

## SC<sup>2</sup>25 to SC<sup>2</sup>190

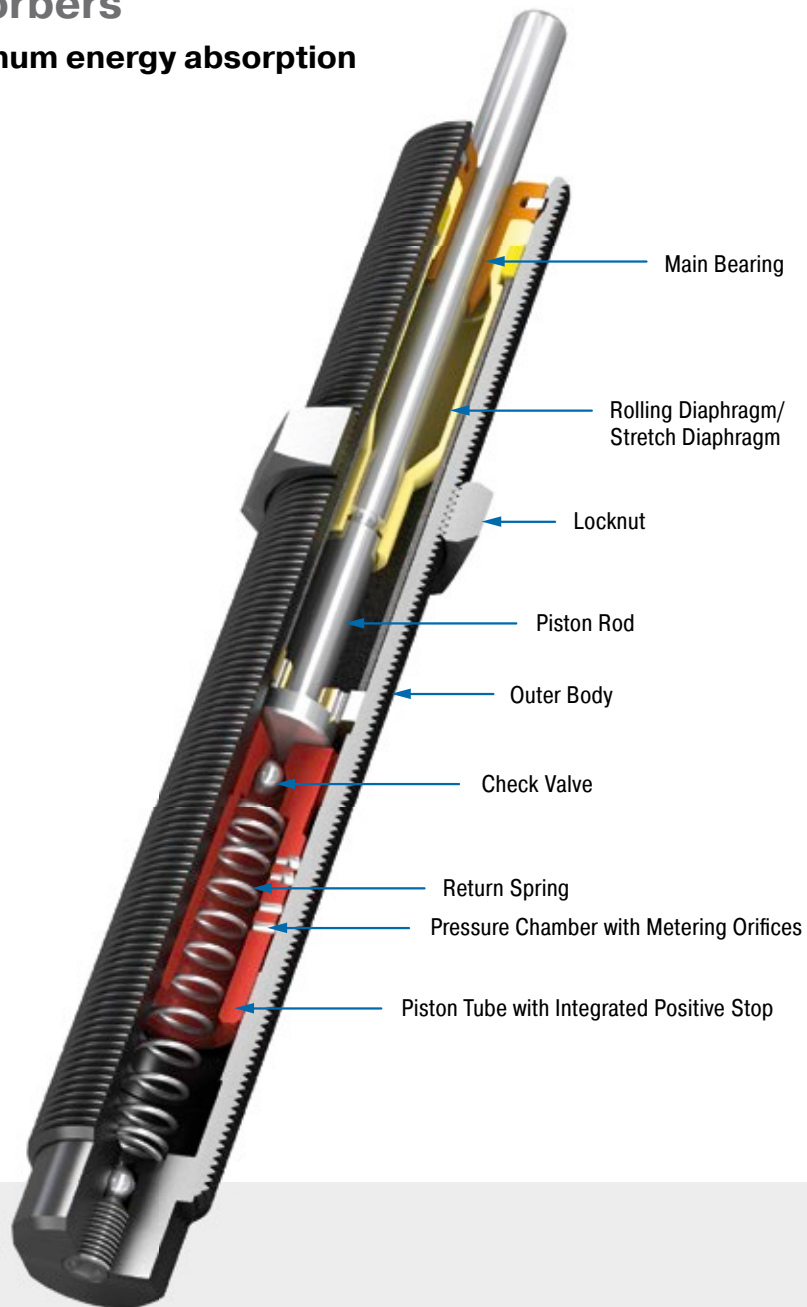
### Miniature Shock Absorbers

#### Piston tube design for maximum energy absorption

Soft damping, but enormous capacity: The range of 'soft contact' absorbers SC<sup>2</sup>25 to 190 extends from thread size M10 to M14 and covers effective weight ranges of 1 kg to 1,550 kg. All models are characterised by high energy absorption and they also unite the piston tube technology with the diaphragm seal perfected by ACE. This enables direct installation as end position damping in pneumatic cylinders at 5 to 7 bar or applications where deceleration needs to take place close to the pivot point.

They are maintenance-free, have an integrated positive stop and are mountable in any position. The option of a side load adapter allows impact angles of up to 25°.

Thanks to their robust design and their durability, these miniature shock absorbers can be used for a wide range of applications. Designers mainly use them for pick and place systems, pneumatic rotary modules and in automation applications.



#### Technical Data

**Energy capacity:** 10 Nm/Cycle to 31 Nm/Cycle

**Impact velocity range:** 0.1 m/s to 5.7 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; Piston rod: Hardened stainless steel; Rolling diaphragm: SC<sup>2</sup>190: EPDM; Stretch diaphragm: SC<sup>2</sup>25 and SC<sup>2</sup>75: Nitrile

**Damping medium:** Oil, temperature stable

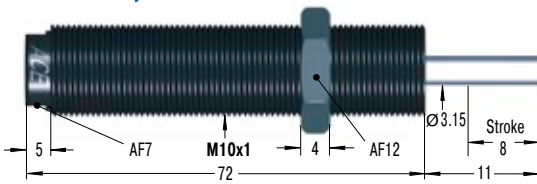
**Application field:** Linear slides, Pneumatic cylinders, Swivel units, Handling modules

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

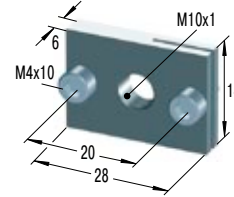
**Safety instructions:** External materials in the surrounding area can attack the rolling and stretch seals and lead to a shorter service life. Please contact ACE for appropriate solution suggestions.

**On request:** Increased corrosion protection. Special finishes.

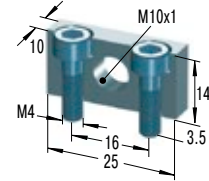
#### SC25EUM; 5 to 7



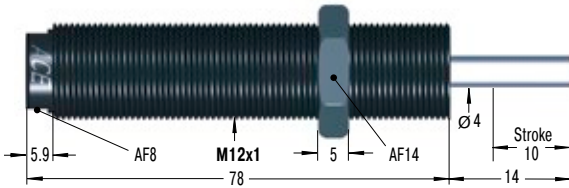
#### RF10 Rectangular Flange



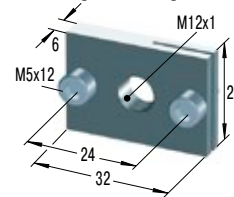
#### MB10SC2 Mounting Block



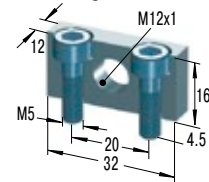
#### SC75EUM; 5 to 7



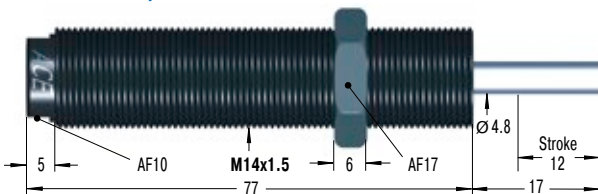
#### RF12 Rectangular Flange



#### MB12SC2 Mounting Block

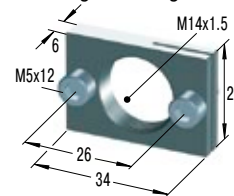


#### SC190EUM; 5 to 7

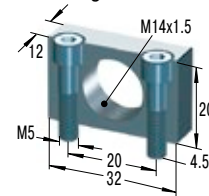


M14x1 also available to special order

#### RF14 Rectangular Flange



#### MB14SC2 Mounting Block



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

### Performance

TYPES	Max. Energy Capacity		Effective Weight			Return force min. N	Return force max. N	Return time s	Side Load Angle max. °	Weight kg
	W <sub>3</sub> Nm/cycle	W <sub>4</sub> Nm/h	me min. kg	me max. kg	Hardness					
SC25EUM-5	10	16,000	1	5	-5	4.5	14	0.3	2	0.027
SC25EUM-6	10	16,000	4	44	-6	4.5	14	0.3	2	0.027
SC25EUM-7	10	16,000	42	500	-7	4.5	14	0.3	2	0.027
SC75EUM-5	16	30,000	1	8	-5	6.0	19	0.3	2	0.045
SC75EUM-6	16	30,000	7	78	-6	6.0	19	0.3	2	0.045
SC75EUM-7	16	30,000	75	800	-7	6.0	19	0.3	2	0.045
SC190EUM-5	31	50,000	2	16	-5	6.0	19	0.4	2	0.060
SC190EUM-6	31	50,000	13	140	-6	6.0	19	0.4	2	0.060
SC190EUM-7	31	50,000	136	1,550	-7	6.0	19	0.4	2	0.060

<sup>1</sup> For applications with higher side load angles consider using the side load adaptor (BV) pages 38 to 45.