

BLOC-O-LIFT Gas Spring
| general

The BLOC-O-LIFT gas springs are so-called locking gas springs. They are used for functions such as adjustments with force support, damping, as well as infinitely variable locking. This is achieved with a special piston valve system. If the valve is open, BLOC-O-LIFT provides force support and damping. If the valve is closed, the gas spring locks and provides high resistance to any motion.

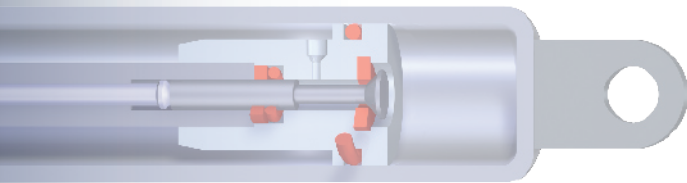
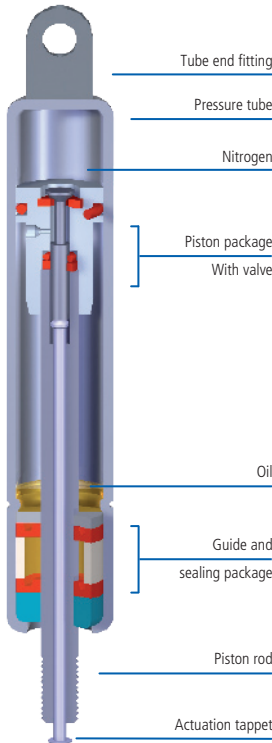
Basically, there are two types of valve design: a sliding valve with standard actuation of 2.5 mm, and the seat valve with an actuation of 1 mm for extremely short actuation distances.

BLOC-O-LIFT can have spring or rigid locking. The rigid locking version is available as orientation-specific or non-orientation specific. Depending on the application, BLOC-O-LIFT can be equipped with a patented, corrosion-free actuation tappet.

Primary application areas for BLOC-O-LIFT gas springs are furniture manufacture, medical technology, building technology, aviation and aeronautics, automotive design, and many industrial applications.

Advantage:

- Infinitely variable locking into position

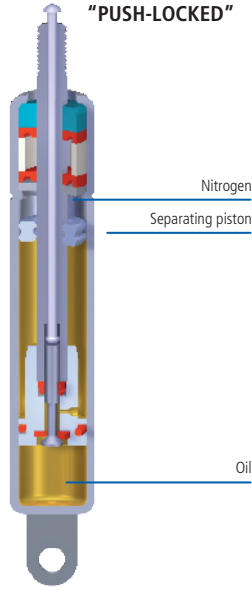
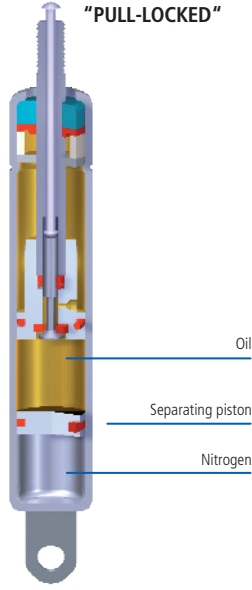
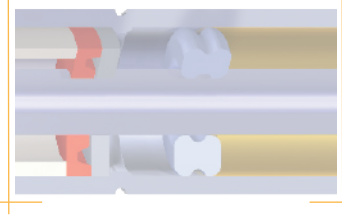
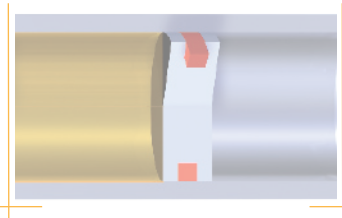


BLOC-O-LIFT
| rigid, locking, can be mounted in any orientation

Unlike the purely gas-filled BLOC-O-LIFT, where the gas characteristics cause spring locking, in this type of BLOC-O-LIFT, the entire working range of the piston is filled with oil. Depending on the installation of so-called separating pistons, which separate the gas chamber from the oil chamber, different locking forces can be achieved in the extension or compression directions. The maximum allowable locking force depends on the extension force and/or the overall device strength.

Specific advantages:

- Very high oil locking force
- Can be installed in any orientation



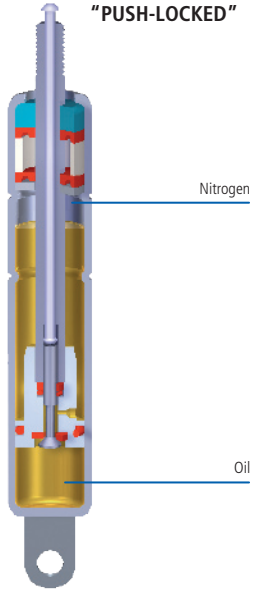
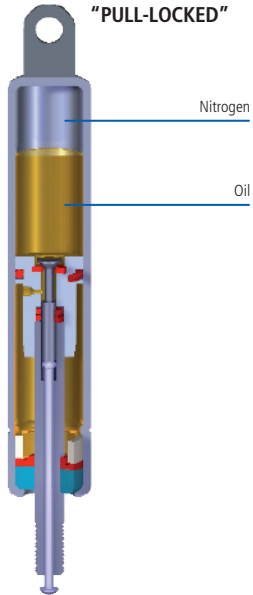
BLOC-O-LIFT
| rigid locking, vertical installation

In this version of rigid locking gas springs, the entire working range of the piston is in oil, resulting in rigid locking, since oil cannot be compressed. Unlike the orientation-independent BLOC-O-LIFT, separating pistons were foregone in favor of lower costs. Flawless function is maintained by gravity; therefore, vertical or almost vertical installation must be ensured. Here, the alignment of the piston rod defines the locking behavior in the pull or push direction.

Same **areas of application** as for the BLOC-O-LIFT described before.

Advantage:

- Cost-effective



BLOC-O-LIFT
| with override function

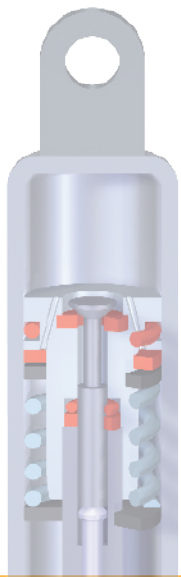
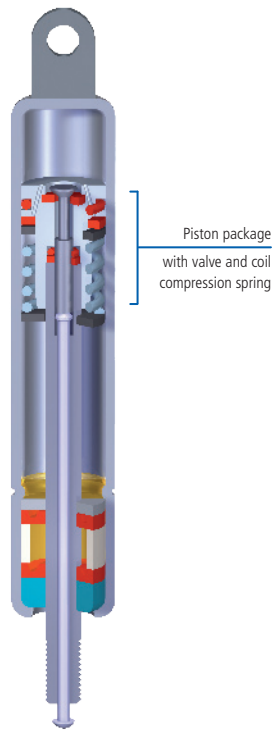
A special form of this BLOC-O-LIFT gas spring is the additional override function. This function, which was designed for special customer requests, is to protect the application from overload.

The override function is available for tension and compression direction; it can be realized in locking gas springs featuring orientation-independent or vertical installation. The override force can be freely defined within certain limits.

The BLOC-O-LIFT override function is **used in** backrest and footrest adjustment of chairs and beds, or in foot panel adjustments of treatment tables and beds.

Specific advantage:

- Overload protection



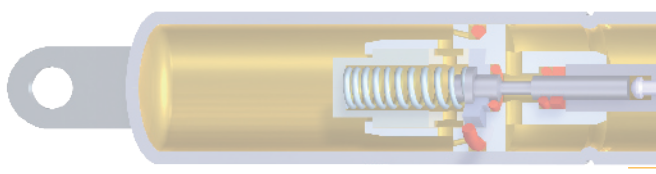
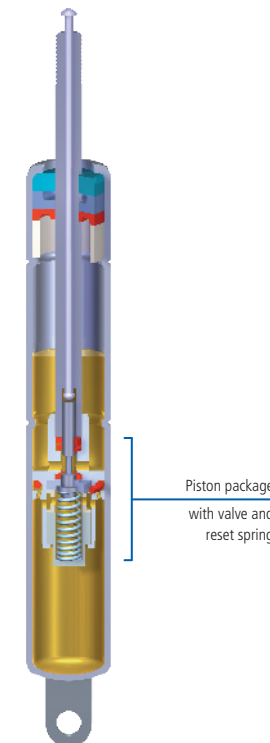
BLOC-O-LIFT OBT
| without locking in extension direction

BLOC-O-LIFT OBT permits comfortable upward movements of applications, such as table tops, without the need to actuate a release. This is made possible by a special valve system in the piston package.

In the compression direction, BLOC-O-LIFT OBT can be locked in any direction.

Usually, the OBT function of gas springs is used in vertical installations.

Typical **areas of application** are table adjustment systems in hospital nightstands and in student furniture.



Product Overview



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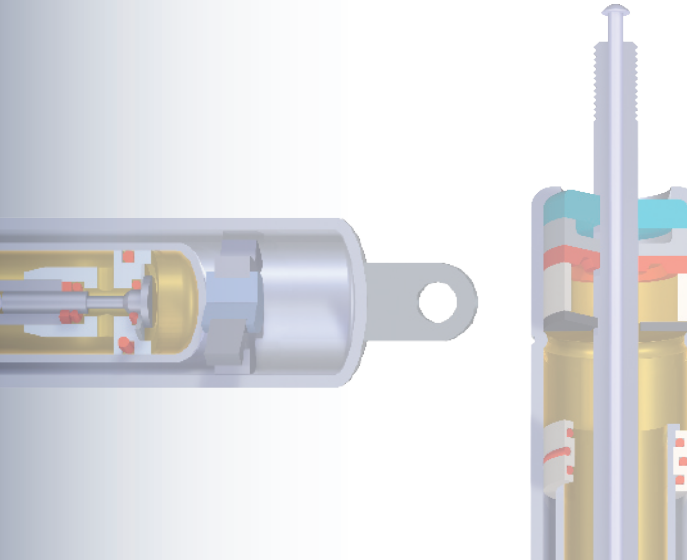
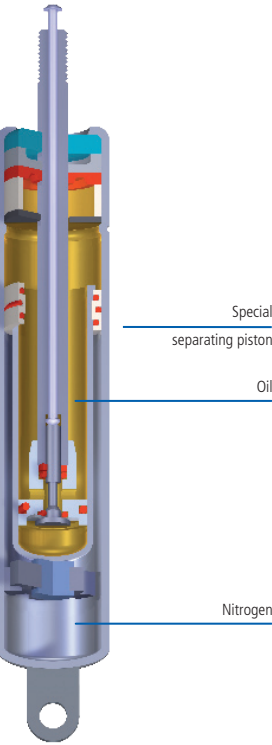
BLOC-O-LIFT T
| with especially flat spring characteristic curve

BLOC-O-LIFT T is the design of a gas spring with a particularly flat spring characteristic curve, providing an almost even force over the entire stroke. It provides precise, comfortable adjustment and locking of the application. BLOC-O-LIFT T stands out due to its compact design and can be mounted in any position. The actuation mechanism can be operated by hand or foot, via lever or Bowden cable.

The BLOC-O-LIFT T has been installed successfully in furniture, especially in single and double-column tables, desks, nightstands, or height-adjustable desk tops.

Specific advantage:

- Even force distribution over the entire stroke
- Compact design with a long stroke

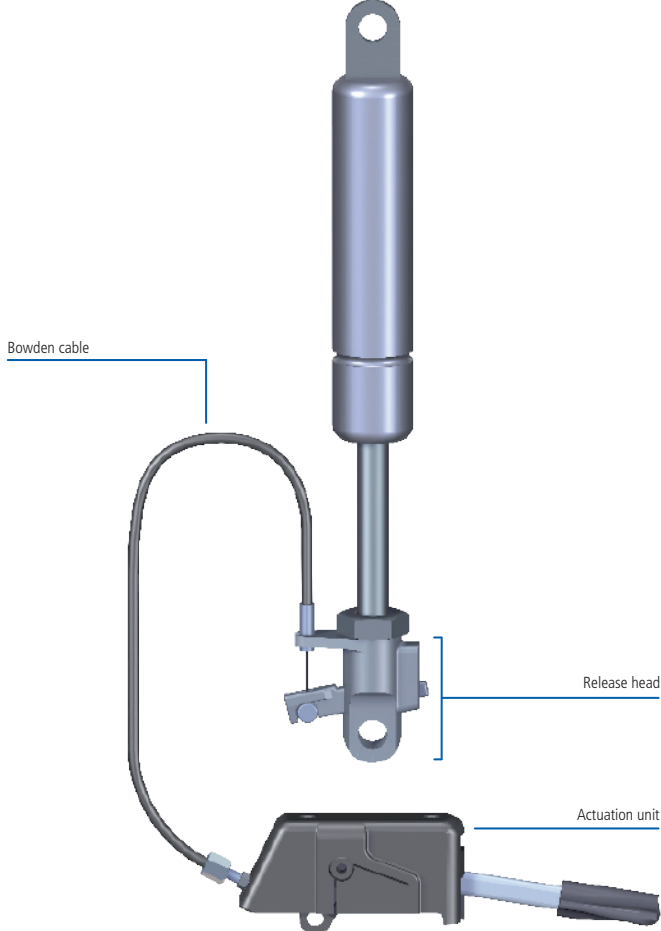


BLOC-O-LIFT
| actuation systems

Stabilus offers different actuation systems for the BLOC-O-LIFT gas spring.

Different release heads with lever are available for applications with direct actuation on the gas spring.

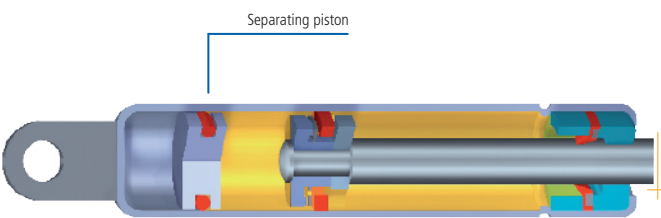
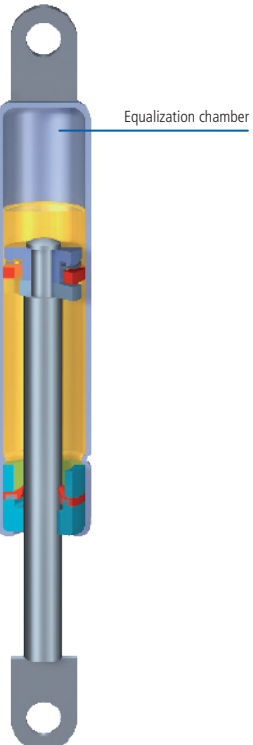
Bowden cables are used for indirect actuation, i.e., not on the gas spring itself. This system consists of a release head, a Bowden cable, and the actuation unit.



STAB-O-SHOC HD15
| for low damping forces

The standard STAB-O-SHOC HD15 is a hydraulic damper without extension force. STAB-O-SHOC HD15 is orientation-specific and achieves its optimum function in almost vertical installation with force transmission without a return stroke, in one direction of movement. Horizontal **special variations** are possible, as are models providing force support during extension or length-controlled damping.

Typical **areas of application** are automotive design, plant design, industrial applications, and the furniture industry. Here, the simple STAB-O-SHOC HD15 is used as a motion damper in flap systems, allowing gentle opening or closing.



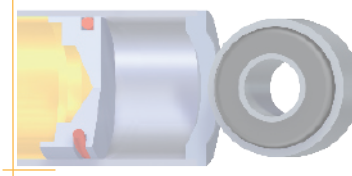
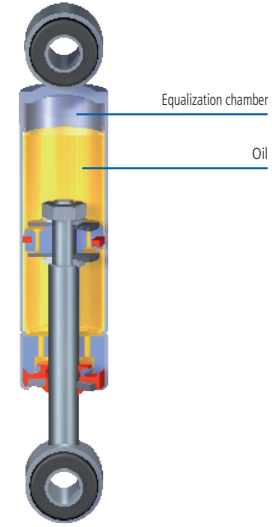
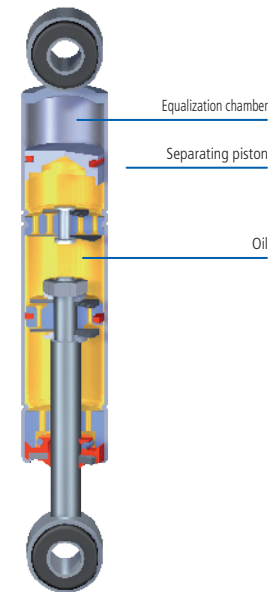
STAB-O-SHOC HD24/29
| for high loads

STAB-O-SHOC HD24/HD29 is a hydraulic **vibration damper** for high loads. The dampers are orientation-specific as standard.

STABILUS also provides a wide range of special forms, for example for force transmission without a return stroke in any direction of movement. The characteristic curve can be adapted individually at the factory. Different piston variations allow decreasing, progressive, or almost linear curves. Pressure-loaded and length-controlled variations are also possible.

Areas of application are, among others, seat dampers, washing machines, and motion dampers with high force requirements for especially heavy flaps.

One **special design** is the overrunning brake damper in automotive design.

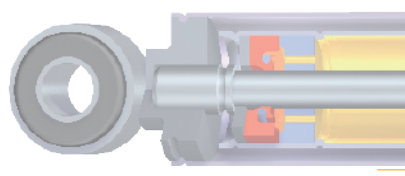
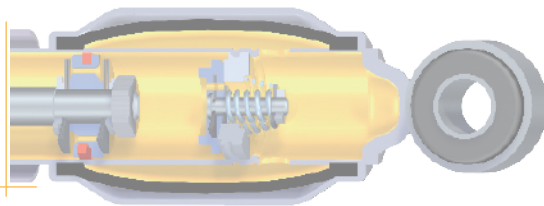
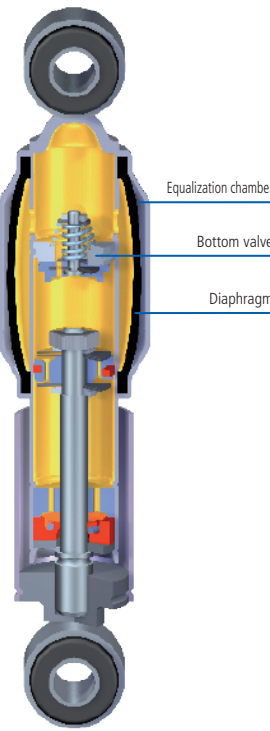


STAB-O-SHOC TA20
| for the smallest installation lengths

The TA20 damper is a high-performance, non-pressure, hydraulic vibration damper. It is not orientation-specific, meaning that force transmission without a return stroke is possible in any installation position. Equipping the outside of the pressure tube with a diaphragm allows very short installation lengths.

TA dampers are available in different dimensions, even for high loads. The damper characteristic curve can be adapted to the respective application at the factory.

Specific **areas of application** in utility vehicles are steering dampers in trailing axles or medical technology, e.g., backrest adjustments in hospital and nursing home beds.



Individual Solutions for Many Applications

With its gas springs and hydraulic vibration dampers, STABILUS is the world market leader with an annual production of more than 120 million units.

By now, the range of applications for STABILUS products is nearly unlimited. In many areas, STABILUS products make everyday life easier and simply more comfortable.

STABILUS is known for technical innovation, quality, and competitive pricing. Of course, individual, extensive consultation and support with installation in the application can be taken for granted with STABILUS.

The STABILUS application consultants and technicians will work out optimized solutions for you and will be glad to fine-tune them with you on-site.

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