	48,34	7,49	625	24 9/16	775	30 1/2	125	4 15/16
50	CTN-50	150	5 15/16	497,2	72,45	11,23	770	30 9/16	920	36 7/32	155	6 1/8

# Tek Tesirli, Yay Geri Dönüşlü

## Single-Acting , Spring Return

Çalışma basıncı : 700 kg/cm<sup>2</sup>/10.000psi  
 Tüm pistonlar krom kaplama olup, korozyona dayanıklıdır.  
 Çekme ve germe operasyonları için dizayn edilmiştir.  
 Her iki taraftaki bağlantı gözleri, ataçmana kaynaklanan plakalara bağlanarak kullanılır.

These CSE cylinders have been designed to combine minimum collapsed height with optimum stroke.

They are suitable for lifting, clamping, levelling or positioning jobs where space is tight.



Ölçüler Dimensions mm/in.																Yağ Hacmi Oil volume		Ağırlık Weight							
D	E	F	H	I	J	K	R	S	T	U	cm <sup>3</sup>	in <sup>3</sup>	Kg.	lbs.											
60	2 11/32	30	1 3/16	26	1 1/32	28	1 3/32	5,5	7/32	60	2 11/32	17	11/16	1	3/64	41	1 5/8	20	13/16	22	7/8	5	0,77	0,75	1,65
79	3 1/8	45	1 49/64	39	1 17/32	37	1 29/64	6,6	1/4	70	2 3/4	23	15/16	1	3/64	56	2 13/64	28	1 1/4	34	1 5/16	18	2,8	1,75	3,85
98	3 7/8	65	2 9/16	54	2 1/8	50	2	9	23/64	70	2 3/4	23	15/16	1	3/64	80	3 1/8	40	1 9/16	37	1 7/16	37	5,73	3,2	7,05
115	4 17/32	75	2 61/64	57,15	2 1/4	52	2 3/64	9	23/64	70	2 3/4	23	15/16	1	3/64	94	3 11/16	47	1 13/16	44	1 3/4	53	8,2	4,8	10,5
147	5 25/32	100	3 15/16	80	3 6/32	70	2 3/4	11	7/16	70	2 3/4	23	15/16	1	3/64	124	4 7/8	62	2 7/16	58	2 5/16	125	19,4	9,4	20,7
180	7 3/32	130	5 1/64	105	4 9/64	76	3	14	9/16	70	2 3/4	23	15/16	1	3/64	160	6 5/16	80	3 1/8	75	2 15/16	212	32,8	17,2	37,9

# Tek tesirli yay geri dönüşlü

## Single-acting, spring return

### CTN 10-50t



Ölçüler Dimensions mm/in.							Yağ Hacmi Oil volume		Ağırlık Weight						
E	F	O	P	W	X	3	in <sup>3</sup>	Kg.	lbs.						
60	2 11/32	42	1 21/32	35	1 3/8	70	2 3/4	40	1 9/16	75	2 15/16	183	11,15	9,6	21,1
100	3 15/16	62	2 7/16	40	1 9/16	70	2 3/4	50	2	100	3 15/16	725	44,3	22,1	48,6
125	4 15/16	80	3 6/32	44	1 3/4	70	2 3/4	60	2 11/32	150	5 15/16	1085	66,2	37	81,4

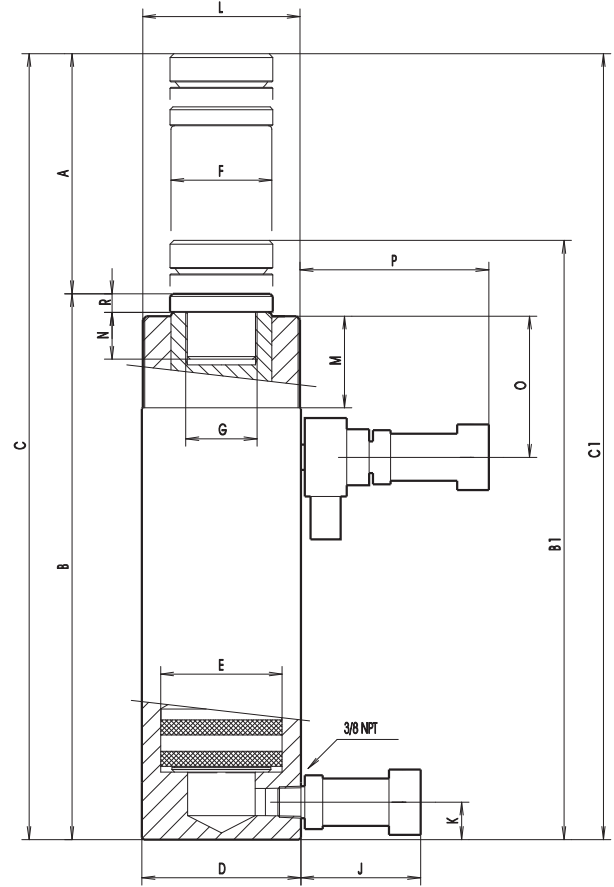
# Çift Tesirli Silindirler

## Double-Acting Cylinders

**CDRA 9-39**

**CD 200-500t**

- Çalışma basıncı : 700 kg/cm<sup>2</sup> / 10.000psi  
Bronz yataklıdır
- Üzerinde A-5538 emniyet valfi bulunmaktadır.
- Üzerinde toz kapaklı A5507H kaplin bulunmaktadır.
- 20-40kg arasındaki tiplerde taşıma kulpu mevcuttur.
- Daha ağır tiplerde taşıma halkaları mevcuttur.
- Tüm pistonlar modele göre nitrürlenmiş veya krom kaplanmıştır.  
Böyle pistonlar krozyona dayanıklı ve uzun ömürlü olur.



**Kesit Görüntü**

Cross section view

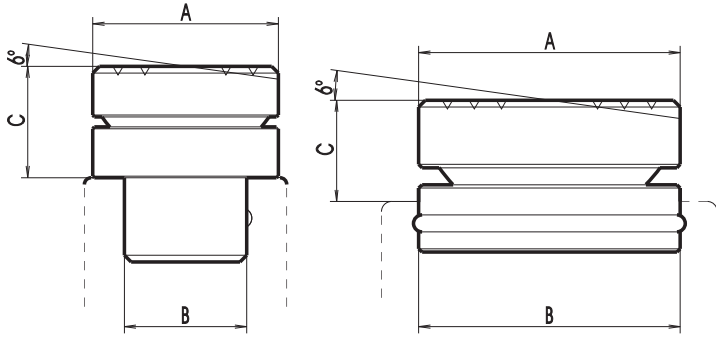
E = İtme (Pushing)  
T = Çekme (Pulling)

Kapasite capacity lb	Ref.	Strok Stroke mm. A in.		Kapasite Maximum capacity kN	Piston Tesir Alanı Effective area			Oynar Başlıklı With Tilting Saddle B <sub>1</sub> , C <sub>1</sub>						
		cm <sup>2</sup>	in <sup>2</sup>		B	B <sub>1</sub>	C	C <sub>1</sub>						
9	CDRA-9D	150	5 15/16	E 86,24 T 31,72	E 12,56 T 4,62	E 1,94 T 0,71	285	11 3/16	305	12	435	17 1/8	455	17 15/16
23	CDRA-23D	150	5 15/16	E 227,7 T 70,54	E 33,18 T 10,28	E 5,12 T 1,6	315	12 7/16	338	13 5/16	465	18 5/16	488	19 7/32
31	CDRA-31D	150	5 15/16	E 303,1 T 127,3	E 44,18 T 18,55	E 6,84 T 2,87	338	13 5/16	363	14 9/32	488	19 7/32	513	20 3/16
55	CDRA-55D	150	5 5/16	E 539 T 194,07	E 78,54 T 28,28	E 12,17 T 4,38	321	12 5/8	361	14 7/32	471	18 17/32	511	20 1/64
	CDRA-55F	250	9 7/8				421	16 9/16	461	18 9/64	671	26 13/32	711	28
93	CDRA-93D	150	5 5/16	E 910,9 T 316,6	E 132,73 T 46,14	E 20,57 T 7,15	355	14	401	15 3/4	505	19 7/8	551	21 11/16
	CDRA-93F	250	9 7/8				455	17 7/8	501	19 3/4	705	27 3/4	751	29 9/16
200	CD-200D	150	5 5/16	E 1945,8 T ----	E 283,52	E 43,95	356	14	406	16	506	19 15/16	556	21 7/8
	CD-200F	250	9 7/8				456	17 7/8	506	10 1/8	706	27 3/4	756	29 3/4
300	CD-300D	150	5 5/16	E 2976,5 T ----	E 433,73	E 67,24	412	16 7/32	477	18 3/4	562	19 15/16	627	24 11/16
	CD-300F	250	9 7/8				512	20 6/32	577	22 11/16	762	30	827	32 9/16
400	CD-400D	150	5 5/16	E 4017,1 T ----	E 585,35	E 90,75	417	16 13/32	495	19 1/2	567	22 5/16	645	25 3/8
	CD-400F	250	9 7/8				517	20 11/32	595	23 7/16	767	30 3/16	845	33 1/4
500	CD-500D	150	5 5/16	E 5014 T ----	E 730,6	E 113,27	439	17 9/32	527	20 3/4	589	23 3/16	677	26 5/8
	CD-500F	250	9 7/8				539	21 7/32	627	24 11/16	789	31 1/16	877	34 1/2





- Working pressure: 700 kg/cm /10.000psi
- With built-in bronze guide for easier sliding of piston.
- Fitted with a relief safety valve, ref. A-5538 on the piston retract side, to prevent accidental overpressure.
- These cylinders are fitted with a removable grooved saddle, pressure mounted or screwed in the piston head. Are also equipped with a high flow female quick coupler with dust cap, ref. A-5507-H.
- Carry handles on models weighing from 20 kg/44 lbs to 40 kg/88 lbs. Heavier models are fitted with eye hooks for transport.
- All pistons have a salt bath nitriding treatment or hard chrome plating, depending on the model to resist corrosion and for longer life



## ■ Oynar Başlık (Opsiyonel)

## ■ Tilting saddle ( Optional )

Ref.	Kullanım Used with	Ölçüler Dimensions mm/in.					
		A		B		C	
BCSRA-11	CDRA-9	40	1 9/16	22,1	7/8	20	25/32
BCSRA-23	CDRA-23, CDRA-31	55	2 11/64	36,3	1 7/16	23	29/32
BCDRA-55	CDRA-55	65	2 9/16	22,7	57/64	40	1 9/16
BCDRA-93	CDRA-93	80	3 6/32	42,2	21/32	46	1 13/16
BCSB-200	CD-200	138	5 7/16	124	4 7/8	50	2
BCSB-300	CD-300	155	6 1/64	130	5 1/8	65	2 9/16
BCSB-400	CD-400	185	7 9/32	160	6 5/16	78	3 5/64
BCSB-500	CD-500	205	8 1/16	180	7 3/32	88	3 15/32

Ölçüler Dimensions mm/in.												Yağ Hacmi Oil volume		Ağırlık Weight														
D	E	F	G	J	K	L	M	N	O	P	R	cm <sup>3</sup>	in <sup>3</sup>	Kg.	lbs.													
60	2 11/32	40	1 37/64	31,8	1 1/4	1 - 8 UNC	70	2 3/4	23	15/16	2 1/4 - 14 UNS	27	1 1/16	17	11/16	47	1 7/8	113	4 7/16	6	15/64	E 190	E 11,6					
																							T 53	T 3,23			5,8	12,7
85	3 3/8	65	2 9/16	54	2 1/8	1 1/2 - 16 UN	70	2 3/4	23	15/16	3 5/16 - 12 UNS	49	1 15/16	25	1	70	2 3/4	113	4 7/16	10	25/64	E 500	E 30,5			10,4	22,9	
																							T 155	T 9,46				
100	3 15/16	75	2 61/64	57,15	2 1/4	1 1/2 - 16 UN	70	2 3/4	37	1 7/16	3 5/16 - 12 UNS	49	1 15/16	25	1	75	2 7/8	113	4 7/16	10	25/64	E 665	E 40,6			19,8	43,5	
																							T 280	T 17,1				
130	5 1/8	100	3 15/16	80	3 6/32	1 - 12 UNF	70	2 3/4	23	15/16	5 - 12 UN	45	1 3/4	38	1 1/2	65	2 9/16	113	4 7/16	15	19/32	E 1175	E 71,8			28,2	62	
																							T 425	T 26				
175	6 7/8	130	5 1/8	105	4 9/64	1 3/4 - 12 UN	70	2 3/4	47	1 27/32	6 7/8 - 12 UN	50	2	50	2	70	2 3/4	113	4 7/16	15	19/32	E 1965	E 120			37	81,4	
																							T 707	T 43,1				
242	9 9/16	190	7 1/2	150	5 15/16	----	70	2 3/4	62	2 7/16	----	----	----	----	----	65	2 9/16	113	4 7/16	5	3/16	E 1992	E 121,6			60,3	132,6	
																							T 692	T 42,2				
302	11 7/8	235	9 1/4	170	6 11/16	----	70	2 3/4	78	3 1/16	----	----	----	----	----	82	3 1/4	113	4 7/16	5	3/16	E 3318	E 202,5			77,3	170	
																							T 1154	T 70,5				
349	13 3/4	270	10 5/8	210	8 1/4	----	70	2 3/4	84	3 5/16	----	----	----	----	----	90	3 9/16	113	4 7/16	5	3/16	E 4253	E 260			135	297	
																							T 7088	T 432,7			173	380
392	15 7/16	305	12	240	9 7/16	----	70	2 3/4	90	3 17/32	----	----	----	----	----	82	3 1/4	113	4 7/16	5	3/16	E 6506	E 397			210	462	
																							E 10845	E 662			261	574
																							E 8590	E 525			301	662
																							E 14315	E 87,4			373	820
																							E 10960	E 670			388	853
																							E 18265	E 115			476	1047



# Delik Pistonlu Silindirler

## Hollow Piston Cylinders

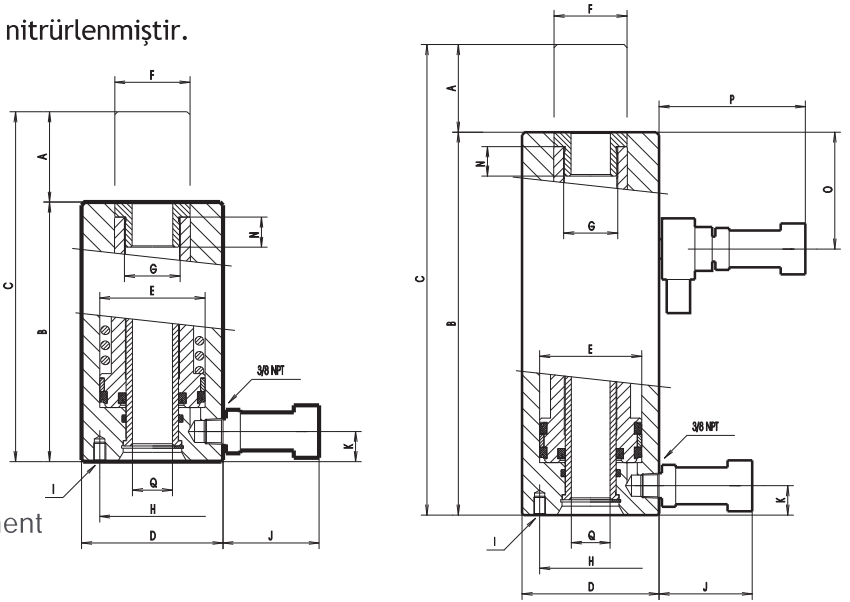
**CSH-Tek Tesirli / Single-Acting 12 - 90 t**

**CDH-Çift Tesirli / Double-Acting 30 - 90 t**

- Çalışma basıncı : 700 kg/cm<sup>2</sup>/10.000psi
- Bronz yataklıdır
- 20-40kg arasındaki tiplerde taşıma kulpu mevcuttur. Daha ağır tiplerde taşıma halkaları mevcuttur.
- Üzerinde A-5538 emniyet valfi bulunmaktadır.
- Tüm pistonlar korozyona dayanıklı olması için nitrürlenmiştir.



- Working pressure: 700 kg/cm
- With built-in bronze guide for easier sliding of piston.
- These cylinders are fitted with a removable saddle, and are also equipped with a high flow female quick coupler with dust cap, ref. A-5507-H.
- With mounting holes and threaded areas for easy coupling or special tooling applications.
- All pistons have a salt bath nitriding treatment to resist corrosion



**Kesit Görüntü**  
Cross section view ( CSH )

Kapasite capacity t	Ref.	Strok Stroke		Kapasite Maximum capacity kN	Piston Tenir Alanı Effective area									
		mm.	in.		cm <sup>2</sup>	in <sup>2</sup>	B	C	D	E				
12	CSH-12	41	1 5/8	119,3	18,03	2,8	145	5 11/16	186	7 5/16	70	2 3/4	55	2 11/16
20	CSH-20	48	1 7/8	196,6	28,86	4,5	172	6 3/4	220	8 11/16	95	3 3/4	70	2 3/4
30	CSH-30	63	2 1/2	291,7	42,51	6,6	200	7 7/8	263	10 3/8	110	4 5/16	85,72	3 3/8
60	CSH-60	76	3	578,8	84,34	13	245	9 5/8	321	12 5/8	155	6 1/8	125	4 15/16
90	CSH-90	76	3	867	133	20,6	272	10 11/16	348	13 11/16	200	7 7/8	165,1	6 1/2
30	CDH-30	150	5 15/16	291,7	42,51	6,6	296	11 11/16	446	17 9/16	110	4 5/16	85,72	3 3/8
60	CDH-60	150	5 15/16	578,8	84,34	13	302	11 7/8	452	17 13/16	155	6 1/8	125	4 15/16
90	CDH-90	150	5 15/16	880	133	20,6	310	12 3/16	460	18 1/4	200	7 7/8	165,1	6 1/2

## CSH-Tek tesirli yay geri dönüşlü CDH- Çift tesirli hidrolik geri dönüşlü

**CSH:** Single-acting, spring return **12 - 90 t**

**CDH:** Double-acting, hydraulic return **30 - 90 t**

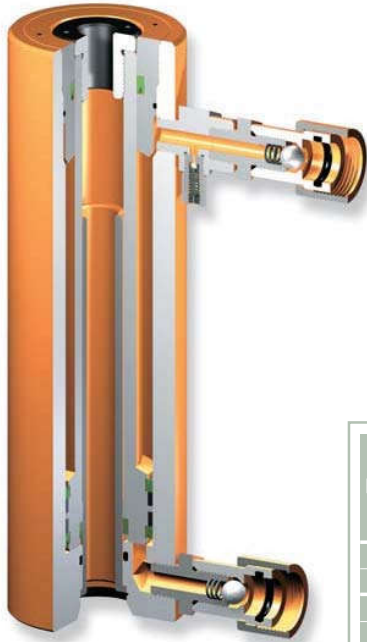
The hollow cylinders can be used for general applications of pushing or lifting forces.

Additionally, they feature a centre-hole piston which allows the insertion of a rod or screw, attachable to the threaded saddle, that travels through the cylinder for pulling or pushing operations.

Ideal for tensioning, extracting, gear and pin removal etc.

Delik pistonlu silindirler genel amaçlı kullanılabilir.

Ek olarak pistonun deli olması pim, civata vb. şekilde montajı ve sökmesinde kullanılabilir rulman ve pim sökme takma için idealdir

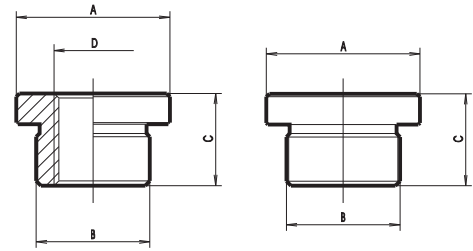


**Kesit Görüntü**

Cross section view (CDH)



- Delik Dişli Başlık (Opsiyonel)  
Düz Başlık (Opsiyonel)
- Threaded saddle (Optional)  
Grooved saddle (Optional)



Ref.	Kullanım Used with	Ölçüler Dimensions mm/in.							
		A		B		C		D	
BRC SH-12 BMCSH-12	CSH-12	38	1 1/2	M29 x 15 27,2 1 6/64		28	1 1/64	3/4 - 16 UNF ----	
BRC SH-20 BMCSH-20	CSH-20	50	2	M37 x 1,5 35,2 1 25/64		30	1 3/16	1 - 8 UNC ----	
BRC SH-30 BMCSH-30	CSH-30, CDH-30	61	2 13/32	M46 x 1,5 44,2 1 3/4		32	1 1/4	1 1/4 - 7 UNC ----	
BRC SH-60 BMCSH-60	CSH-60, CDH-60	93	3 21/32	M72 x 1,5 70,2 2 49/64		37	1 29/64	1 5/8 - 5 1/2 UNS ----	
BMCSH-90	CSH-90, CDH-90	127	5	M104 x 1,5		42	1 21/32	----	

Ölçüler Dimensions mm/in.										Yağ Hacmi Oil volume		Ağırlık Weight									
F	G	H	I	J	K	N	O	P	Q	cm <sup>3</sup>	in <sup>3</sup>	Kg.	lbs.								
38,5	1 23/64	M29 x 1,5	50,8	2	5/16 - 18 UNC	70	2 3/4	20	25/32	20	25/32	----	----	19,5	49/64	74	4,5	3,8	8,3		
50,5	2	M37 x 1,5	82,6	3 1/4	3/8 - 16 UNC	70	2 3/4	20	25/32	20	25/32	----	----	26,5	1 3/64	140	8,5	8	17,6		
62	2 7/16	M46 x 1,5	92,1	3 5/8	3/8 - 16 UNC	70	2 3/4	20	25/32	22	7/8	----	----	33	1 19/64	270	16,5	13	28,6		
94	3 45/64	M72 x 1,5	130,2	5 1/8	1/2 - 13 UNC	70	2 3/4	20	25/32	25	1	----	----	53,5	2 1/64	640	39	26,6	58,5		
128	5 3/64	M104 x 1,5	----	----	----	70	2 3/4	38	1 1/2	30	1 3/16	----	----	79	3 1/64	1010	61,6	65	143		
62	2 7/16	M46 x 1,5	92,1	3 5/8	3/8 - 16 UNC	70	2 3/4	20	25/32	22	7/8	47	1 27/32	113	4 7/16	33	1 19/64	638	39	19,2	42,2
94	3 45/64	M72 x 1,5	130,2	5 1/8	1/2 - 13 UNC	70	2 3/4	20	25/32	25	1	48	1 7/8	113	4 7/16	53,5	2 1/64	1265	77,2	32,7	72
128	5 3/64	M104 x 1,5	----	----	----	70	2 3/4	38	1 1/2	30	1 3/16	50	2	113	4 7/16	79	3 1/64	1995	121,8	74	163

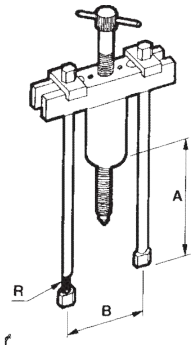
# Çektirmeler Pullers

## Çubuk Çektirmeler

### Rod pullers

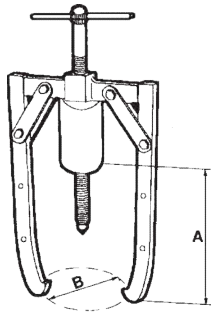
Rulman çektirme, ataçman ile birlikte kullanıldığında silindir kapasitesinin 2/3'ü aşılmamalıdır.

When used with a bearing pulling attachment, the load to be applied should not exceed 2/3 of the nominal capacity of the cylinder.



Kapasite capacity tn	Ref.	Ölçüler Dimensions mm./in						Ayak uzunluğu Length of leg		Mekanik set Mechanical set Ref.	Silindir Cylinder Ref.	Pompa Pump Ref.	Hortum Hose Ref.	
		A		B		R	mm.	in.						
10	TF-1	140	5 1/2	240	9 7/16		115	4 9/16	5/8 x 18	180	7 3/32	TFM-1	CSH-12	BM-04
20	TF-2	280	11 1/16	325	12 13/16	135	5 5/16	5/8 x 18	209	8 1/4	TFM-2	CSH-20	BM-04	A-5555
30	TF-3	305	12	450	17 11/16	200	7 7/8	1 x 14	328	12 15/16	TFM-3	CSH-30	BM-04	A-5555
50	TF-5	410	16 1/8	580	22 13/16	230	9 1/16	1 1/4 x 12	504	19 13/16	TFM-4	CSH-60	BM-1	A-5555

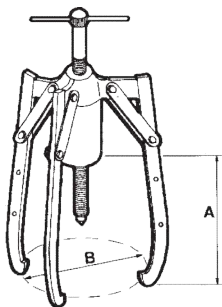
## İki Ayaklı Çektirmeler Grip pullers



Kapasite capacity tn	Ref.	Ölçüler Dimensions mm./in				Mekanik set Mechanical set Ref.	Silindir Cylinder Ref.	Pompa Pump Ref.	Hortum Hose Ref.	Ağırlık Weight	
		A		B						Kg.	lbs.
10	G-12	230	9 1/16	200	7 7/8	GM-12	CSH-12	BM-04	A-5555	16	
20	G-22	310	12 3/16	270	10 5/8	GM-22	CSH-20	BM-04	A-5555	22	
30	G-32	400	15 3/4	380	15	GM-32	CSH-30	BM-04	A-5555	36	
50	G-52	500	19 11/16	500	19 11/16	GM-52	CSH-60	BM-1	A-5555	85	

## Üç Ayaklı Çektirmeler

### Three-grip pullers

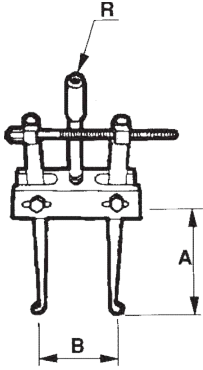


Kapasite capacity tn	Ref.	Ölçüler Dimensions mm./in				Mekanik set Mechanical set Ref.	Silindir Cylinder Ref.	Pompa Pump Ref.	Hortum Hose Ref.	Ağırlık Weight	
		A		B						Kg.	lbs.
10	G-13	230	9 1/16	200	7 7/8	GM-13	CSH-12	BM-04	A-5555	18	

# Çektirme Setleri Complete Puller Sets

## İç çektirmeler

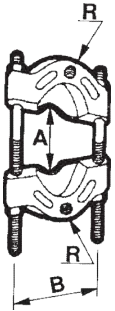
Bearing cup puller



Kapasite capacity tn	Ref.	Ölçüler Dimensions mm./in							Ağırlık Weight	
		A		B		R	Kg.	lbs.		
		Max.	Min.	Max.	Min.					
10	IF-1	102	4 1/64	153	6 1/64	38	1 1/2	3/4 x 16 UNF	2,5	5,5
20	IF-2	102	4 1/64	153	6 1/64	38	1 1/2	1 x 8 UNC	2,5	5,5
30	IF-3	149	5 7/8	230	9 1/16	76	3	1 1/4 x 7 UNC	6	13,2
50	IF-5	149	5 7/8	230	9 1/16	76	3	1 5/8 x 5 1/2 UNS	6	13,2

## Rulman çektirme ataçmanı

Bearing pulling attachment



Kapasite capacity tn	Ref.	Ölçüler Dimensions mm./in						Ağırlık Weight		
		A		B	R	Kg.	lbs.			
		Max.	Min.							
10	A-5519	117	4 5/8	20	25/32	110	4 5/16	5/8 x 18	2,6	5,7
20	A-5502	152	6	25	1	152	6	5/8 x 18	6,5	14,3
30	A-5503	340	13 3/8	35	1 3/8	255	10 3/64	1 x 14	24	52,9
50	A-5504	350	13 3/4	50	1 31/32	330	3	1 1/4 x 12	80	176,4

## Çektirme seti

Complete puller sets

Pompa, hortum, rulman, silindir çektirme ataçmanı, 3 ayaklı çektirme : Bu komponentler ayrı ayrı da

They consist of a pump, hose, cylinder, three-grip puller, bearing cup puller, double crosshead, bearing pulling attachment screw, screw cap and gauge

Each component can be supplied separately.



Kapasite capacity tn	Ref.	2 ayak	3 ayak	Çektirme Rod puller Ref.	İç Çektirme Bearing cup puller Ref.	Rulman Çektirme Bearing cup attachment Ref.	Silindir Cylinder Ref.	Pompa Pump Ref.	Hortum Hose Ref.	Kaplin Gauge Ref.	Ağırlık Weight	
		2-grip Ref.	3-grip Ref.								Kg.	lbs.
10	EHM-10	GM-12	GM-13	TFM-1	IFM-1	A-5519	CSH-12	BM-04	A-5555	A-5584G	32	70,5
20	EHM-20	GM-22	GM-23	TFM-2	IFM-2	A-5502	CSH-20	BM-04	A-5555	A-5584G	50	110,2
30	EHM-30	GM-32	GM-33	TFM-3	IFM-3	A-5503	CSH-30	BM-04	A-5555	A-5585G	100	220
50	EHM-50	GM-52	GM-53	TFM-5	IFM-5	A-5504	CSH-60	BM-1	A-5555	A-5585G	255	562

## Tek Tesirli El Pompaları

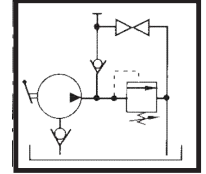
Single-acting hand pumps

**Tek Tesirli Tek Hızlı**

**BM-04, BM-1, BM-2 and BMPA-1**

Üzerinde maksimum çalışma kapasitesine göre emniyet valfi mevcuttur.

With a safety relief valve, factory rated at the maximum working capacity.

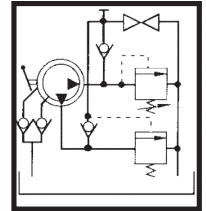


Hidrolik Şema  
Hydraulic diagram



**Tek Tesirli Çift Hızlı**

**BM-3, BMAP-3, BM-6 and BM-12**



Hidrolik Şema  
Hydraulic diagram

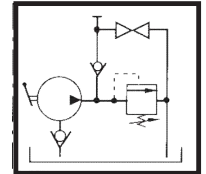


**BK-05, BK-09**

**Dikey el pompaları. Tek ve çift hızlı**

Vertical hand pumps. Single and two-speed.

Hidrolik Şema  
Hydraulic diagram



Vertical pump

Ref.	Çalışma Basıncı Working pressure		Etkin Yağ Hacmi Effective oil volume		Yağ Hareket Hacmi Oil flow per stroke									
	kg/cm <sup>2</sup>	psi	cm <sup>3</sup>	in <sup>3</sup>	1. Kademe		2. Kademe		A		B		C	
BM-04	700	10000	400	24,4	-	-	2,5	0,15	460	18 1/4	127	5	137	5 13/32
BM-1	700	10000	1250	76,3	-	-	2,5	0,15	590	23 7/32	133	5 1/4	155	6 1/4
BM-2	700	10000	2000	122	-	-	2,5	0,15	570	22 7/16	155	6 1/4	175	6 7/8
BMAP-1	1500	21430	1250	76,3	-	-	1	0,06	590	23 7/32	142	5 5/8	155	6 1/4
BK-05	700	10000	650	39,7	-	-	2,5	0,15	625	24 5/8	180	7 3/32	144	5 11/16
BKD-09	700	10000	1100	67,1	8	0,5	2,5	0,15	625	24 5/8	228	8 15/16	233	9 3/16
BM-3	700	10000	3000	183	19	1,15	2,5	0,15	700	27 9/16	135	5 5/16	185	7 9/32
BMAP-3	1500	21430	3000	183	18	1,1	1,15	0,07	700	27 9/16	135	5 5/16	185	7 9/32
BM-6	700	10000	6000	366	19	1,15	2,5	0,15	700	27 9/16	168	6 5/8	185	7 9/32
BM-12	700	10000	12000	732	19	1,15	2,5	0,15	700	27 9/16	290	11 7/16	185	7 9/32
BMD-3	700	10000	3000	183	19	1,15	2,5	0,15	730	27 9/16	146	5 3/4	185	7 9/32
BMD-6	700	10000	6000	366	19	1,15	2,5	0,15	730	27 9/16	168	6 5/8	185	7 9/32
BMD-12	700	10000	12000	732	19	1,15	2,5	0,15	730	27 9/16	290	11 7/16	185	7 9/32



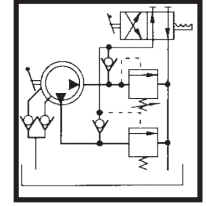
# Çift Tesirli El Pompaları

## Double-acting hydraulic hand pumps

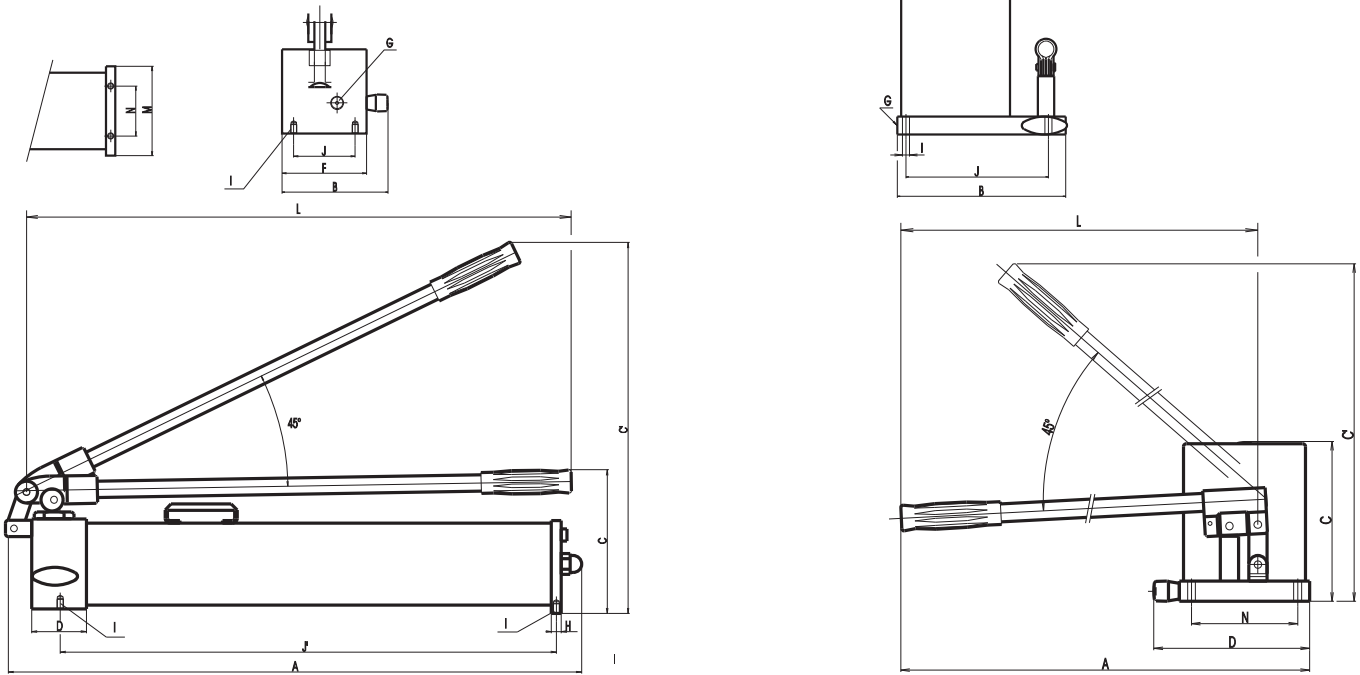
### BMD-3, BMD-6 and BMD-12

Çift tesirli ve çift hız.  
Tek tesirli ve tek hızlı pompalarla benzer teknik avantajları vardır.

These are double acting and two-speed hand pumps.  
They all feature same technical advantages as the single acting one-speed pumps.



Hidrolik Şema  
Hydraulic diagram



Ölçüler mm/in.  
Dimensions mm/in.

Ağırlık  
Weight

C'	D	F	G	H	I	J	J'	L	M	N	Kg.	lbs.									
440	17 5/16	30	1 3/16	97	3 13/16	3/8-18NPT	33	1 5/16	8,5	1 1/32	-	-	400	15 3/4	-	-	50	2	4,25	9,4	
610	24	30	1 3/16	104	4 1/4	3/8-18NPT	33	1 5/16	8,5	1 1/32	-	-	600	23 5/8	-	-	80	3 6/32	6,7	14,8	
630	14 13/16	30	1 3/16	140	5 1/2	3/8-18NPT	33	1 5/16	8,5	1 1/32	-	-	600	23 5/8	-	-	90	3 9/16	12	26,5	
610	24	30	1 3/16	112	4 7/16	1/4-19GAS	33	1 5/16	8,5	1 1/32	-	-	600	23 5/8	-	-	80	3 6/32	7,2	15,9	
610	24	140	5 1/2	-	-	3/8-18NPT	-	-	8,5	1 1/32	-	-	600	23 5/8	-	-	96	3 3/4	7	15,4	
610	24	140	5 1/2	-	-	3/8-18NPT	-	-	8,5	1 1/32	-	-	600	23 5/8	-	-	96	3 3/4	9,5	20,9	
595	23 7/16	67	2 5/8	110	4 5/16	3/8-18NPT	12	1 5/32	M8x1,25	80	3 6/32	607	23 7/8	665	26 3/16	80	3 6/32	65	2 9/16	14	30,9
595	23 7/16	67	2 5/8	110	4 5/16	1/4-19GAS	12	1 5/32	M8x1,25	80	3 6/32	607	23 7/8	665	26 3/16	80	3 6/32	65	2 9/16	14	30,9
595	23 7/16	67	2 5/8	110	4 5/16	3/8-18NPT	10	2 5/64	M6x1	130	5 1/8	-	-	665	26 3/16	165	6 1/2	-	-	20	44,1
595	23 7/16	67	2 5/8	110	4 5/16	3/8-18NPT	10	2 5/64	-	-	-	-	665	26 3/16	290	11 7/16	-	-	25	55,1	
595	23 7/16	125	4 15/16	110	4 5/16	3/8-18NPT	12	1 5/32	M8x1,25	80	3 6/32	607	23 7/8	665	26 3/16	80	3 6/32	65	2 9/16	17	37,5
595	23 7/16	125	4 15/16	110	4 5/16	3/8-18NPT	10	2 5/64	M6x1	130	5 1/8	-	-	665	26 3/16	165	6 1/2	-	-	23	50,7
595	23 7/16	125	4 15/16	110	4 5/16	3/8-18NPT	10	2 5/64	-	-	-	-	665	26 3/16	290	11 7/16	-	-	28	61,7	



# Hava Tahrikli Hidrolik Pompalar

## Air hydraulic pumps

### NS-1, NS-21, NS-22 and NAP-3

Tek tesirli tek hızlı

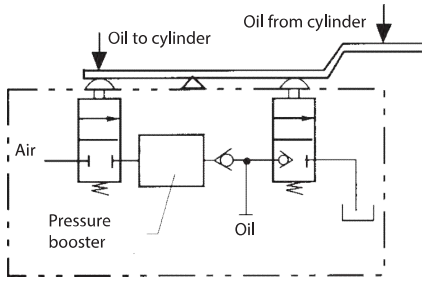
Elektriğin olmadığı yada tehlikeli alanlarda kullanılır

Üzerinde maksimum çalışma kapasitesine göre emniyet valfi mevcuttur.

Single-acting, one-speed air pumps.

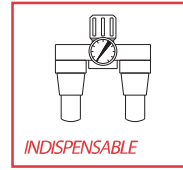
Air driven pumps for operation where electric power is not available or dangerous.

With safety relief valve, factory rated at the maximum working pressure.



Önerilen Hava Basıncı :  
7-10kg/cm<sup>2</sup> / 100-140 psi.  
Minimum hava akışı :  
270l/dk / 59,39gpm

Recommended air pressure:  
7-10 kg/cm<sup>2</sup> / 100-140 psi  
Minimum air flow:  
270 l/min. / 59,39 gpm



Önemli : Korozyona dayanıklılık ve uzun ömür için pompayla birlikte hava filtresi, regülatör ve yağ ünitesinin kullanılması önerilir.

Important. It is recommended the use of an air filter-regulator-lubricator unit with these pumps to resist corrosion and for longer life.

# Elektro-Hidrolik Pompa

## Electric pumps

**BES-5, BES-10, BES-20 ve BES-30 : Tek tesirli**  
**BED-5, BED-10, BED-20 ve BED-30 : Çift tesirli**

Çift kademeli

Çalışma basıncı 700kg/cm<sup>2</sup> / 10.000psi.

Üzerinde maksimum çalışma kapasitesine göre emniyet valfi mevcuttur.

Frekans : 50Hz:220/380V-1,5kW-2HP-1400rpm

Frekans : 60Hz:265/460V-1,7kW-2,3HP-1700rpm

They have a two-stage, radial pump that provides a working pressure of 700 kg/cm<sup>2</sup> / 10.000 psi.

With safety relief valve, factory rated at the maximum working pressure. For a continuous operation, pressure should not exceed 560 kg/cm<sup>2</sup> / 8.000 psi.

Frequency: 50 Hz.: 220/380 V - 1,5 kW - 2 HP - 1400 rpm.

Frequency: 60 Hz.: 265/460 V - 1,7 kW - 2,3 HP - 1700 rpm.



# Tek Tesirli Single-acting

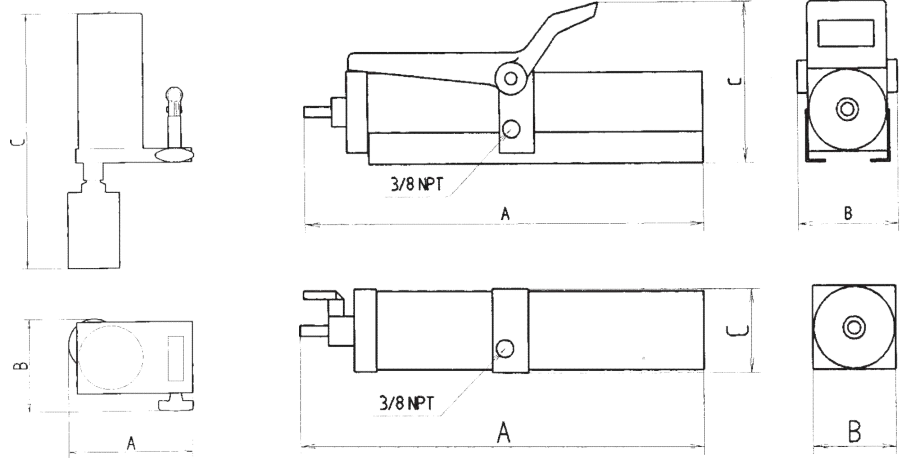
## BKN-09

Manuel ve hava tahrikli pompa Pnömatik kullanımı hızlı piston hareketine olanak sağlar. Hassas presleme işlemleri veya basınçlı hava kaynağı olmadığı durumlarda manuel kullanım gerekir.

Manual and air powered pump.

The pneumatic operation allows for a faster movement of the piston.

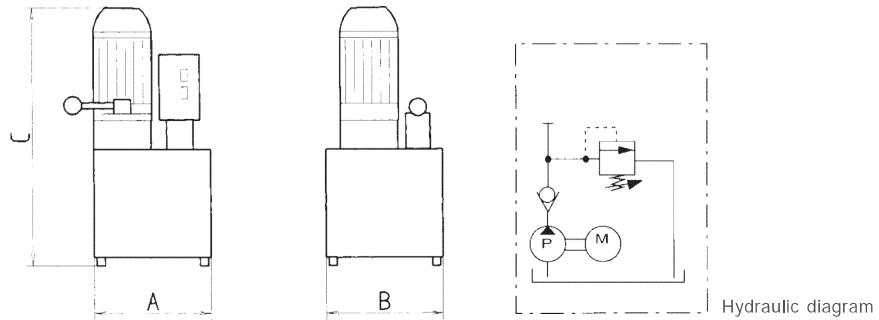
The manual operation is required for precision pressing jobs or when compressed air supply is not available.



Ref.	Çalışma Basıncı Working pressure		Yağ Hacmi Effective oil volume		Yağ Akışı Oil flow		Yağ Hareket Hacmi Oil flow per stroke		Ölçüler Dimensions mm/in.			Ağırlık Weight				
	kg/cm <sup>2</sup>	psi.	cm <sup>3</sup>	in <sup>3</sup>	cm <sup>3</sup> /min	in <sup>3</sup> /min	cm <sup>3</sup>	in <sup>3</sup>	A	B	C	Kg.	lbs.			
NS-1	700	10000	500	30,5	50	3,05	-	-	440	17 <sup>5</sup> / <sub>16</sub>	120	4 <sup>3</sup> / <sub>4</sub>	150	5 <sup>7</sup> / <sub>8</sub>	7	15,5
NS-21	700	10000	1250	76,3	50	3,05	-	-	697	27 <sup>7</sup> / <sub>16</sub>	120	4 <sup>3</sup> / <sub>4</sub>	150	5 <sup>7</sup> / <sub>8</sub>	8	17,6
NS-22	225	3215	1000	61	155	9,45	-	-	606	23 <sup>7</sup> / <sub>8</sub>	120	4 <sup>3</sup> / <sub>4</sub>	150	5 <sup>7</sup> / <sub>8</sub>	7,6	16,7
NAP-3	1500	21430	3000	183	43	2,6	-	-	800	31 <sup>1</sup> / <sub>2</sub>	120	4 <sup>3</sup> / <sub>4</sub>	120	4 <sup>3</sup> / <sub>4</sub>	15	33
BKN-09	700	10000	1100	67,1	50	3,05	2,5	0,15	193	7 <sup>5</sup> / <sub>8</sub>	140	5 <sup>1</sup> / <sub>2</sub>	407	16	8,2	18

## BES: Tek Tesirli BED: Çift Tesirli

BES: single-acting  
BED: double-acting



Ref.	Çalışma Basıncı Working pressure		Yağ Hacmi Effective oil volume		Güç Power	R.p.m.	Yağ Akışı Oil flow				Ölçüler Dimensions mm/in.			Ağırlık Weight				
	kg/cm <sup>2</sup>	psi.	L.	Gal.			1. Kademe 1st stage	2. Kademe 2nd stage	A	B	C	Kg.	lbs.					
BES-5	700	10000	5	1,32	0,552	1390	0,8	48,8	0,5	30,5	215	8 <sup>1</sup> / <sub>2</sub>	250	9 <sup>7</sup> / <sub>8</sub>	443	17 <sup>7</sup> / <sub>16</sub>	36	79
BES-10	700	10000	10	2,65	0,736	1400	1,1	67	0,7	42,7	285	11 <sup>1</sup> / <sub>4</sub>	255	10	485	19 <sup>3</sup> / <sub>32</sub>	48	106
BES-20	700	10000	20	5,3	1,472	1390	2,1	128	1,3	79,3	325	12 <sup>3</sup> / <sub>4</sub>	325	12 <sup>3</sup> / <sub>4</sub>	615	24 <sup>3</sup> / <sub>16</sub>	73	161
BES-30	700	10000	30	7,95	1,472	1390	2,1	128	1,3	79,3	365	14 <sup>3</sup> / <sub>8</sub>	365	14 <sup>3</sup> / <sub>8</sub>	625	24 <sup>5</sup> / <sub>8</sub>	95	210
BED-10	700	10000	10	2,65	0,736	1400	1,1	67	0,7	42,7	285	11 <sup>1</sup> / <sub>4</sub>	255	10	485	19 <sup>3</sup> / <sub>32</sub>	48	106
BED-20	700	10000	20	5,3	1,472	1390	2,1	1,28	1,3	79,3	325	12 <sup>3</sup> / <sub>4</sub>	325	12 <sup>3</sup> / <sub>4</sub>	615	24 <sup>3</sup> / <sub>16</sub>	73	161
BED-30	700	10000	30	7,95	1,472	1390	2,1	1,28	1,3	79,3	365	14 <sup>3</sup> / <sub>8</sub>	365	14 <sup>3</sup> / <sub>8</sub>	625	24 <sup>5</sup> / <sub>8</sub>	95	210

## Hidrolik Ayırıcı

Spread cylinder

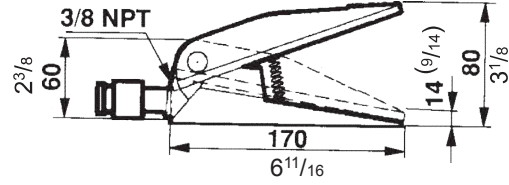
**SH-1**

**Kapasite (Capacity) : 1 ton**

**Ağırlık (Weight) : 3.5kg/7.7lbs**

Çok yüksek kuvvet gerektiren dar alanlardaki ayırma işlemleri için kullanılır.

Widely used for spreading operations in tight spaces where a high force is required.



## Çekme Gücü Ölçer

Tension Load cells

**TDM-10 - 10t**

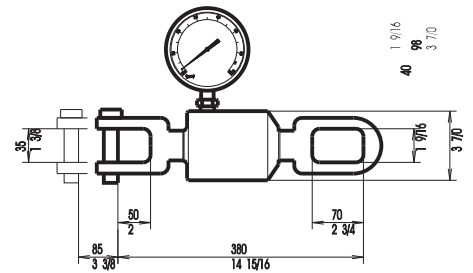
Çekme gücü ölçer

Ölçüm uygulamaları ve çekme testleri için dizayn edilmiştir.

Hassasiyet :  $\pm 2,5\%$

Designed for measuring applications and pull test.

Precision  $\pm 2,5\%$ .



## Basınç Ölçer

Compression Load Cell

**CDM-10 - 10t**

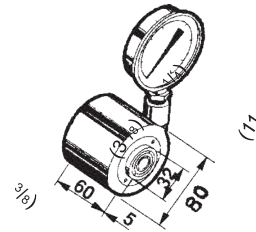
Genel kullanımı basınç ve sıkıştırma ölçümüdür.

Hassasiyet :  $\pm 2,5\%$

Widely used as a load cell in presses, clamps etc.

Compression load cell

Precision  $\pm 2,5\%$



# Hidrolik Hortumlar

## Thermoplastic hoses



MAP ve MCE serisi max dayanma basıncı 2800bar  
 MAPS-1,5 Maksimum dayanma basıncı 4.400 bar  
 MCE-3 ve MCE-6 hortumlar elektrikli pompalarda kullanılmak üzere dizayn edilmiştir.

MAP and MCE Series

Maximum burst pressure: 2.800 kg/cm<sup>2</sup> / 40.000 psi

MAPS - 1,5

Maximum burst pressure: 4.400 kg/cm<sup>2</sup> / 63.800 psi

The MEC-3 and MEC-6 hoses are specially designed for operation with electric powered pumps.

Ref.	Çalışma Basıncı Working pressure		Çap Nominal Bore		Boy Length		Bağlantı Diş Ölçüsü Connection thread	Kaplın Quick coupler Ref.
	kg/cm <sup>2</sup>	psi.	Ø mm	in.	m.	in.		
MAP-06	700	10000	6,4	1/4	0,6	23,6	3/8 x 18 NPT	----
MAP-1	700	10000	6,4	1/4	1	39,4	3/8 x 18 NPT	----
MAP-1,5	700	10000	6,4	1/4	1,5	59	3/8 x 18 NPT	----
MAP-2	700	10000	6,4	1/4	2	78,8	3/8 x 18 NPT	----
MAP-3	700	10000	6,4	1/4	3	118	3/8 x 18 NPT	----
MAP-6	700	10000	6,4	1/4	6	236	3/8 x 18 NPT	----
MAPS-1,5	1760	25520	5	13/16	1,5	59	1/4 x 19 GAS	----
MCE-3	700	10000	9,8	3/8	3	118	3/8 x 18 NPT	----
MCE-6	700	10000	9,8	3/8	6	236	3/8 x 18 NPT	----
A-5555	700	10000	6,4	1/4	1,5	59	3/8 x 18 NPT	A-5507-M
A-5588	700	10000	6,4	1/4	1,5	59	3/8 x 18 NPT	A-5506-M
A-5559	1760	25520	5	13/16	1,5	59	1/4 x 19 GAS	A-5537-H

# Kaplinler

## Coupling

Bu kaplinler hidrolik uygulamalarda değişik komponentlerin kolay ve hızlı bağlanmasını sağlar.

The high flow quick couplers allow a fast and safe connection of the different components in the hydraulic applications.

### A-5507



Max Yağ Akışı: 17 l/dak Çalışma basıncı 700 bar

Maximum flow: 17 l/min/1.038 in<sup>3</sup>/min. Pressure: up to 700 kg/cm<sup>2</sup>/10.000 psi.

### A-5506



Max Yağ Akışı: 2l/dak Çalışma basıncı 700 bar

Maximum flow: 2l/min/122 in<sup>3</sup>/min. Pressure: up to 700 kg/cm<sup>2</sup>/10.000 psi.

### A-5537



Max Yağ Akışı: 7 l/dak Çalışma basıncı 1500 bar

Maximum flow: 7l/min/427 in<sup>3</sup>/min. Pressure: up to 1.500 kg/cm<sup>2</sup>/21.430 psi.

Referans Referencia	Tanım Description	Özellikler Characteristics
A-5507	Komple Complete	
A-5507-M	Erkek Male quick	
A-5507-H	Dişi Female quick	
A-5506	Komple Complete	
A-5506-M	Erkek Male quick	
A-5506-H	Dişi Female quick	
A-5537	Komple Complete	
A-5537-M	Erkek Male quick	
A-5537-H	Dişi Female quick	

# Manometreler

## Glycerine gauges

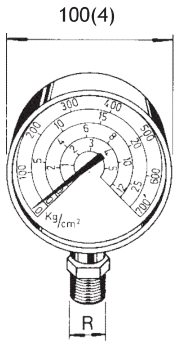
Manometreler pompa tarafından sağlanan basıncı takip edilmesini sağlar. Herhangi bir hasarı önler. Sistemin ömrünü uzatır.

Hassasiyet ± 2,5%

Basınç kg/cm<sup>2</sup>, psi ve tonaj ayrı olarak görülebilir.

The gauges permit the reading of the pressure generated by the pump or the force applied by the cylinder, which provides safety of use, avoids damage to the equipment and guarantees longer life. Precision ± 2,5%.

The pressure and force are indicated in kg/cm<sup>2</sup>, psi and tonnes.



Ref.	Kullanım Used with		Bağlantı çapı Connection Thread R
A-5580G	CSRA-5/CSRA-11/CSB-11/CSE-5/CSE-11 SERIES	5-11 TNS	3/8 GAS
A-5581G	CSRA-16/CSRA-23/CSB-23/CSE-23/CDRA-23 SERIES	16-23 TNS	3/8 GAS
A-5582G	CSRA-31/CSRA-55/CSB-31/CSB-55/CSE-31/CSE-55/CSF-31/CSF-55/CDRA-31/CDRA-55 SERIES	31-55 TNS	3/8 GAS
A-5583G	CSRA-93/CSB-93/CSE-93/CSF-93/CDRA-93/CSE-31/CSE-55 SERIES	93 TNS	3/8 GAS
A-5584G	CSH-12/CSH-20 SERIES	12-20 TNS	3/8 GAS
A-5585G	CSH-30/CSH-60/CDH-30/CDH-60 SERIES	30-60 TNS	3/8 GAS
A-5586G	GENERAL APPLICATIONS	0-700 kg/cm <sup>2</sup>	3/8 GAS
A-5587G	USO GENERAL APPLICATIONS	0-1600 kg/cm <sup>2</sup>	1/2 NPT

# Adaptörler

## Adapters

Bu adaptörler manometrenin silindire yada pompaya kolayca bağlanmasını sağlar

These adapters allow an easy way of fitting the gauge into cylinder or pump.



Ref.	Tanım Description	Çalışma Basıncı Working pressure kg/cm <sup>2</sup> psi.	Özellikler Characteristics
A-5501	Manometre Adaptörü Gauge adapter	700 10000	
A-5558	Manometre Adaptörü Gauge adapter	1500 21430	
MGK-15	Manometre Adaptör Tıpası Gauge adapter plug	700 10000	
NAP-3	Manometre Adaptör Tıpası Gauge adapter plug	1500 21430	



# Valfler Valves

Bir hidrolik uygulama birkaç yapılandırma yoluyla gerçekleştirilebilir.  
Açıklanan yapılandırmaların hiçbiri aksesuar ve bağlantı elemanları olmadan uygulanamaz.

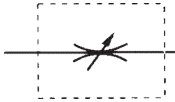
A hydraulic application can be effected through several configurations.  
None of the configurations described could be carried out without the accessories and fittings described.



**A-5509 Kapatma Valfi**  
**A-5509 Shutoff valve**

Yağ akışını kapatır ayrıca yükseltilmiş silindirin üzerindeki yükü kilitlet

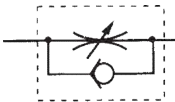
Shuts the oil flow. It also locks the load on a raised cylinder.



**A-5510 Güvenlik Valfi**  
**A-5510 Safety valve**

Yükseltilmiş silindirin üzerindeki yükü kilitlet

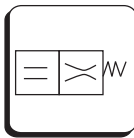
Locks the load on a raised cylinder.



**A-5570 İndirme Kontrol Valfi**  
**A-5570 Lowering control valve**

Yağ akışı için bir direnç üreterek yükün ani düşüşünü önler.

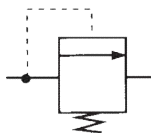
Prevents sudden lowering of load by producing a resistance



**A-5538 Güvenlik Valfi**  
**A-5538 Safety relief valve**

Kontrol dışı oluşabilecek aşırı basıncı önler

Avoids accidental overpressure.



Reference	Tanım Description	Çalışma basıncı Working pressure kg/cm <sup>2</sup> psi.		Özellikler Characteristics
A-5509	Kapatma Valfi Shutoff valve	700	10000	
A-5510	Güvenlik Valfi Safety valve	700	10000	
A-5570	İndirme Kontrol Valfi Lowering control valve	700	10000	
A-5538	Güvenlik Valfi Safety relieve valve	700	10000	



# Baglantı ve Parçalar Connectors & Spares

## A-5583 and A-5574. Manifolds

Katalogda sadece iki manifold tanımlanmış olmasıyla birlikte talep dilen diğer manifoldları da üretebilir yada tedarik edebiliriz.

Although only two manifolds are described in this catalogue, we can manufacture and supply other manifolds with the number of ways required

## Mega Hidrolik yağ

MEGA Hydraulic oil

Hidrolik aletlerin temel parçaları için yüksek kalite hidrolik yağ Mega pompa ve silindirelerin sürekli kullanımları için zorunludur.

2lt ve 5lt lik plastik şişelerde

A-5535. 2 litre

A-5536. 5 litre

High quality hydraulic oil for the essential parts of the hydraulic tools

Indispensable for a continuous or intensive use of the MEGA pumps and cylinders.

Delivered in 2 and 5 litre plastic container.

A-5535. 2 litre plastic container

A-5536. 5 litre plastic container



## Tamir Kitleri

Her hidrolik öğe için tamir kiti mevcuttur.  
Bahsedilen kitin referansı açıkça belirtilmelidir.

## Repair kits

A repair kit is available for every hydraulic item in this catalogue.

The reference of the article for which the kit is intended should be clearly indicated.

Reference	Tanım Description	Çalışma Basıncı Working pressure kg/cm <sup>2</sup> psi.		Özellikler Characteristics
A-5583	5 Yollu Dağatıcı Five-way manifold	700	10000	
A-5574	2 Yollu Dağatıcı Two-way manifold	1500	21430	
A-5511	Erkek Konnektör Male connector	700	10000	
A-5579	Erkek Konnektör Male connector	700	10000	
A-5513	Karışık Konnektör Mixed connector	700	10000	
A-5589	Karışık Konnektör Mixed connector	700	10000	
A-5512	Dişi Konnektör Female connector	700	10000	
A-5590	Dişi Konnektör Female connector	700	10000	
Y-2/1160	Konik Tıpa Coned plug	700	10000	
A-5591	Erkek Tıpa Male plug	700	10000	
A-5514	Dirsek Elbow	1500	21430	
A-5566	Pul Metallplastic washer	1500	21430	