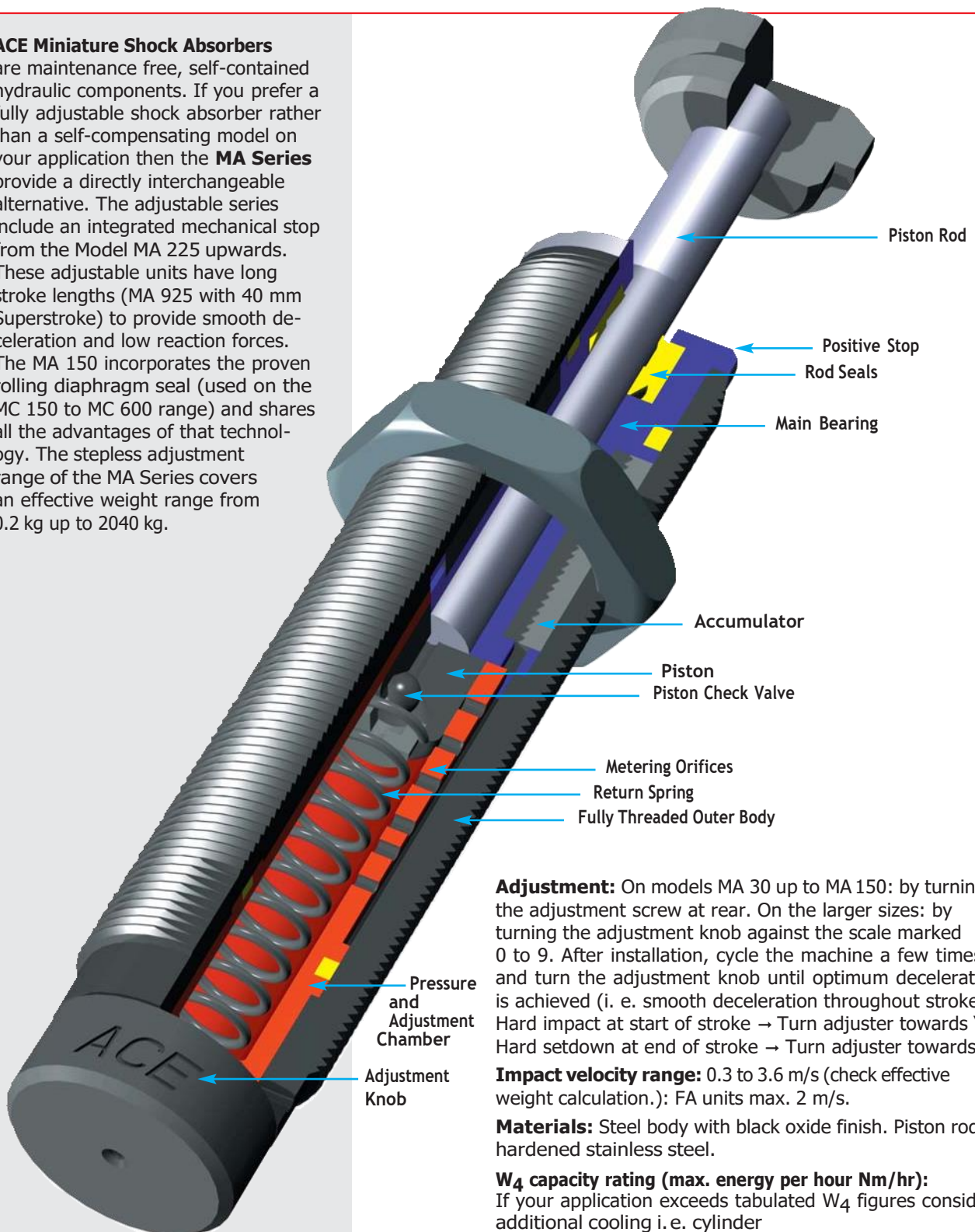


# Miniature Shock Absorbers MA

## Adjustable

### ACE Miniature Shock Absorbers

are maintenance free, self-contained hydraulic components. If you prefer a fully adjustable shock absorber rather than a self-compensating model on your application then the **MA Series** provide a directly interchangeable alternative. The adjustable series include an integrated mechanical stop from the Model MA 225 upwards. These adjustable units have long stroke lengths (MA 925 with 40 mm Superstroke) to provide smooth deceleration and low reaction forces. The MA 150 incorporates the proven rolling diaphragm seal (used on the MC 150 to MC 600 range) and shares all the advantages of that technology. The stepless adjustment range of the MA Series covers an effective weight range from 0.2 kg up to 2040 kg.



**Adjustment:** On models MA 30 up to MA 150: by turning the adjustment screw at rear. On the larger sizes: by turning the adjustment knob against the scale marked 0 to 9. After installation, cycle the machine a few times and turn the adjustment knob until optimum deceleration is achieved (i. e. smooth deceleration throughout stroke). Hard impact at start of stroke → Turn adjuster towards "9"  
Hard setdown at end of stroke → Turn adjuster towards "0"

**Impact velocity range:** 0.3 to 3.6 m/s (check effective weight calculation.); FA units max. 2 m/s.

**Materials:** Steel body with black oxide finish. Piston rod hardened stainless steel.

**W<sub>4</sub> capacity rating (max. energy per hour Nm/hr):**

If your application exceeds tabulated W<sub>4</sub> figures consider additional cooling i. e. cylinder exhaust air etc.

**Mounting:** In any position.

If precise end position datum is required consider use of the optional stop collar type AH. Install a mechanical stop 0.5 to 1 mm before end of stroke on FA 1008.

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

**On request:** Weartec finish (seawater resistant) other special finishes available to special order.

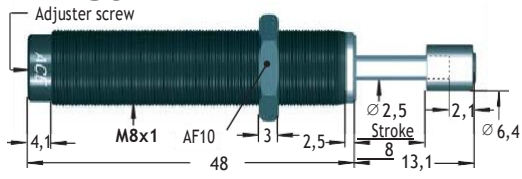


# Miniature Shock Absorbers FA and MA

## Adjustable

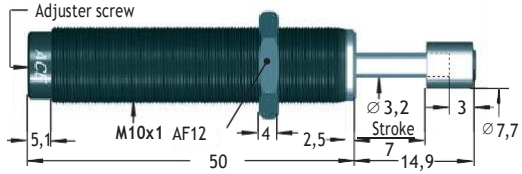
Part Number FA, MA . . .

### MA 30 M



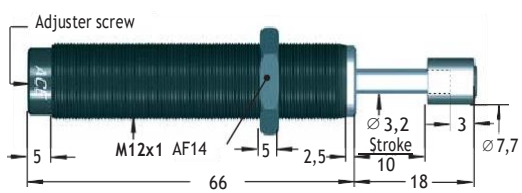
Accessories, mounting, installation... see pages 30 to 35.

### MA 50 M for use on new installations



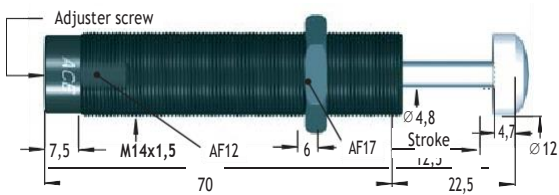
Accessories, mounting, installation... see pages 30 to 35.

### MA 35 M



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

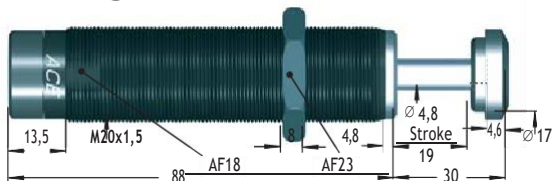
### MA 150 M



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

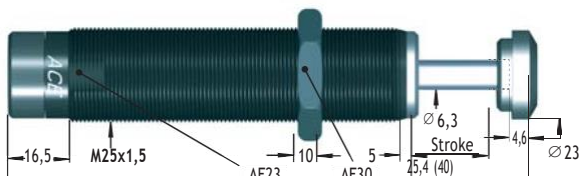
M14x1 available to special order.

### MA 225 M



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

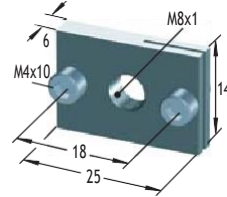
### MA 600 M and MA 900 M



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

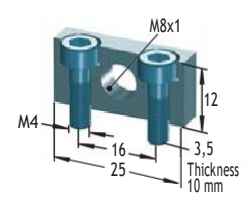
MA 600 ML with M27x3 available to special order.

### RF 8



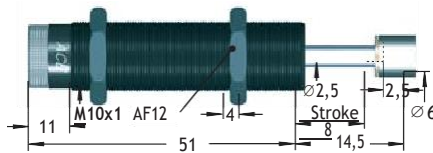
Rectangular Flange

### MB 8 SC<sup>2</sup>



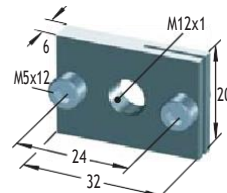
Mounting Block

FA 1008 VD-B still available in future



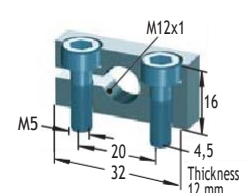
Accessories, mounting, installation... see pages 30 to 35.

### RF 12



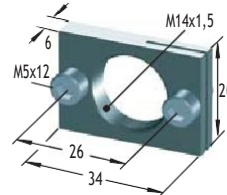
Rectangular Flange

### MB 12



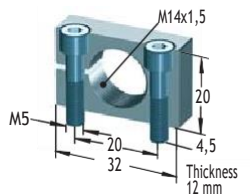
Clamp Mount

### RF 14



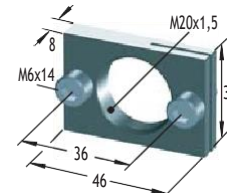
Rectangular Flange

### MB 14



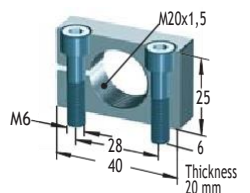
Clamp Mount

### RF 20



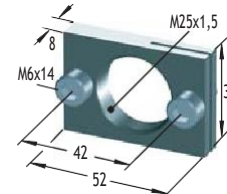
Rectangular Flange

### MB 20



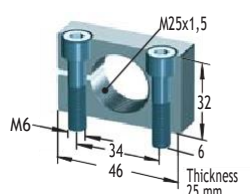
Clamp Mount

### RF 25



Rectangular Flange

### MB 25



Clamp Mount

Available without rod end button on request. Models MA 600 M/MA 900 M available with clevis mounting (see page 33).

## 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 <sub>3</sub>	per Hour W <sub>4</sub>	Adjustable min	kg max				
MA 30 M	3.5	5 650	0.23	15	1 - 5	0.3	2	0.009
FA 1008 VD-B	1.8	3 600	0.2	10	3 - 6	0.3	2.5	0.026
MA 50 M	5.5	13 550	4.5	20	3 - 6	0.3	2	0.030
MA 35 M	4	6 000	5.9	57	5 - 11	0.2	2	0.043
MA 150 M	22	35 000	1.0	109	3 - 5	0.4	5	0.06
MA 225 M	25	45 000	2.3	226	5 - 10	0.1	2	0.13
MA 600 M	68	68 000	9	1 360	10 - 30	0.2	2	0.31
MA 900 M	100	90 000	14	2 040	10 - 35	0.4	1	0.40

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