A major difference of the gas spring compared with a mechanical spring is its defined extension speed, which makes a damped and comfortable adjustment motion possible.

The push-out speed is dependent on the arrangement and the diameter of the bores in the piston, as well as the viscosity of the fluid and the piston rod pushing down. The piston rod always moves in a spiral manner, since the fluid is compressed in the bore.

The spring characteristic curve is an essential tool for designing the movement as a function of the force of a gas spring. It describes the path of force of the gas spring from the extended position to the compressed one and vice versa. Under normal springing, gas springs have a flat, almost linear curve that allows for an even, comfortable adjustment to various positions.
STABILUS – A company with an innovative tradition

Pioneering achievements
STABILUS has more than 60 years' experience in the manufacture of gas springs and related equipment. In addition to having produced gas springs and hydraulic cylinders since the invention of the gas spring in 1962, STABILUS has produced over 1.2 billion gas springs. In the year 2000, STABILUS was the world market leader in gas springs with an annual production of some 150 million units.

Worldwide operations
With a global distribution and service network and 26 production facilities in Europe, USA, Brazil, China, New Zea-

Stainless steel gas springs for...

INOX-Line-Stainless Steel Gas Springs

Assembly Programme 8/18

12345S / 0350N / P2 / T1

Dimensions are subject to change. Dimensions in mm do not ensure the right in size modifications.  

INOX-Line-Stainless Steel Gas Springs

Assembly Programme 10/22

12345S / 0350N / P2 / T1

Dimensions are subject to change. Dimensions in mm do not ensure the right in size modifications.
**LIFT-O-MAT INOX-Line**

**Product Properties, Advantages, Benefits**

### Function of a gas spring

The gas spring is filled with nitrogen under pressure. This results in a force in the extension direction. This push-out force can be easily defined in the physical limits.

### Spring characteristic curve and F1 force

The spring characteristic curve describes the path of force of the gas spring from the extended position to the fully compressed position. A very flat, almost linear characteristic curve allows for an even, comfortable adjustment or swivel motion.

### Pressure

- **Bore**
  - Diameter of the tube
- **Piston rod**
  - Diameter of the piston rod
- **Seal and guide element**
  - Diameter of the guide element

### Hydraulic damping

The push-out speed is dependent on the arrangement and the diameter of the bore in the piston, as well as the viscosity of the used oil. The gas spring is installed with the piston rod pointing down, the spring is extended by hand, or the piston can be moved hydraulically.

### Defined extension speed

A major difference of the gas spring compared to a mechanical spring is its defined extension speed, which makes a damped and comfortable adjustment motion possible.

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**Careful material selection of the components used in the STABILUS stainless steel gas springs of the INOX line result in an almost iron-free product, with almost no effect on magnetic fields, such as those used in medical technology.**

**Non-magnetic**

- Stainless steel used in the INOX line of STABILUS gas springs ("Stainless Steels" according to DIN EN 100 88-1) ensure a high level of protection against acid or lye stress, or when used in a critical environment, such as in nuclear or industrial areas.

**Environmentally friendly oil**

- The stainless steel gas springs of the INOX line only use environmentally friendly oils that are biodegradable and classified as "not hazardous to water" in the water hazard class (WGK). This is especially important for the water supply and environmental technology.

**Will not pollute the water**

- The stainless steel gas spring of the INOX line of STABILUS gas springs is filled with nitrogen under pressure. The nitrogen does not react with the water and is consumed by the water, ensuring that the stainless steel gas spring of the INOX line will not pollute the water.

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**Product Properties, Advantages, Benefits**

1. **Corrosion-resistant**
2. **Non-magnetic due to a high stainless steel content**
3. **Suitable for water and environmental technology**
4. **No acid or lye stress**
5. **Safe for medical technology**
6. **Environmentally friendly oil**
7. **Will not pollute the water**

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**LIFT-O-MAT INOX-LINE**

**Stainless Steel Gas Spring**

- **Schaftschloss**
- **Sprungstange**
- **Stabilisator**
- **Federvorrichtung**

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**Contact Information**

- **General Sales Office**
  - Stabilus, S.A. de C.V.
  - Industria Metalúrgica No. 1010
  - Parque Industrial Ramos Arizpe
  - C.P. 25900 Ramos Arizpe, Coahuila
  - Mexico

- **Technical Support**
  - info@stabilus.com
  - ++49-261-8900-204

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**Technical Specifications**

- **Force [F]**
- **Stroke [S]**
- **Compression**
- **Extension**
- **Guide element**

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**Product Information**

- **www.stabilus.com**

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**Innovative Technology**

- **Comfortable, damped, and adjustable motion**
- **Environmentally friendly and non-polluting**
- **High protection against acid or lye stress**
- **Suitable for medical technology**
- **Biodegradable oil**

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**Product Range**

- **LIFT-O-MAT INOX-Line**
- **Stabilus Stainless Steel Gas Spring**

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**Product Images**

- **Stainless Steel Gas Spring**
- **LIFT-O-MAT INOX-Line**
- **Product Properties, Advantages, Benefits**
STABILUS – A company with an innovative tradition

INOX-Line-Stainless Steel Gas Springs Assembly Programme 8/18

INOX-Line-Stainless Steel Gas Springs Assembly Programme 10/22

STABILUS provides extensive technical, design and installation support in specific applications as a matter of course. With an innovative tradition, our global distribution and service network as well as our own test labs and our own production facilities, STABILUS is the world market leader for gas springs and hydraulic vibration dampers.

Customer satisfaction
Customer service and customer satisfaction are key objectives for the company. STABILUS is known in particular for its technical innovation, quality and competitive pricing in all its business units.

Highest quality
As the leading gas spring supplier worldwide, STABILUS guarantees the highest quality in components of stainless steel materials, such as SS 304 (1.4301) as well as the new world standard EN 1090-2 (DIN EN 1090-2:2008-08) to which we comply with VDA 6.1, VDA 6.3, EN 1090-2, EN 1090-1, EN 1090-3 and EN 1090-4.

Care for the environment
STABILUS is a member of the Better Steel Group, a well-established organization that strives for the highest environmental standards. STABILUS uses non-hazardous, non-toxic materials in its products. STABILUS fulfills all environmental requirements and company standards.

Worldwide operations
With a global distribution and service network and 10 production facilities in Europe, USA, Mexico, Brazil, New Zealand, Australia and Korea, STABILUS supplies and services over 2,000 customers worldwide.

STABILUS gas springs made of stainless steel can be used in medical devices, hospital beds, and operating tables, especially when non-magnetic properties are required in addition to total cleanliness.

Pioneering achievements
STABILUS has won its first patent in 1952 and has been continuously working and improving gas spring technology ever since. STABILUS has operated its first production facility in 1962 and was then the only one to produce fully integrated stainless steel gas springs.

STABILUS is the world market leader with an annual production of over 1 billion units.

We reserve the right to make modifications.

Dimensions in mm

<table>
<thead>
<tr>
<th>Ref.-No.</th>
<th>Piston rod end fitting</th>
<th>Pressure tube end fitting</th>
</tr>
</thead>
<tbody>
<tr>
<td>M8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ordering example

P6

T6

123456 / 0350N / 0350N / P2 / T1

Installation according to STAB-Spec.10005630

F1-Values from 100 - 600 N

Care for the environment
STABILUS has over 60 years experience in the manufacture of hydropneumatic equipment. In addition to having produced over 1 billion gas springs, STABILUS has also supplied equipment in every conceivable application and production gas spring in 1962. To date, STABILUS has produced over 1 billion stainless steel gas springs. STABILUS is the world market leader with an annual production of over 1 billion units.

Assembly Programme 10/22

INOX-Line-Stainless Steel Gas Springs Assembly Programme 8/18

Assembly Programme 8/18

INOX-Line-Stainless Steel Gas Springs Assembly Programme 10/22

Assembly Programme 10/22
STABILUS – A company with an innovative tradition

INOX-Line-Stainless Steel Gas Springs
Assembly Programme 8/18

INOX-Line-Stainless Steel Gas Springs
Assembly Programme 10/22

STABILUS provides extensive technical, design and installation support in specific applications as a matter of course. STABILUS systems in particular, for its technical, innovative quality, are integrated into all its business units.

Highest quality
As the leading gas spring supplier worldwide, STABILUS is in a position to fulfill the high quality requirements of international industries, such as DIN EN ISO 9001, as well as the new world standard AS9100:2000 with, for example, VDA 6.1 (DE), and QS 9000.

Care for the environment
STABILUS gas springs made of stainless steel can be used in medical devices, hospital beds, and operating tables, especially when non-magnetic properties are required in addition to total cleanliness.

Pioneering achievements
STABILUS has won 67 patent rights in the field of gas springs and gas spring technology. In addition to having produced and tested gas springs since 1968, STABILUS has also been selling gas springs since 1972. STABILUS is the world market leader with an annual production of some 150 million units.

Worldwide operations
With a global distribution and service network and 10 production facilities in Europe, USA, Mexico, Brazil, New Zealand, Australia and Korea, STABILUS supplies and services over 2,000 customers worldwide.

STABILUS is the world market leader with an annual production of some 100 million units.

When the gas spring has to be robust against external environmental effects, stainless steel gas springs from STABILUS do convince for many years by their full function and attractive appearance.

Gas springs for the fluid and fillable-working industry
When the gas spring has to be used under extreme conditions, STABILUS stainless steel gas springs can be equipped with special components. As a result, they can contain components which are fully functional and adjustable from the inside.

Dimensions in mm / We reserve the right to make modifications.

* F1-Values from 100 - 600 N
* F1-Values from 150 - 1000 N

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Dimensions in mm / We reserve the right to make modifications.

* F1-Values from 100 - 600 N
* F1-Values from 150 - 1000 N
A major difference of the gas spring compared with a mechanical spring is its defined extension speed, which makes a damped and comfortable adjustment motion possible.

Hydraulic damping
The push-out speed is dependent on the arrangement and the diameter of the bores in the piston, as well as the viscosity of the oil contained in the piston. If the gas spring is installed with the piston rod pointing down, the piston rod moves much slower, as soon as the piston plunges into the oil.

Function of a gas spring
Gas springs, filled with nitrogen, and pistons with different diameters and tolerances define the path of force of the gas spring from the extended position to the compressed one and vice versa. Under normal operating conditions, gas springs have a plunger, which allows for non-linear travel, making them suitable for an even, comfortable adjustment or swivel motion.

Spring characteristic curve and F1 force
The spring characteristic curve describes the path of force of the gas spring from the extended position to the compressed one and vice versa. The special material characteristics of the stainless steel used in the INOX line of STABILUS gas springs ("Stainless Steels" according to DIN EN 100 88-1) ensure a high level of protection against acidic stress, or when used in a critical environment, such as in a nuclear or industrial set-up.

Careful material selection of the components used in the STABILUS stainless steel gas springs of the INOX line result in an almost iron-free product, with almost no effect on magnetic fields, such as those used in medical technology.

The stainless steel used in the INOX line of STABILUS gas springs ("Stainless Steels" according to DIN EN 100 88-1) ensure a high level of protection against acid or lyse stress, or when used in a critical environment, such as a sea or industrial air.

The gas spring is filled with nitrogen, which, under pressure, acts on different size piston diameters. This results in a force in the extension direction. This push-out force can be easily defined within physical limits.

Will not pollute the water
Stainless steel gas springs of the INOX line of STABILUS gas springs ("Stainless Steels" according to DIN EN 100 88-1) ensure a high level of protection against acid or lyse stress, or when used in a critical environment, such as a sea or industrial air.

Hydraulically damping
The push-out speed is dependent on the arrangement and the diameter of the bores in the piston, as well as the viscosity of the oil contained in the piston. If the gas spring is installed with the piston rod pointing down, the piston rod moves much slower, as soon as the piston plunges into the oil.