

Gas Springs in Swivel Chairs

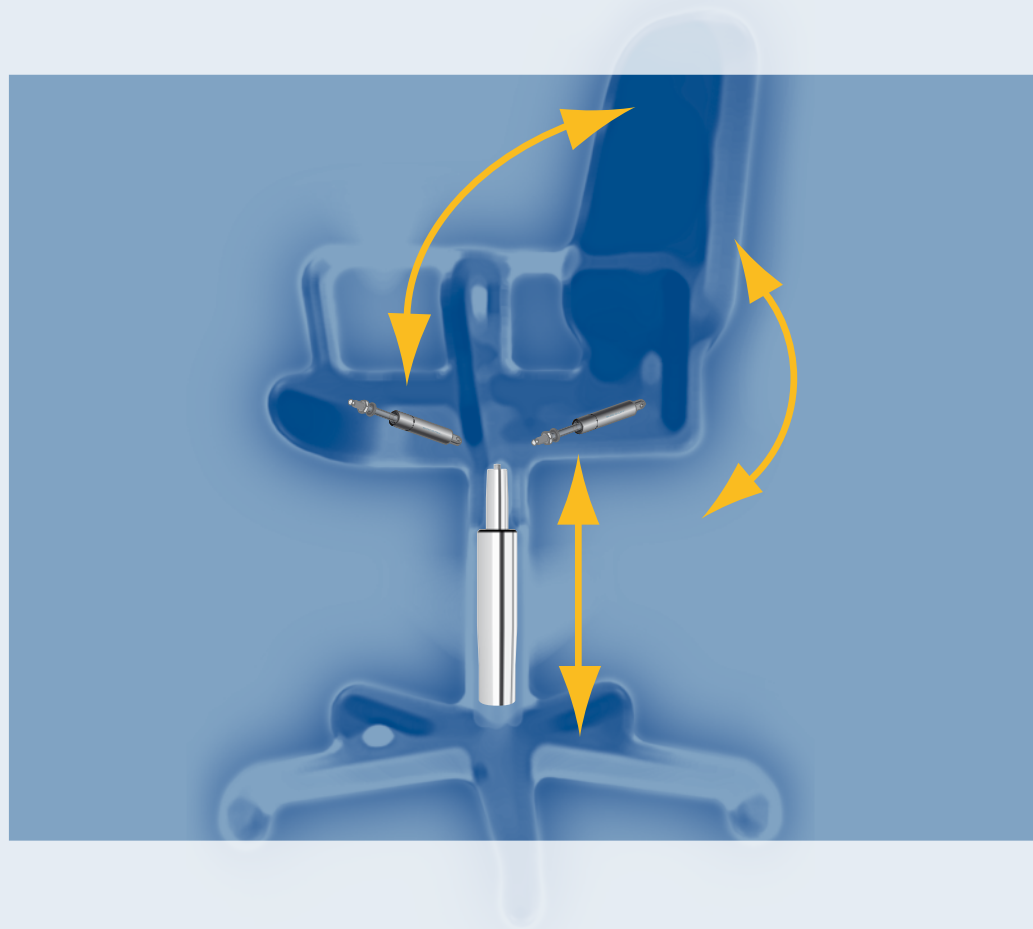
for ergonomic seat adjustment



BLOC-O-LIFT®

STAB-O-MAT®

STAB-O-BLOC®





Pioneer Performance

In 1962, STABILUS presented the world's first gas spring manufactured in series production to the swivel chair industry; in 1965, the first lockable gas spring. To date, more than 2.0 billion gas springs have been produced, giving STABILUS the longest experience world-wide in the design and manufacture of gas springs. With an annual production of more than 100 million units, STABILUS is today the world market leader for multiple industrial applications. Occupational health practitioners and swivel chair manufacturers appropriately consider STABILUS a pioneer in the development and manufacture of gas springs for ergonomic seating in the swivel chair area. The gas spring makes it possible to adjust height, seat and backrest tilt of the swivel chair quickly and easily.

Globally Active

With a global sales and service network and 10 production sites in Europe, USA, Mexico, Brazil, New Zealand, Australia and Korea STABILUS supplies and supports more than 2,400 customers world-wide. 500 of these customers are swivel chair manufacturers who rely on STABILUS products.

For All Industries

Known for its decade-long, successful use in the vehicle and swivel chair industries, the gas spring is considered an essential component in numerous applications in a wide range of industries.

Gas Springs and Dampers for Ergonomic Seat Adjustment

Thanks to the decade-long commitment to innovative systems and high manufacturing flexibility, STABILUS today has a broad product line that caters to the varied demands of the modern market.

Example: Telescopic column

This column version offers a wide height adjustment range for a short installed length, namely in the lowest seat position.

Example: Multi-functional column

The ideal solution, if several swivel chairs need to return to a home position after use.

Example: Stop function

In special swivel chairs for combined standing/seated workstations, this innovative column provides the desired comfortable seat height, and also prevents unwanted rolling in the standing position.

Customer Satisfaction

Customer satisfaction, customer proximity, and service are major company goals. STABILUS is particularly well-known for technical innovation, quality, and a competitive price-performance ratio in all areas of application. This is one of the reasons why STABILUS is the sole supplier for many customers.

Highest Quality

As the leading gas spring supplier worldwide, our quality management system fulfils without question the high quality requirements of international standards, such as DIN EN ISO 9001, as well as the new world standard ISO/TS 16949 with the regulatory requirements of QS 9000, VDA 6.1, EAQF, and AVSQ.

Environmental Protection

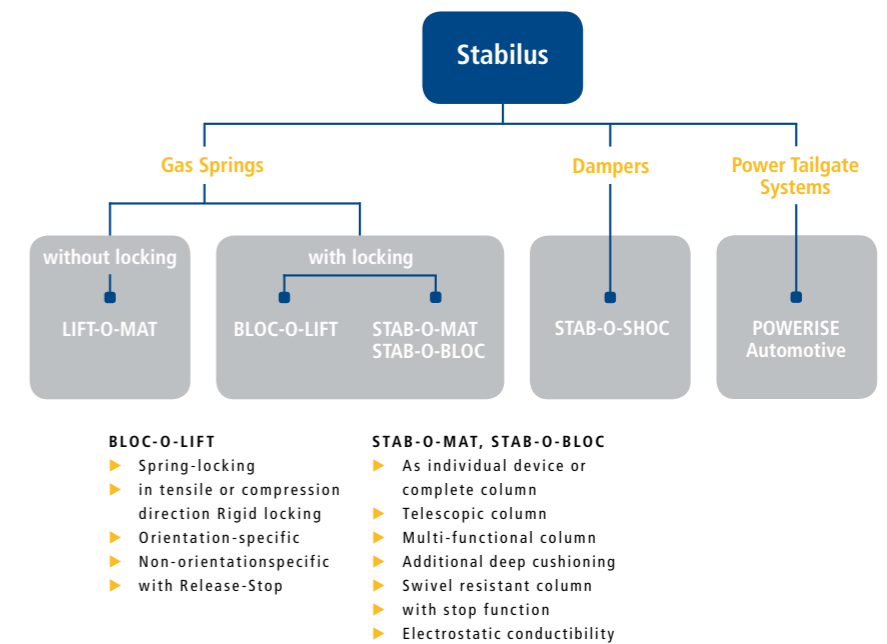
A major priority for our production processes is placed on environmentally friendly manufacturing. Our success is documented by the successful certification of the environment management system in compliance with DIN EN ISO 14001, as well as certification according to the EC Eco-Audit Regulations (EMAS).

Optimal Technical Solutions for Demanding Applications

Whether standard functions or special functional demands need to be fulfilled – STABILUS has the right gas spring in its product line. Whether the requirement is additional end position cushioning of the seat or a wide adjustment range, a swivel resistant column or a column with stroke-controlled stop function or return mechanism – STABILUS can provide the perfect solution for almost any need.

STABILUS as a Development Partner

A perfectly matched gas spring is necessary for any installation situation. Advising the customer on the design of the kinematics or the design integration of the gas spring, presenting him with a solution to his specific needs and then fine-tuning it together with the customer - this is what STABILUS means by service and individual customer support. Theoretical and practical installation recommendations, and samples are included. And, in many cases Stabilus application engineers specify complete systems that comply with valid uniform standards.

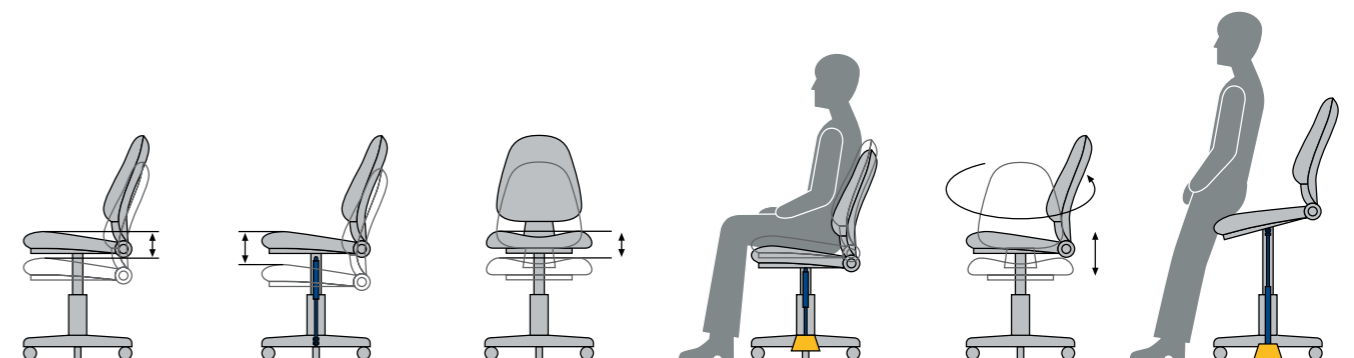


Diversified Fittings and Actuation Systems

Every chair adjustment mechanism poses its own special demands on the assembly and actuation of the gas spring. STABILUS offers a variety of different fittings and special actuation systems.

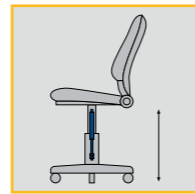
Actuation Range, Actuation Force, and Continuous Actuation

Some actuation systems require a very short actuation range. As a standard product, lockable gas springs are available with an actuation range of 2.5 mm or less. Optional continuous actuation ensures continuous adjustment contact, for example in the backrest adjustment. Likewise, the actuation forces can be customized to the adjustment mechanism.



STAB-O-MAT®/STAB-O-BLOC® – The Gas Springs for Comfortable Height Adjustment

Special Product Versions for Demanding Swivel Chairs



For Variable Seat Height Adjustment

STAB-O-MAT® and STAB-O-BLOC® gas springs are lockable gas spring specifically for variable and comfortable adjustment of the seat height in office swivel chairs, task chairs, executive chairs, stools, etc.

Product Characteristics

The difference between the two locking gas springs STAB-O-MAT® and STAB-O-BLOC® lies in their structure. While the STAB-O-MAT® absorbs the weight on the seat and bending moments (caused by uneven weight distribution on the seat) with the properly designed pressure cylinder, these tasks are performed by the internal gas spring and the additional support tube in the STAB-O-BLOC®. Of course, both types of gas springs comply with the respective standards. They are both available with the same forces and in the same dimensions, which makes them interchangeable. Internal rubber cushions form the bottom end stop. Where necessary, special deep cushioning systems offer additional comfort.

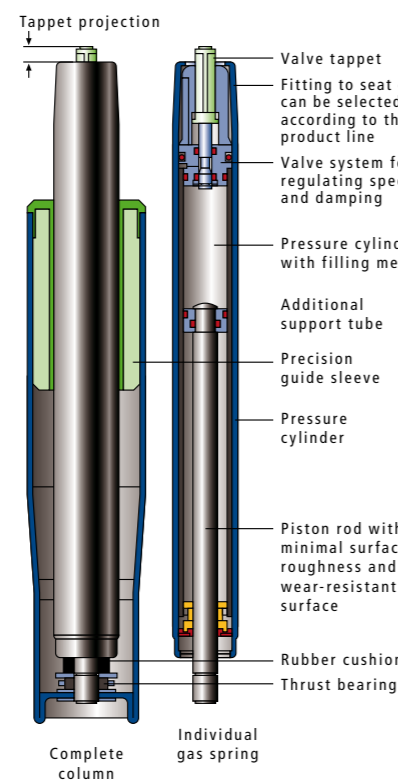
Depending on the individual requirements, STAB-O-MAT® and STAB-O-BLOC® gas springs are available as complete columns or individual gas springs.

Properties and Advantages

- ▶ Available as complete columns or individual gas springs
- ▶ Available in different lengths and with strokes of 50 to 300 mm

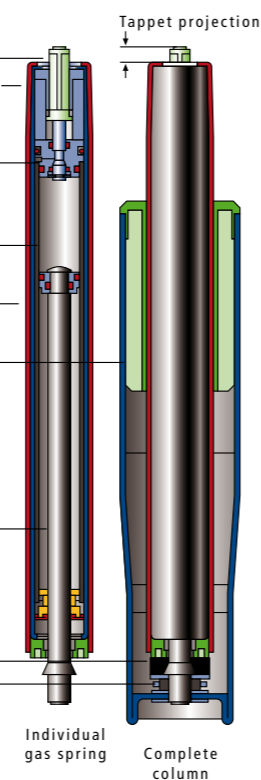
- ▶ Rotating and swivel resistant versions
- ▶ Complete columns with different outer tube versions
- ▶ Telescope column with a disproportionate adjustment range
- ▶ Different deep cushioning systems for more comfortable seating
- ▶ With adjustable actuation pins
- ▶ Different actuation systems
- ▶ Multi-function column with return function
- ▶ Column with stop function

STAB-O-MAT®



STAB-O-BLOC®

With additional support tube

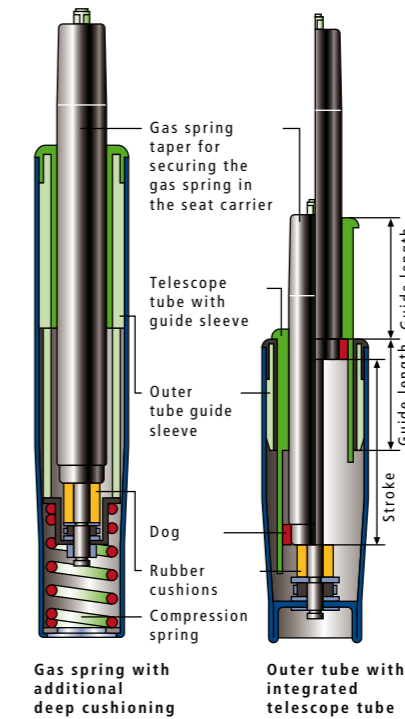


Special Seating Comfort due to deep cushioning systems

STAB-O-MAT® and STAB-O-BLOC® gas springs feature comfortable spring deflection properties across the entire adjustment range. In the lowest seat position, the spring comfort is determined by the material and form of the respective end stop buffer. Here, STABILUS offers various solutions, such as the integrated deep cushioning, for increased comfort. Especially comfortable is the additional compression spring in the outer tube, which enables soft spring deflection in all stroke positions.

Multi-functional column

In some applications, such as in the object area, it is desirable that swivel chairs return to a certain position upon removal of the load. The MULTI-FUNCTIONAL column does exactly this: first, it turns automatically to the home position and then returns to the highest seat position. Naturally, all other functions, as well as the comfort of variable seat adjustment, are still available in the MULTI-FUNCTIONAL column.



Better Height Adjustment with the Telescopic Stand Tube Column

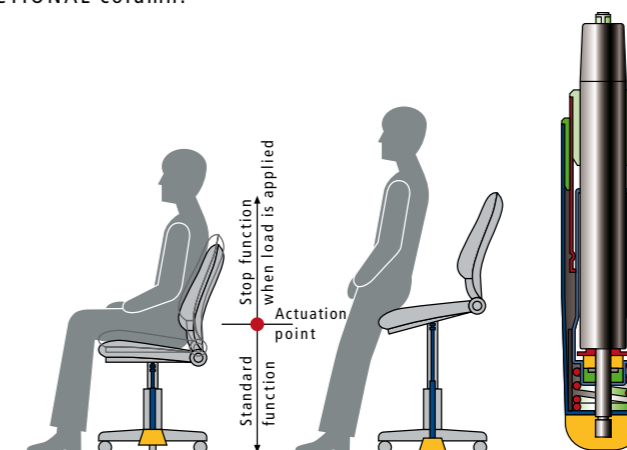
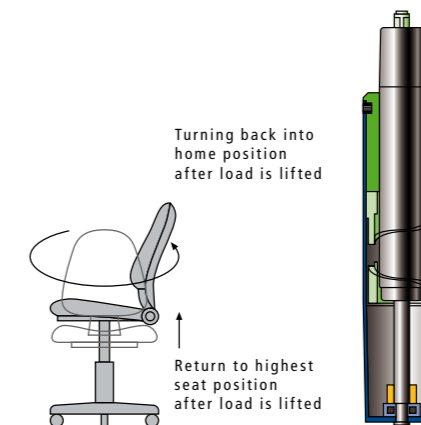
The height adjustment properties of STAB-O-MAT® and STAB-O-BLOC® gas springs depend directly on the height of the outer tube. An increased adjustment range automatically results in a longer outer tube, thus causing the lowest seat position to be higher. The STABILUS telescopic stand tube overcomes this effect by taking advantage of an intercalated telescope tube. This solution provides a large adjustment range with a low bottom seat position without compromising stability and guide properties.

Swivel resistant column

Sometimes, swivel chairs should not turn, either due to the situations or facilities they are used in. This can be ensured with swivel resistant columns. At the same time, all advantages and the full comfort of the variable locking functions of the STAB-O-MAT® and STAB-O-BLOC® columns are available.

Column with Stop Function

The telescope column with stroke-controlled stop function protects stools and task chairs for combined standing/seated workstations against accidental rolling in a specific adjustment range. Above a defined actuation point within the stroke range, a rubber stopper at the lower end of the column rebounds when a load is applied, thus stopping the chair. Below this actuation point, the stopper remains in and the chair can be used like a normal swivel chair.



BLOC-O-LIFT® – The Gas Springs for Backrest and Seat Adjustment

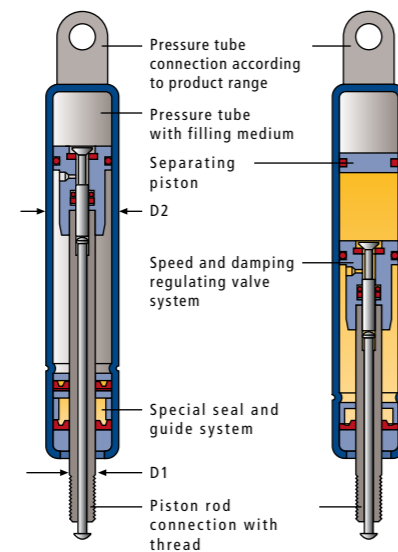
STABILUS – Quality Worldwide



Variable Positioning, Rigid or Spring Locking

BLOC-O-LIFT® gas springs can be locked variably. These construction elements with small outer dimensions are therefore predestined for use in a swivel chair, for adjusting the backrest or the seat tilt. The locking function is made possible by a valve that is integrated into the piston; the valve separates the two pressure chambers in a gas leak-proof manner. If it is closed and the gas exchange between the two pressure chambers is interrupted, the BLOC-O-LIFT® gas spring is locked. When the valve is opened, the extension force of the gas spring actuates and the BLOC-O-LIFT® can be freely adjusted. The valve closes automatically as soon as the valve tappet is released from the outside. Depending on the structure, rigid or spring locking is possible in the direction of tension or compression.

For example, for the backrest, spring locking is perceived as pleasant, whereas rigid locking is preferable for seat tilt adjustment.



Left: BLOC-O-LIFT® gas spring with spring locking

Right: BLOC-O-LIFT® gas spring with rigid locking and separating piston for orientation-independent installation

Properties and Advantages

- ▶ Numerous sizes and force variants are available as standard products.
- ▶ Linear spring characteristics for evenly low force increase across the entire range of movement.
- ▶ Upon request, progressive or decreasing spring characteristics for force supply at the beginning or end of the stroke.
- ▶ Upon request, available with hydraulic damping, for example, for targeted slowdown shortly before the end stop.
- ▶ Spring locking available, for more comfortable backrest adjustment.
- ▶ Alternatively, available with rigid locking in tension and compression direction. Ideal for applications with seat tilt and synchronous adjustment.
- ▶ Optionally, rigid or spring locking can be realized independent of the orientation.
- ▶ Also available with a small actuation range of 1 mm (standard 2.5 mm) for very easy operation.
- ▶ Upon request, also suited for continuous actuation, for example for Dynamic Seating.

Standard Series Program			
Piston rod diameter D1 (mm)	Pressure tube outside diameter D2	Extension force (N)	Max. stroke (mm)
8	28	200 - 1000	100
10	28	200 - 1500	250



Satisfied Customers

More than 500 swivel chair manufacturers worldwide rely on STABILUS as a gas spring supplier. They benefit from the extensive systems and tools that STABILUS, as an important supplier to the automotive industry, has built in order to deliver highest quality on all accounts. Long years of cooperation and numerous quality awards are proof of this.

Total Quality Management

In all phases of the product development, quality has the highest priority at STABILUS. The use of modern technologies, such as CAD, FEM, and DOE is a matter-of-course. Clearly, the goal is »0-defect production«. However, this can only be achieved if all employees experience quality as a company objective, and when a nearly perfect quality management system is in place. Continuous series monitoring, intensive batteries of tests, and numerous internal and external inspections guarantee the customer highest possible product quality and safety – worldwide.



A Worldwide Standard

All production technologies and machines used in STABILUS plants worldwide are developed and built »in-house«. This ensures a uniform high quality standard in all production sites from the very beginning.



Qualification Ensures Quality

The human being is behind all strategic, operative, and productive activities of STABILUS. The employee is an important measure of the highest quality of all products and services. Employee qualification and motivation are major assets of our company. The individual customer demands require empowered work and a high level of flexibility from each employee. Thus the employee becomes part of the process. STABILUS greatly emphasizes intensive training and education of its employees.



Continuous Improvement

Despite the almost complete quality assurance, ranging from the incoming goods inspection over quality self-inspection during production to final inspection, STABILUS' point of view is: No system is so good that it could not be improved. Therefore, development, quality, and production teams are continuously looking for ways to further increase the product quality.



500/05.11/ARTKOM

- Production
- Sales Office

Australia

STABILUS Pty. Ltd.
65 Redwood Drive
Dingley, VIC 3172

Australia

- ☎ ++61-3-9552-1400
- ☎ ++61-3-9552-1499
- ✉ info@au.stabilus.com

Brasil

STABILUS Ltda.
Av. Pres. Tancredo
de Almeida Neves, km 1,2
CEP 37.504-066 Itajubá (MG)

Brasil

- ☎ ++55-35-3629-5000
- ☎ ++55-35-3629-5005
- ✉ info@stabilus.com.br

China

STABILUS (JiangSu) Ltd.
No. 8, Long Xiang Road
Wujin High-Tech Industrial Zone
Wujin District
Changzhou City, 213164
JiangSu Province,

PR China

- ☎ ++86-519-8662-3500
- ☎ ++86-519-8662-3550
- ✉ info@cn.stabilus.com

China

STABILUS Sales Office Shanghai
88 ke Yuan Road,
Room N° 309, 3rd Floor
Zhiang Jiang Hi-Tech Park
Pudong, Shanghai 201203
PR China

- ☎ ++86-21-2898-6500
- ☎ ++86-21-2898-6510
- ✉ info@cn.stabilus.com

Deutschland

STABILUS GmbH
Wallerheimer Weg 100
56070 Koblenz
Germany

- ☎ ++49-261-8900-0
- ☎ ++49-261-8900-204
- ✉ info@de.stabilus.com

España

STABILUS GmbH Oficina de
representación España
Edificio Arteaga
TXORIERRI ETORBIDEA,
9 - 3ª planta (oficina 303)
48160 Derio (Vizcaya)

- ☎ ++34-94-455-4170
- ☎ ++34-94-455-4183
- ✉ info@es.stabilus.com

France

STABILUS France Sarl
Le Technoparc / L'Espace Média
3, rue Gustave Eiffel
78306 POISSY CEDEX
France

- ☎ ++33-139-226-494
- ☎ ++33-139-226-496
- ✉ info@fr.stabilus.com

Italia

STABILUS GmbH Ufficio Italia
Via Francesco Giacomo Bona, 1
10064 Pinerolo, Italy

- ☎ ++39-0121-300-711
- ☎ ++39-0121-202-161
- ✉ info@it.stabilus.com

Japan

STABILUS Japan Corporation
Toshin 24 Shin-Yokohama, Bldg B-8F
2-3-8 Shin-Yokohama, Kohoku-ku
222-0033 Yokohama, Kanagawa
Japan

- ☎ ++81-45-471-2970
- ☎ ++81-45-471-2989
- ✉ info@jp.stabilus.com

Korea

STABILUS Co. Ltd. Sales Office
3F, Woogang Bldg., 402-3
Yuljeon-dong, Changan-gu
Suwon-si, Gyeonggi-do
Korea / Zip Code 440-827

- ☎ ++82-31-298-1743
- ☎ ++82-31-298-0742
- ✉ info@kr.stabilus.com

México

STABILUS S.A. de C.V.
Industria Metalúrgica No. 1010
Parque Industrial Ramos Arizpe
C.P. 25900 Ramos Arizpe, Coahuila
México

- ☎ ++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

- ☎ ++64-9-444-5388
- ☎ ++64-9-444-5386
- ✉ info@stabilus.co.nz

Romania

STABILUS S.R.L. Romania
km 5+900
(soseaua Brasov-Harman)
RO-507190 Sanpetru,
Brasov Romania

- ☎ ++40-268-308-900
- ☎ ++40-268-308-910
- ✉ 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

STABILUS Detroit
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

STABILUS Chicago
Sales Office Industrial
919 N. Plum Grove Road, Suite G
Schaumburg IL 60173, USA

- ☎ ++1-847-517-2980
- ☎ ++1-847-517-2987
- ✉ info@us.stabilus.com

Typographical errors and changes reserved.