



Main Catalogue Edition 6/2011

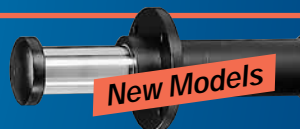
Industrial
Shock Absorbers

New Models



Safety
Shock Absorbers

New Models



LOCKED
Clamping Elements

New Models



TUBUS
Profile Dampers



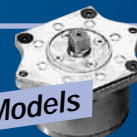
SLAB
Damping Plates

New Models



Rotary
Dampers

New Models



Dampers/
Feed Controls

New Models

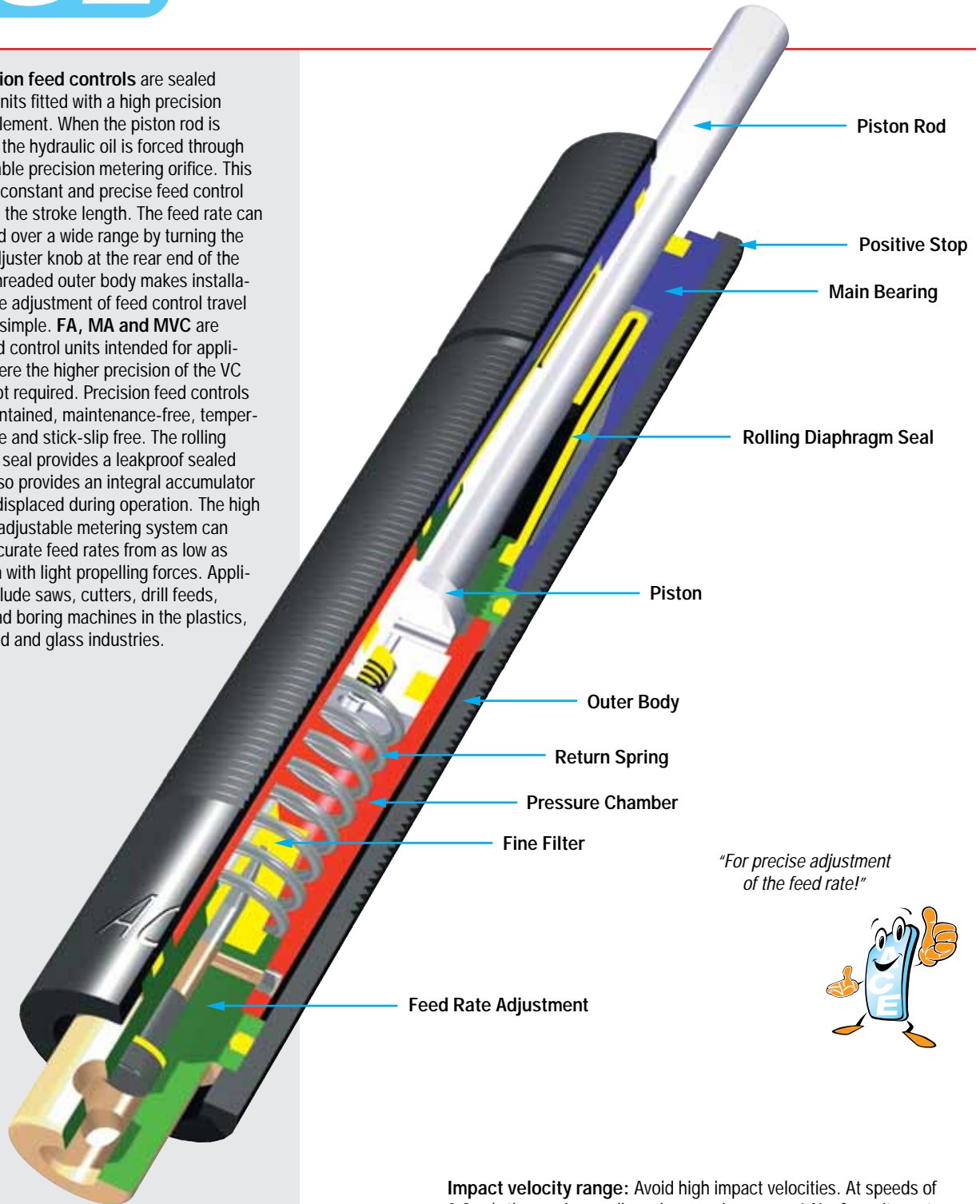


Industrial
Gas Springs

New Models



VC precision feed controls are sealed hydraulic units fitted with a high precision metering element. When the piston rod is depressed the hydraulic oil is forced through the adjustable precision metering orifice. This provides a constant and precise feed control throughout the stroke length. The feed rate can be adjusted over a wide range by turning the external adjuster knob at the rear end of the unit. The threaded outer body makes installation and the adjustment of feed control travel limits very simple. FA, MA and MVC are similar feed control units intended for applications where the higher precision of the VC series is not required. Precision feed controls are self-contained, maintenance-free, temperature stable and stick-slip free. The rolling diaphragm seal provides a leakproof sealed unit and also provides an integral accumulator for the oil displaced during operation. The high precision, adjustable metering system can provide accurate feed rates from as low as 12 mm/min with light propelling forces. Applications include saws, cutters, drill feeds, grinding and boring machines in the plastics, metal, wood and glass industries.



"For precise adjustment of the feed rate!"



Impact velocity range: Avoid high impact velocities. At speeds of 0.3 m/s the maximum allowed energy is approx. 1 Nm for units up to 55 mm stroke and approx. 2 Nm for units 74 mm to 125 mm stroke. Where higher energies occur use a shock absorber for the initial impact.

Material: Body heavy duty steel tube with black oxide. Piston rod with hard chrome plating.

Nylon button PP600 can be fitted onto piston rod. Unit may be mounted in any position.

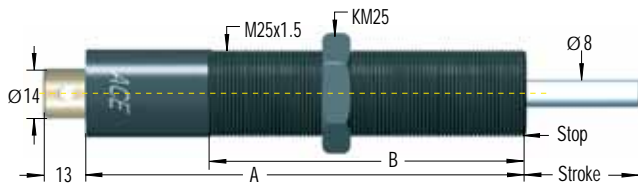
When mounting: Take care not to damage the adjuster knob.

Operating temperature range: 0 °C to 60 °C

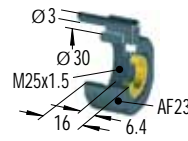
Only VC2515 to VC2555: Do not rotate piston rod, if excessive rotation force is applied rolling seal may rupture. In contact with petroleum base oils or cutting fluids specify optional neoprene rolling seal or install air bleed adaptor type SP.



VC25

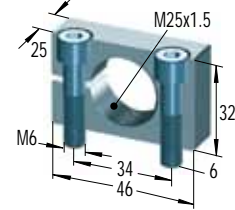


SP25



Air Bleed Collar
for VC2515FT to VC2555FT
reduction of the stroke 6.4 mm

MB25



Clamp Mount

Accessories, mounting, installation ... see pages 38 to 41.

Capacity Chart

Type Part Number	Stroke mm	A	B	Min. Propelling Force N	Max. Propelling Force N	Min. Return Force N	Max. Return Force N	Rod Reset Time s	Max. Side Load Angle °	Weight kg
VC2515EUFT	15	128	80	30	3 500	5	10	0.2	3	0.35
VC2530EUFT	30	161	110	30	3 500	5	15	0.4	2	0.45
VC2555EUFT	55	209	130	35	3 500	5	20	1.2	2	0.6
VC2575EUFT	75	283	150	50	3 500	10	30	1.7	2	0.681
VC25100EUFT	100	308	150	60	3 500	10	35	2.3	1	0.794
VC25125EUFT	125	333.5	150	70	3 500	10	40	2.8	1	0.908

Suffix "FT" signifies a M25x1.5 threaded body.

Suffix "F" signifies a plain body 23.8 mm dia. (without thread) also available, with optional clamp type mounting block.

Technical Data

Outer body: Plain body 23.8 mm dia. (without thread) is also available.

Feed rate range: Min. 0.013 m/min with 400 N propelling force, max. 38 m/min with 3500 N propelling force.

Mounting Examples



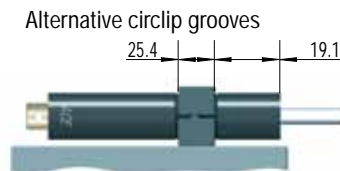
Mounting with clamp mount MB25



Installed with air bleed collar SP25

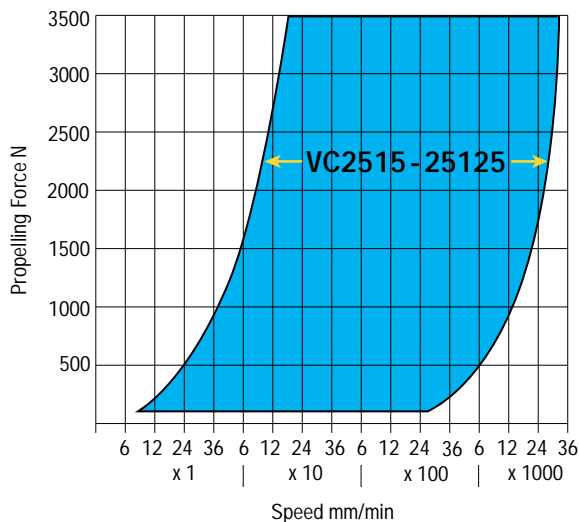


Installed with switch stop collar inc. proximity switch and steel button AS25 plus PS25

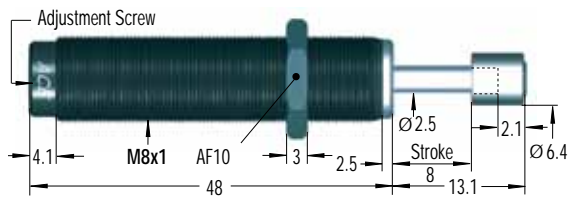


Bulkhead mounting for VC25...F with mounting block KB... (23.8 mm plain body option)

Operating Range VC

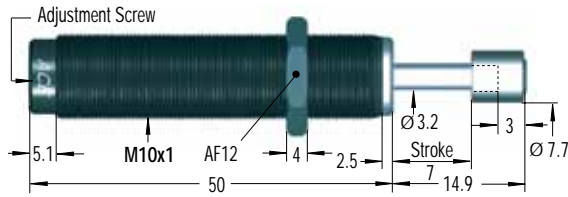


MA30EUM



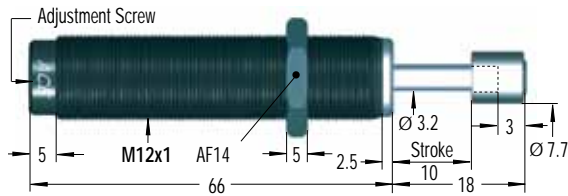
Accessories, mounting, installation ... see pages 36 to 41.

MA50EUM for use on new installations



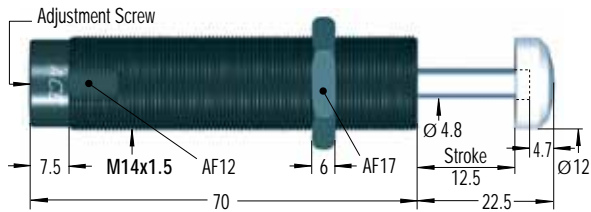
Accessories, mounting, installation ... see pages 36 to 41.

MA35EUM



Accessories, mounting, installation ... see pages 37 to 41.

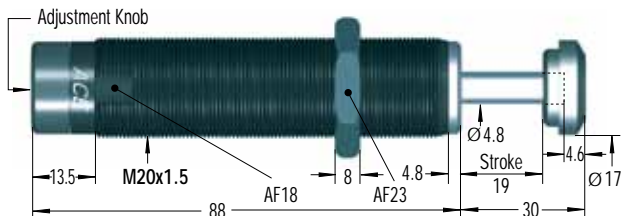
MA150EUM



M14x1.5 also available to special order

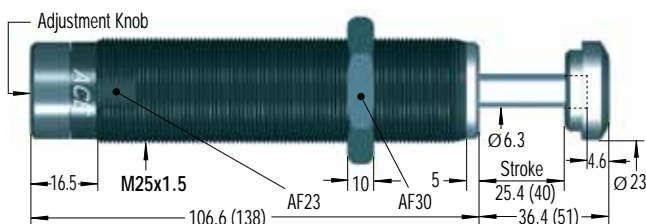
Accessories, mounting, installation ... see pages 37 to 41.

MVC225EUM



Accessories, mounting, installation ... see pages 38 to 41.

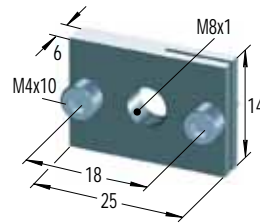
MVC600EUM and MVC900EUM



Dimensions for MVC900EUM in ()

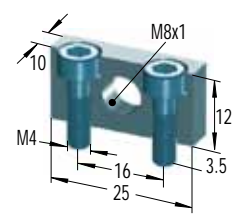
Accessories, mounting, installation ... see pages 38 to 41.

RF8



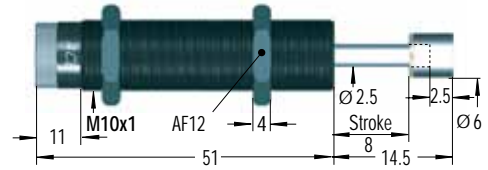
Rectangular Flange

MB8SC2



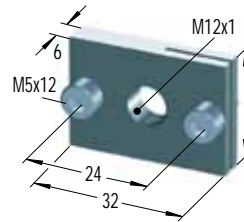
Mounting Block

FA1008V-B still available in future



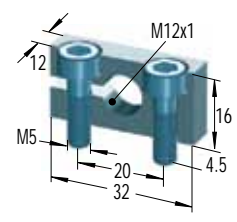
Accessories, mounting, installation ... see pages 36 to 41.

RF12



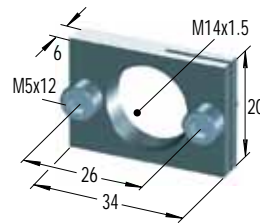
Rectangular Flange

MB12



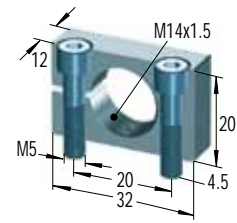
Clamp Mount

RF14



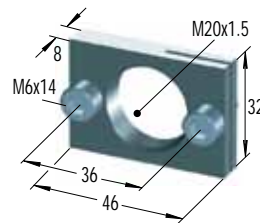
Rectangular Flange

MB14



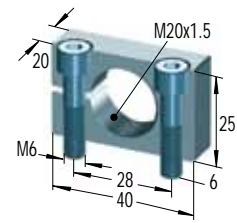
Clamp Mount

RF20



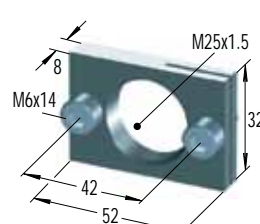
Rectangular Flange

MB20



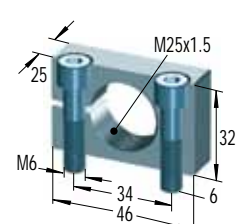
Clamp Mount

RF25



Rectangular Flange

MB25



Clamp Mount

Capacity Chart

Type	Hub mm	Propelling Force N		Min. Return Force N	Max. Return Force N	Rod Reset Time s	1 Max. Side Load Angle °	Weight kg
		min. N	max. N					
MA30EUM	8	8	80	1.7	5.3	0.3	2	0.013
MA50EUM	7	40	160	3	6	0.3	2	0.025
FA1008V-B	8	10	180	3	6	0.3	2.5	0.024
MA35EUM	10	15	200	5	11	0.2	2	0.043
MA150EUM	12	20	300	3	5	0.4	2	0.06
MVC225EUM	19	25	1 750	5	10	0.65	2	0.15
MVC600EUM	25	65	3 500	10	30	0.85	2	0.3
MVC900EUM	40	70	3 500	10	35	0.95	2	0.4

¹ For applications with higher side load angles consider using the side load adaptor (BV) page 40.

Technical Data

Impact velocity range: Avoid high impact velocities. At speeds of 0.3 m/s the maximum allowed energy is approx. 2 Nm. Where higher energies occur use a shock absorber for the initial impact.

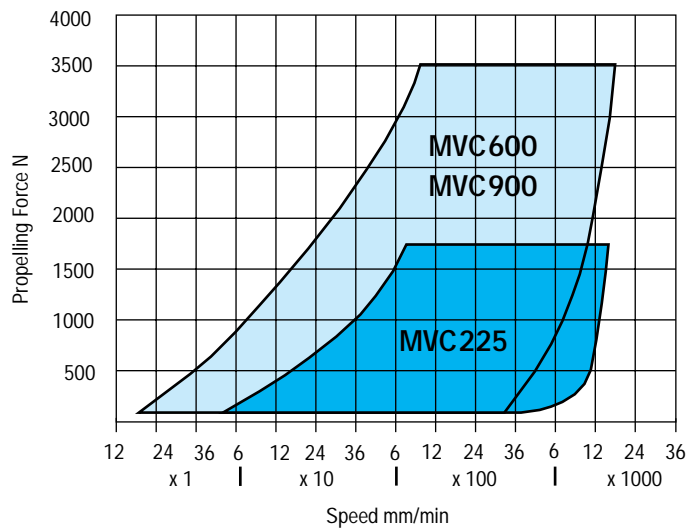
Mounting: In any position

Positive stop: Install mechanical stop 0.5 to 1 mm before end of stroke on model FA1008V-B.

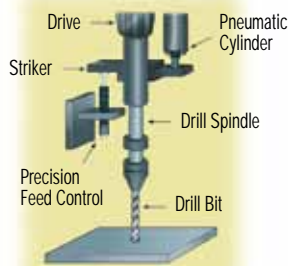
Material: Body: Steel with black oxide finish. Piston rod: Stainless steel.

Operating temperature range: 0 °C to 66 °C

Operating Range MVC225 to 900



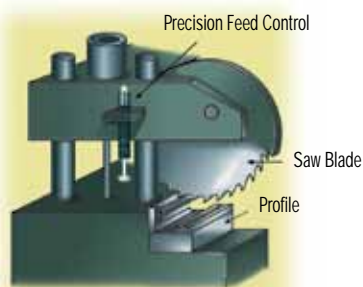
Application Examples



Drilling sheet metal

A high force is necessary at the start of drilling when the drill first contacts the sheet. After the initial cut this high force causes the drill to break through. This results in jagged edges rather than a smooth clean hole and also causes tool breakage.

By installing an **ACE VC feed control** it is possible to precisely control the rate of drill advance. As a result the drilled holes are clean and consistent and drill breakage is considerably reduced.



Sawing aluminium and plastic profiles

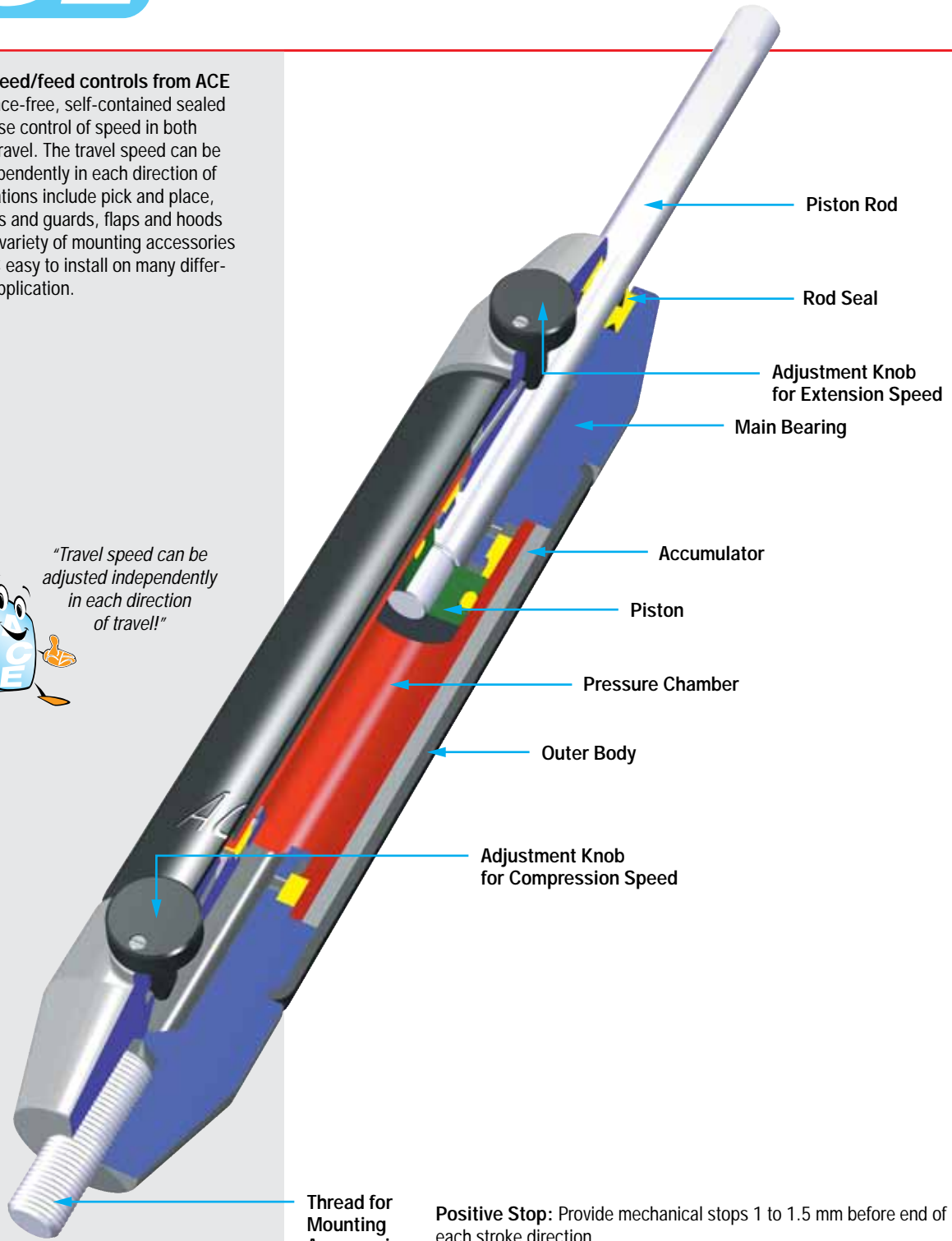
Varying material types, hardness and wear on the saw blade causes the cutting pressure to vary greatly. However the saw advance speed should remain constant as changes cause breakage of the material being cut or of the saw blade.

An **ACE VC feed control** fitted directly to the cutting head provides a simple and low cost solution. The cutting speed remains constant and can be easily preset.

Hydraulic speed/feed controls from ACE are maintenance-free, self-contained sealed units for precise control of speed in both directions of travel. The travel speed can be adjusted independently in each direction of travel. Applications include pick and place, machine slides and guards, flaps and hoods etc. The wide variety of mounting accessories make the DVC easy to install on many different types of application.



"Travel speed can be adjusted independently in each direction of travel!"



Thread for Mounting Accessories

Positive Stop: Provide mechanical stops 1 to 1.5 mm before end of each stroke direction.

Operating fluid: Automatic Transmission Fluid (ATF) viscosity 42 cSt. at 40 °C

Material: Body: Black anodised aluminium. Piston rod: Hard chrome plated steel. End fittings: Zinc plated steel.

Note: If unit has not moved for some time the seals may dry causing an increased break-away force on the initial cycle.

Mounting: In any position. End fittings must be positively secured to prevent unscrewing.

Operating temperature range: 0 °C to 65 °C

On request: Special oils and external finishes. Uni-directional damping (free flow in reverse direction).

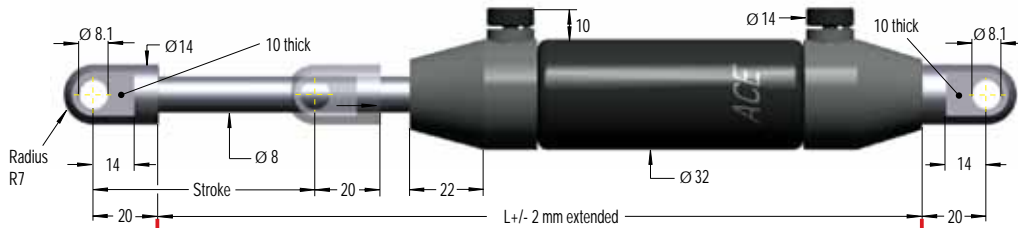


End Fitting

Standard Dimensions

End Fitting

A8



Eye A8
max. force 3000 N

B8

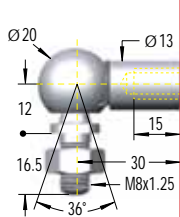


Dimensions

Type	Stroke mm	A max	B	L	Propelling Force N			
					Extension min	Extension max	Compression min	Compression max
DVC-32-50EU	50			240	42	2 000	42	2 000
DVC-32-50EU-XX	50	250	75.2		42	2 000	42	2 000
DVC-32-100EU	100			340	42	2 000	42	1 670
DVC-32-100EU-XX	100	350	124.4		42	2 000	42	1 670
DVC-32-150EU	150			440	42	2 000	42	1 335
DVC-32-150EU-XX	150	450	173.6		42	2 000	42	1 335

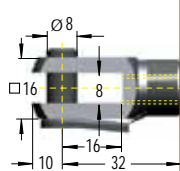
Stud Thread B8

C8



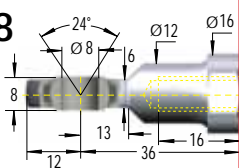
Angle Ball Joint C8
max. force 1200 N

D8



Clevis Fork D8
max. force 3000 N

E8



Swivel Eye E8
max. force 3000 N

Ordering Example

DVC-32-50EU-DD-P

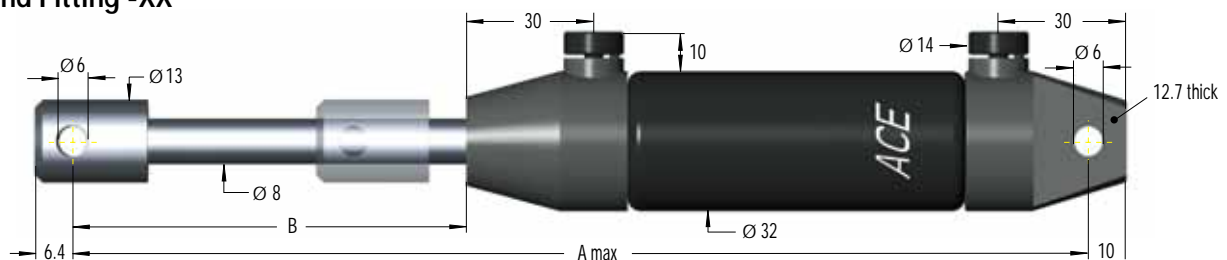
Type (Hydraulic Damper) _____
 Body Ø (32 mm) _____
 Stroke (50 mm) _____
 EU Compliant _____
 Piston Rod End Fitting D8 _____
 Body End Fitting D8 _____
 Damping Direction (P = both directions) _____

Damping Options

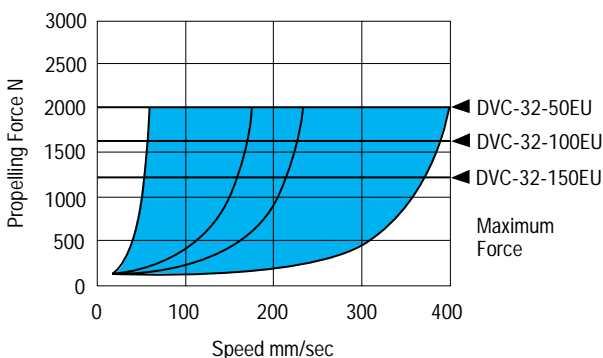
- P = Damping in both directions (standard model)
- M = Damping on out stroke only (adjustment knob at "rear end" free flow)
- N = Damping on in stroke only (adjustment knob at "piston rod end" free flow)

The end fittings are interchangeable and must be positively secured by the customer to prevent unscrewing (i.e. Loctite). For mounting accessories see page 200.

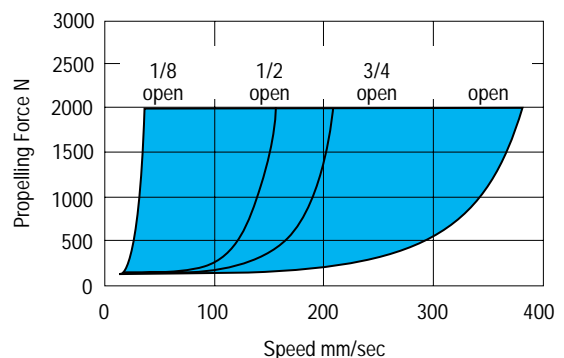
Fixed End Fitting -XX



Compression Speed Control Chart



Tension Speed Control Chart



Hydraulic Dampers of ACE are maintenance-free, self contained sealed units, ready for use, for the precise control of damping in both directions of travel. The travel speed can be adjusted independently in each direction of travel at any time even during the stroke. The dampers are ideal for controlling swinging movements or as a variable resistance control on sports devices, exercise equipment and physiotherapy machines. Thanks to the new, high precision metering elements this damper ensures a constant feed rate independently controlled in each direction and the adjustment can be performed after mounting. The coated body and the steel-hardened and hard-chrome-plated piston rod stand for high quality and long lifetimes. The wide variety of mounting accessories make the HBD easy to install in many different types of applications.



NEW



Piston Rod

Precision Adjustment Knob for Extension Speed

Seal

Main Bearing

Piston

Accumulator

Pressure Chamber

Outer Body

Precision Adjustment Knob for Compression Speed

Thread for Mounting Accessories

Positive Stop: Provide a mechanical stop of 1 to 1.5 mm before the end of stroke in each direction.

Material: Piston rod: hard-chrome-plated steel. Body: black-coated steel.

Note: If unit has not moved for some time the seals may dry, causing an increased breakaway force on the initial cycle.

Mounting: In any position. End fittings must be positively secured to prevent unscrewing.

Operating temperature range: 0 °C to 65 °C

Maximum speed: 0.5 m/s

On request: Special lengths, stroke, alternative seals, end fittings and special oil.



