

Adjustable Hydraulic Dampers HB



Adjustable linear hydraulic dampers are self-contained devices, designed to provide an adjustable controlled velocity over long stroke lengths, with virtually no maintenance.

Despite their similar appearance to gas springs, HB dampers are not pressurised and do not provide any return force of their own. They are filled with hydraulic oil and provide a fully adjustable controlled feed rate when a load is applied to them.

Four standard models are available with stroke lengths from 25mm to 800mm and are all available with interchangeable end fittings and mounting brackets. Resisting forces are internally adjustable and give a very wide adjustment range. The HB15 can operate with a minimum resistance of only 20N whilst the largest model the HB40 can control a load with a maximum resistance force of 10000N.

All models can control the velocity for either the “out stroke” (available on request), the “in stroke” (available on request), or in both directions (standard feature).

Typical applications for HB dampers are pneumatic cylinders, machine guards, vat lids, safety fire flaps and doors, damping oscillations of suspended loads, smoke and roof vents, equipment hoods, etc.

TECHNICAL DATA

Adjustment:

Adjustment of the damping rate is achieved by pulling (or pushing) the piston rod to its fully extended (or fully compressed) position. Whilst still pulling the piston rod, turn it clockwise to increase damping or anticlockwise to decrease damping. The adjustment is multi turn and to achieve the correct damping speed may require several trial and error adjustments.

This adjustment can add a maximum of 6mm to the L dimension.

Free Travel:

Construction method of standard damper results in a free travel of approximately 20% of total stroke when changing travel direction.

Mechanical Stops:

Provide positive stops 1 to 1.5mm before end of each stroke direction.

Mounting Position:

Can be mounted in any position.

Operating Temperature Range:

-30°C to +80°C (with special seals up to +120°C)

Operating Fluid:

Hydraulic oil.

Compression and Extension Damping Forces:

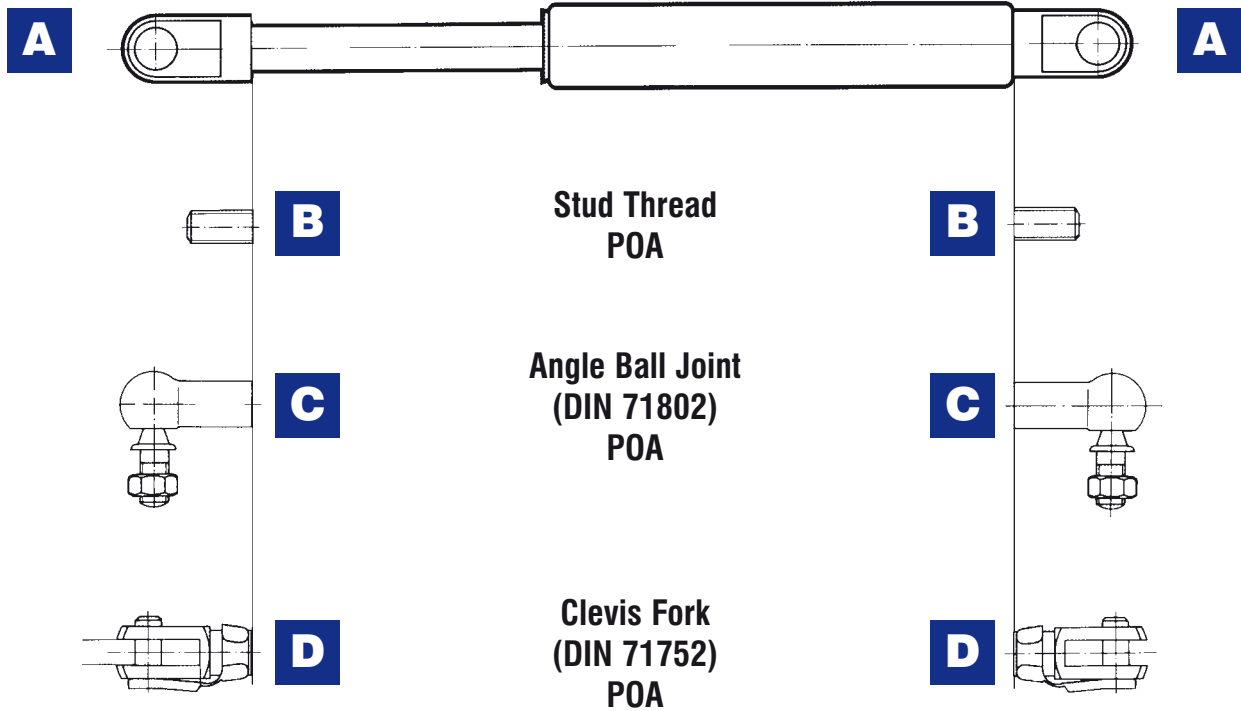
20N to 10000N. On long strokes observe the limits on the max. compression force to avoid buckling.



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End Fittings:

HB Dampers are supplied with “eye” end fittings, on both the piston rod and body, **as standard**. Alternative end fittings are available on request (see diagram below).



Damping Options:

- P = Damping in both stroke directions (Standard)
- M = Damping on out stroke only (Available on Request)
- N = Damping on in stroke only (Available on Request)

Ordering Example:

