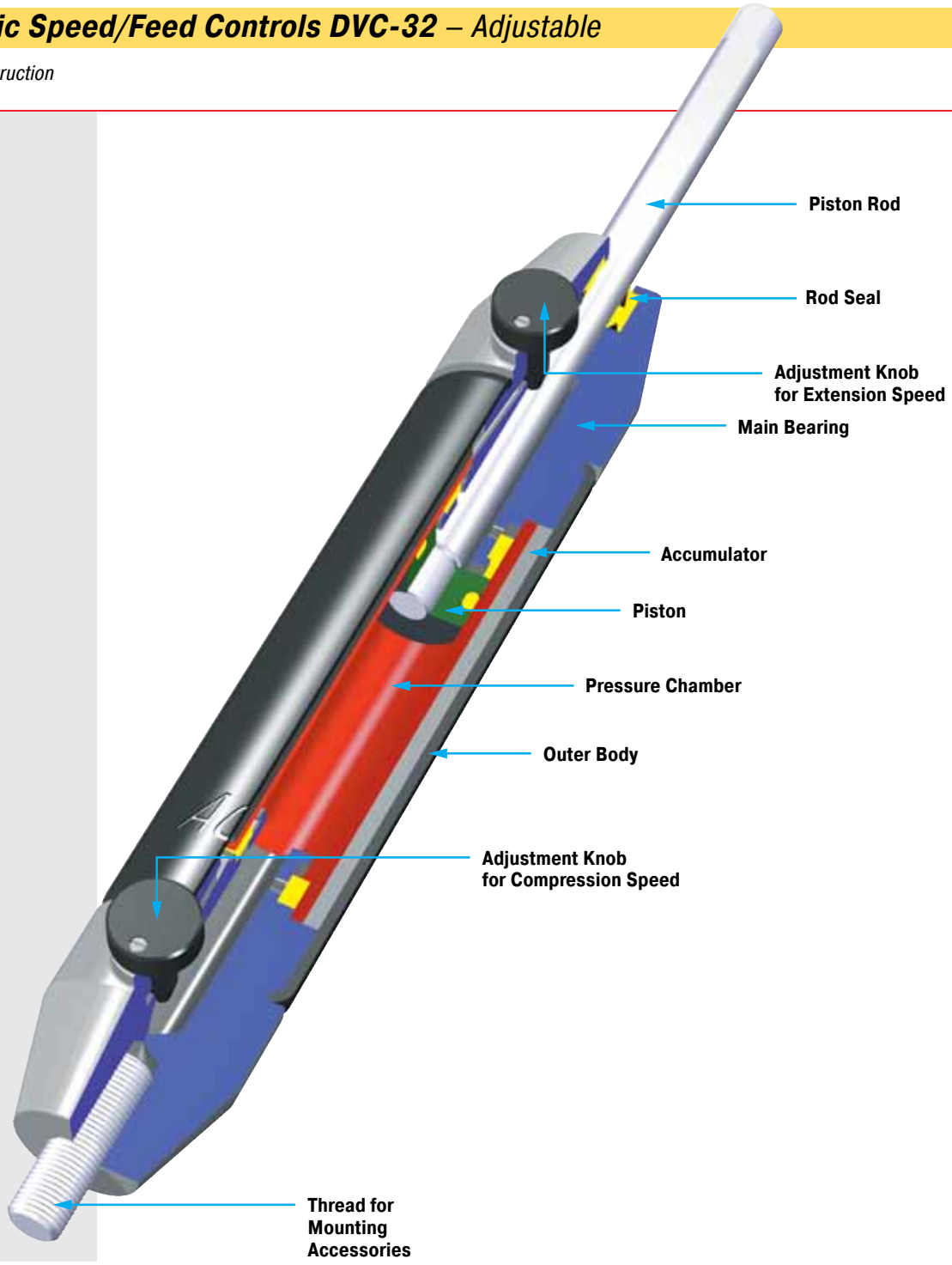
DVC-32-50EU
DVC-32-50EU-XX
DVC-32-100EU
DVC-32-100EU-XX
DVC-32-150EU
DVC-32-150EU-XX



Content **Page**

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General information

This operating manual serves the purpose of fault-free use of the hydraulic dampers types listed on page 1, compliance is a prerequisite for fulfilment of any warranty claims.

Please read the operating manual before use.

Always comply with the limit values provided in the performance table (technical data).

Please consider the prevailing environmental conditions and stipulations.

Please pay attention to the regulations from the trade association, technical inspection association or the corresponding national, international and European regulations.

Only install and commission in accordance with the assembly instructions.

Safety information

WARNING

⚠ **Additional security elements must be used if ACE hydraulic dampers are to be used where failure of the product could lead to personal damage and/or damage to property.**

⚠ **The flap/mass can fall when installing the hydraulic damper. Secure flap/mass against falling when installing it.**

Purpose

Hydraulic dampers by ACE are used anywhere moving masses are required to provide consistent specific speeds.

Dampening works upon extending and/or retracting. Dampening can be set in each direction independently.

Description and function

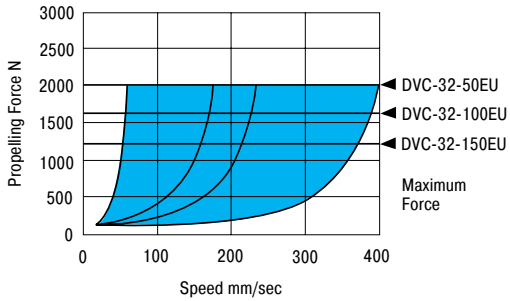
Hydraulic dampers are maintenance-free and ready to install. These 32 mm diameter units are delivered ex stock from our warehouse.

When the piston rod moves in and out, the hydraulic fluid, contained within the cylinder, is displaced by the piston through the adjustable throttle and into the space behind the piston. To avoid an hydraulic lock the oil volume is balanced by an accumulator. The sealing system ensures reliable sealing of the hard chrome-plated piston rod. To set the dampening, the appropriate adjuster is turned and the throttle is opened or closed. Dampening can be set externally and independently in both directions.

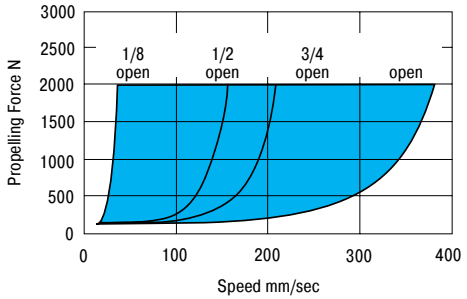
The hydraulic brake cylinder has no internal reset force and must be operated in both directions over the entire working stroke.

You can determine the operating range in both pull and push directions via the diagrams.

Compression Speed Control Chart



Tension Speed Control Chart



Calculation and dimensioning

To achieve optimum and durable function of the Hydraulic dampers the damper must be dimensioned and designed correctly. The following parameters must be given for this:

> Moving mass

> Feed force

> Feed velocity

Number of strokes or cycles per minute.
For correct dimensioning please use our free advice service:
Telephone Number: +49-(0)2173-9226-20.

Delivery and storage

> Please check the hydraulic dampers for any damage upon delivery.

> The hydraulic dampers can suffer damage if allowed to fall. Please remove the shock absorbers carefully from the packaging.

> hydraulic dampers can generally be stored in any position.

> Before installation remove any existing protective packaging.

> Always store hydraulic dampers in a dry place to avoid oxidation.

> The maximum recommended storage time is 1 year.

Maintenance and care

Check the hydraulic dampers regularly for oil loss, function and external damages.

Hydraulic speed/feed controls are maintenance-free and self-contained.

Hydraulic dampers are machine elements that are subjected to constant wear and tear.

Dismantling and disposal

Ensure that the hydraulic dampers are dealt with under consideration of environmental protection (problematic substance utilisation).

Hydraulic dampers cannot be repaired. You can obtain a copy of the disposal regulations upon request.

You can return the hydraulic dampers to ACE for free disposal.

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Installation information

Prior to installation and use, check if the identification number on the hydraulic damper or on the package corresponds to the number on the delivery sheet. Hydraulic Speed/Feed Controls are maintenance-free and ready-to-fit.

Operating temperature range: 0°C to 65°C

Mounting: In any position. Positive stop: provide a mechanical stop of 1 to 1.5 mm before the end of stroke in each direction.

Adjustment: Use the supplied allen key to release the safety screw, set the feed velocity on the adjuster. Feed velocities can be set separately in pull and push directions. The adjuster for the pull direction is placed at the piston rod side of the cylinder, and for the push direction at the cylinder end. After setting, secure the adjuster with the safety screw.

WARNING

- **The flap/mass can fall when installing the hydraulic damper. Secure flap/mass against falling when installing it.**
- **When maximum and minimum temperatures are lower or exceeded, the hydraulic damper may fail. It is imperative to keep the temperature range between 0°C and +65 °C.**
- **Ambient fluids, gases and dirt particles may affect or damage the sealing system and lead to failure of the shock absorber. Piston rods and sealing systems must be protected against foreign substances.**
- **Damage to the piston rod surface may destroy the sealing system. Do not grease, oil, etc. the piston rod and protect it from dirt particles.**
- **The piston rod can be torn from the hydraulic damper. Secure mechanical end stops in the direction of the pull.**
- **Jamming and lateral forces may lead to leakage of the precision hydraulic damper or to the blockage of the piston rod. Check the installation and provide suitable connecting parts and guide rails. Fastening parts must not be over tightened, if necessary provide some space for tolerances.**
- **The outer body can distort. Do not allow transverse or lateral forces to act on the damper. Do not clamp the outer body.**
- **Connecting parts can detach themselves from the hydraulic damper. Always screw in all connecting parts fully and secure with locking agent (Loctite).**
- **High forces can compress or overstretch the hydraulic damper. Install mechanical end stops.**

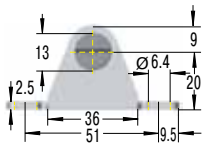
Mounting Accessories M8x1,25
DVC-32

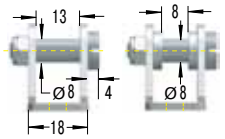
Check before you install whether the model labelling on the packaging corresponds to the appropriate description on the delivery note.

When you use the accessories please note the dimensions for mounting. Screws for mounting accessories are not supplied.

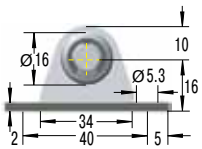
Please contact our advice service with any queries free of charge: Telephone Number +49-(0)2173-9226-20.

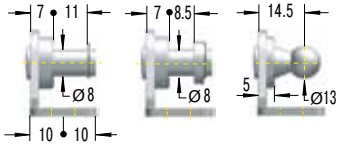
[1]max. force 1800 N — MA8, ME8



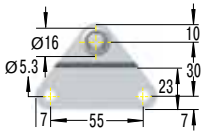


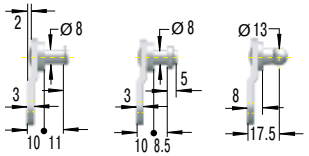
[1]max. force 1000 N — NA8, NE8, NG8



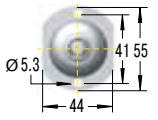


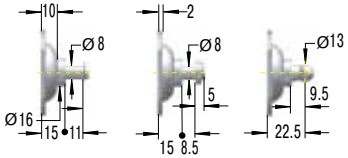
[1]max. force 1200 N — OA8, OE8, OG8





[1]max. force 1200 N — PA8, PE8, PG8



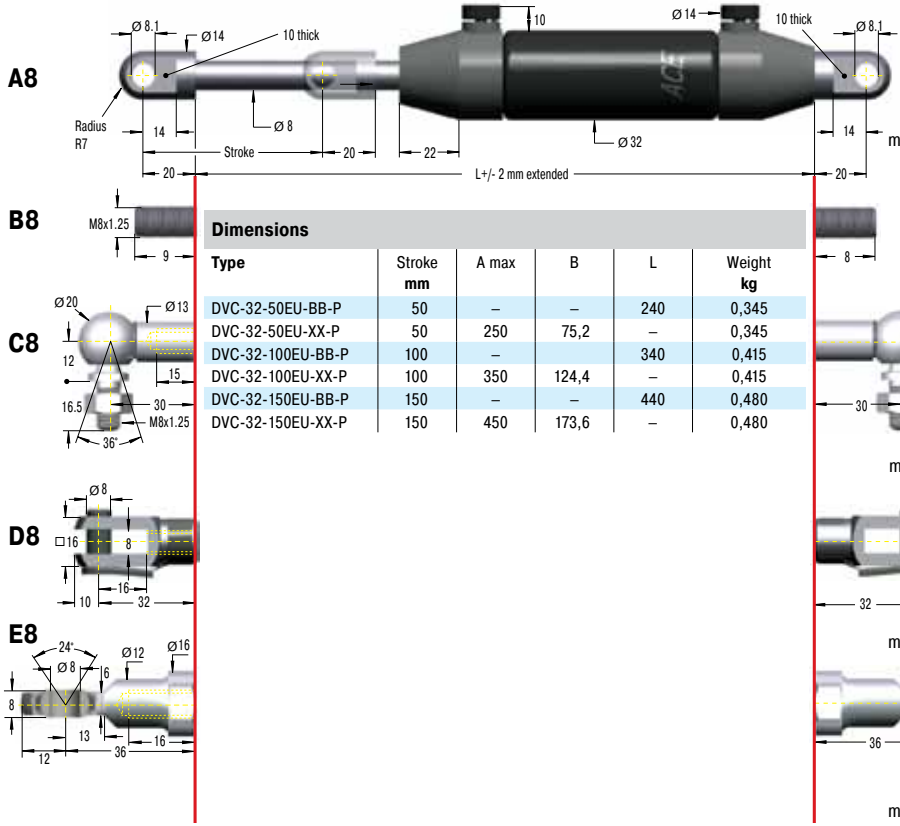


[1] Attention! Max. static load in Newtons. Beware force increase during compression (progression) and observe max. force limit.

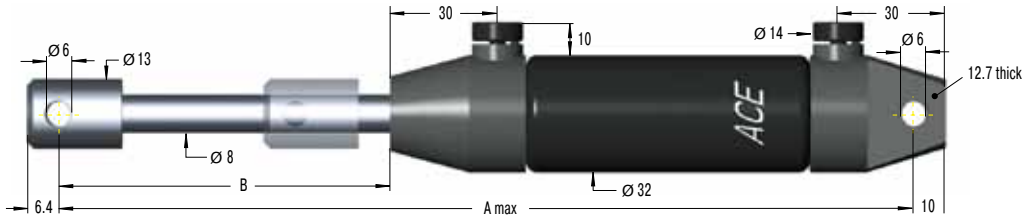
Disposal of packaging

Dispose of packaging in an environmentally safe manner. The recycling of packaging saves raw materials and lowers the amount of waste. The used packaging materials do not contain illegal substances.

End Fitting — **Standard Dimensions** — **End Fitting**



Fixed End Fitting -XX



EU Marking

Starting with the production date September 2010 (Code IB or 10244) all Hydraulic speed/feed controls are to be marked with an additional EU letter code in the identification number. The EU marking refers to the adherence to the required norms, laws, and guidelines of the EU. Only products marked with EU ensure the worldwide standard and the guarantee for liability.

Dimensions

Type	Stroke mm	A max	B	L	Weight kg
DVC-32-50EU-BB-P	50	–	–	240	0,345
DVC-32-50EU-XX-P	50	250	75,2	–	0,345
DVC-32-100EU-BB-P	100	–		340	0,415
DVC-32-100EU-XX-P	100	350	124,4	–	0,415
DVC-32-150EU-BB-P	150	–	–	440	0,480
DVC-32-150EU-XX-P	150	450	173,6	–	0,480

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Warranty

All changes to the product generally lead to exclusion of warranty.

Obvious defects must be immediately notified in writing to the seller upon delivery, within one week at the latest, but always before processing or installation, otherwise enforcement of a warranty claim is excluded. Punctual despatch is sufficient to comply with the deadline.

The seller must be given the opportunity to check on the premises. In the case of an authorised complaint, the seller can choose between an improvement and replacement delivery. If subsequent fulfilment is not successful, the buyer can choose between reducing the payment (reduction) and reversing the contract (withdrawal). The buyer is not entitled to withdraw from the contract in the case of a negligible contract breach; especially negligible defects.

If the buyer chooses to withdraw from the contract due to a legal or material defect after failed subsequent fulfilment, he is not entitled to additional claims to replacement of damages due to a defect.

If the buyer chooses replacement of damages after failed subsequent fulfilment, the goods remain with the buyer where feasible. Replacement of damages is restricted to the difference between the purchase price and the value of the defective item. This does not apply if the seller has caused a fraudulent breach of the contract.

Only the product description from the seller is generally agreed with respect to the properties of the goods. Public statements, promotions or advertising by the manufacturer do not represent contractual properties of the goods. If the buyer receives a faulty set of assembly instructions, the seller is only obliged to supply a correct set of instructions and only if the fault in the assembly instructions oppose correct assembly.

The warranty period is two years and begins upon delivery. The exchange and return of customised production items is generally excluded. The factory conditions in the manufacturing plant, which can be viewed by the ordering party on the seller's premises at any time, apply to parts not produced and processes by the seller. Construction and installation parts are supplied according to the most recent status.

Life expectancy

Hydraulic dampers are machine parts, which are generally subject to wear and tear. Parts subject to wear and tear such as seals and pistons are excluded from the normal warranty. Wear and tear of seals depends to a great extent on the environmental conditions and the relevant application of their operational parameters.

In general, the hydraulic damper DVC-32 by ACE is tested for a performance of about 500,000 complete strokes.
Adverse environmental and operational conditions may reduce the expected life span considerably.

Capacity Chart

		Propelling Force N				
Type	Stroke **mm**	Extension min **N**	Extension max **N**	Compression min **N**	Compression max **N**	Weight **kg**
DVC-32-50EU-BB-P	50	42	2000	42	2000	0,345
DVC-32-50EU-XX-P	50	42	2000	42	2000	0,345
DVC-32-100EU-BB-P	100	42	2000	42	1670	0,415
DVC-32-100EU-XX-P	100	42	2000	42	1670	0,415
DVC-32-150EU-BB-P	150	42	2000	42	1335	0,480
DVC-32-150EU-XX-P	150	42	2000	42	1335	0,480

Technical Data

End fittings: **Zinc plated steel**

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

Piston Rod: **Hard chrome plated**

Operating temperature range: **0°C to 65°C**

Outer body: **Black anodised aluminium**

Maximum permissible speed: **8 strokes/min. at a stroke of 100 mm**

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