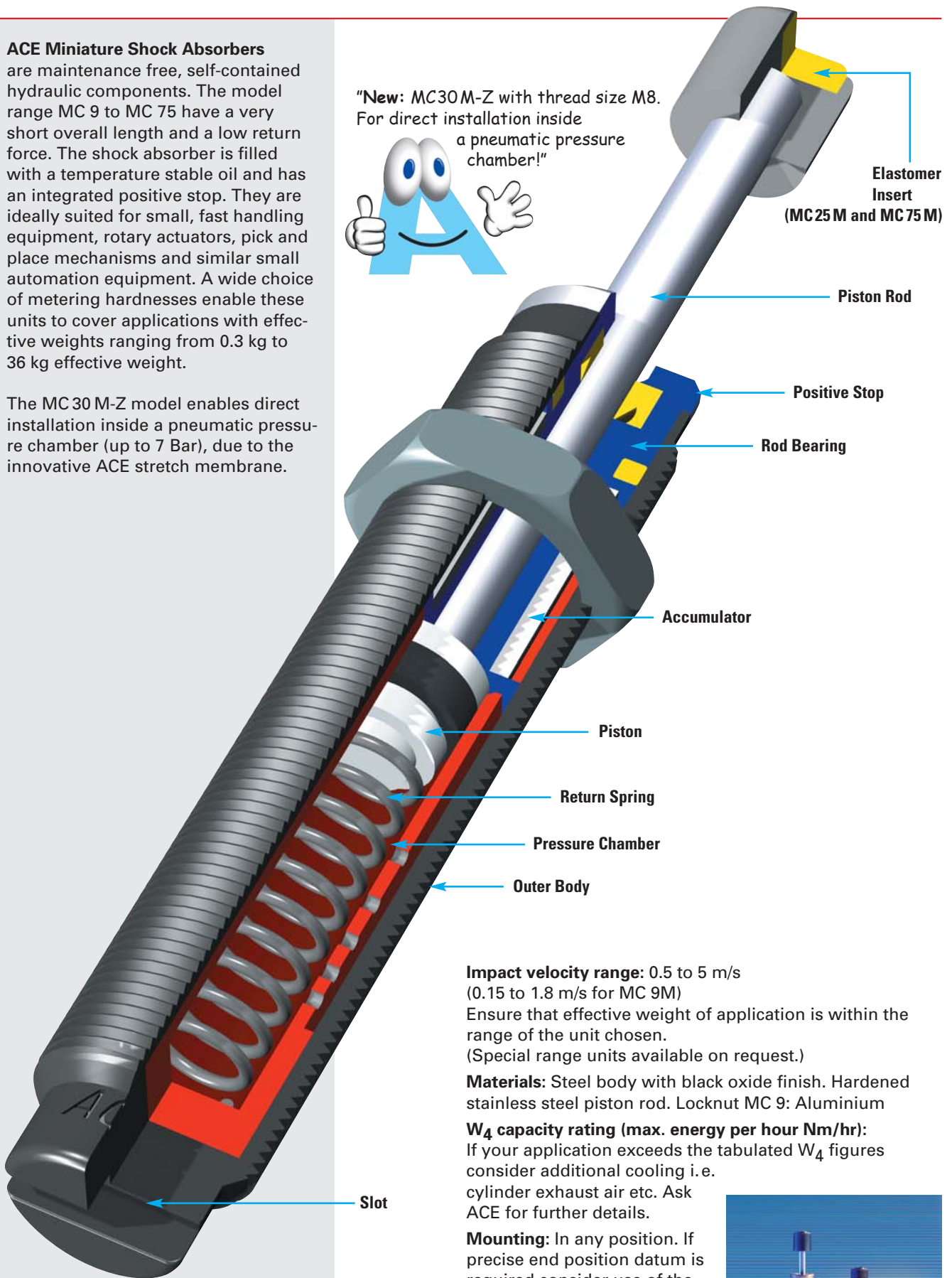


ACE Miniature Shock Absorbers are maintenance free, self-contained hydraulic components. The model range MC 9 to MC 75 have a very short overall length and a low return force. The shock absorber is filled with a temperature stable oil and has an integrated positive stop. They are ideally suited for small, fast handling equipment, rotary actuators, pick and place mechanisms and similar small automation equipment. A wide choice of metering hardnesses enable these units to cover applications with effective weights ranging from 0.3 kg to 36 kg effective weight.

The MC 30 M-Z model enables direct installation inside a pneumatic pressure chamber (up to 7 Bar), due to the innovative ACE stretch membrane.

"New: MC30M-Z with thread size M8. For direct installation inside a pneumatic pressure chamber!"



Impact velocity range: 0.5 to 5 m/s

(0.15 to 1.8 m/s for MC 9M)

Ensure that effective weight of application is within the range of the unit chosen.

(Special range units available on request.)

Materials: Steel body with black oxide finish. Hardened stainless steel piston rod. Locknut MC 9: Aluminium

W₄ capacity rating (max. energy per hour Nm/hr):

If your application exceeds the tabulated W₄ figures consider additional cooling i.e. cylinder exhaust air etc. Ask ACE for further details.

Mounting: In any position. If precise end position datum is required consider use of the optional stop collar type AH.

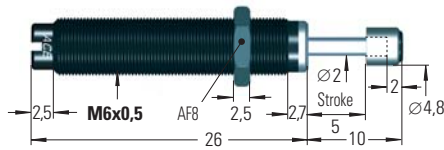
Operating temperature range: 0°C to 65°C.

On request: the MC Series are available with Weartec finish (seawater resistant) or other special finishes.



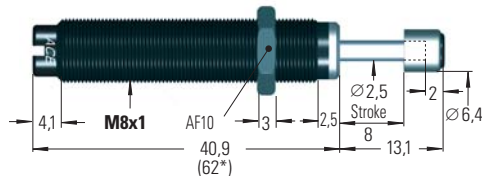
Part Number MC . . .

MC 9 M-B



Accessories, mounting, installation... see pages 30 to 35.

MC 30 M for use on new installations

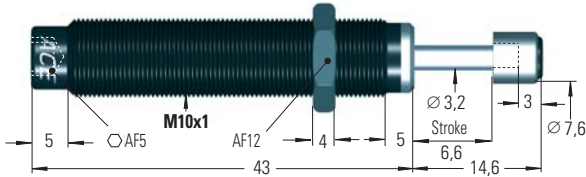


NEW

* Type for direct installation inside a pneumatic pressure chamber add Suffix -Z

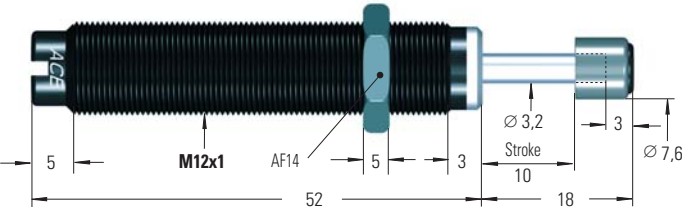
Accessories, mounting, installation... see pages 30 to 35.

MC 25 M



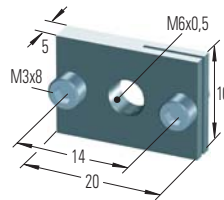
Accessories, mounting, installation... see pages 30 to 35.

MC 75 M



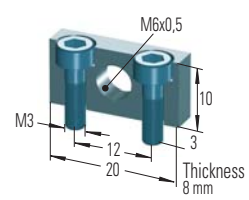
Accessories, mounting, installation... see pages 30 to 35.

RF 6



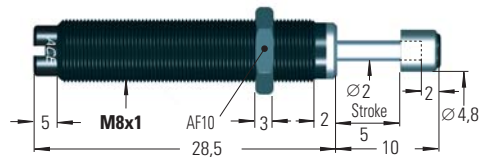
Rectangular Flange

MB 6 SC²



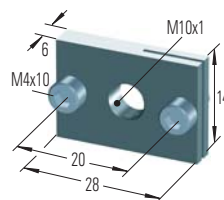
Mounting Block

MC 10 M-B still available in future



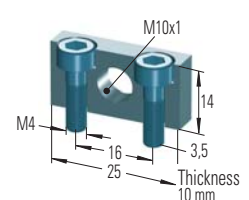
M8x0,75 also available to order

RF 10



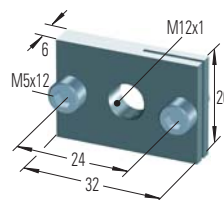
Rectangular Flange

MB 10 SC²



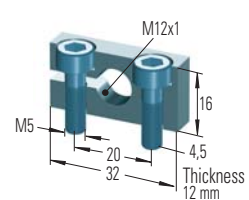
Mounting Block

RF 12



Rectangular Flange

MB 12



Clamp Mount

AH Stop Collar



BV Side Load Adaptor



not available for MC 9 model

PB Steel Shroud



not available for MC 9 model

AS Switch Stop Collar



MC 25 M to MC 75 M only

Mounting, installation... see pages 30 to 35.

Available without rod end button and with shortened piston rod on request (add suffix -NB)

Capacity Chart

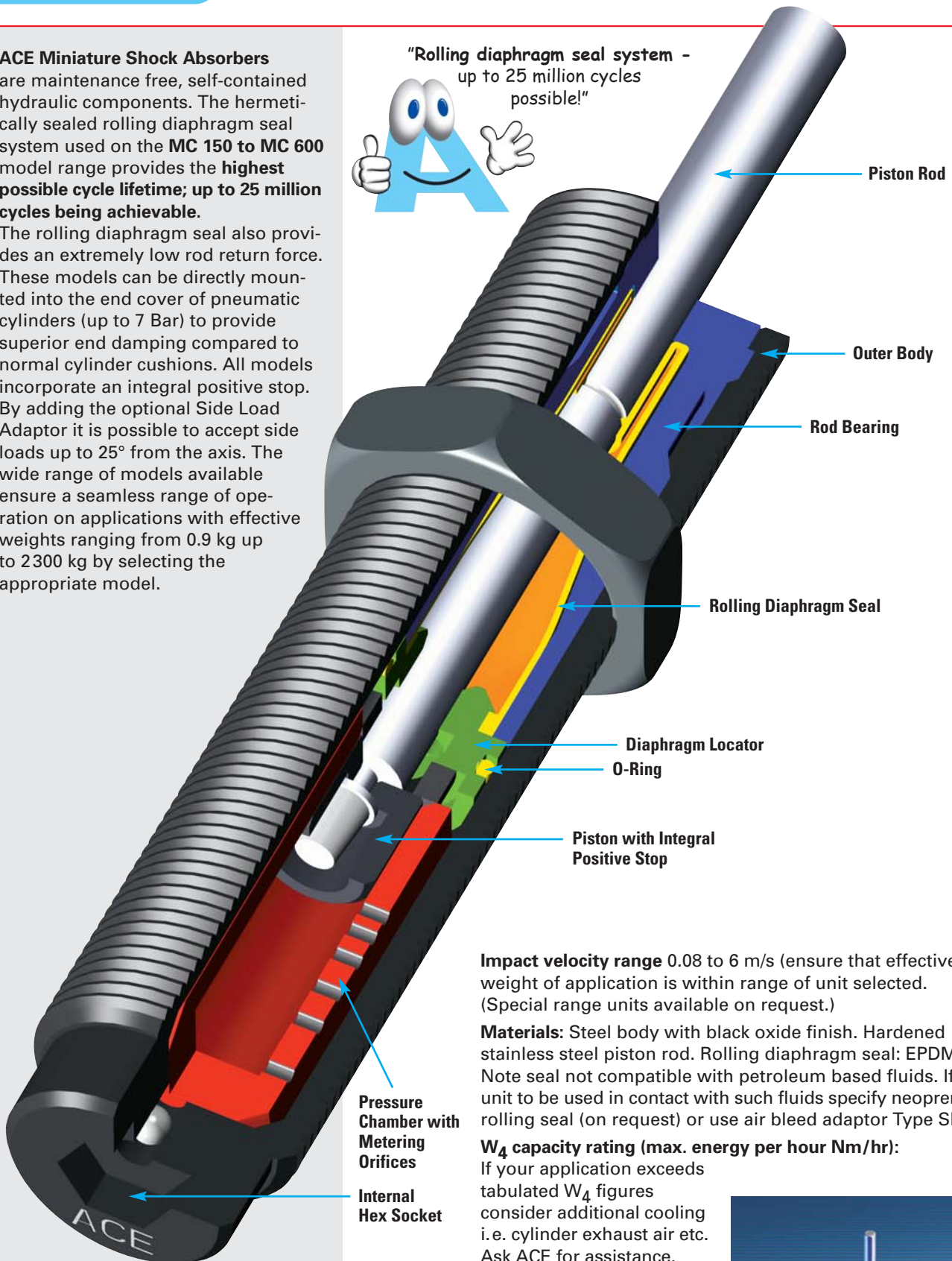
Type	Max. Energy Capacity Nm		Effective Weight me		Return Force N	Rod Reset Time s	*Max. Side Load Angle °	Weight kg
	per Cycle W ₃	per Hour W ₄	Self-Compensating min kg	max kg				
MC 9 M-1-B	1.0	2000	0.6	3.2	1.38 - 3.78	0.3	2	0.005
MC 9 M-2-B	1.0	2000	0.8	4.1	1.38 - 3.78	0.3	2	0.005
MC 10 ML-B	1.25	4000	0.3	2.7	2.00 - 4.00	0.6	3	0.010
MC 10 MH-B	1.25	4000	0.7	5.0	2.00 - 4.00	0.6	3	0.010
MC 30 M-1 (-Z)	3.5	5600	0.4	1.9	0.9 - 4.45	0.3	2	0.010
MC 30 M-2 (-Z)	3.5	5600	1.8	5.4	0.9 - 4.45	0.3	2	0.010
MC 30 M-3 (-Z)	3.5	5600	5	15	0.9 - 4.45	0.3	2	0.010
MC 25 ML	2.8	22500	0.7	2.2	3.00 - 6.00	0.3	2	0.020
MC 25 M	2.8	22500	1.8	5.4	3.00 - 6.00	0.3	2	0.020
MC 25 MH	2.8	22500	4.6	13.6	3.00 - 6.00	0.3	2	0.020
MC 75 M-1	9.0	28200	0.3	1.1	4.00 - 9.00	0.3	2	0.030
MC 75 M-2	9.0	28200	0.9	4.8	4.00 - 9.00	0.3	2	0.030
MC 75 M-3	9.0	28200	2.7	36.2	4.00 - 9.00	0.3	2	0.030

* With higher side load angles install BV side load adaptor see page 30 and 34.

ACE Miniature Shock Absorbers are maintenance free, self-contained hydraulic components. The hermetically sealed rolling diaphragm seal system used on the **MC 150 to MC 600** model range provides the **highest possible cycle lifetime; up to 25 million cycles being achievable.**

The rolling diaphragm seal also provides an extremely low rod return force. These models can be directly mounted into the end cover of pneumatic cylinders (up to 7 Bar) to provide superior end damping compared to normal cylinder cushions. All models incorporate an integral positive stop. By adding the optional Side Load Adaptor it is possible to accept side loads up to 25° from the axis. The wide range of models available ensure a seamless range of operation on applications with effective weights ranging from 0.9 kg up to 2300 kg by selecting the appropriate model.

"Rolling diaphragm seal system - up to 25 million cycles possible!"



Piston Rod

Outer Body

Rod Bearing

Rolling Diaphragm Seal

Diaphragm Locator

O-Ring

Piston with Integral Positive Stop

Pressure Chamber with Metering Orifices

Internal Hex Socket

Impact velocity range 0.08 to 6 m/s (ensure that effective weight of application is within range of unit selected. (Special range units available on request.)

Materials: Steel body with black oxide finish. Hardened stainless steel piston rod. Rolling diaphragm seal: EPDM. Note seal not compatible with petroleum based fluids. If unit to be used in contact with such fluids specify neoprene rolling seal (on request) or use air bleed adaptor Type SP.

W₄ capacity rating (max. energy per hour Nm/hr):

If your application exceeds tabulated W₄ figures consider additional cooling i.e. cylinder exhaust air etc. Ask ACE for assistance.

Mounting: In any position. If precise end position datum is required consider use of the optional stop collar type AH.

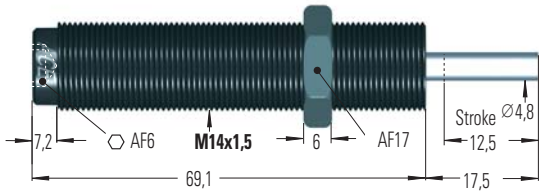
Operating temperature range: 0°C to 66°C.

On request: Stainless Steel outer body. Weartech finish (seawater resistant). Other finishes available to special order.



Part Number MC . . .

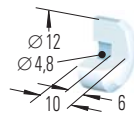
MC 150 M



M14x1 also available to special order

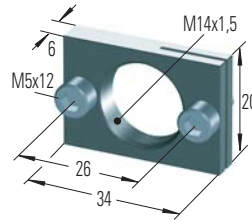
Accessories, mounting, installation... see pages 31 to 35.

PP 150



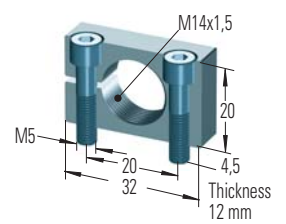
Nylon Button
W₃ max = 14 Nm

RF 14



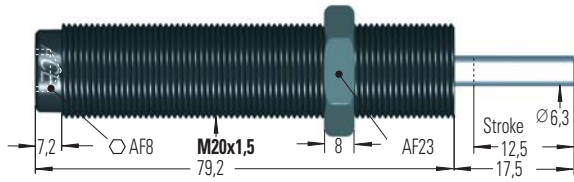
Rectangular Flange

MB 14



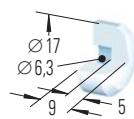
Clamp Mount

MC 225 M



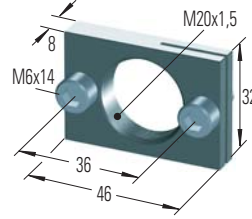
Accessories, mounting, installation... see pages 31 to 35.

PP 225



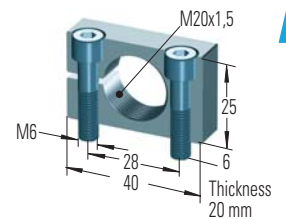
Nylon Button
W₃ max = 33 Nm

RF 20



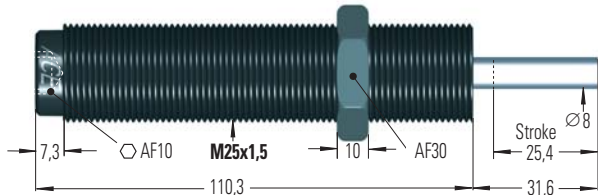
Rectangular Flange

MB 20



Clamp Mount

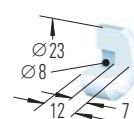
MC 600 M



M27x3 also available to special order

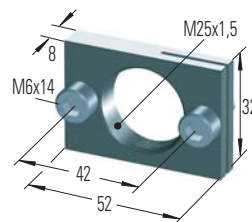
Accessories, mounting, installation... see pages 32 to 35.

PP 600



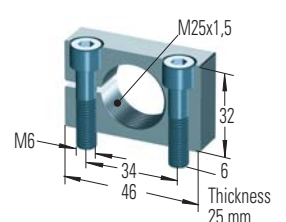
Nylon Button
W₃ max = 68 Nm

RF 25



Rectangular Flange

MB 25



Clamp Mount

AH Stop Collar



BV Side Load Adaptor



SP Air Bleed Collar



PB Steel Shroud



PS Steel Button



Mounting, installation... see pages 31 to 35.

AS Switch Stop Collar



Capacity Chart

Type	Max. Energy Capacity Nm		Effective Weight me		Return Force N	Rod Reset Time s	*Max. Side Load Angle °	Weight kg
	per Cycle W ₃	per Hour W ₄	Self-Compensating min	kg max				
MC 150 M	20	34 000	0,9	- 10	3 - 5	0,4	4	0,06
MC 150 MH	20	34 000	8,6	- 86	3 - 5	0,4	4	0,06
MC 150 MH2	20	34 000	70	- 200	3 - 5	0,4	4	0,06
MC 225 M	41	45 000	2,3	- 25	4 - 6	0,3	4	0,15
MC 225 MH	41	45 000	23	- 230	4 - 6	0,3	4	0,15
MC 225 MH2	41	45 000	180	- 910	4 - 6	0,3	4	0,15
MC 600 M	136	68 000	9	- 136	5 - 9	0,6	2	0,26
MC 600 MH	136	68 000	113	- 1 130	5 - 9	0,6	2	0,26
MC 600 MH2	136	68 000	400	- 2 300	5 - 9	0,6	2	0,26

* For applications with higher side load angles consider using the Side Load Adaptor (BV) pages 30 to 34.