

Hydraulic Feed Controls

Regulate feed rates in the best way

ACE Hydraulic feed controls are recommended as the perfect solution when sawing, cutting, drilling and in order to prevent the stick-slip effect on pneumatic cylinders. They can be precisely adjusted and provide speeds from 12 mm/min. (1/2"/min.) with a very low feed force or up to 38 m/min. (1.5"/min.) with a high feed rate.

These maintenance-free, ready-to-install hydraulic feed controls are self-contained hydraulic elements regulated by a precision throttle. The feed rate is set from the outside by turning the setting adjuster. The tried-and-tested rolling diaphragms used in many ACE shock absorbers also serve as a dynamic sealing element for a hermetic seal as well as volume compensation for the piston rod and provide the resetting of the piston when the force is removed.



Hydraulic Feed Controls



VC25

Page 228

Adjustable
For precision adjustment of feed rates
 Handling modules, Linear slides, Automatic machinery,
 Conveyor equipment



MA, MVC

Page 230

Adjustable
Designed for applications with low precision requirements
 Handling modules, Linear slides, Automatic machinery,
 Conveyor equipment

Shorter processing times

Different feed rates

Adjustment segment at the lower end of the feed control

Most accurate calibrations

Available immediately

Easy to mount



VC25

For precision adjustment of feed rates

Adjustable

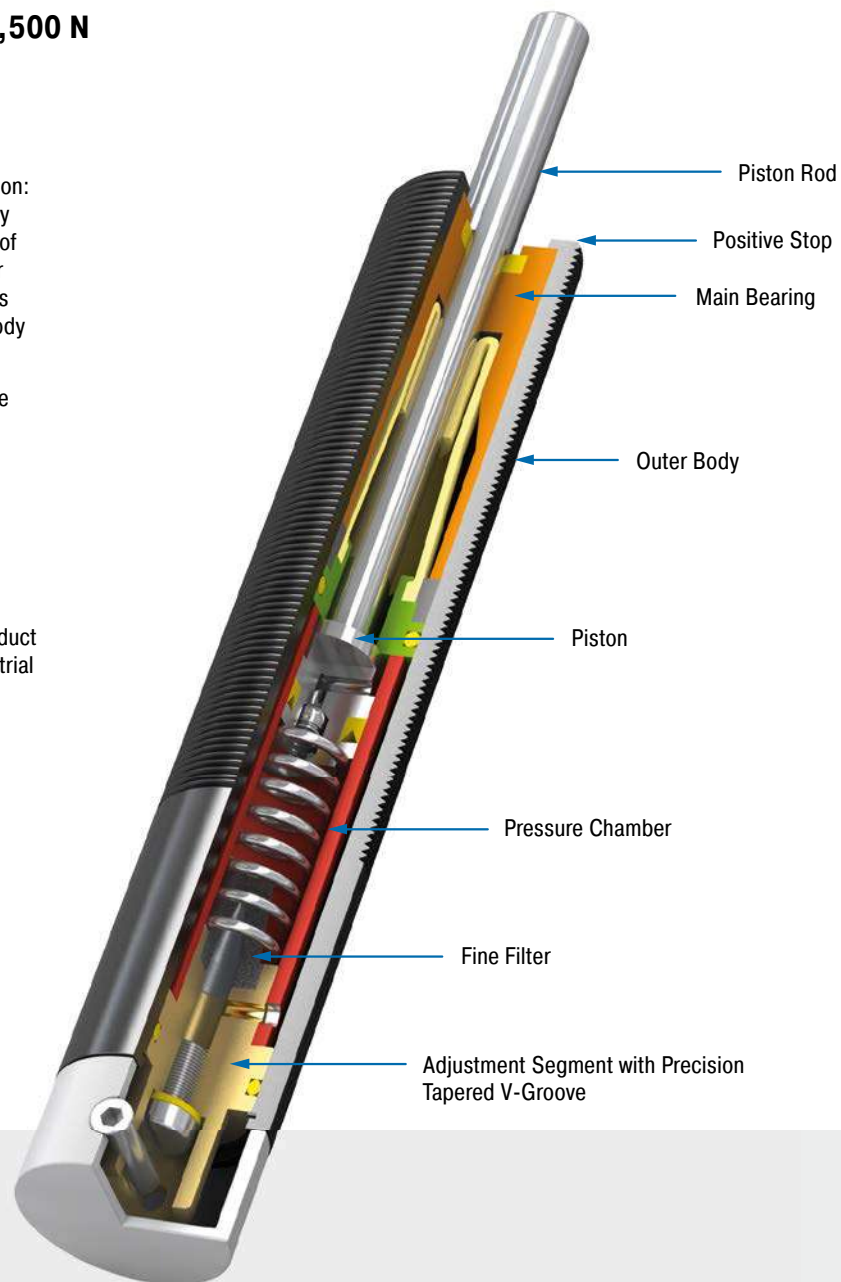
Compression force 30 N to 3,500 N

Stroke 15 mm to 125 mm

Precise adjustment for any type of application: Hydraulic feed controls of the product family VC are ideally suited for the precise tuning of constant feed rates. The thread of the outer body of this closed hydraulic element allows simple assembly. Designs with a smooth body can also be supplied.

As the hydraulic oil is forced out through the throttle opening, a constant feed rate is achieved on the stroke. In the models up to 55 mm (2.17") stroke, the tried and tested rolling diaphragm, known from ACE shock absorbers, serves as a dynamic seal, as volume compensation of the piston rod and as a reset element.

Precision hydraulic feed controls of the product family VC are used in automotive and industrial applications as well as in mechanical engineering and the electronics industry.



Technical Data

Compression force: 30 N to 3,500 N

Execution: F = Ø 23.8 mm without thread
FT = M25x1.5 threaded body

Piston rod diameter: Ø 8 mm

Feed rate/Compression force:
Min. 0.013 m/min. at 400 N; Max. 38 m/min.
at 3,500 N

Impact velocity range: 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 75 mm to 125 mm stroke. Where higher energies occur use a shock absorber for the initial impact. Avoid high impact velocities.

Adjustment: Infinitely adjustable

Positive stop: External positive stops 1 mm to 1.5 mm before the end of stroke provided by the customer.

Damping medium: Oil, temperature stable

Material: Outer body: Black anodized aluminium; Piston rod: Hard chrome plated steel; Accessories: Steel with black oxide finish or nitride hardened

Mounting: In any position

Operating temperature range: 0 °C to 60 °C

Application field: Handling modules, Linear slides, Automatic machinery, Conveyor equipment, Absorption control

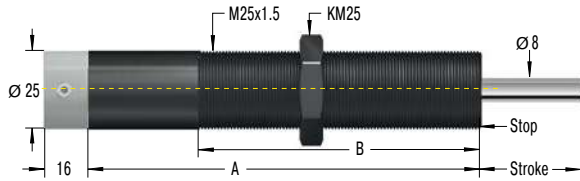
Note: Nylon button can be fitted onto piston rod. Unit may be mounted in any position.

Safety information: Do not rotate piston rod, if excessive rotation force is applied rolling seal may rupture. External materials in the surrounding area can attack the seal components and lead to a shorter service life. Please contact ACE for appropriate solution suggestions.

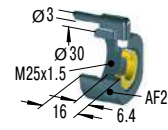
On request: Special oil and other special options available on request.

Adjustable

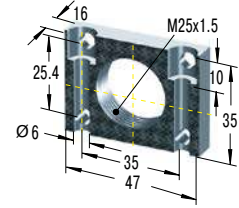
VC25FT



SP25 Air Bleed Collar

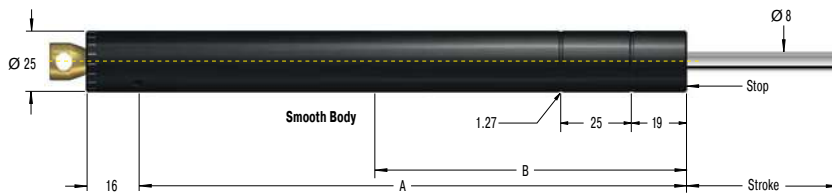


250-0044 Mounting Block

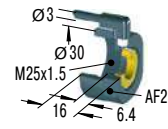


For VC2515FT to VC2555FT
reduction of the stroke 6.4 mm

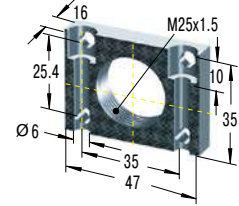
VC25F



SP25 Air Bleed Collar



250-0044 Mounting Block



For VC2515FT to VC2555FT
reduction of the stroke 6.4 mm

Additional accessories, mounting, installation ... see from page 47.

Complete details required when ordering

- Load to be decelerated: m (kg)
- Impact velocity: v (m/s)
- Propelling force: F (N)
- Operating cycles per hour: c (/hr)
- Number of absorbers in parallel: n
- Ambient temperature: °C

Ordering Example

Type (Feed Control) _____
 25 for Thread Size M25 _____
 Stroke 2.16" (55 mm) _____
 FT = with thread M25x1.5 _____
 F = without thread, plain body (Ø 0.94" / 23.8 mm) _____

VC2555FT

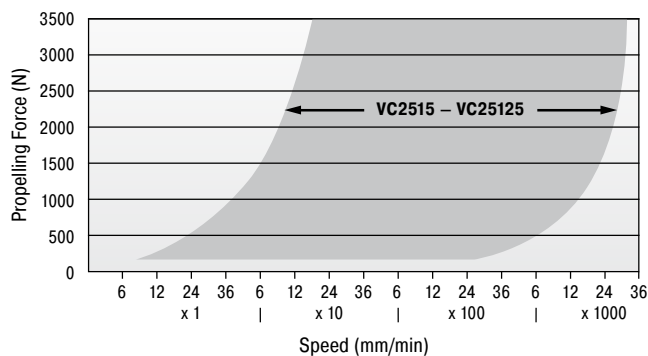
Performance and Dimensions

TYPES	Stroke mm	A mm	B mm	Compression force		Return Force		Return Time s	Side Load Angle		Weight kg
				min. N	max. N	min. N	max. N		max. °		
VC2515FT	15	128	80	30	3,500	15	30	0.2	3	0.240	
VC2530FT	30	161	110	30	3,500	5	30	0.4	2	0.280	
VC2555FT	55	209	130	35	3,500	5	40	1.2	2	0.420	
VC2575FT	75	283	150	50	3,500	10	50	1.7	2	0.480	
VC25100FT	100	308	150	60	3,500	10	50	2.3	1	0.500	
VC25125FT	125	333.5	150	70	3,500	10	60	2.8	1	0.540	
VC2515F	15	128	80	30	3,500	15	30	0.2	3	0.240	
VC2530F	30	161	110	30	3,500	5	30	0.2	2	0.280	
VC2555F	55	209	130	35	3,500	5	40	1.2	2	0.420	
VC2575F	75	283	150	50	3,500	10	50	1.7	2	0.480	
VC25100F	100	308	150	60	3,500	10	50	2.3	1	0.500	
VC25125F	125	333.5	150	70	3,500	10	60	2.8	1	0.540	

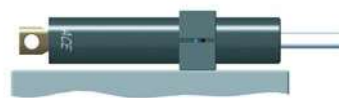
Suffix FT: M25x1.5 threaded body.

Suffix F: plain body 23.8 mm dia. (without thread), with optional clamp type mounting block.

Operating range VC



Accessories with Mounting Example



Mounting with clamp mount

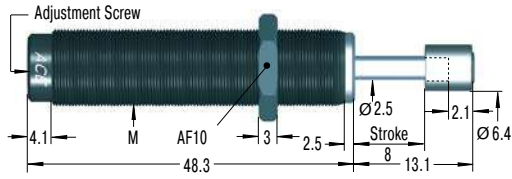


Installed with air bleed collar SP25 (part no. 10783-000)

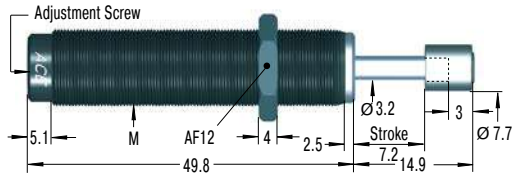
Products for
UNF and metric thread
available

Adjustable

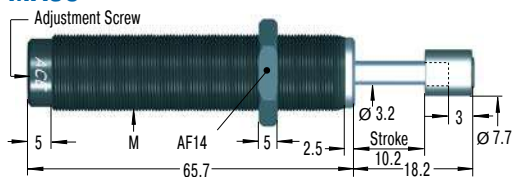
MA30M



MA50M

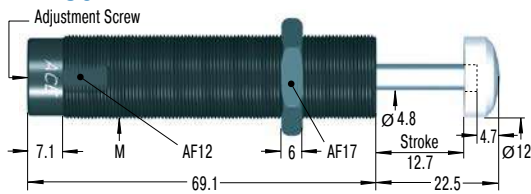


MA35



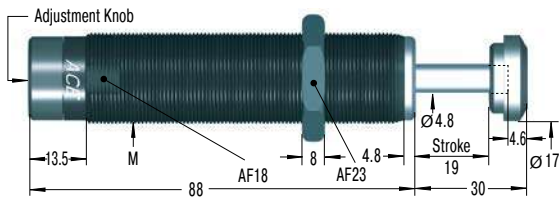
Product available for UNF and metric thread (for metric add suffix -M from part number)

MA150



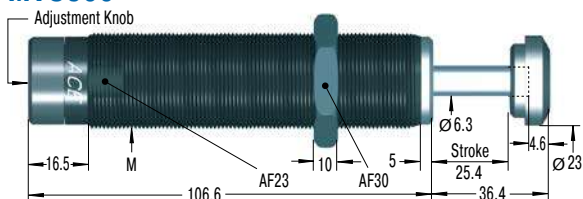
Product available for UNF and metric thread (for metric add suffix -M from part number)

MVC225



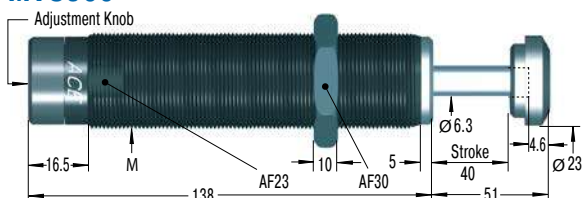
Product available for UNF and metric thread (for metric add suffix -M from part number)

MVC600



Product available for UNF and metric thread (for metric add suffix -M from part number)

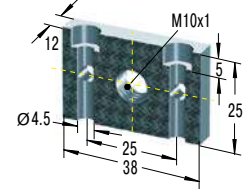
MVC900



Product available for UNF and metric thread (for metric add suffix -M from part number)

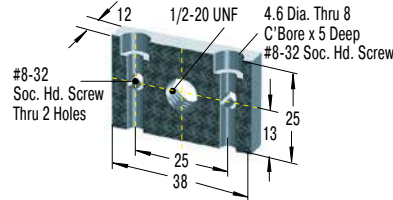
250-0307

Mounting Block



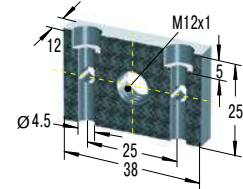
250-0308

Mounting Block



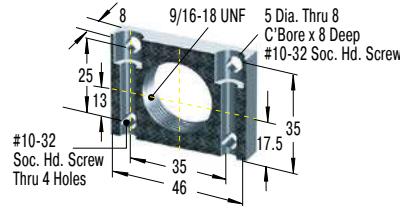
250-0309

Mounting Block



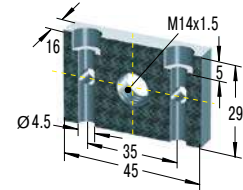
250-0318

Mounting Block



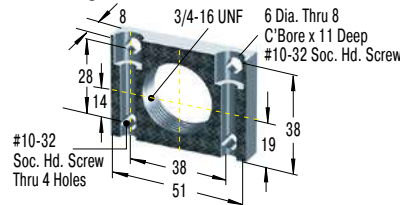
250-0352

Mounting Block



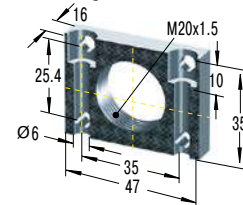
250-0401

Mounting Block



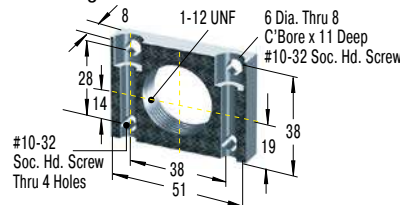
250-0353

Mounting Block



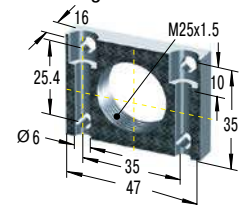
250-0402

Mounting Block



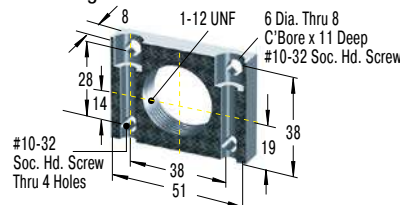
250-0044

Mounting Block



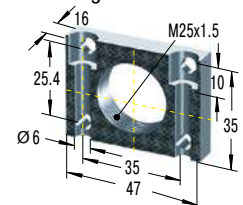
250-0402

Mounting Block



250-0044

Mounting Block



Additional accessories, mounting, installation ... see from page 44.