MC150 to MC600

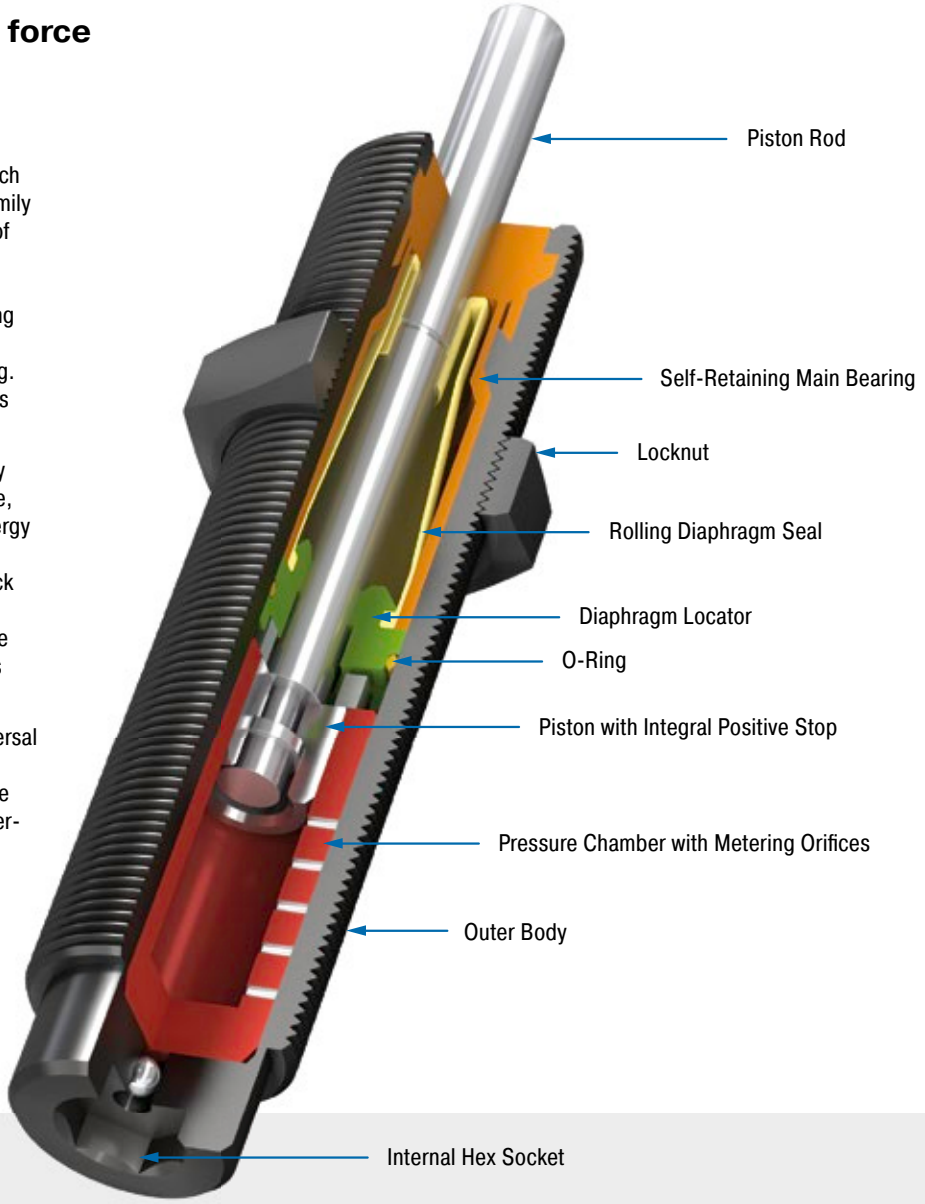
Miniature Shock Absorbers

Exceptionaly high endurance and with the lowest resetting force

Tried-and-tested and durable: Due to a hermetically sealed rolling diaphragm in each absorber, the MC150 to MC600 product family is suitable for an exceptional high lifetime of use with up to 25 million cycles. The rolling diaphragm technology perfected by ACE ensures complete separation of the damping fluid from the surrounding air. This makes direct installation in a pressure chamber e.g. as end stop damping in pneumatic cylinders up to approx. 7 bar possible.

The rolling diaphragm also benefits the very low return forces of these maintenance-free, ready-to-install absorbers. Progressive energy capacities, with a wide range of effective weight potential make these miniature shock absorbers, complete with an integrated positive stop a winner. Furthermore, the use of a side load adapter allows impact angles of up to 25°.

Miniature shock absorbers capable of universal mounting even inside a cylinder and also available in stainless steel options. They are often used in mechanical and plant engineering, and a multitude of other applications.



Technical Data

Energy capacity: 20 Nm/Cycle to 136 Nm/Cycle

Impact velocity range: 0.06 m/s to 6 m/s. Other speeds on request.

Operating temperature range: 0 °C to 66 °C

Mounting: In any position

Positive stop: Integrated

Material: Outer body, Accessories: Steel corrosion-resistant coating; Main bearing: Plastic; Piston rod: Hardened stainless steel (1.4125, AISI 440C); Rolling diaphragm: EPDM

Damping medium: Oil, temperature stable

Application field: Linear slides, Pneumatic cylinders, Swivel units, Handling modules

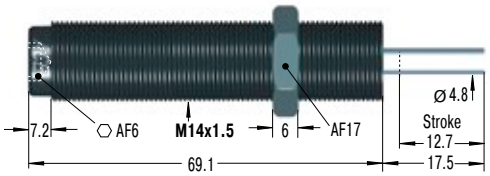
Note: If precise end position datum is required consider use of the stop collar type AH.

Safety instructions: External materials in the surrounding area can attack the rolling seal and lead to a shorter service life. Please contact ACE for appropriate solution suggestions. Suitable for use in pressure chambers up to 7 bar.

On request: Increased corrosion protection. Special threads or other special options.

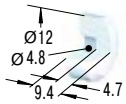
Issue 08.2016 – Specifications subject to change

MC150EUM



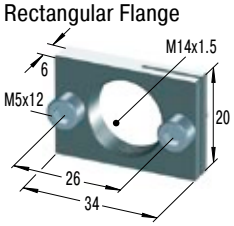
M14x1 also available to special order

PP150
Nylon Button

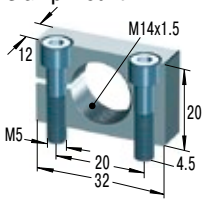


W_3 max = 14 Nm

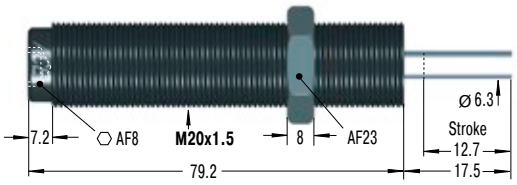
RF14
Rectangular Flange



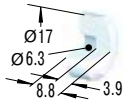
MB14
Clamp Mount



MC225EUM

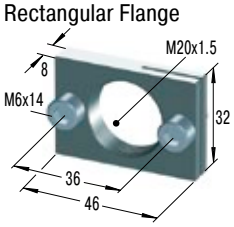


PP225
Nylon Button

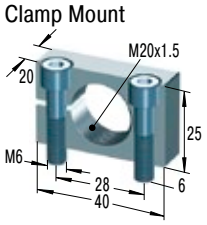


W_3 max = 33 Nm

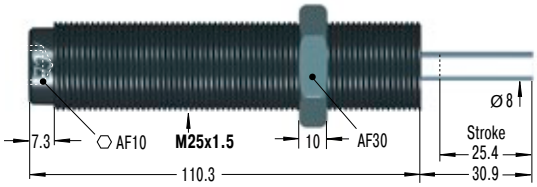
RF20
Rectangular Flange



MB20
Clamp Mount

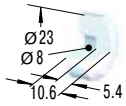


MC600EUM



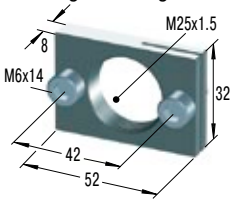
M27x3 also available to special order

PP600
Nylon Button

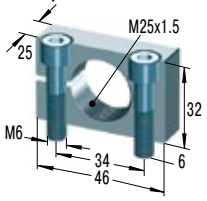


W_3 max = 68 Nm

RF25
Rectangular Flange



MB25
Clamp Mount



Additional accessories, mounting, installation ... see from page 36.

Performance

TYPES	Max. Energy Capacity W_3 Nm/cycle	Max. Energy Capacity W_4 Nm/h	Effective Weight me min. kg	Effective Weight me max. kg	Return force min. N	Return force max. N	Return time s	[1] Side Load Angle max. °	Weight kg
MC150EUM	20	34,000	0.9	10	3	8	0.4	4	0.06
MC150EUMH	20	34,000	8.6	86	3	8	0.4	4	0.06
MC150EUMH2	20	34,000	70.0	200	3	8	0.4	4	0.06
MC150EUMH3	20	34,000	181.0	408	3	8	1.0	4	0.06
MC225EUM	41	45,000	2.3	25	4	9	0.3	4	0.15
MC225EUMH	41	45,000	23.0	230	4	9	0.3	4	0.15
MC225EUMH2	41	45,000	180.0	910	4	9	0.3	4	0.15
MC225EUMH3	41	45,000	816.0	1,814	4	9	0.3	4	0.15
MC600EUM	136	68,000	9.0	136	5	10	0.6	2	0.26
MC600EUMH	136	68,000	113.0	1,130	5	10	0.6	2	0.26
MC600EUMH2	136	68,000	400.0	2,300	5	10	0.6	2	0.26
MC600EUMH3	136	68,000	2,177.0	4,536	5	10	0.6	2	0.26

[1] For applications with higher side load angles consider using the side load adaptor (BV) pages 38 to 45.

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