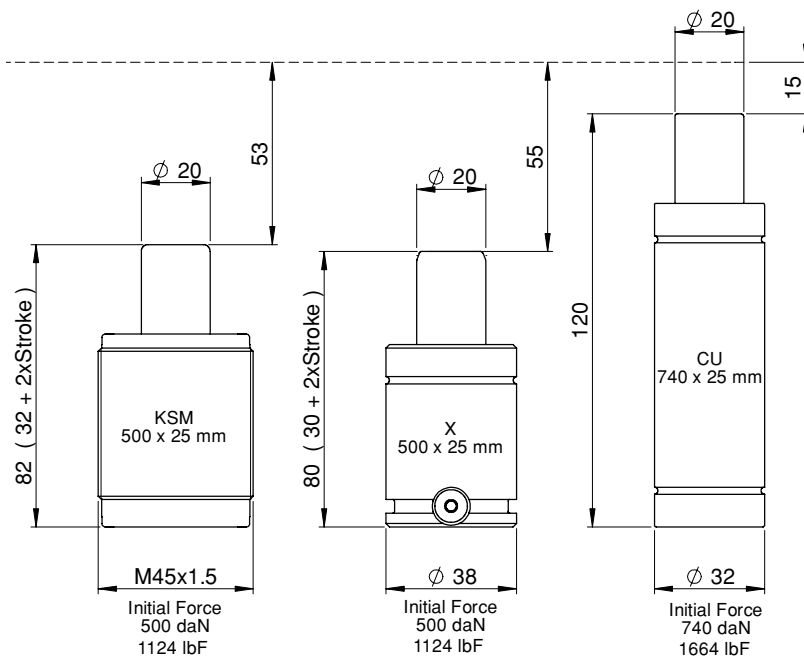
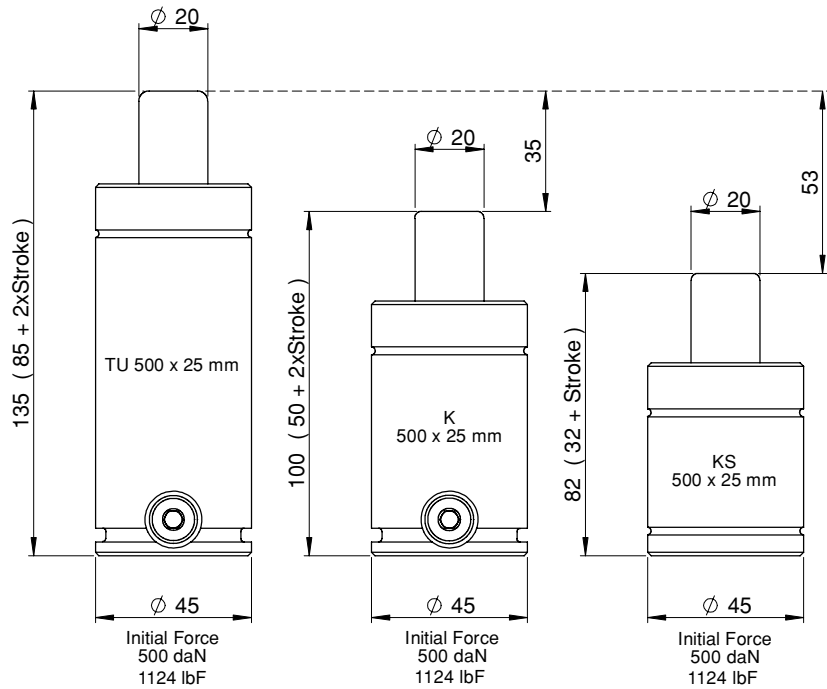


Overview - $500 \leq F_{INIT} < 750$



$500 \leq F_{INIT} < 750$

CU 740



Page 2.4/2

X 500



Page 2.4/4

TU 500



Page 2.4/6

K 500



Page 2.4/8

KS 500

Discontinued



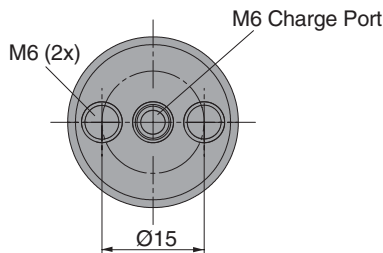
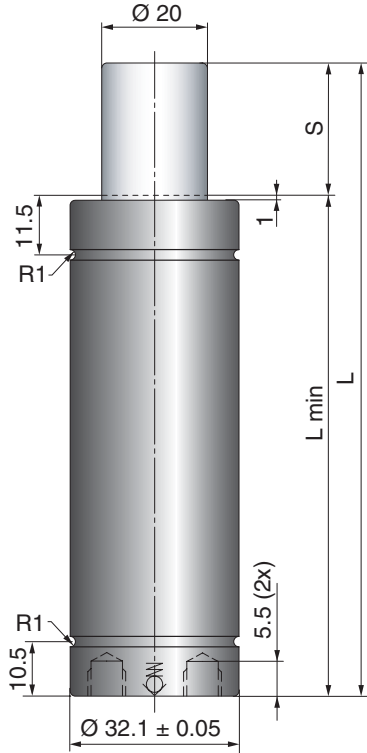
Page 2.4/10

KSM 500

Discontinued



Page 2.4/12



The CU gas spring is a very compact bore sealed gas spring that gives a high force in a limited space.

Springs with stroke lengths over 25 mm should always be attached to the tool, using a flange or the tapped holes in the bottom of the spring. We also recommend shorter stroke springs be fastened for optimal service life.

Millimeters to Inches: mm ÷ 25.4 = inches
Kilograms to Pounds: Kg ÷ 0.45 = pounds
Pounds Force to DecaNewtons: LbF x 0.4448 = decaNewtons

Order No.	S Stroke	Pounds Force (lbF) at 2175 psi		L ± 0.25	L min	Gas vol. (l)	Weight (kg)
		Initial	End force**				
CU 740-006	6	1660	2200	63	57	0.012	0.20
CU 740-010	10		2250	75	65	0.017	0.24
CU 740-016	16		2475	93	77	0.024	0.28
CU 740-025	25		2700	120	95	0.034	0.33
CU 740-032	32*		2700	140	108	0.042	0.37
CU 740-040	40*		2700	165	125	0.052	0.42
CU 740-050	50*		2700	195	145	0.063	0.48

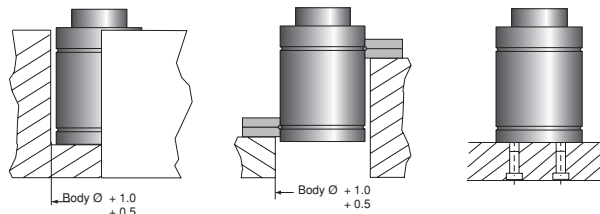
* = Should always be attached to the tool using the tapped holes in the bottom or a flange

** = at full stroke

BASIC INFORMATION

Pressure medium Nitrogen
 Max. charging pressure 150 bar/2175 psi
 Min. charging pressure 25 bar/360 psi
 Operating temperature 0 - 80°C/0 - 176°F
 Force increase by temperature ±0.3%/°C
 Recommended max strokes/min ~ 50-100 (at 20°C)
 Max piston rod velocity 0.5 m/s
 Rod surface Nitrided
 Tube surface Nitrided
 Not repairable

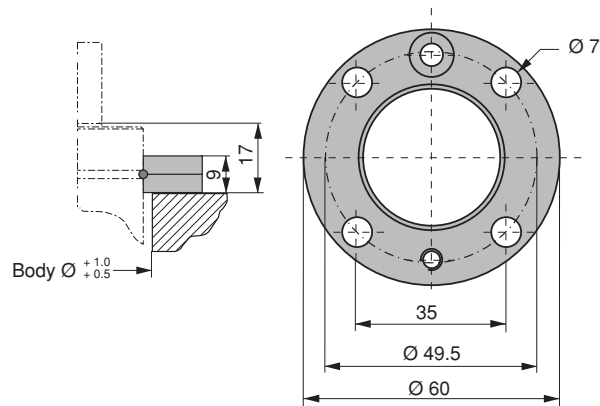
MOUNTING POSSIBILITIES

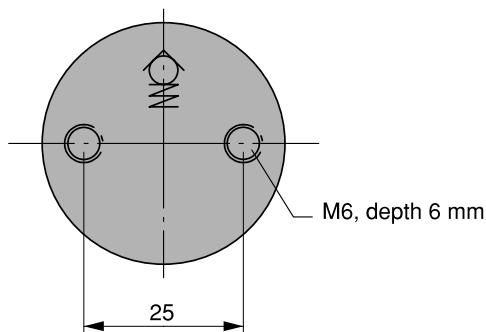
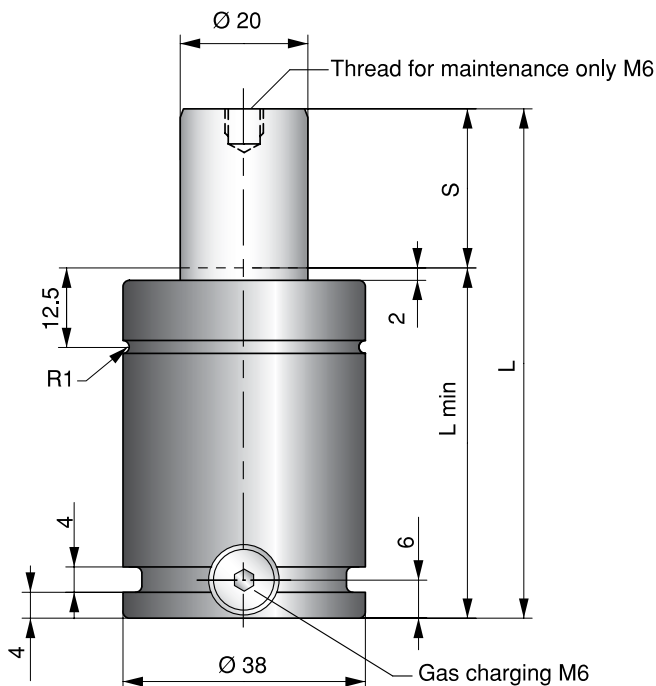


Drop - In

FC-MC
Top
Mount

B
Bottom
thread

FC-MC-150



The Powerline gas springs are a new series.

These gas springs are our shortest, with more power to give you a great deal of force in a very small amount of space.

There is a side port for gas filling that can also be used to connect a hose system.

An upper C-groove, lower U-groove together with two M6 threaded holes allow various mounting possibilities using our standard mounts.

Millimeters to Inches: mm ÷ 25.4 = inches

Kilograms to Pounds: Kg ÷ 0.45 = pounds

**Pounds Force to DecaNewtons:
LbF x 0.4448 = decaNewtons**

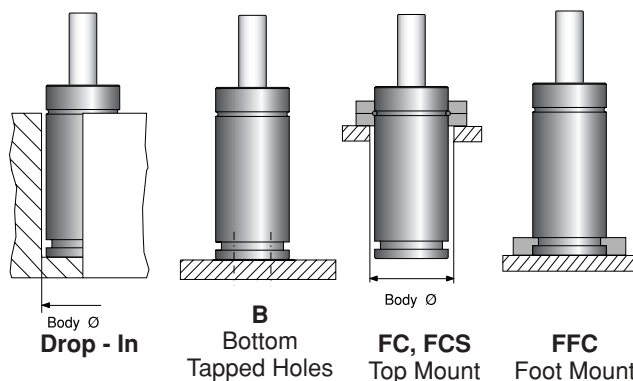
Order No.	S Stroke	Pounds Force (lbF) at 2175 psi		L ± 0.25	L min
		Initial	End force*		
X 500-010	10	1060	1620	50	40
X 500-013	13		1600	56	43
X 500-016	16		1620	62	46
X 500-019	19		1660	68	49
X 500-025	25		1640	80	55
X 500-032	32		1620	94	62
X 500-038	38		1620	106	68
X 500-050	50		1620	130	80
X 500-063	63		1620	156	93
X 500-075	75		1600	180	105
X 500-080	80		1600	190	110
X 500-100	100		1600	230	130
X 500-125	125		1600	280	55

* = at full stroke

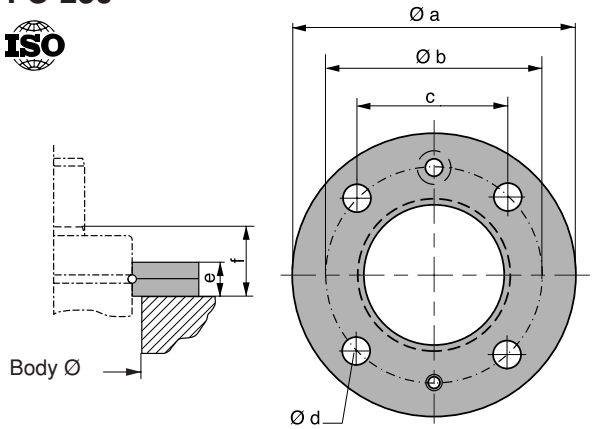
BASIC INFORMATION

Pressure medium Nitrogen
 Max. charging pressure 150 bar/2175 psi
 Min. charging pressure 25 bar/360 psi
 Operating temperature 0 - 80°C/0 - 170°F
 Force increase by temperature ±0.3%/°C
 Recommended max strokes/min ~ 50-100
 Max piston rod velocity 1.6 m/s
 Tube Black oxide
 Repair kit X 500

MOUNTING POSSIBILITIES



FC-250

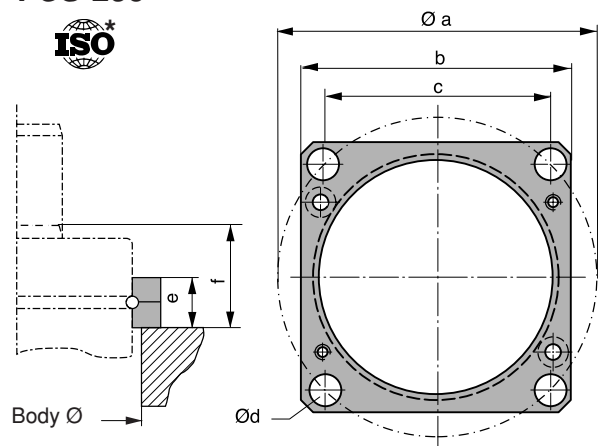


Order No.	Ø a	Ø b	c	Ø d	e	f
FC-250	68	56.5	40	7	9	17

FCS-250

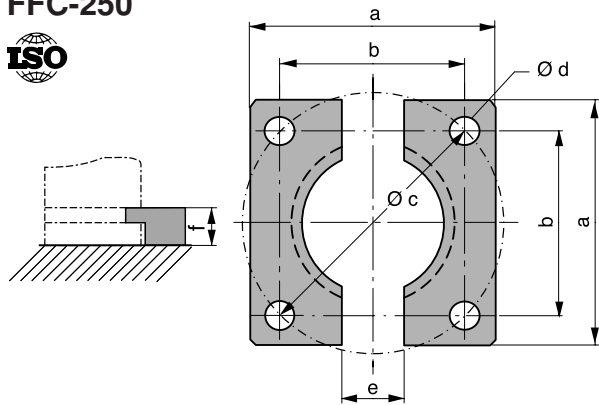


* = Reduced outer dimensions compared to ISO standard.

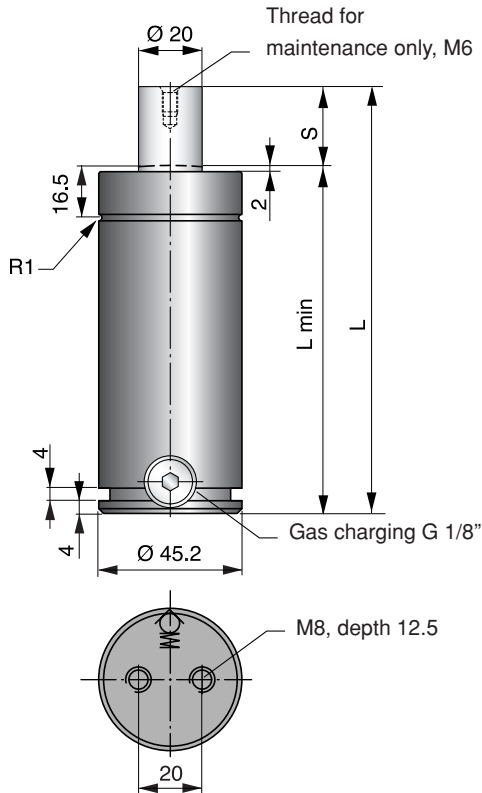


Order No.	Ø a	b	c	Ø d	e	f
FCS-250	56.5	52	40	7	9	17

FFC-250



Order No.	a	b	Ø c	Ø d	e	f
FFC-250	55	40	56.6	7	5	6.5



The basic line of gas springs is the TU- line. Sizes 250 to 7500 correspond to the ISO 11901 standard for gas springs.

The TU 500 has a total length of 85 mm + (2 x stroke).

The thread in the piston rod top is to be used for maintenance only.

Millimeters to Inches: mm ÷ 25.4 = inches
Kilograms to Pounds: Kg ÷ 0.45 = pounds
Pounds Force to DecaNewtons: LbF x 0.4448 = decaNewtons

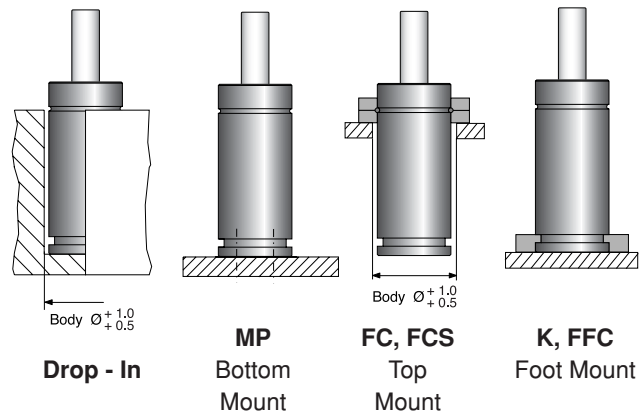
Order No.	S Stroke	Pounds Force (lbF) at 2175 psi		L ± 0.25	L min	Gas vol. (l)	Weight (kg)	ISO
		Initial	End force*					
TU 500-010	10	1055	1350	105	95	0.023	0.96	
TU 500-012	12.7		1370	110.4	97.7	0.025	1.04	
TU 500-025	25		1440	135	110	0.038	1.13	✓
TU 500-038	38.1		1460	161.2	123.1	0.051	1.22	
TU 500-050	50		1480	185	135	0.063	1.30	✓
TU 500-063	63.5		1480	212	148.5	0.077	1.41	
TU 500-080	80		1510	245	165	0.093	1.55	✓
TU 500-100	100		1510	285	185	0.114	1.72	

* = at full stroke

BASIC INFORMATION

Pressure medium Nitrogen
 Max. charging pressure 150 bar/2175 psi
 Min. charging pressure 25 bar/360 psi
 Operating temperature 0 - 80°C/0 - 176°F
 Force increase by temperature ±0.3%/°C
 Recommended max strokes/min ~ 40-80
 Max piston rod velocity 1.6 m/s
 Tube Black oxide
 Repair kit TU 500

MOUNTING POSSIBILITIES



MP-500
ISO

Order No.	a	b
MP-500	70	50

FC-500
ISO

Order No.	Ø a	Ø b	c	Ø d	e	f
FC-500	86	70.7	50	9	13	22

FCS-500 * = Reduced outer dimensions compared to ISO standard.
ISO *

Order No.	Ø a	b	c	Ø d	e	f
FCS-500	70.7	64	50	9	13	22

FFC-500
ISO

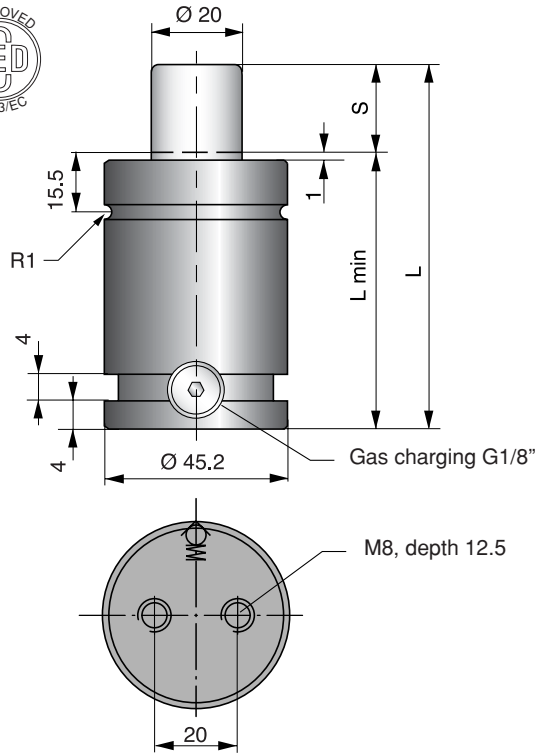
Order No.	a	b	Ø c	Ø d	e	f
FFC-500	70	50	70.7	9	20	6.5

Note: For dimensions on mounting possibility LUG K, refer to chapter 3.

S-500
ISO

Note: S is designed to be used with a spring backed up.
The mounting screw (M8) should be tightened with torque 18 ft. lbs.

Order No.	Ø a	b	c	d	e	f	g	Øh
S-500	45.4	17	29	30	100	82	9	9



This is a short height hoseable spring with an initial force of 1055 lbF.

The K 500 has a total length of 50 mm + (2 x stroke). This spring is 35 mm shorter than the TU 500. Mounting options are the same as for the TU 500.

Millimeters to Inches: mm ÷ 25.4 = inches
Kilograms to Pounds: Kg ÷ 0.45 = pounds
Pounds Force to DecaNewtons: LbF x 0.4448 = decaNewtons

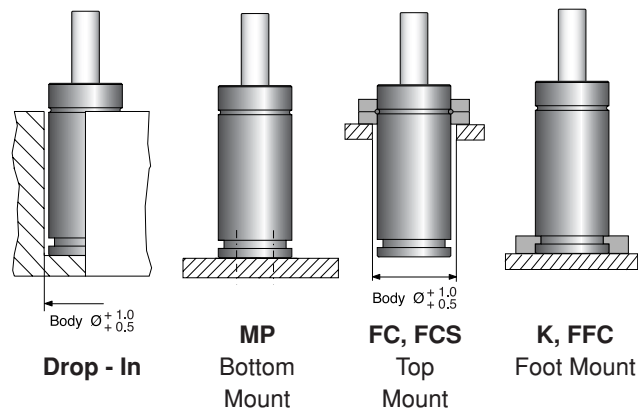
Order No.	S Stroke	Pounds Force (lbF) at 2175 psi		L ± 0.25	L min	Gas vol. (l)	Weight (kg)
		Initial	End force*				
K 500-006	6	1055	1260	62	56	0.02	0.50
K 500-012	12.7		1330	75.4	62.7	0.03	0.54
K 500-019	19		1370	88.1	69.05	0.04	0.59
K 500-025	25		1370	100	75	0.04	0.62
K 500-038	38.1		1390	126.2	88.1	0.06	0.71
K 500-050	50		1420	150	100	0.07	0.78
K 500-063	63.5		1420	177	113.5	0.09	0.88
K 500-080	80		1480	210	130	0.11	0.98
K 500-100	100		1480	250	150	0.12	1.12
K 500-125	125		1480	300	175	0.15	1.28

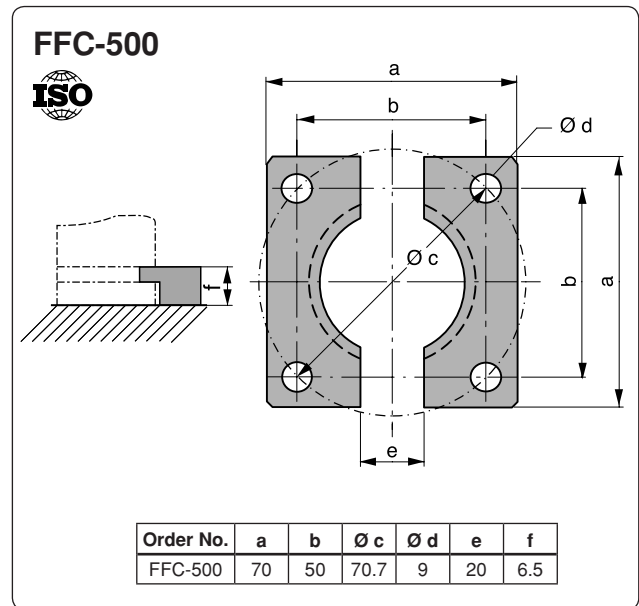
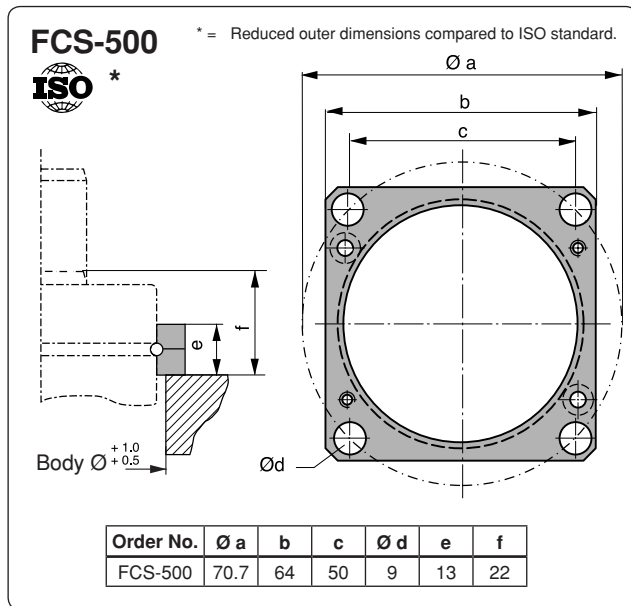
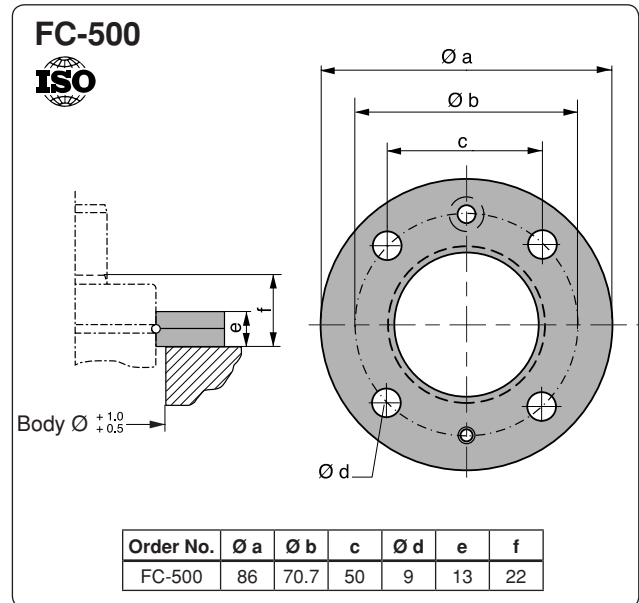
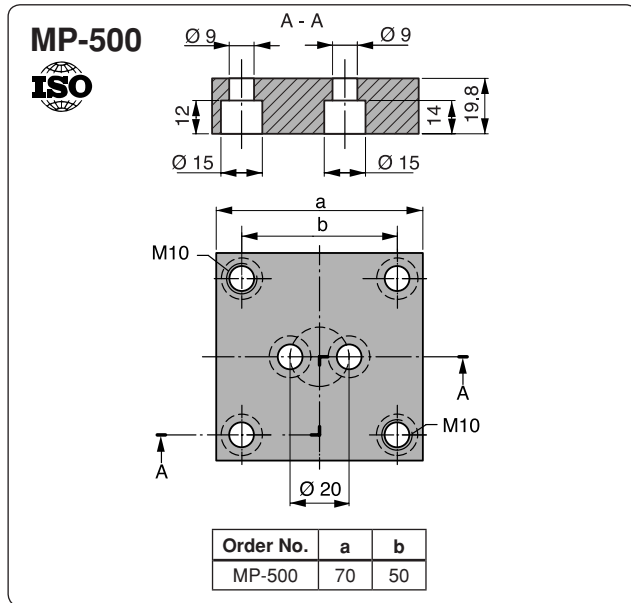
* = at full stroke

BASIC INFORMATION

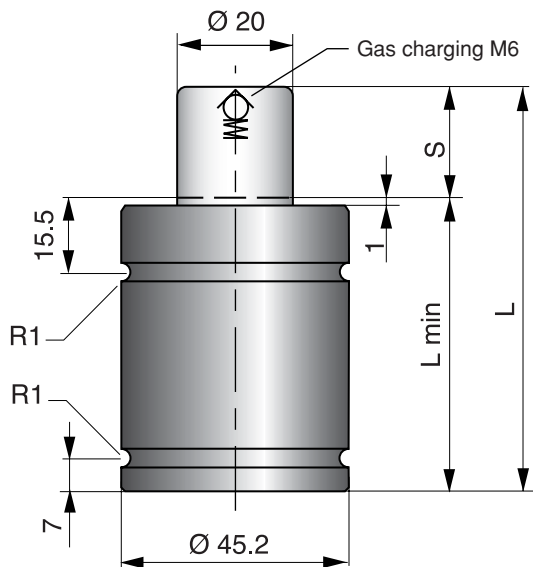
Pressure medium Nitrogen
 Max. charging pressure 150 bar /2175 psi
 Min. charging pressure 25 bar/360 psi
 Operating temperature 0 - 80°C/0 - 176°F
 Force increase by temperature ±0.3%/°C
 Recommended max strokes/min ~ 40-80
 Max piston rod velocity 1.6 m/s
 Tube Black oxide
 Repair kit K/KS 500

MOUNTING POSSIBILITIES





Note: For dimensions on mounting possibility LUG K, refer to chapter 3.



This is an ultra short height gas spring with an initial force of 1055 lbF.

The KS 500 has a total length of 32 mm + (2 x stroke). This is 53 mm shorter than the TU 500.

Millimeters to Inches: mm ÷ 25.4 = inches
 Kilograms to Pounds: Kg x 2.205 = pounds
 Pounds Force to Decanewtons: LbF x 0.4448 = dN

Order No.	S Stroke	Pounds Force (lbF) at 2175 psi		L ±0.2	L min	Gas vol. (l)	Weight (kg)
		Initial	End force*				
KS 500-012	12.7		1550	64	44	0.02	0.42
KS 500-019	19.05		1510	70.1	50.05	0.03	0.46
KS 500-025	25		1480	80	57	0.03	0.51
KS 500-038	38.1		1480	98.2	70.1	0.05	0.59
KS 500-050	50	1055	1510	132	82	0.06	0.66
KS 500-063	63.5		1480	148	95.5	0.08	0.72
KS 500-080	80		1480	192	112	0.09	0.82
KS 500-100	100		1510	232	132	0.11	0.98
KS 500-125	125		1480	282	157	0.14	1.14

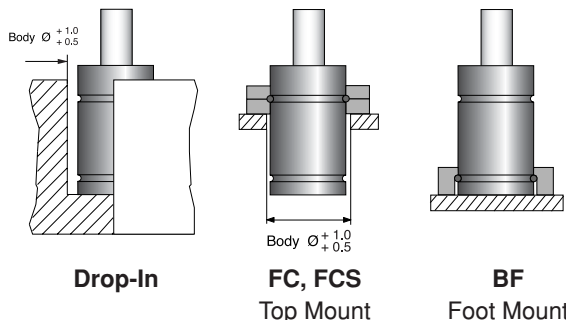
* = at full stroke

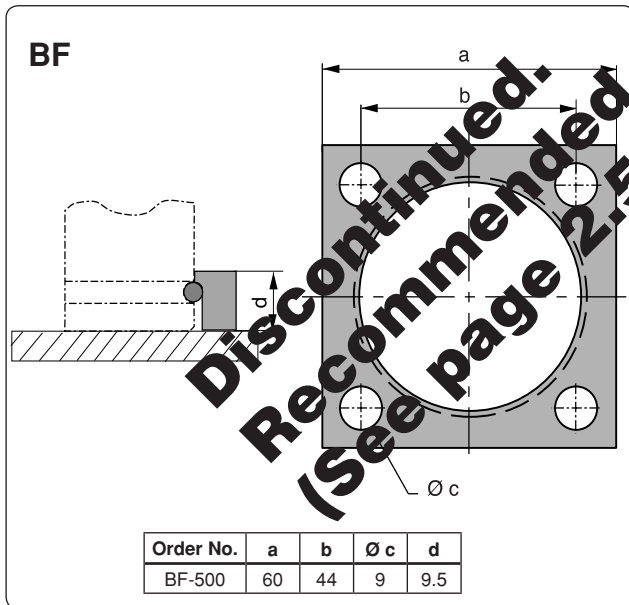
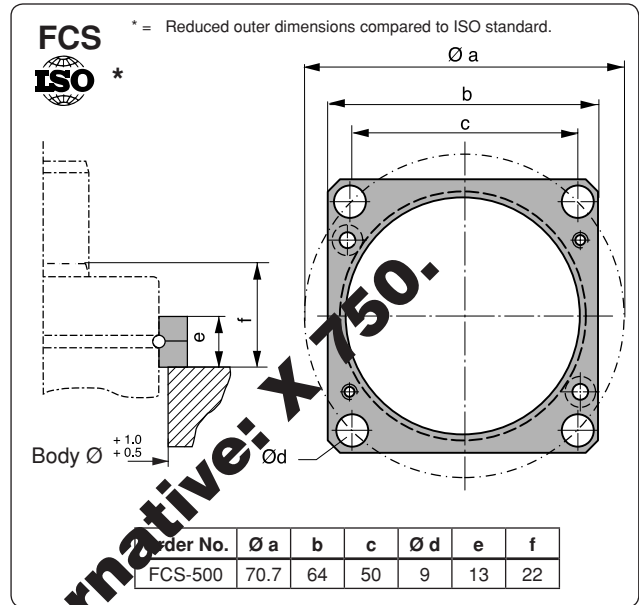
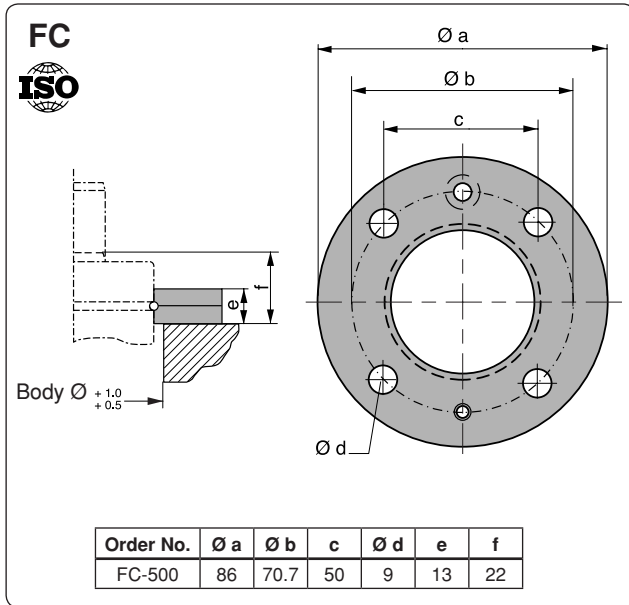
Discontinued. Recommended alternative: X 150 (See page 2.5/2)

BASIC INFORMATION

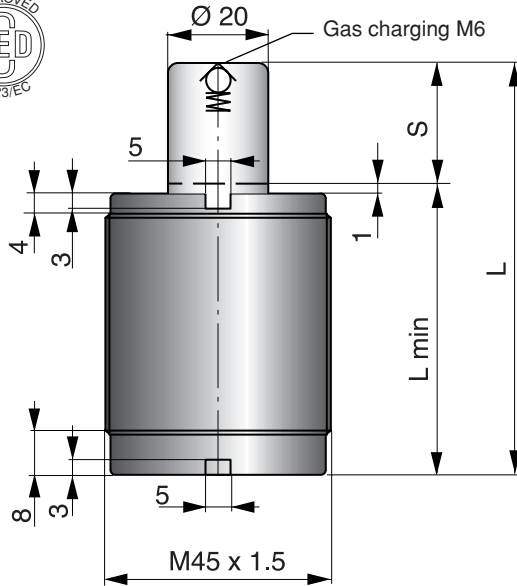
Pressure medium Nitrogen
 Max. charging pressure 150 bar/2175 psi
 Min. charging pressure 50 bar/725 psi
 Operating temperature 0 - 80°C/0 - 176°F
 Force increase by temperature ±0.3%/°C
 Recommended max strokes/min ~ 40-80
 Max piston rod velocity 1.6 m/s
 Tube Black oxide
 Repair kit K/KS 500

MOUNTING POSSIBILITIES





Discontinued.
Recommended alternative: X 150.
(See page 2.5/2)



The KSM 500 is a threaded body version of the KS 500.

All internal components and technical data are the same as for the KS 500.

Millimeters to Inches: $mm \div 25.4 = \text{inches}$

Kilograms to Pounds: $Kg \div 0.45 = \text{pounds}$

Pounds Force to Decanewtons:
 $LbF \times 0.4448 = \text{decanewtons}$

Discontinued. Recommended alternative: X 750. (See page 2.5/27)

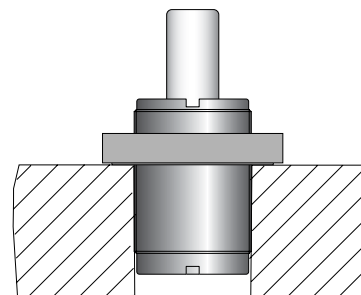
Order No.	S Stroke	Pounds Force (lbF) at 2175 psi		L ± 0.3	L min	Ge. vol. (l)	Weight (kg)
		Initial	End force*				
KSM 500-012	12.7		1550	57.4	46	0.03	0.40
KSM 500-019	19.05		1510	70.1	54.05	0.03	0.44
KSM 500-025	25		1470	82.8	57	0.03	0.49
KSM 500-038	38.1		1380	103.2	71	0.05	0.57
KSM 500-050	50	1055	1510	132	82	0.06	0.64
KSM 500-063	63.5		1450	155	95.5	0.08	0.70
KSM 500-080	80		1380	174	112	0.09	0.80
KSM 500-100	100		1510	232	132	0.11	0.96
KSM 500-125	125		1450	282	157	0.14	1.12

* = at full stroke

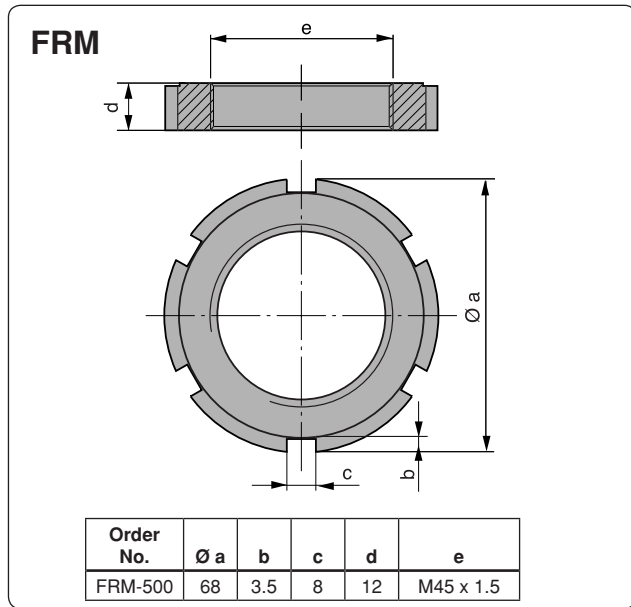
BASIC INFORMATION

Pressure medium Nitrogen
 Max. charging pressure 150 bar/2175 psi
 Min. charging pressure 25 bar/360 psi
 Operating temperature 0 - 80°C/0 - 176°F
 Force increase by temperature $\pm 0.3\%/^{\circ}C$
 Recommended max strokes/min ~ 40-80
 Max piston rod velocity 1.6 m/s
 Tube Black oxide
 Repair kit K/KS 500

MOUNTING POSSIBILITIES



FRM
Lock Nut



**Discontinued.
Recommended alternative: X 750.
(See page 2.5/2)**