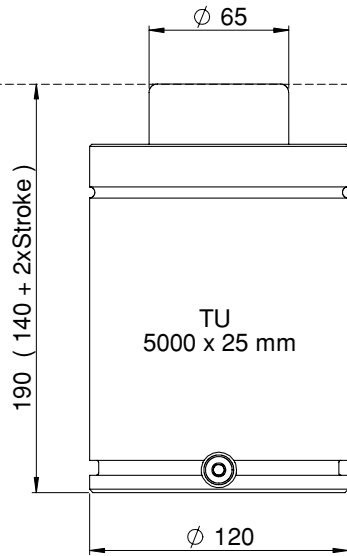
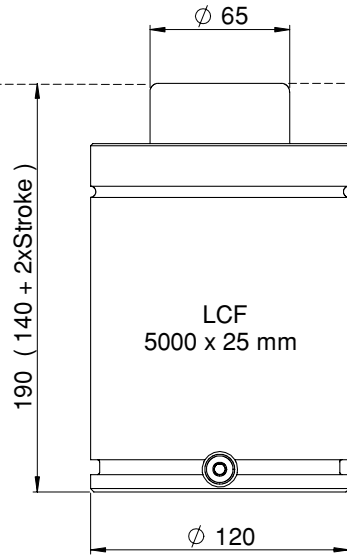


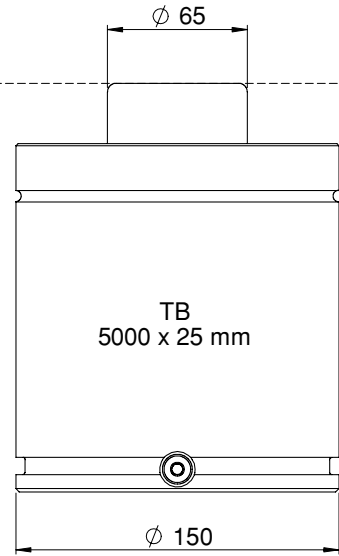
Overview - $5000 \leq F_{INIT} < 7500$



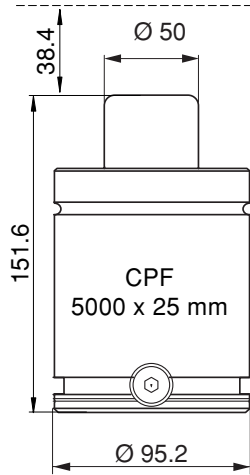
TU
5000 x 25 mm
Initial Force
5000 daN
11240 lbF



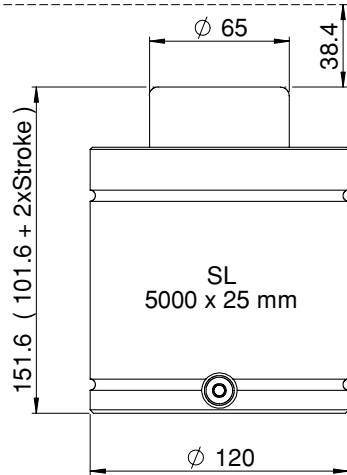
LCF
5000 x 25 mm
Initial Force
5000 daN
11240 lbF



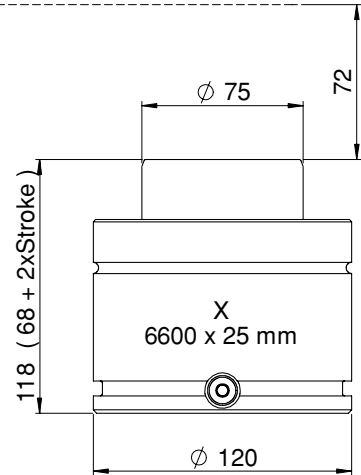
TB
5000 x 25 mm
Initial Force
5000 daN
11240 lbF



CPF
5000 x 25 mm
Initial Force
5000 daN
11240 lbF



SL
5000 x 25 mm
Initial Force
5000 daN
11240 lbF



X
6600 x 25 mm
Initial Force
6630 daN
14904 lbF

$5000 \leq F_{INIT} < 7500$

X 6600



Page 2.8/2

TU 5000



Page 2.8/4

CPF 5000



Page 2.8/6

TB 5000



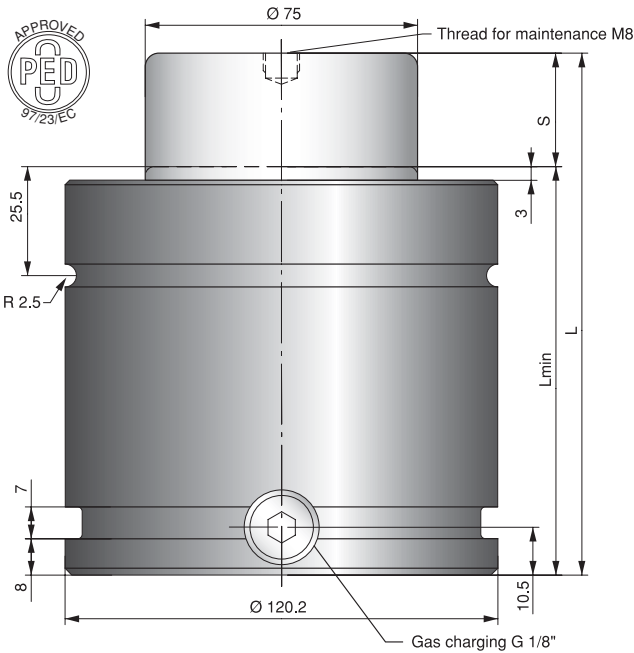
Page 2.8/8

LCF 5000



Page 2.8/10

Powerline X 6600



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.

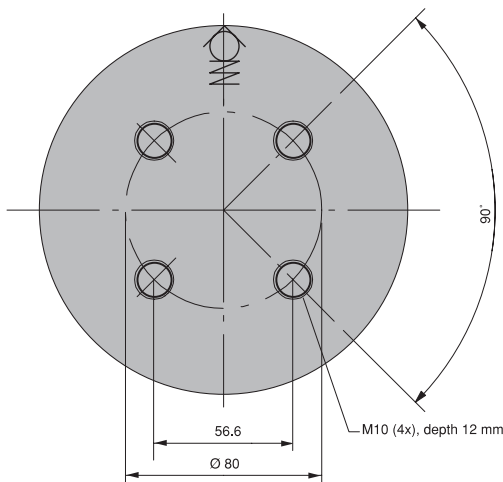
There is a side port for gas filling that can also be used to connect a hose system.

An upper C-groove, lower U-groove together with four M10 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**



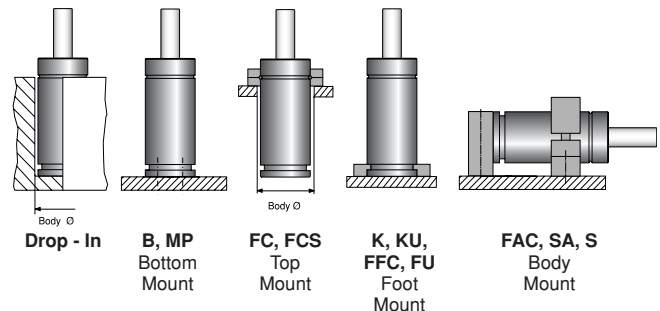
Order No.	S Stroke	Pounds Force (lbF) at 2175 psi		L ± 0.25	L min	Gas vol. (l)	Weight (kg)
		Initial	End force*				
X 6600-016	16	14905	20010	100	84	0.32	4.97
X 6600-019	19		20460	106	87	0.35	5.09
X 6600-025	25		21110	118	93	0.42	5.31
X 6600-032	32		21605	132	100	0.49	5.58
X 6600-038	38		22075	144	106	0.56	5.81
X 6600-050	50		22615	168	118	0.69	6.22
X 6600-063	63		23020	194	131	0.83	6.78
X 6600-075	75		23245	218	143	0.90	7.05
X 6600-080	80		23400	228	148	1.01	7.43
X 6600-100	100		23700	268	168	1.23	8.20
X 6600-125	125		23940	318	193	1.50	9.16


* = at full stroke

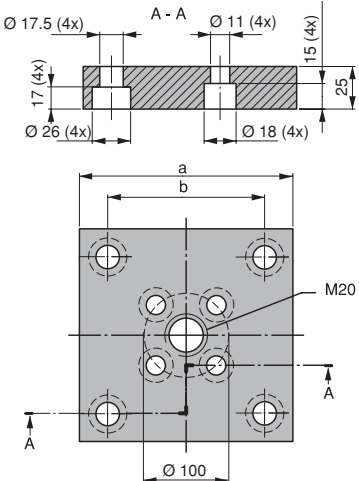
BASIC INFORMATION

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
 Max piston rod velocity 1.6 m/s
 Tube Black oxide
 Repair kit X 6600

MOUNTING POSSIBILITIES




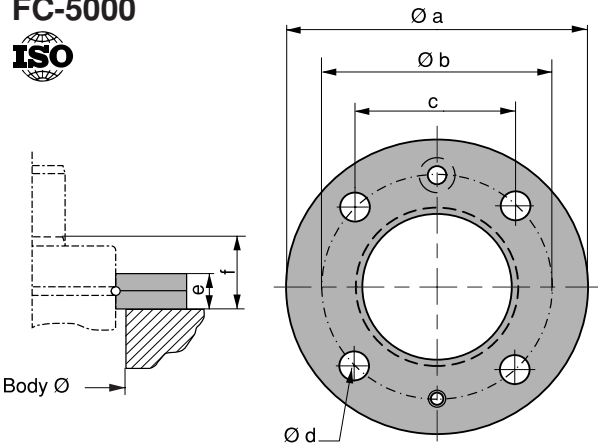
MP-5000 




Note:
Comes complete with screws to mount gas spring.

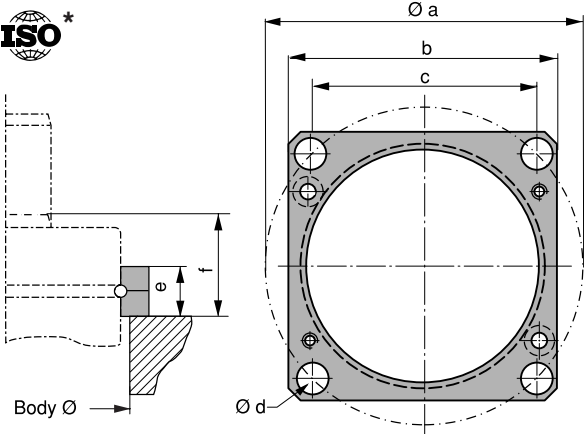
Order No.	a	b
MP-5000	140	109.5

FC-5000 




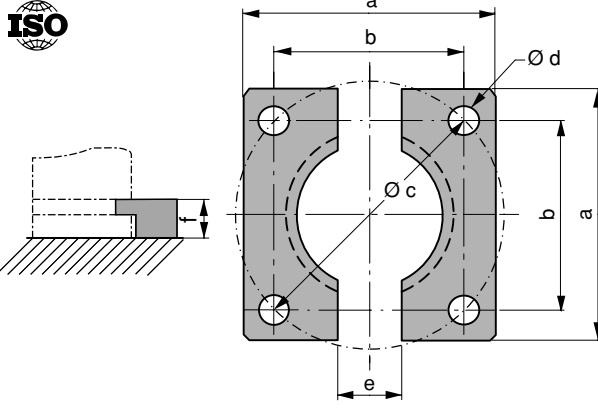
Order No.	Ø a	Ø b	c	Ø d	e	f
FC-5000	175	155	109.5	13.5	21	36

FCS-5000 * = Reduced outer dimensions compared to ISO standard. 




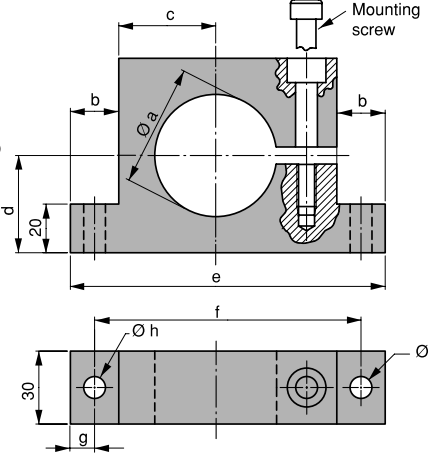
Order No.	Ø a	b	c	Ø d	e	f
FCS-5000	155	130	109.5	13.5	21	36

FFC-5000 



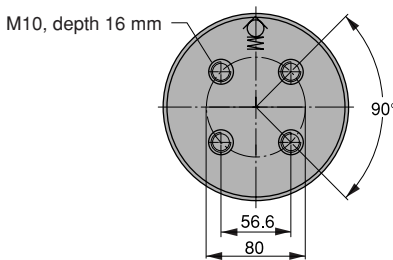
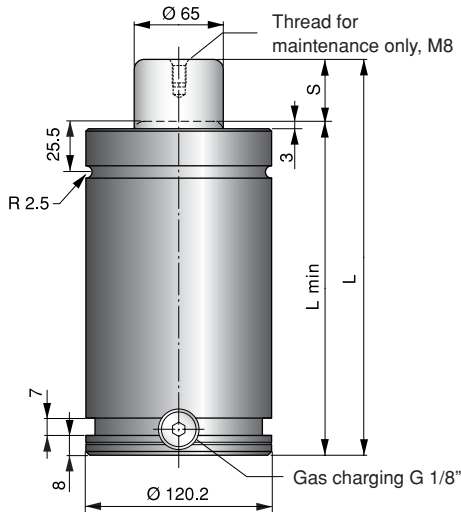
Order No.	a	b	Ø c	Ø d	e	f
FFC-5000	140	109.5	155	13.5	24	12

S-5000 



Note: S is designed to be used with a spring backed up.
The mounting screw (M12) should be tightened with torque 18 ft. lbs.

Order No.	Ø a	b	c	d	e	f	g	Ø h
S-5000	120.4	27.5	77.5	74	220	195	12.5	13



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

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 5000-025	25	11240	15960	190	165	0.32	12.00	✓
TU 5000-038	38.1		16860	216.2	178.1	0.42	12.65	
TU 5000-050	50		17310	240	190	0.51	13.30	✓
TU 5000-063	63.5		17990	267	203.5	0.60	14.46	
TU 5000-075	75		18205	251.6	176.6	0.69	14.85	
TU 5000-080	80		18210	300	220	0.73	15.05	✓
TU 5000-100	100		18430	340	240	0.89	16.15	✓
TU 5000-125	125		18430	390	265	1.09	16.96	✓
TU 5000-160	160		18660	460	300	1.36	19.40	✓
TU 5000-200	200		18880	540	340	1.68	20.70	
TU 5000-250	250		18880	640	390	2.07	22.40	
TU 5000-300	300		18880	740	440	2.46	24.66	

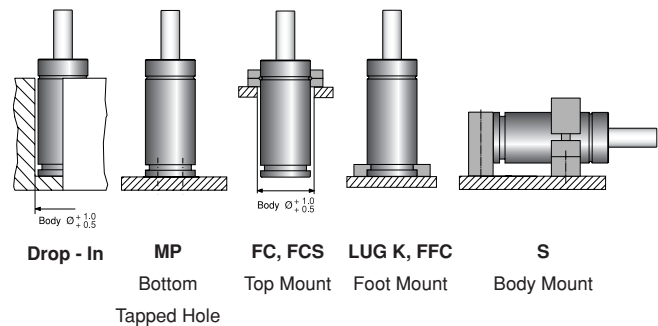
* = at full stroke

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 ~ 15-40
 Max piston rod velocity 1.6 m/s
 Tube Black oxide
 Repair kits..... *New version (PED) 3018876
 Old version 2014068-04

*New version identified by circular rings on top of tube, guide and rod.

MOUNTING POSSIBILITIES



MP-5000

ISO

Order No.	a	b
MP-5000	140	109.5

FC-5000

ISO

Order No.	Ø a	Ø b	c	Ø d	e	f
FC-5000	175	155	109.5	13.5	21	36

FCS-5000 * = Reduced outer dimensions compared to ISO standard.

ISO *

Order No.	Ø a	b	c	Ø d	e	f
FCS-5000	155	130	109.5	13.5	21	36

FFC-5000

ISO

Order No.	a	b	Ø c	Ø d	e	f
FFC-5000	140	109.5	155	13.5	24	12

S-5000

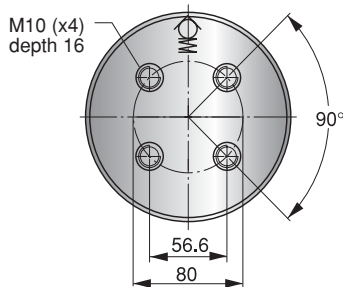
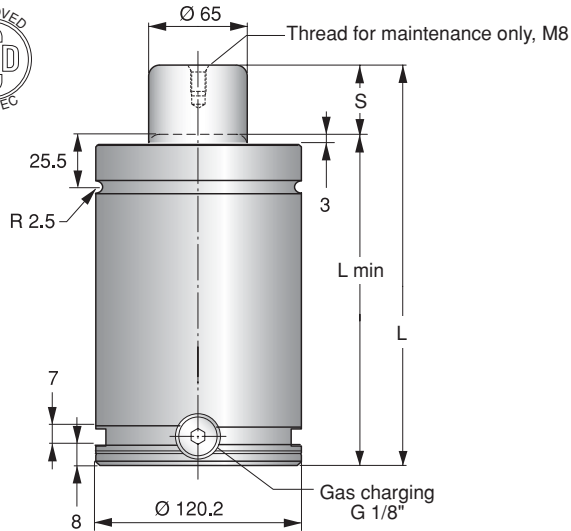
ISO

Note: S is designed to be used with a spring backed up.

The mounting screw (M12) should be tightened with torque 67 ft. lbs.

Order No.	Ø a	b	c	d	e	f	g	Ø h
S-5000	120.4	27.5	77.5	74	220	195	12.5	13

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



The CPF gas spring is a shorter version of the popular TU Series. It is available in a wide range of tonnage and stroke lengths.

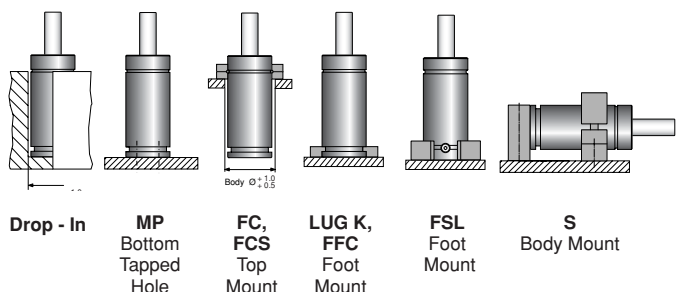
Millimeters to Inches: mm ÷ 25.4 = inches
Kilograms to Pounds: Kg ÷ 0.45 = pounds
Pounds Force to DecaNewtons: LbF x 0.4448 = decaNewtons

Order No.	S Stroke	Pounds Force (lbF) at 2175 psi		L ± 0.25	L min.
		Initial	End force		
CPF 5000-013	13	11240	17760	127	114
CPF 5000-025	25		18435	151.6	126.6
CPF 5000-038	38.1		19560	177.8	139.7
CPF 5000-050	50		19560	201.6	151.6
CPF 5000-063	63.5		19335	228.6	165.1
CPF 5000-080	80		19335	261.6	181.6
CPF 5000-100	100		19335	301.6	201.6
CPF 5000-125	125		19335	351.6	226.6
CPF 5000-160	160		19335	421.6	261.6
CPF 5000-200	200		19335	501.6	301.6

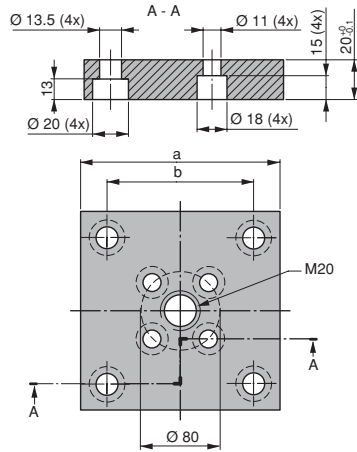
BASIC INFORMATION

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. ~ 15-40
 Max piston rod velocity 1.6 m/s
 Repair kit CPF 5000

MOUNTING POSSIBILITIES



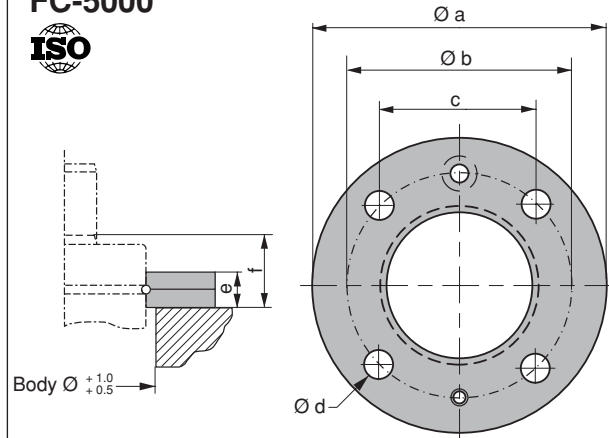
MP-5000



Note: Comes complete with screws to mount gas spring.

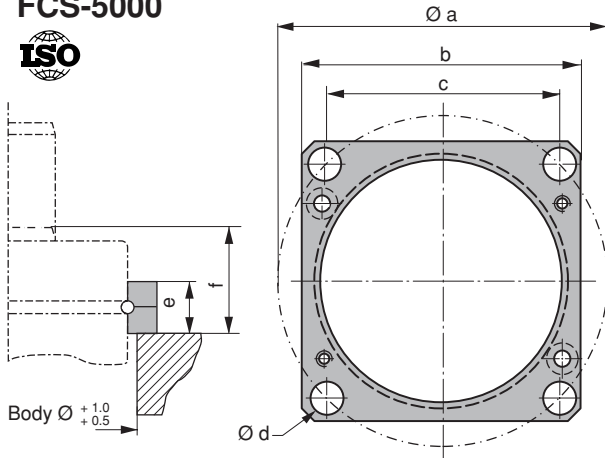
Order No.	a	b
MP-5000	140	109.5

FC-5000



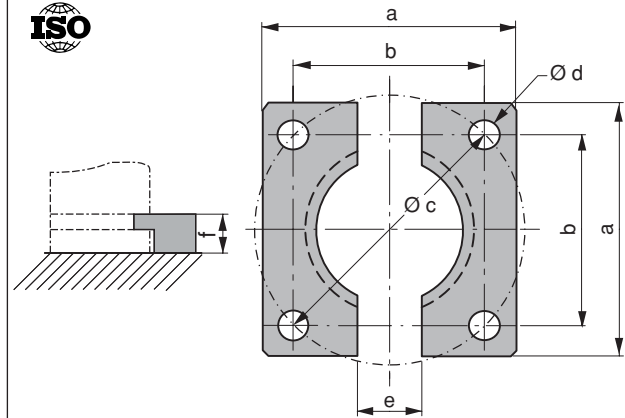
Order No.	Ø a	Ø b	c	Ø d	e	f
FC-5000	175	155	109.5	13.5	21	36

FCS-5000



Order No.	Ø a	b	c	Ø d	e	f
FCS-5000	155	130	109.5	13.5	21	36

FFC-5000



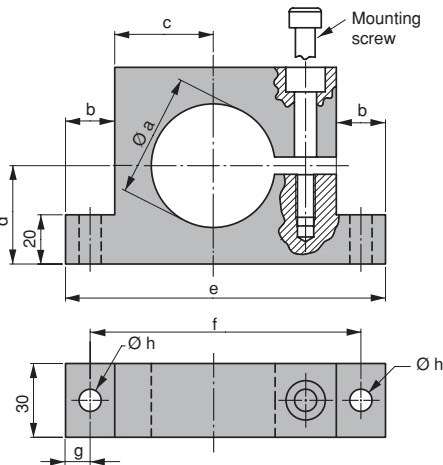
Order No.	a	b	Ø c	Ø d	e	f
FFC-5000	140	109.5	155	13.5	24	12

S-5000



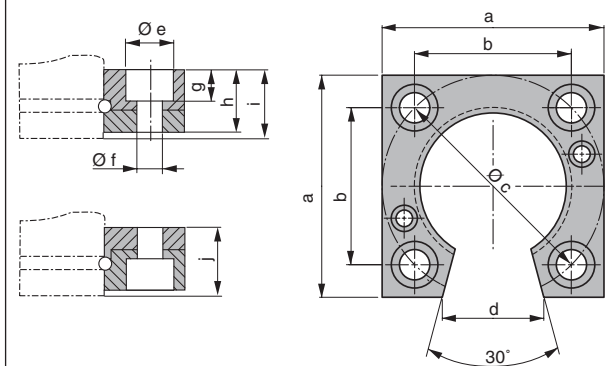
Note: S is designed to be used with a spring backed up.

The mounting screw (M12) should be tightened with torque 67 ft. lbs.

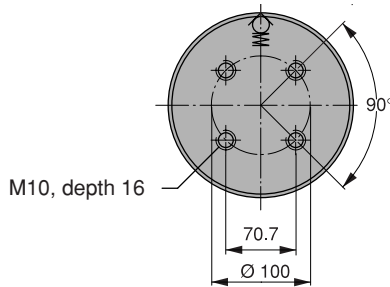
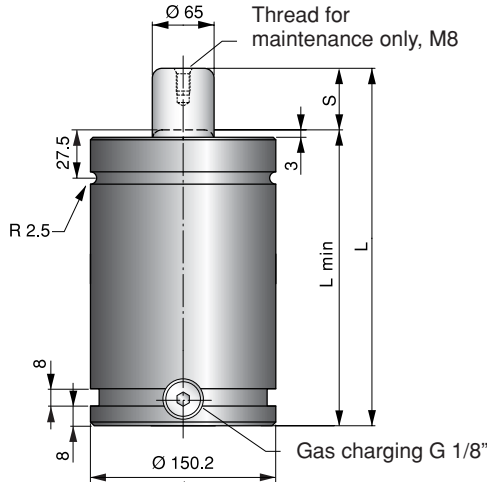


Order No.	Ø a	b	c	d	e	f	g	Ø h
S-5000	120.4	27.5	77.5	74	220	195	12.5	13

FSL-5000



Order No.	a	b	Ø c	d	Ø e	Ø f	g	h	i	j
FSL-5000	139.7	114.3	161.8	71	20	13.5	13	25	33.6	25.7



Not a Stocked Item

TB springs have a larger gas volume than our standard TU series. This reduces the pressure increase as the piston rod is depressed. It also increases the service life of the spring.

TB springs are recommended for applications where a low force increase is desirable. TB springs are also a good choice for higher cycle rates and high volume production.

Note: When ordering mounts for TB 5000 springs, a mount of a larger size than the spring must be used.

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*				
TB 5000-025	25	11240	15740	190	165	0.41	19.5
TB 5000-038	38.1		15510	216.2	178.1	0.57	20.5
TB 5000-050	50		15510	240	190	0.72	21.4
TB 5000-063	63.5		15510	267	203.5	0.86	22.4
TB 5000-080	80		15510	300	220	1.07	23.7
TB 5000-100	100		15510	340	240	1.31	25.2
TB 5000-125	125		15510	390	265	1.62	27.1
TB 5000-160	160		15510	460	300	2.05	29.8
TB 5000-200	200		15510	540	340	2.54	32.8
TB 5000-250	250		15290	640	390	3.16	36.6
TB 5000-300	300		15290	740	440	3.77	40.4

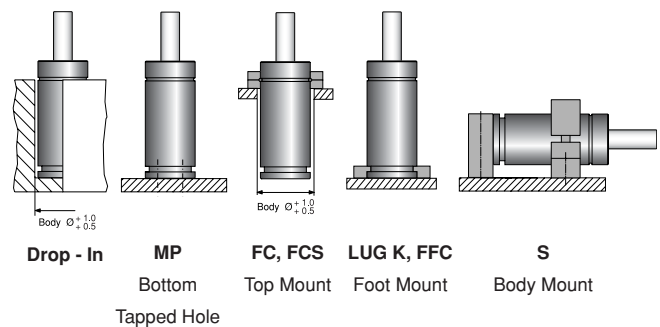
* = at full stroke


BASIC INFORMATION

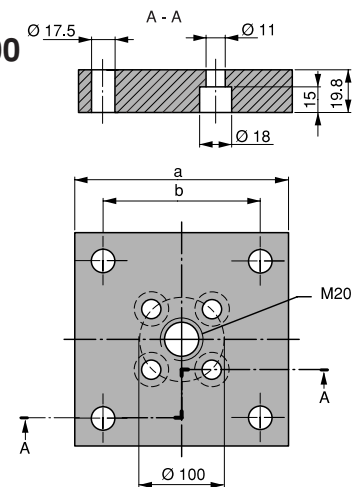
Pressure medium Nitrogen
 Max. charging pressure 150 bar/2175 psi
 Min. charging pressure 25 bar/360 psi
 Operating temperature 0 - 80°C/0 - 176°F
 Force increase by temperature ±0.3%/°C
 Recommended max strokes/min ~ 40-80
 Max piston rod velocity 1.6 m/s
 Tube Black oxide
 Repair kits..... *New version (PED) 3019238
 Old version 2014068-08

*New version identified by circular rings on top of tube, guide and rod.


MOUNTING POSSIBILITIES

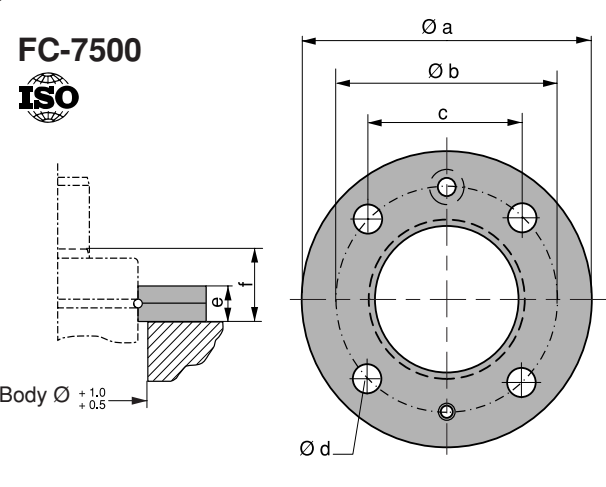


MP-7500 




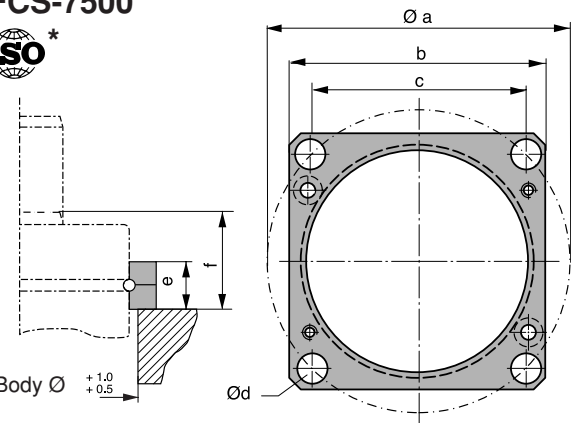
Order No.	a	b
MP-7500	190	138

FC-7500 




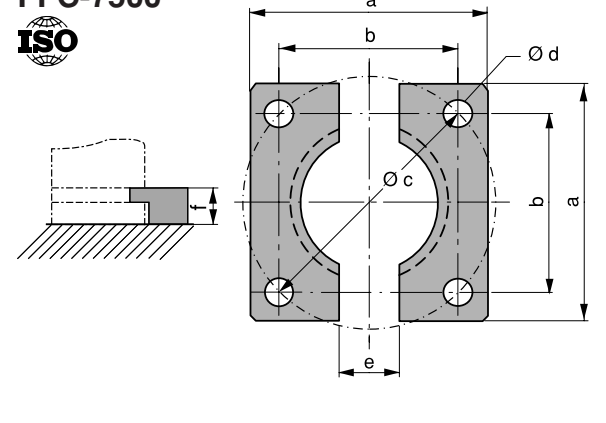
Order No.	Ø a	Ø b	c	Ø d	e	f
FC-7500	220	195	138	17.5	27	41

FCS-7500  * = Reduced outer dimensions compared to ISO standard.




Order No.	Ø a	b	c	Ø d	e	f
FCS-7500	195	162	138	17.5	27	41

FFC-7500 

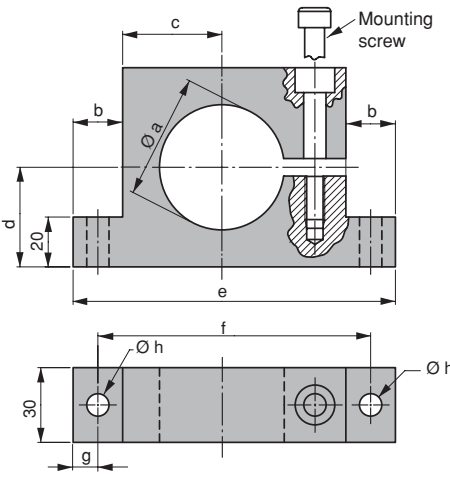


Order No.	a	b	Ø c	Ø d	e	f
FFC-7500	190	138	195.2	17.5	24	12

S-7500 

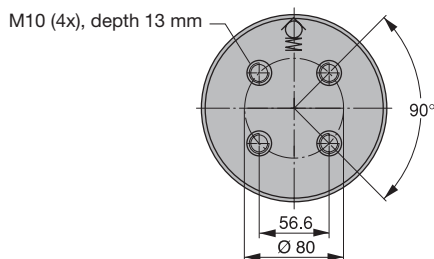
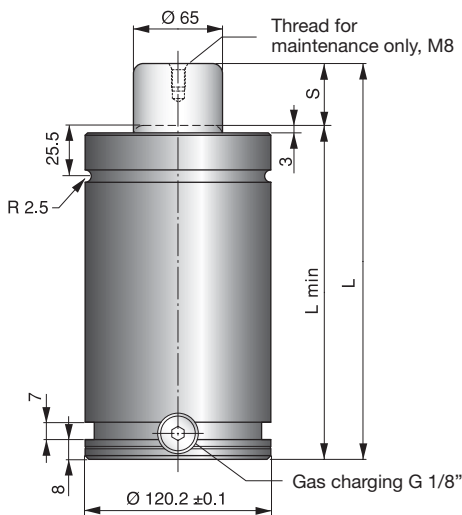
Note: S is designed to be used with a spring backed up.

The mounting screw (M12) should be tightened with torque 67 ft. lbs.



Order No.	Ø a	b	c	d	e	f	g	Ø h
S-7500	150.4	30	95	100	260	230	15	13

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

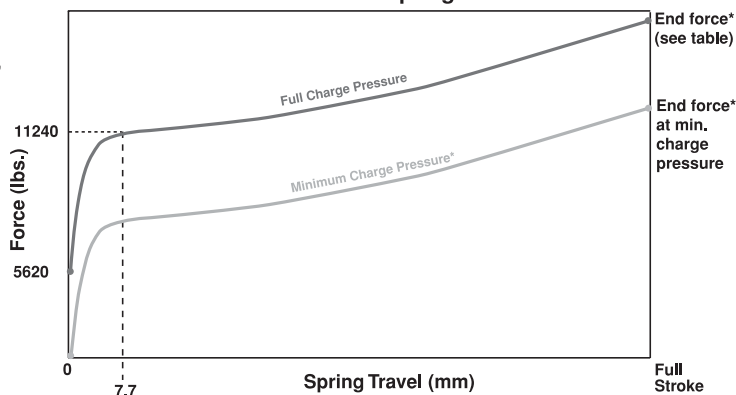


LCF Series

Low Contact Force (LCF) gas springs are designed to reduce excessive shock loads and high noise levels, factors that lead to high press maintenance costs and noise pollution.

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

Force vs Stroke for LCF 5000 Springs



Order No.	S Stroke	Pounds Force (lbF) at 2175 psi		L ± 0.25	L min	Gas vol. (l)	Weight (kg)	ISO
		Initial	End force*					
LCF 5000-025	25		15960	190	165	0.32	12.00	✓
LCF 5000-038	38.1		16860	216.2	178.1	0.42	12.65	
LCF 5000-050	50		17310	240	190	0.51	13.30	✓
LCF 5000-063	63.5		17990	267	203.5	0.60	14.46	
LCF 5000-080	80		18210	300	220	0.73	15.05	✓
LCF 5000-100	100	11240	18430	340	240	0.89	16.15	✓
LCF 5000-125	125		18430	390	265	1.09	16.96	✓
LCF 5000-160	160		18660	460	300	1.36	19.40	✓
LCF 5000-200	200		18880	540	340	1.68	20.70	
LCF 5000-250	250		18880	640	390	2.07	22.40	
LCF 5000-300	300		18880	740	440	2.46	24.66	

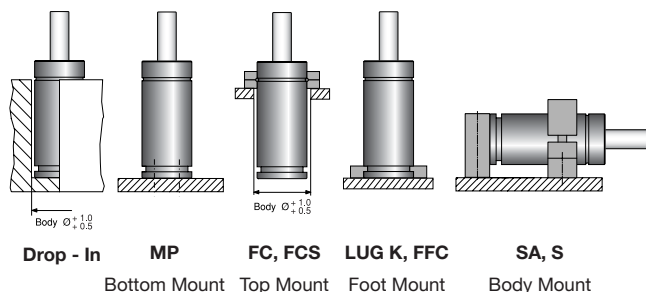
* = at full stroke

BASIC INFORMATION

Pressure medium Nitrogen
 Max. charging pressure 150 bar/2175 psi
 Min. charging pressure 75 bar/1085 psi
 Operating temperature 0 - 80°C/0 - 176°F
 Force increase by temperature ±0.3%/°C
 Recommended max strokes/min ~ 15-40
 Max piston rod velocity 1.6 m/s
 Repair kits..... *New version (PED) 3019380
 Old version 3019133

*New version identified by circular rings on top of tube, guide and rod.

MOUNTING POSSIBILITIES



MP-5000 $\varnothing 13.5$ (4x)

ISO

Order No.	a	b
MP-5000	140	109.5

FC-5000

ISO

Order No.	$\varnothing a$	$\varnothing b$	c	$\varnothing d$	e	f
FC-5000	175	155	109.5	13.5	21	36

FCS-5000 * = Reduced outer dimensions compared to ISO standard.

ISO*

Order No.	$\varnothing a$	b	c	$\varnothing d$	e	f
FCS-5000	155	130	109.5	13.5	21	36

FFC-5000

ISO

Order No.	a	b	$\varnothing c$	$\varnothing d$	e	f
FFC-5000	140	109.5	155	13.5	24	12

S-5000

ISO

Note: S is designed to be used with a spring backed up.

The mounting screw (M12) should be tightened with torque 67 ft. lbs.

Order No.	$\varnothing a$	b	c	d	e	f	g	$\varnothing h$
S-5000	120.4	27.5	77.5	74	220	195	12.5	13