Gas springs and dampers for the furniture industry

More comfort and ergonomics for your furniture.

www.suspa.com
This catalogue provides a complete overview of SUSPA gas springs and dampers for the furniture industry. It shows a multitude of new ideas to be able to better plan and realize for the desires of your customers. This catalogue shows various product applications with installation suggestions and assembly instructions.

For over 50 years, SUSPA products have been in virtually every part of daily life – in your kitchen, in your living room and in your office. Our ability to see the usual with new eyes is sought-after. From the cushioned opening and closing of hatches or the comfortable adjustment of tables and work stations.

SUSPA products create added value for your furniture because our employees work with competence and passion to solve your technical requirements. Our technology makes your furniture comfortable and supports the user in the demand for reliability and trust.

SUSPA stands for technical reliability, innovation and proximity to the customer. Just speak to us and see for yourself. In our global network of subsidiary companies and sales representatives, you are bound to find a personal contact near to you. For more information, see our website at www.suspa.com
Gas springs and dampers for the furniture industry

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Gas springs (Liftline)

Standard gas spring or Soft-Stop-gas spring

Standard gas springs as well as Soft-Stop gas springs are dampened on extension. After opening the flap slightly (as little as 10 degrees) both gas spring types will automatically lift the flap to the fully open position of approximately 90 degrees unassisted. In order to minimize cupboard vibrations, the speed is controlled over the entire range of opening by using a special hydraulic dampening (extension dampening). By presetting the filling pressure, it is possible to optimize the gas spring to any installation situation.

» Advantages of the Soft-Stop gas spring

- Automatic and noiseless opening function
- Smoothly cushioned movement throughout the entire opening procedure
- Gently slowing down the door / lid as it reaches full extension.

Positioning gas spring

If a furniture flap needs to be used in many different positions, the positioning gas spring may be the right solution. This gas spring supports the load in any position desired by the user. Doors / lids can be positioned infinitely throughout their complete range of motion. By careful adjustment of the pressure during filling, the gas spring can be optimized to the application.

» Advantages of the positioning gas spring

- Counterbalance for loads during the opening function
- The ability to hold or position the door infinitely at any position in it's range of motion

Applications

- Kitchen cabinets
- Adjustable kitchen hoods
- Bathroom cabinets
- Furniture fronts with one or more flaps
- Shoe cupboards
- Chests
- Foldout beds
- Adjustable LCD screens and monitors
- Components for complex furniture hinges
- Foldout seating banks
- Sofa bed combinations
Assembly instructions

1. Fit attachment [a] to the hatch using screws [b]
2. Attach the gas spring on the pipe side to the attachment [a] and secure with pin [c]
3. Fit attachment [d] to the body using screws [e]
4. Snap the gas spring on the piston rod side to the attachment [d]

Installation recommendation

For flaps made of MDF or chipboard with 18 mm wall thickness

When complying with the relevant fixed dimension △, an opening angle of $\alpha = 90^\circ$ at an interval of $H=232$ mm (9.13 in) result.

The right gas spring for this installation can be found on Page 6 (Quickship program) or Page 8 (Individual program).

For glass fronts (4 mm glass thickness) with metal / aluminium frame

When complying with the relevant fixed dimension △, an opening angle of $\alpha = 90^\circ$ at an interval of $H=236$ mm (9.29 in) result.

The right gas spring for this installation can be found on Page 7 (Quickship program) or Page 9 (Individual program).

All information in mm. 25.4 mm = 1 in.

The illustrations are suggestions of installations. In individual cases, installation situations can occur which deviate from our suggestion. In this case, we recommend that you seek competent and individual consultation from an SUSPA employee or distributor.
Gas springs (Lifeline): Quickship program

Furniture gas spring for flaps made of MDF or chipboard with 18 mm wall thickness

Choose your desired gas spring (standard, soft-stop or positioning) depending on the height, breadth and weight of your flap by using the following selection tables:

1. Standard gas spring or Soft-Stop gas spring

<table>
<thead>
<tr>
<th>Flap-height [mm]</th>
<th>Flap-breadth 450 mm (17.7 in)</th>
<th>Flap-breadth 600 mm (23.6 in)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Flap-weight [kg]</td>
<td>Force [N]</td>
</tr>
<tr>
<td>300-350</td>
<td>1.6 - 1.8</td>
<td>1</td>
</tr>
<tr>
<td>351-400</td>
<td>1.8 - 2.1</td>
<td>1</td>
</tr>
<tr>
<td>401-450</td>
<td>2.1 - 2.4</td>
<td>2</td>
</tr>
<tr>
<td>451-500</td>
<td>2.4 - 2.6</td>
<td>2</td>
</tr>
<tr>
<td>501-550</td>
<td>2.6 - 2.9</td>
<td>2</td>
</tr>
<tr>
<td>551-600</td>
<td>2.9 - 3.2</td>
<td>2</td>
</tr>
</tbody>
</table>

*All information in mm, 25.4 mm = 1 in., standard color of gas spring is white aluminium, piston rod is chromed, subject to changes.*

2. Positioning gas spring

<table>
<thead>
<tr>
<th>Flap-height [mm]</th>
<th>Flap-breadth 450 mm (17.7 in)</th>
<th>Flap-breadth 600 mm (23.6 in)</th>
<th>Flap-breadth 900 mm (35.4 in)</th>
<th>Flap-breadth 1,200 mm (47.2 in)</th>
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<tr>
<td>300-350</td>
<td>3.2 - 3.7</td>
<td>2</td>
<td>80</td>
<td>S01625513</td>
</tr>
<tr>
<td>351-400</td>
<td>3.7 - 4.2</td>
<td>2</td>
<td>80</td>
<td>S01625513</td>
</tr>
<tr>
<td>401-450</td>
<td>4.2 - 4.7</td>
<td>2</td>
<td>100</td>
<td>S01625514</td>
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<td>451-500</td>
<td>4.7 - 5.3</td>
<td>2</td>
<td>120</td>
<td>S01625515</td>
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</tbody>
</table>

The stated values in the selection tables are recommendations for MDF or chipboard panels with an 18 mm wall thickness. 25.4 mm = 1 in. 0.453kg = 1 lb.
Furniture gas spring for glass fronts (4 mm glass thickness) with metal / aluminium frame

Choose your desired gas spring (standard, soft-stop or positioning) depending on the height, breadth and weight of your flap by using the following selection tables:

1. Standard gas spring or Soft-Stop gas spring

<table>
<thead>
<tr>
<th></th>
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<td>300-350</td>
<td>1.6 - 1.8</td>
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<td>3.2 - 3.5</td>
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<td>3.5 - 3.9</td>
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<td>3.9 - 4.2</td>
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2. Positioning gas spring

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<td>4.2 - 4.9</td>
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<td>3.7 - 4.2</td>
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<td>4.9 - 5.6</td>
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<tr>
<td>401-450</td>
<td>4.2 - 4.7</td>
<td>2</td>
<td>100</td>
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<td>5.7 - 6.4</td>
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<td>S01625519</td>
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</tbody>
</table>

The stated values in the selection tables are recommendations for glass fronts (4 mm glass thickness) with metal / aluminium frame. 25.4 mm = 1 in, standard color of gas spring is white aluminium, piston rod is chromed, subject to changes.
Gas springs (Liftline): Individual program

Furniture gas spring for flaps made of MDF or chipboard with 18 mm wall thickness

Gas spring configuration and selection of end fittings

End fitting B

B 416 - grey

End fitting A

Extended length 222 ± 2
Stroke max. 85

Finishing: White aluminium or black, further colors on request

Selection of attachments

Attachment piston rod side (body):

C9 (Plastics, grey)
Ordering no. S06210024
Suitable for B416

C10 (Metal)
F_{max} = 270N
Ordering no. S06710163

C14 (Metal)
F_{max} = 270N
Ordering no. S06710167

Attachment pipe side (flap):

C7 (Plastics, grey, consistent with C9)
Ordering no. S06210025 (Attachment) S06210026 (Pin)

Determine the force of the gas spring depending on height, breadth and weight of the flap. Use the selection tables on Page 6. All information in mm. 25.4 mm = 1 in. Subject to changes.
Furniture gas spring for glass fronts (4 mm glass thickness) with metal / aluminium frame

Gas spring configuration and selection of end fittings

Selection of attachments

Attachment piston rod side (body):

- **C10 (Metal)**
  - \( F_{\text{max}} = 270 \text{N} \)
  - Ordering no. S06710163

Attachment pipe side (flap):

- **C11 (Metal)**
  - \( F_{\text{max}} = 270 \text{N} \)
  - Ordering no. S06810013

- **C14 (Metal)**
  - \( F_{\text{max}} = 270 \text{N} \)
  - Ordering no. S06710167

- **C15 (Metal)**
  - \( F_{\text{max}} = 270 \text{N} \)
  - Ordering no. S06710168

Determine the force of the gas spring depending on height, breadth and weight of the flap.

Use the selection tables on Page 7. All information in mm. 25.4 mm = 1 in. Subject to changes.
Dampers (Softline): Assembly and configuration

Furniture dampers

- Independent and noiseless opening of hatches
- Smooth cushioned movement throughout the entire opening procedure
- Gentle stopping and avoidance of force peaks when reaching the end position

Assembly instructions

1. Fit attachment 1 to the hatch using screws 2
2. Attach the damper on the piston rod side to the attachment 1 and secure with pin 3
3. Fit attachment 4 to the body using screws 5
4. Snap the damper on the pipe side to the attachment 6

Installation recommendation

For flaps made of MDF or chipboard with 18 mm wall thickness

When complying with the relevant fixed dimension 7, an opening angle of $\alpha = 90^\circ$ at an interval of $H=232$ mm (9.13 in) result.

The right damper for this installation can be found on Page 11.

For glass fronts (4 mm glass thickness) with metal / aluminium frame

When complying with the relevant fixed dimension 7, an opening angle of $\alpha = 90^\circ$ at an interval of $H=236$ mm (9.29 in) result.

The right damper for this installation can be found on Page 11.

All information in mm. 25.4 mm = 1 in.
The illustrations are suggestions of installations. In individual cases, installation situations can occur which deviate from our suggestion. In this case, we recommend that you seek competent and individual consultation from an SUSPA employee or distributor.
Dampers (Softline): Quickship program

Damper for flaps made of MDF or chipboard with 18 mm wall thickness

Ordering number: S01110478

- End fitting B
- Extended length 247 ± 2
- Stroke max. 85
- End fitting A

Attachment B
C7 (Plastics, grey)

Attachment A
C9 (Plastics, grey)

Damper for glass fronts (4 mm glass thickness) with metal / aluminium frame

Ordering number: S01110479

- End fitting B
- Extended length 247 ± 2
- Stroke max. 88
- End fitting A

Attachment B
C10 (Metal)

Attachment A
C11 (Metal)

Dampers (Softline): Individual program

Dampers from the quickship program S01110478 and S01110479 are configured with damping characteristics A 1 (see diagram). You may also choose between stronger (A 0.5) resp. weaker damping (A 2, A 3, A 4, A 6) for your individual damper. Display of the characteristics shows you the damping force in relation to the extension speed. If you wish to have an individual damping for the opening of your flap, please specify your requested damping when ordering (e.g. A 0.5, A 2, A 3, A 4, A 6). Otherwise, your damper will be configured with our standard recommended damping A 1.

Choose from a large number of end fittings and attachments (see pages 8 and 9). Dampers are delivered in white aluminum or black. Other colors are available on request.

### Damping behaviour

- Dampers quickship program (see above)
- Extension speed [mm/s]
- Damping force [N]

<table>
<thead>
<tr>
<th>A 0.5</th>
<th>A 1</th>
<th>A 2</th>
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<th>A 4</th>
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25.4 mm = 1 in., standard color of gas spring is white aluminium, subject to changes.