

# STABILUS

## Oil Hydraulic Dampers

STAB-O-SHOC®



... technology gives comfort

# We Move Things – Gas Springs and Dampers from STABILUS

## A life without gas springs and dampers – inconceivable!

With its innovations in the field of gas springs and hydraulic dampers, STABILUS has greatly contributed to making life safer and more comfortable in many areas.

Every year, we produce more than 100 million units, using state-of-the-art production technology while complying with the most stringent quality standards. Customer satisfaction, customer proximity, and service are some of the major company goals.

The range of our applications is virtually unlimited: Nowadays, gas springs and dampers from STABILUS are regularly seen – in cars, homes, swivel chairs, automotive design, or industrial systems.

STABILUS ...Technology Gives Comfort.

## We assume responsibility and offer continued support.

Around the globe, our actions are marked by responsibility towards our customers, employees and a partnership with our suppliers. In production, we greatly value environmentally friendly manufacturing and disposal thanks to state-of-the-art production technology.

At STABILUS, product individuality means taking a standard product and customizing it according to the requirements and wishes of our customers. We assign the highest priority to completely new developments – as well as improving existing products.

Your satisfaction is our goal.



## Dampers from STABILUS – Overview

In numerous applications, we achieve and optimize damping of vibration and impact during opening and closing – with an eye on the customer and the future.

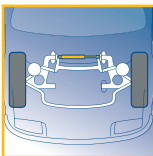
|                                                        |    |
|--------------------------------------------------------|----|
| Automotive and Commercial Vehicle Applications         | 4  |
| General Industrial Applications                        | 6  |
| STABILUS – Vanguard of Quality, Consulting and Service | 8  |
| Structure and Function of Oil Hydraulic Dampers        | 10 |
| Characteristics of Oil Hydraulic Dampers               | 11 |
| Selection and Application of Oil Hydraulic Dampers     | 12 |
| Function Overview and Selection Matrix                 | 13 |
| Product Overview                                       |    |
| STAB-O-SHOC HD15/GD15                                  | 14 |
| STAB-O-SHOC HD24/29 and GD24/29                        | 16 |
| STAB-O-SHOC HD24/29BV and HD24MB                       | 18 |
| STAB-O-SHOC TA Dampers                                 | 20 |
| One-on-One Solutions                                   | 22 |
| Inquiry Form                                           | 23 |

# Automotive and Commercial Vehicle Applications

## Vibration dampers



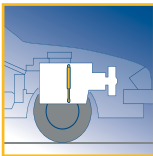
**Driver's seat dampers for commercial vehicle seats:**  
STABILUS oil hydraulic dampers also support standard-compliant spring comfort and thus a positive seating experience.



**Dampers for steering and trailer systems:**  
Oil hydraulic TA dampers from STABILUS were developed specifically for the use in steering systems and therefore guarantee a high level of damping and safety.



**Dampers for belt tensioning systems:**  
STABILUS oil hydraulic dampers are especially suited for reducing vibrations in belt tensioning systems. Permanent pretension of the belt, and reduced vibrations ensure smooth running and a long service life of the belt tensioning system.



**Engine dampers, engine pitch motion dampers:**  
Special oil hydraulic dampers that increase the driving comfort and life span of the vehicle structure.

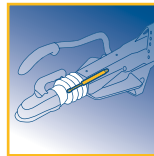


**Dampers for shift linkage and passenger compartments:**  
STABILUS oil hydraulic dampers prevent the transmission of vibration and shocks into the interior of the vehicle compartment. Ideal for passenger compartments that are separated from the chassis.



## Dampers in farming equipment:

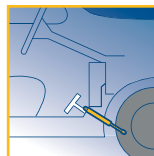
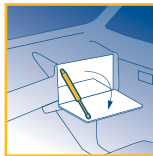
Various oil hydraulic dampers from STABILUS ensure smooth and safe operation of farming equipment, such as field sprayers.



## Motion dampers, flap dampers, and end stop dampers

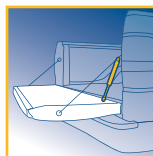
### Dampers for glove compartments and small consoles:

The simple and affordable STABILUS plunger damper ensures smooth and comfortable opening and closing of glove compartments and various consoles.



### Dampers for trunk lids:

The oil hydraulic damper element from STABILUS provides defined opening and closing. An individual and comfortable opening motion comes to life.



## Dampers for pickup truck doors:

When it comes to gentle and safe opening of pickup truck doors, STABILUS offers the EZ-Down retrofit damper set. This retrofitting package includes all parts and tools for easy mounting.

## Dampers for overrunning brake systems:

Special oil hydraulic STABILUS dampers affect the vibrations at the brake lever, thereby preventing force peaks at the brake cable. The damper controls the response behavior of the automatic overrun brake, thus ensuring application and safety-relevant functioning of the brake.

### Dampers for foot-operated parking brakes:

This oil hydraulic damper from STABILUS prevents the sudden return of the foot pedal when releasing the brake.



# General Industrial Applications

## Vibration dampers

**Dampers for washers:**  
The oil hydraulic dampers from STABILUS prevents the drum from stopping during the spin cycle, thereby providing safe footing for the machine.



**Dampers for industrial machines:**  
STABILUS oil hydraulic dampers reduce vibrations caused by the high dynamics in the machining process and provide a high level of safety and long life.



**Dampers for collectors:**  
Here, too, the dynamics create unnecessary vibrations that can be minimised by oil hydraulic dampers from STABILUS.



## Motion dampers, flap dampers, and end stop dampers

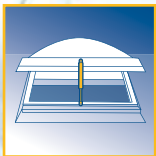
**Dampers for cabinet doors, drawers, storage shelves, swing doors, maintenance doors, and tanning beds:**  
STABILUS oil hydraulic dampers provide safe, comfortable opening and closing of flaps.



**Dampers for top loader washers and similar household appliances, such as stove, oven, dishwasher:**  
Protected opening and closing with oil hydraulic dampers from STABILUS



**Dampers for smoke exhaust hoods in building technology:**  
In emergencies and during maintenance work, the oil hydraulic dampers from STABILUS prevent hard stops of the smoke exhaust hood in the end position.



**Dampers for seat tilt and seat backrest in office chairs:**  
Oil hydraulic dampers from STABILUS provide support for the adjustment of seats, thereby enhancing comfort.



**Dampers in hospital beds:**  
Oil hydraulic dampers from STABILUS ensure safe, comfortable, and standardised lowering of the head panel and the side rails.



# STABILUS – Vanguard in Quality, Service, Consulting and Innovation

## Quality at its best

We guarantee the highest product quality – worldwide. For us, quality management of any process starts with preliminary planning. From product idea to series maturity – we have specialised testing labs to monitor the quality of products and processes.

Because STABILUS dampers are maintenance-free. Designed for the respective requirements, they work uninterrupted for years.

This applies not only to end products – all production lines designed by STABILUS are monitored on a regular basis to ensure consistent quality. Our goal is “zero defect production!” This is how we meet the exact demands of international standards, such as DIN EN ISO 9001-2000, ISO / T S 16949-2002, ISO 14001-2004.

For us, flawless quality is a must.

**You can bank on it.**

## Service and Application Consulting

We are motivated by providing individual solutions for your task, since each installation situation has different demands.

Service – for STABILUS, this means application consulting and installation proposal, intensive product and design consultation,

as well as system and standard specifications from a single source, all in close collaboration with our customers.

Specialists will be by your side, from the initial idea to series maturity.

Creative and constructive cooperation fosters trust and customised products.

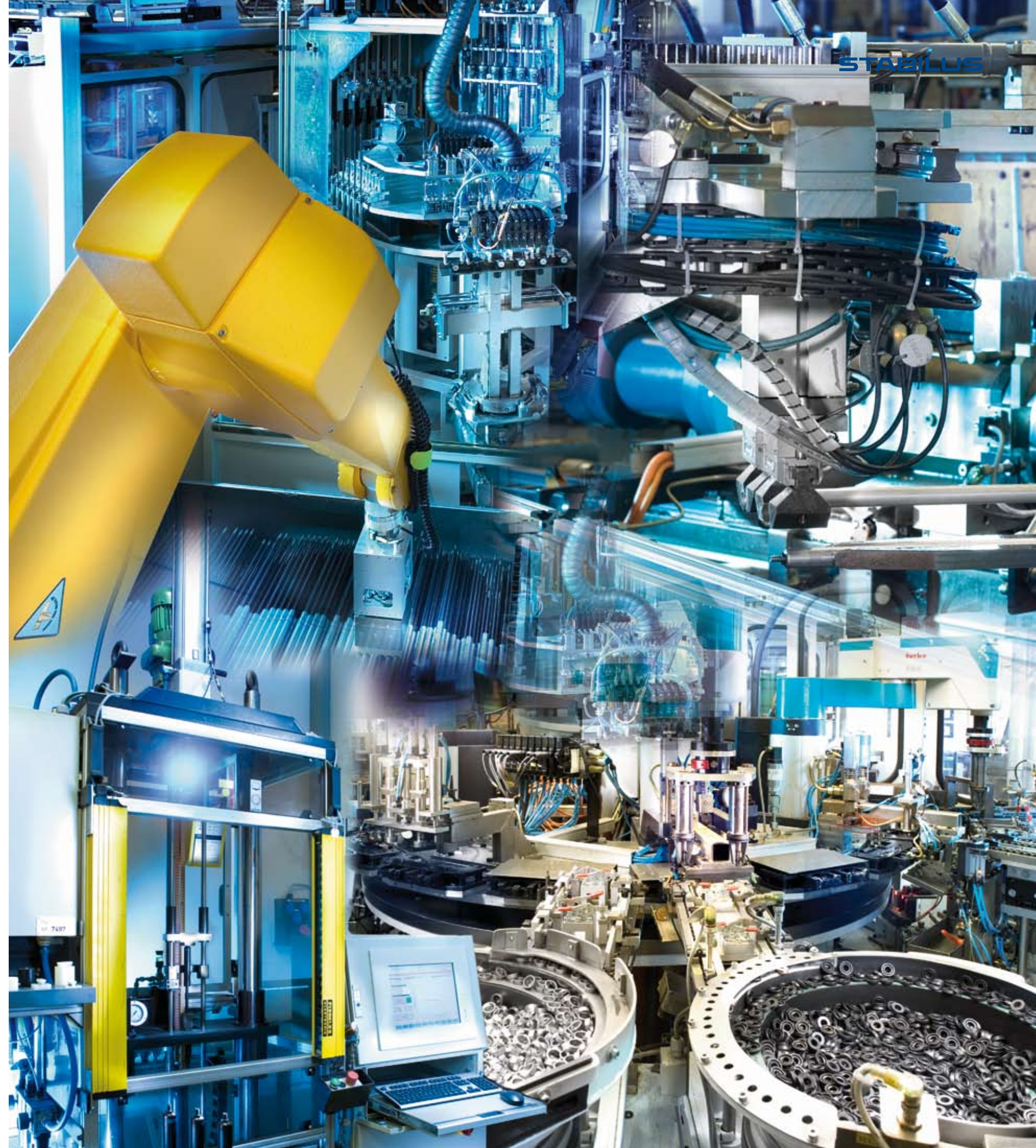
Our application engineers bring many years of expertise to the table; combined with powerful simulation and installation proposal programs, this results in optimised individual solutions.

**Put us to the test! We will grow with your demands.**

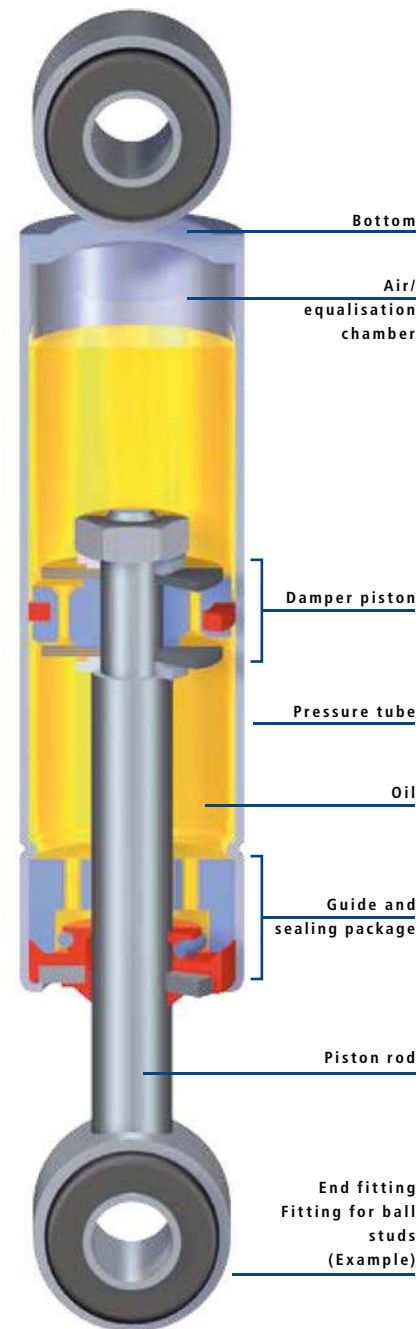
## Innovation

Lighter, bigger, stronger – there’s always something to do. Regardless of customer inquiries, we will always face the new challenges of progress. Our employees continually work on technical innovations. Existing products and manufacturing methods thus become even more reliable and efficient.

**What can we do for you?**



## Structure and Function of Oil Hydraulic Dampers



Basically, all oil hydraulic single tube dampers consist of a piston rod and the attached damper piston as the carrier of the damper valves.

Furthermore, they have a pressure tube, which on one end is connected to the bottom; on the other end, it is closed off by a piston rod seal and a piston rod guide.

The pressure tube is filled with damping oil.

Each damper can absorb the displacement volume of the piston rod and oil expansion volume resulting from heating. Therefore, the air chamber acts as an equalisation chamber.

Through a broad spectrum of fittings, the vibration system transmits motion into the oil hydraulic damper.

This creates a relative movement between the piston system and the pressure tube.

The damping force results from the flow resistance of the damping oil at the reducing locations of the piston. Here, motion energy is transformed into thermal energy.

**Remember: Damping forces are always dependent on the piston speed.**

A modular piston system enables the setting of tensile and compression forces appropriate for the application. If needed, they can differ in strength.



## Characteristics of Oil Hydraulic Dampers

An oil hydraulic vibration damper is often characterised by a symmetric force distribution in the tension and compression directions. **Dampers for flap applications** dampen in just one direction of motion, depending on the application. The damping force characteristic curves are determined at different speeds.

**Characteristics of the damping function:**

**Mounting position independent:** can be installed in any position

**Mounting position dependent:** installation with piston rod pointing down (preferred) or up; certain inclined positions are permissible.

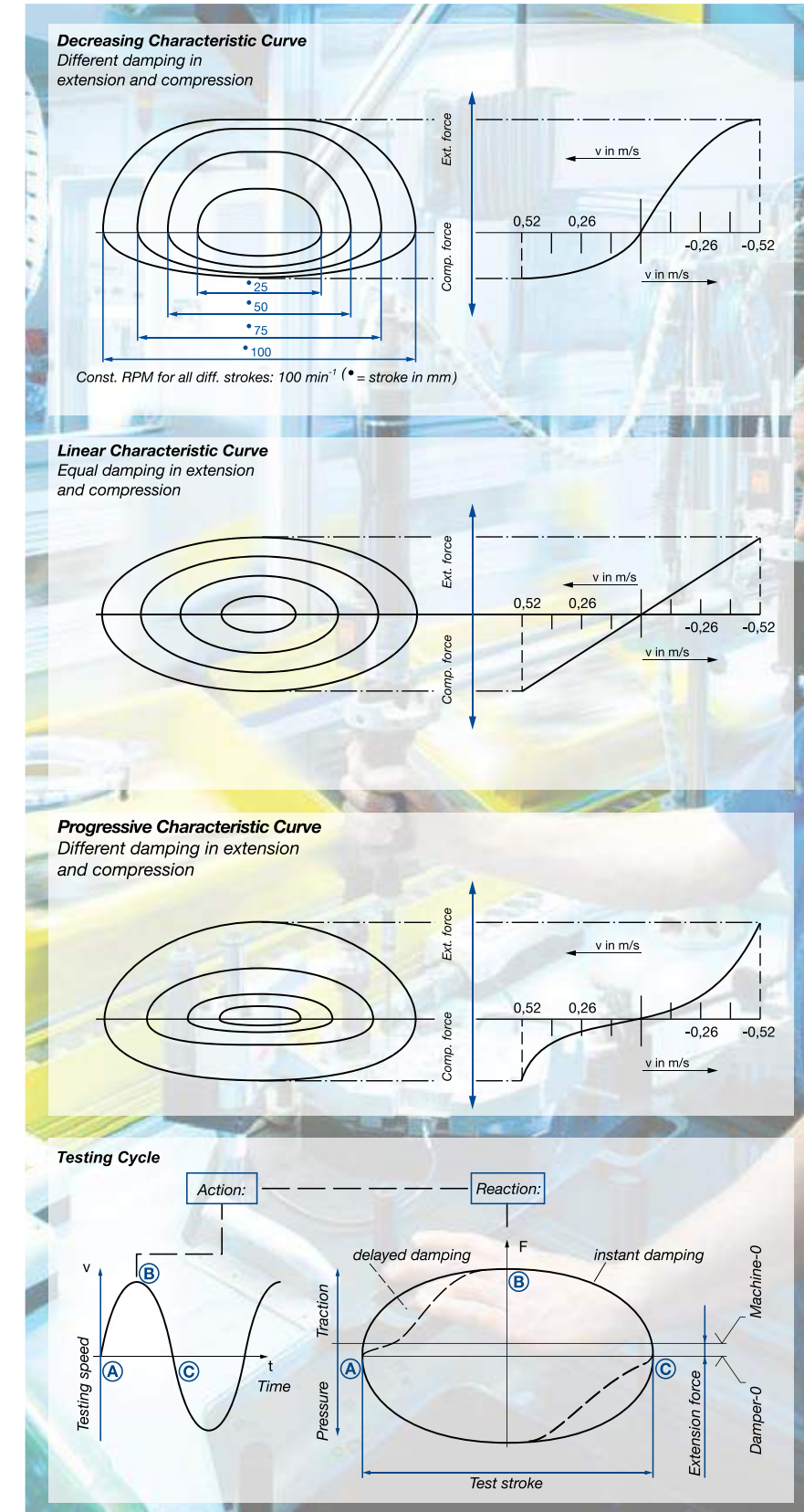
**Instant damping:** When the load is reversed, the damping force kicks in immediately. The force is transmitted without a return stroke.

**Delayed damping:** When the load is reversed, the damping force is delayed. The force is transmitted with a return stroke.

**Extension force:** For some damper types, a static extension force of the piston rod can be specified.

**Testing of damping forces:**

One way of measuring damping forces is with a harmonic motion on a crank mechanism test stand. The static extension force, also called the mean gas force, is measured in the test stroke center position. It is the difference between machine 0 and damper 0 test.



## Selection and Application of Oil Hydraulic Dampers

**Standard product line for dampers:**

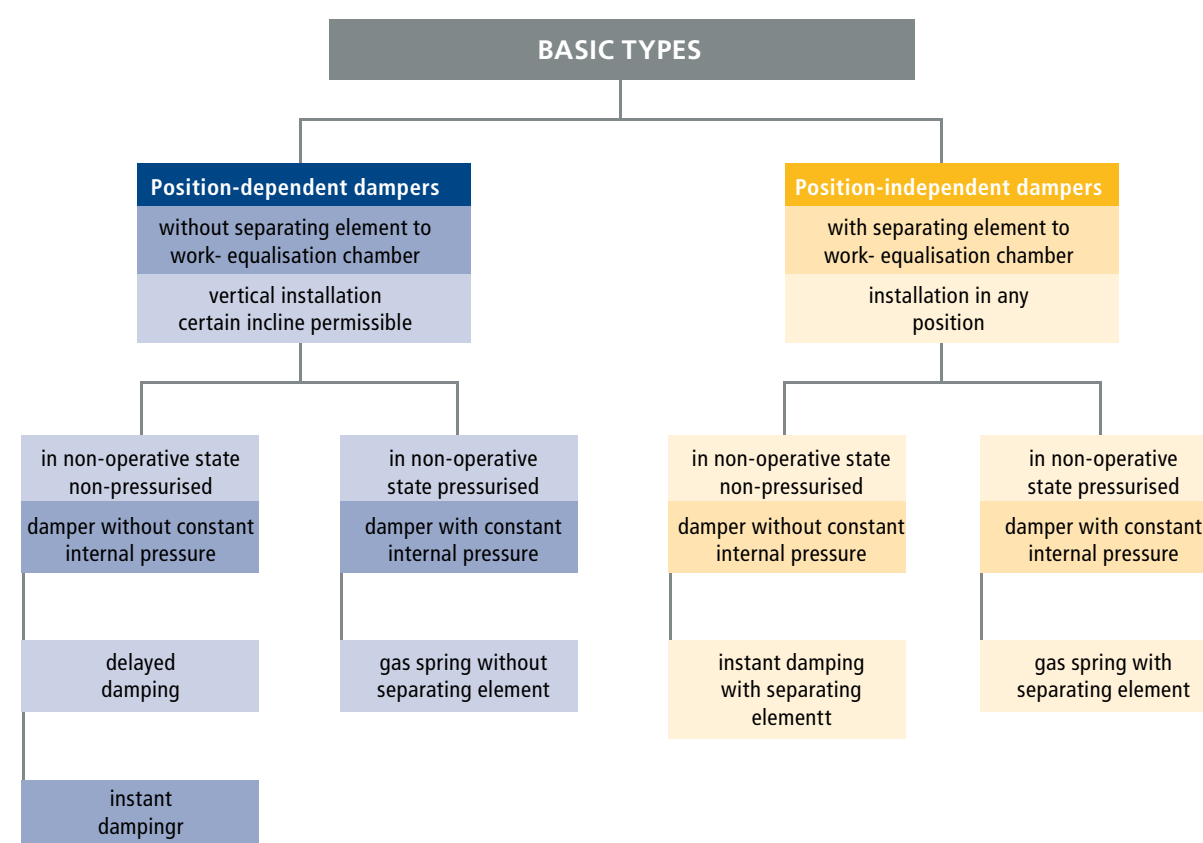
As the world market leader, STABILUS develops individual solutions with its customers, while strictly adhering to existing guidelines and specifications of our customers. The procedure for application-specific development is described in the Integrated Management System.

A small selection of oil hydraulic single-tube dampers is included in our standard product line.

Thanks to steady availability, we can make devices available at short notice; for example, for initial practice trials. Within a short time, you will get a "feel" for the use of oil hydraulic dampers in your application. This first impression will then help with further decision-making – up to the series solution.

**Dimensions and model types**  
upon request:

The oil hydraulic damper is available in various types with different outer dimensions. Due to the respective structural designs, the individual model types meet different demands.

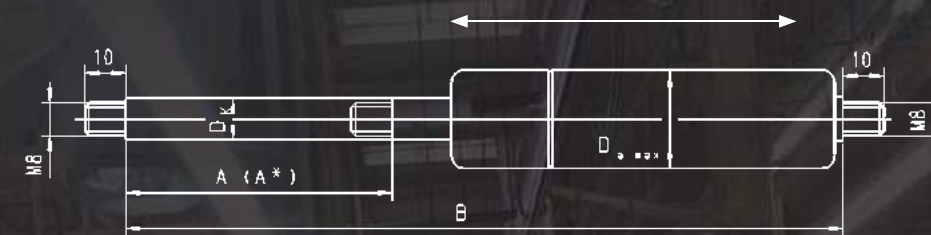


### Models of position-dependent dampers:

|                    |                  |
|--------------------|------------------|
| STAB-O-SHOC HD15   | STAB-O-SHOC HD29 |
| STAB-O-SHOC GD15   | STAB-O-SHOC GD29 |
| STAB-O-SHOC HD24   |                  |
| STAB-O-SHOC GD24   |                  |
| STAB-O-SHOC HD24BV |                  |

|                      |                      |
|----------------------|----------------------|
| STAB-O-SHOC GD15SP   | STAB-O-SHOC GD29BVSP |
| STAB-O-SHOC GD24SP   | STAB-O-SHOC TA20     |
| STAB-O-SHOC HD24MB   | STAB-O-SHOC TA30     |
| STAB-O-SHOC GD24BVSP | STAB-O-SHOC TA40     |
| STAB-O-SHOC GD29SP   |                      |

## Function Overview and Selection Matrix



| Product description  | Damping forces* [N]<br>Testing speed<br>104 mm/s |                         | Dimensions<br>In individual cases, even larger<br>overall lengths are possible |                           |                                 |                       | Return |    | Mounting position<br>independent |    | Push-out<br>force |    |
|----------------------|--------------------------------------------------|-------------------------|--------------------------------------------------------------------------------|---------------------------|---------------------------------|-----------------------|--------|----|----------------------------------|----|-------------------|----|
| Model                | Comp. max<br>[N]<br>FD                           | Tract. max<br>[N]<br>FZ | Dk<br>[mm]                                                                     | Da <sub>max</sub><br>[mm] | [B]<br>L <sub>max</sub><br>[mm] | [A]<br>Stroke<br>[mm] | yes    | no | yes                              | no | yes               | no |
| STAB-O-SHOC HD15     | 800                                              | 800                     | 6                                                                              | 15,6                      | 500                             | 200                   | X      |    |                                  | X  |                   | X  |
| STAB-O-SHOC GD15     | 800                                              | 800                     | 6                                                                              | 15,6                      | 500                             | 200                   | X      |    |                                  | X  | X                 |    |
| STAB-O-SHOC GD15SP   | 800                                              | 800                     | 6                                                                              | 15,6                      | 500                             | 200                   |        | X  | X                                |    | X                 |    |
| STAB-O-SHOC HD24     | 6000                                             | 6000                    | 8/10                                                                           | 24                        | 1000                            | 400                   | X      |    |                                  | X  |                   | X  |
| STAB-O-SHOC GD24     | 6000                                             | 6000                    | 8/10                                                                           | 24                        | 1000                            | 400                   | X      |    |                                  | X  | X                 |    |
| STAB-O-SHOC GD24SP   | 3000                                             | 6000                    | 8/10                                                                           | 24                        | 700                             | 250                   |        | X  | X                                |    | X                 |    |
| STAB-O-SHOC HD24MB   | 2000                                             | 6000                    | 8/10                                                                           | 24                        | 225                             | 60                    |        | X  | X                                |    |                   | X  |
| STAB-O-SHOC HD24BV   | 2000                                             | 6000                    | 8/10                                                                           | 24                        | 700                             | 250                   |        | X  |                                  | X  |                   | X  |
| STAB-O-SHOC GD24BVSP | 2000                                             | 6000                    | 8/10                                                                           | 24                        | 700                             | 250                   |        | X  | X                                |    | X                 |    |
| STAB-O-SHOC HD29     | 9000                                             | 9000                    | 10                                                                             | 29                        | 1000                            | 400                   | X      |    |                                  | X  |                   | X  |
| STAB-O-SHOC GD29     | 9000                                             | 9000                    | 10                                                                             | 29                        | 1000                            | 400                   | X      |    |                                  | X  | X                 |    |
| STAB-O-SHOC GD29SP   | 6000                                             | 9000                    | 10                                                                             | 29                        | 700                             | 250                   |        | X  | X                                |    | X                 |    |
| STAB-O-SHOC GD29BVSP | 9000                                             | 9000                    | 10                                                                             | 29                        | 700                             | 250                   |        | X  | X                                |    | X                 |    |
| STAB-O-SHOC TA 20    | 3000                                             | 3000                    | 8                                                                              | 39                        | 750                             | 300                   |        | X  | X                                |    |                   | X  |
| STAB-O-SHOC TA 30    | 3000                                             | 3000                    | 11                                                                             | 50                        | 1000                            | 400                   |        | X  | X                                |    |                   | X  |
| STAB-O-SHOC TA 40    | 3000                                             | 3000                    | 14                                                                             | 64                        | 1000                            | 400                   |        | X  | X                                |    |                   | X  |

**Legend:** HD: Hydraulic Damping, GD: Gas Compression, SP: Separating Piston, BV: Bottom Valve, MB: Membrane, TA: Steering Damper (telescope equalization chamber)

\*The damping forces in the selection matrix refer to test speeds of 104 mm/s. They are based on a test stroke of 20 mm and a test speed of 100 rpm (crank drive test). Higher damping forces are possible in special cases.

**Options (in addition to standard program):**

- Protective tube for piston rod • Elastomer buffers for extra end position damping
- Bellows • Protective cap • Special paint colors • Broad variety of end fittings



Equalisation chamber

Working space

- Glove compartment
- Bar cabinets
- Kitchen cabinets
- Storage shelves
- Regulating dampers (vibration dampers) for injection pumps and various machines
- Lid dampers

HD15 with  
gas-filled internal pressure

- Seat damper (horizontal vibration load)
- Consoles
- Light doors
- Roof dampers, e.g., convertible tops
- Foot-operated parking brakes

Diagram illustrating the components of a separating piston:

- Separating piston
- HD15 with gas-filled internal pressure

- Seat damper (horizontal vibration load)
- Consoles
- Light doors
- Machine tools

**STAB-O-SHOC HD15**

| Geometric data       |                       |        | Damping forces                           |                                        | Order- |
|----------------------|-----------------------|--------|------------------------------------------|----------------------------------------|--------|
| <sup>1)</sup> A [mm] | <sup>2)</sup> A* [mm] | B [mm] | <sup>3)4)</sup> F <sub>tension</sub> [N] | <sup>3)5)</sup> F <sub>comp.</sub> [N] | No.    |
| 30                   | 30                    | 110    | 75                                       | < 25                                   | 4165ZQ |
|                      |                       |        | 300                                      | < 25                                   | 4166ZL |
|                      |                       |        | 800                                      | < 25                                   | 4167ZG |
| 30                   | 60                    | 157    | < 25                                     | 125                                    | 4168ZB |
|                      |                       |        | < 25                                     | 250                                    | 4169ZX |
|                      |                       |        | < 25                                     | 550                                    | 4171ZD |
|                      |                       |        | 75                                       | < 25                                   | 4172ZZ |
| 60                   | 60                    | 175,5  | 300                                      | < 25                                   | 4173ZU |
|                      |                       |        | 800                                      | < 25                                   | 4174ZP |
|                      |                       |        | < 25                                     | 125                                    | 4175ZK |
|                      |                       |        | < 25                                     | 250                                    | 4176ZF |
| 60                   | 105                   | 247    | < 25                                     | 550                                    | 4177ZA |
|                      |                       |        | 75                                       | < 25                                   | 4179ZR |
|                      |                       |        | 300                                      | < 25                                   | 4181ZY |
| 100                  | 100                   | 258,5  | 800                                      | < 25                                   | 4182ZT |
|                      |                       |        | < 25                                     | 125                                    | 4183ZO |
|                      |                       |        | < 25                                     | 250                                    | 4184ZJ |
| 100                  | 160                   | 357    | < 25                                     | 550                                    | 4187ZV |

1) A: hydraulic stroke  
2) A\*: mechanical stroke  
3) linear test speed 100mm/s; force tolerances: +/-20% nominal value

4) mounting: piston rod down, piston flow only in oil = hydraulic stroke, A  
5) mounting: piston rod up, maximum possible stroke in oil and air chamber = mechanical stroke, A\*

**Ordering example**

123456 / K2 / D1  
order-No. piston rod end fitting pressure tube end fitting

Installation according to STAB-Spec.10145882 / Dimensions in mm / We reserve the right to make modifications

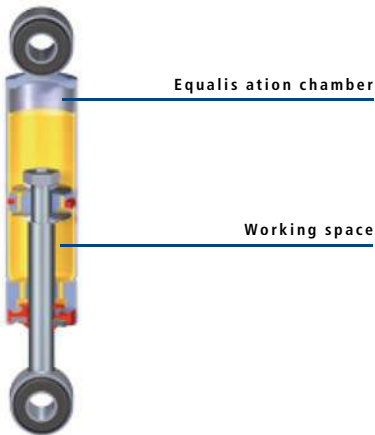
Product Overview

STAB-O-SHOC HD24/29 and GD24/29

STAB-O-SHOC HD24/29

The STABILUS STAB-O-SHOC HD24/HD29 is a standard single-tube damper for various applications. Due to a special piston system with valve plates and a base piston with different reduction cross sections, this model is the ideal vibration damper. Because of the "open" equalisation chamber, the damping force is delayed (slip or return stroke).

- Damping forces to 9000 N
- Damping forces in tension and compression directions can be set independent of each other by the factory
- Non-pressurised, no push-out force
- Return stroke, delayed damping
- Position-dependent mounting, with piston rod down or up



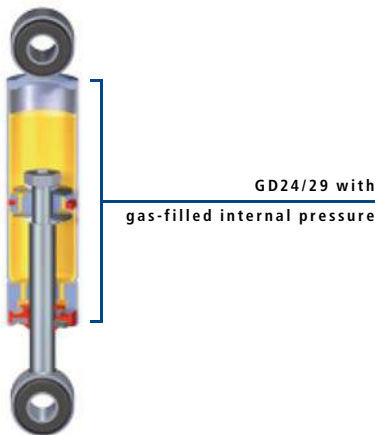
Applications:

- Washing machine damper
- Commercial vehicle seats
- Smoke exhausts
- Heavy flaps and doors that open vertically

STAB-O-SHOC GD24/29 Gas damper

Due to the increased internal pressure, the piston rod extends automatically. Structure and damping properties are very similar to those of the standard Stabilus damper STAB-O-SHOC HD24.

- Damping forces to 9000 N
- Damping forces in tension and compression directions can be set independent of each other
- With push-out force
- Return stroke, delayed damping
- Position-dependent mounting, with piston rod down or up



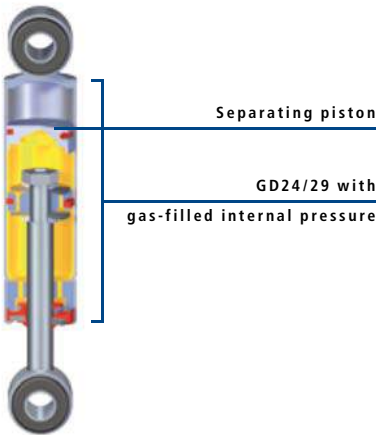
Applications:

- Seat damper (vertical vibration damping)
- Car roof damper, e.g., convertible top

STAB-O-SHOC GD24/29 Gas damper with separating piston

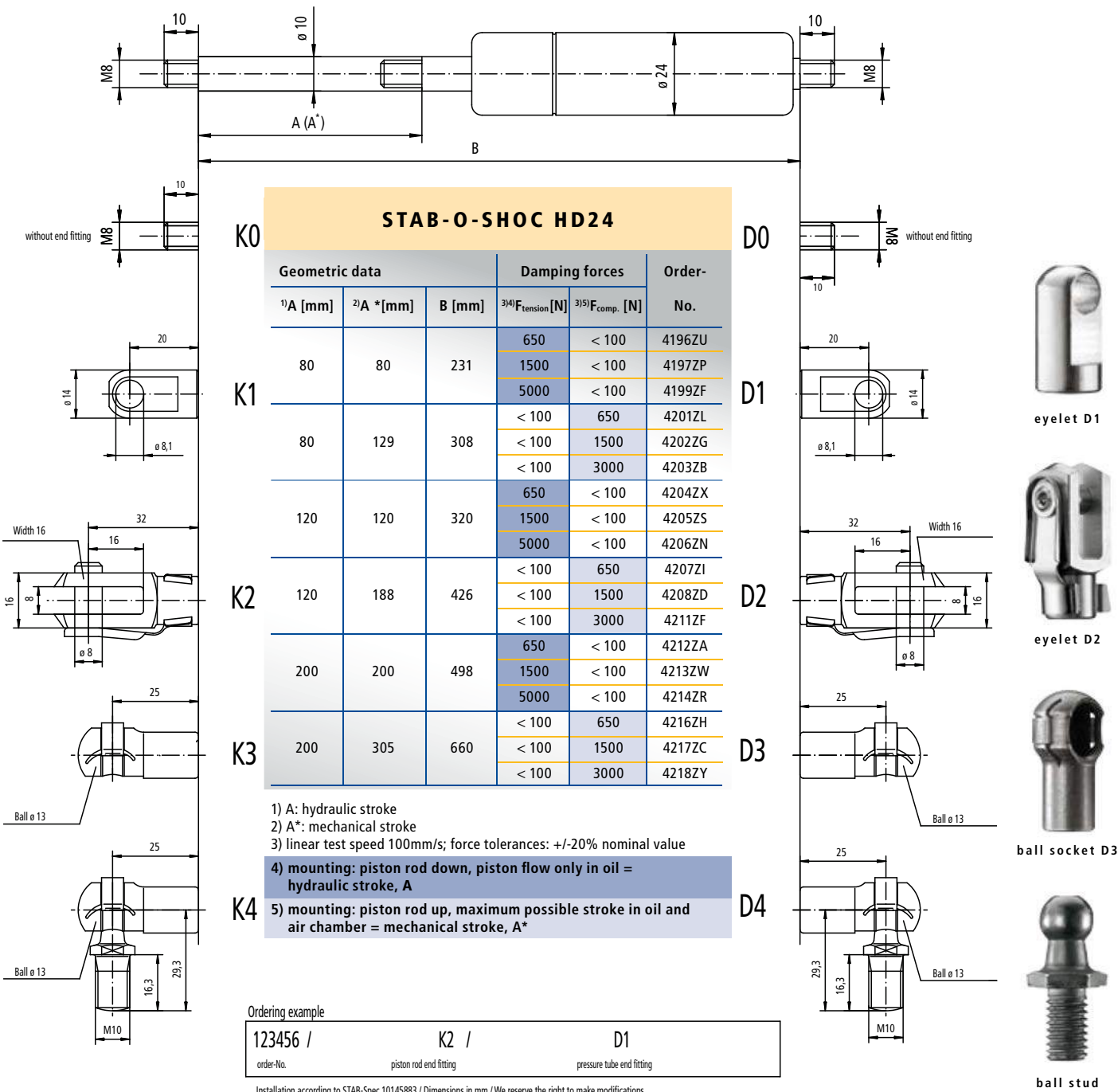
The position-independent mounting orientation is achieved with a separating piston. When the direction of movement is reversed, the damping force is immediate and slip-free. The special piston structure guarantees superior damping properties.

- Damping force max. 9000 N
- Damping forces in tension and compression direction can be set independent of each other by the factory
- With push-out force
- No return stroke, direct instant damping
- Mounting in any orientation



Applications:

- Overrunning brake damper
- Seat damper (vertical vibration damping)
- Car roof damper, e.g., convertible top



Dimensions:

**STAB-O-SHOC HD24**  
with 24 mm pressure tube  
outer diameter and 1.5 mm  
wall thickness

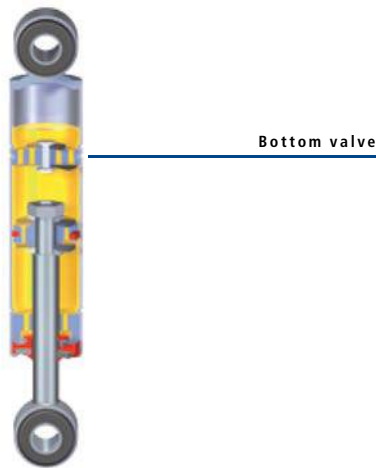
**STAB-O-SHOC HD29**  
with 29 mm pressure tube  
outer diameter and 1.5 mm  
wall thickness

Product Overview  
STAB-O-SHOC  
HD24/29BV and  
HD24MB

STAB-O-SHOC HD24/29BV  
with bottom valve

In a vertical installation with the piston rod pointing down, the bottom valve allows slip-free and thus direct force transmission.

- Damping forces up to 9000 N in tension direction
- Damping forces in compression direction up to 2000 N
- Damping forces in tension and compression directions can be set independent of each other by the factory
- Non-pressurised, no push-out force
- No return stroke, direct instant damping
- Position-dependent mounting, only with piston rod down



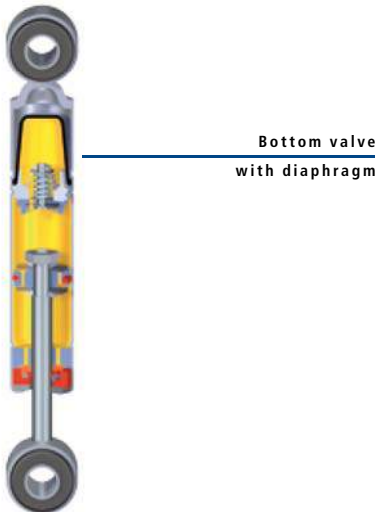
- Applications:
- Belt tensioning damper
  - Engine vibration damper
  - Engine pitch motion dampers
  - Chassis damper



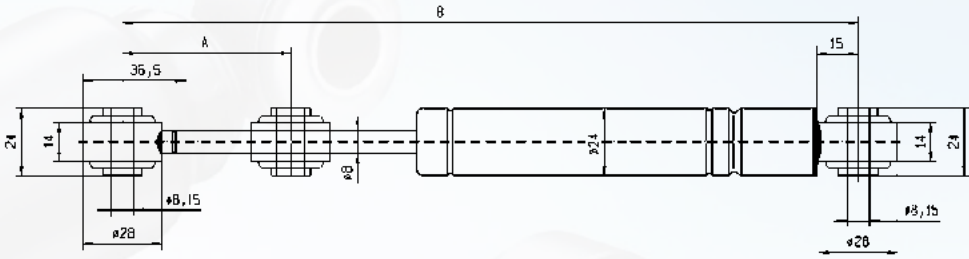
STAB-O-SHOC HD24MB  
with bottom valve and  
diaphragm

The diaphragm in the pressure tube combines the special features of the bottom valve with position-independent mounting. The damper is non-pressurised, so that the piston rod stays in the pressure tube.

- Damping forces up to 9000 N in direction of tension
- Damping forces in compression direction up to 2000 N
- Damping forces in tension / and compression direction can be set independent of each other by the factory
- Non-pressurised, no push-out force
- No return stroke, direct instant damping
- Mounting in any orientation



- Applications:
- Belt tensioning damper
  - Engine vibration damper
  - Engine pitch motion damper



STAB-O-SHOC HD24MB

| Geometric data |        | Damping forces                           |                                        | Order-No |
|----------------|--------|------------------------------------------|----------------------------------------|----------|
| A [mm]         | B [mm] | <sup>1)2)</sup> F <sub>tension</sub> [N] | <sup>1)2)</sup> F <sub>comp.</sub> [N] |          |
| 30             | 213,5  | 100                                      | 100                                    | 2529YM   |
|                |        | 400                                      | 400                                    | 2546YP   |
|                |        | 1000                                     | 1000                                   | 2548YF   |
| 60             | 273,5  | 100                                      | 100                                    | 2598YC   |
|                |        | 400                                      | 400                                    | 2602YZ   |
|                |        | 1000                                     | 1000                                   | 2611YY   |

1) test speed 104 mm/s  
crank drive test: test stroke 20 mm/ test speed 100 rpm  
force tolerances: +/-20% nominal value  
2) **mounting in any position**  
mounting instructions according to STAB-Spec. 10005593  
waste disposal according to STAB-Spec. 10009375



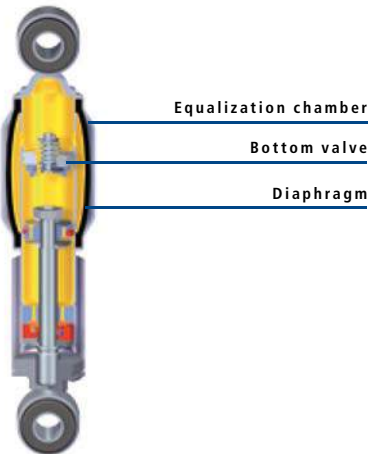
# Product Overview

## STAB-O-SHOC TA Damper

### STAB-O-SHOC TA

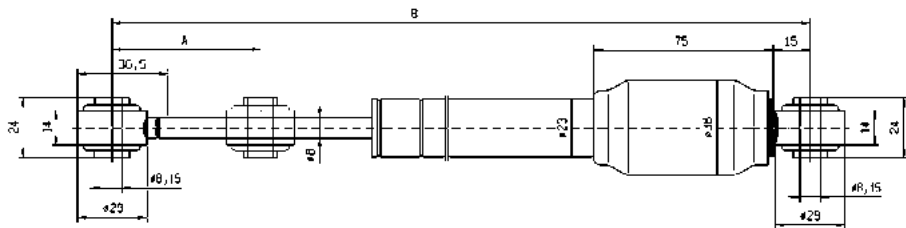
The diaphragm, adjacent to the outside of the pressure tube, absorbs the additional piston rod volume with the shortest possible overall length. This provides slip-free force transmission in any mounting orientation. Due to the special piston system with valve plates, the damping forces can be set variably and independent of each other.

- Damping forces up to 3000 N in tension and compression direction
- Damping forces in tension and compression direction can be set independent of each other by the factory
- Non-pressurised, no push-out force
- No return stroke, direct instant damping
- Mounting in any orientation



#### Applications:

- Steering dampers
- Trailer axles
- Lowering of head panel in hospital beds
- Vibration damping in farming equipment



| STAB-O-SHOC TA20 |        |                                        |                                      |           |
|------------------|--------|----------------------------------------|--------------------------------------|-----------|
| Geometric data   |        | Damping forces                         |                                      | Order-No. |
| A [mm]           | B [mm] | <sup>1)</sup> F <sub>tension</sub> [N] | <sup>1)</sup> F <sub>comp.</sub> [N] |           |
| 60               | 249    | 100                                    | 100                                  | 2366YR    |
|                  |        | 550                                    | 550                                  | 2424YR    |
|                  |        | 1000                                   | 1000                                 | 2426YH    |
| 120              | 369    | 100                                    | 100                                  | 2443YK    |
|                  |        | 550                                    | 550                                  | 2433YQ    |
|                  |        | 1000                                   | 1000                                 | 2456YQ    |
| 200              | 529    | 100                                    | 100                                  | 2466YK    |
|                  |        | 550                                    | 550                                  | 2474YO    |
|                  |        | 1000                                   | 1000                                 | 2476YE    |

1) test speed 104 mm/s  
crank drive test: test stroke 20 mm/ test speed 100 rpm  
force tolerances: +/-20% nominal value  
2) **mounting in any position**  
mounting instructions according to STAB-Spec. 10005593  
waste disposal according to STAB-Spec. 10009375

#### Dimensions:

##### STAB-O-SHOC TA20

with 23 mm pressure tube  
outer diameter and 1.5 mm  
wall thickness

##### STAB-O-SHOC TA30

with 34 mm pressure tube  
outer diameter and 2.0 mm  
wall thickness

##### STAB-O-SHOC TA40

with 44 mm pressure tube  
outer diameter and 2.0 mm  
wall thickness



### Maintenance-free for Life

Hydraulic vibration dampers from STABILUS have a maintenance-free service life! We use special sealing systems for particularly high numbers of stress cycles and extreme conditions.

Thus our dampers can easily withstand millions of stress cycles and work impeccably for many years.

One-on-One Solutions

Step-by-step to custom-tailored products

Already, there is an abundance of applications for our hydraulic vibration and motion dampers – and our customers think of new ones all the time.

“We can do it. You can help” is the motto for our application engineers, who design new products and applications together with the customer. Your ideas inspire us.

We have developed special programs that we use to simulate the desired motions and propose installation ideas. Together with the customer we design tailored solutions – from improvements of existing products to completely new product developments.

We are here to support you with our expertise.

For more than 70 years, STABILUS has been designing innovative solutions for active safety and increased comfort for people and technology.

If you want to move something – talk to us!



Inquiry Form

Please copy and fax, mail, or e-mail to:  
Stabilus GmbH, Wallersheimer Weg 100, D-56070 Koblenz, fax: +49 261-8900-204, e-mail: info@de.stabilus.com

Customer: \_\_\_\_\_

Contact: (name/phone/e-mail) \_\_\_\_\_

Application (short description of sketch):  
☐ Vibrating damping ☐ Braking a weight

Quantity (one-time/annually): \_\_\_\_\_

Comparison type: \_\_\_\_\_

Compressed length in mm min: \_\_\_\_\_ max: \_\_\_\_\_

Extended length in mm: min: \_\_\_\_\_ max: \_\_\_\_\_

Stroke in mm:  
☐ hydraulic min: \_\_\_\_\_ max: \_\_\_\_\_  
☐ mechanical min: \_\_\_\_\_ max: \_\_\_\_\_

Mounting orientation:  
☐ horizontal ☐ vertical ☐ inclined (approx. degree) \_\_\_\_\_

Mounting orientation:  
☐ pointing up ☐ down ☐ angle to perpendicular \_\_\_\_\_

Force and speed occurring in tension direction: F[N]: \_\_\_\_\_ V[m/s]: \_\_\_\_\_

Force and speed occurring in compression direction: F[N]: \_\_\_\_\_ V[m/s]: \_\_\_\_\_

Extension force required? ☐ yes ☐ by spring  
(indicate in N or as spring rate): ☐ no ☐ by gas

End fittings: ☐ eyelet ☐ thread ☐ clevis  
☐ ball socket/angle joint ☐ eyelet with rubber cushion ☐ others

Max. outer diameter in mm: \_\_\_\_\_

Ambient temperature in °C: min: \_\_\_\_\_ min: \_\_\_\_\_ max: \_\_\_\_\_



- Production
- Sales office

## World wide

### Australia

Stabilus Pty. Ltd.  
65 Redwood Drive  
Dingley, VIC 3172  
Australia  
☎ +61 3 9552-1400  
☎ +61 3 9552-1499  
✉ info@au.stabilus.com

### Brazil

Stabilus Ltda.  
Av. Pres. Tancredo  
de Almeida Neves, km 1,2  
CEP 37.504-066 Itajubá (MG)  
Brazil  
☎ +55 35 3629-5000  
☎ +55 35 3629-500  
✉ info@stabilus.com.br

### China

Stabilus Sales Office Shanghai  
88, Ke Yuan Road  
Unit No 725  
Zhang Jiang Hi-Tech Park  
Pudong, Shanghai  
PR China  
☎ +86 21 2898-6500  
☎ +86 21 2898-6510  
✉ info@cn.stabilus.com

### China

STABILUS Changchun Ltd.  
668, Chuang Xin Road  
Changchun National High Tech  
Industries Development Area  
130012 Changchun City,  
Jilin Province, PR China  
☎ +86 431 5822415  
☎ +86 431 5089915  
✉ info@cn.stabilus.com

### Germany

Stabilus GmbH  
Wallersheimer Weg 100  
56070 Koblenz  
Germany  
☎ +49 261 8900-0  
☎ +49 261 8900-204  
✉ info@de.stabilus.com

### Spain

Stabilus España S. L.  
Barrio Aretxalde, 128  
48196 Lezama (Vizcaya)  
Spain  
☎ +34 94 455-4170  
☎ +34 94 455-41834  
✉ info@es.stabilus.com

### France

Sales Office Automotive  
Le Technoparc, L'Espace Média  
3, rue Gustave Eiffel  
78300 Poissy  
France  
☎ +33 139 226494  
☎ +33 139 226496  
✉ info@fr.stabilus.com

### Italy

Stabilus S.r.l.  
Via Nazionale, 209  
10069 Villar Perosa (To)  
Italy  
☎ +39 0121 316-711  
☎ +39 0121 315-637  
✉ info@it.stabilus.com

### Japan

Stabilus Japan Corporation  
Toshin 24 Shinyokohama, Bldg B-8F  
2-3-8 Shin-Yokohama, Kohoku-ku  
222-0033 Yokohama  
Japan  
☎ +81 45 471-2970  
☎ +81 45 471-2989  
✉ info@jp.stabilus.com

### Korea

Stabilus Co. Ltd. Sales Office  
Seoul  
Bojeong Building 202  
Seokchon-dong  
Songpa-gu  
Korea  
☎ +82 2 422 0114  
☎ +82 2 421 0934  
✉ info@kr.stabilus.com

### Mexico

Stabilus, S.A. de C.V.  
Industria Metalúrgica No. 1010  
Parque Industrial Ramos Arizpe  
C.P. 25900 Ramos Arizpe, Coahuila  
Mexico  
☎ +52 844 411-0707  
☎ +52 844 411-0706  
✉ info@mx.stabilus.com

### New Zealand

Stabilus Limited  
75 Ellice Rd. Glenfield  
PO Box 101023 NSMC  
Auckland  
New Zealand  
☎ +64 9 444-5388  
☎ +64 9 444-5386  
✉ info@stabilus.co.nz

### Romania

Stabilus S.R.L. Romania  
DN 11, km 5+863  
(soseana Brasov-Harman)  
507190 Sanpetru, Brasov  
Romania  
☎ +40 268 308900  
☎ +40 268 308910  
✉ info@ro.stabilus.com

### Singapore

Stabilus Singapore Sales Office  
c/o ZF Southeast Asia Pte. Ltd.  
11 Tuas Drive 1  
Singapore 638678  
☎ +65 642 48726  
☎ +65 642 48788  
✉ info@sg.stabilus.com

### United Kingdom

Stabilus Sales Office  
Unit 4  
Canada Close  
Banbury  
Oxon. OX16 2RT  
England  
☎ +44 12 95 700-100  
☎ +44 12 95 700-106  
✉ info@uk.stabilus.com

### USA

Stabilus Inc.  
1201 Tulip Drive  
Gastonia NC 28052 - 1898  
USA  
☎ ++1 704 865-7444  
☎ ++1 704 865-7781  
✉ info@us.stabilus.com

### USA

Sales Office Automotive  
36225 Mound Road  
Sterling Heights, MI 48310- 4739  
USA  
☎ ++1 586 977-2950  
☎ ++1 586 446-3920  
✉ info@us.stabilus.com

### USA

Sales Office Industrial  
919 N. Plum Grove Road, Suite G  
IL 60173 Schaumburg, Illinois  
USA  
☎ ++1 847 517-2980  
☎ ++1 847 517-2987  
✉ info@us.stabilus.com