

Gas springs and dampers for the furniture industry

More comfort and ergonomics for your furniture.

SUSPA – Gas springs and dampers for the furniture industry.

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

S	Gas springs (Liftline)	Page 4-9
	<i>For gentle opening and closing of furniture fronts.</i>	
	Assembly and installation	5
	Quickship program	6-7
	Individual program	8-9
S	Dampers (Softline)	Page 10-11
	<i>For damped opening and closing of flaps.</i>	
	Assembly and installation	10
	Quickship program	11
	Individual program	11
S	Contact information	Page 12



Standard gas spring or Soft-Stop-gas spring

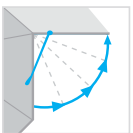


Standard gas springs as well as Soft-Stop gas springs are dampened on extension. After opening the flap slightly (as little as 10 degrees) both gas spring types will automatically lift the flap to the fully open position of approximately 90 degrees unassisted. In order to minimize cupboard vibrations, 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

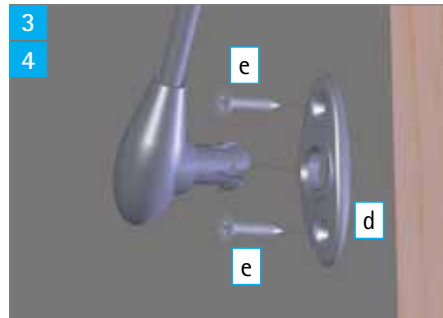
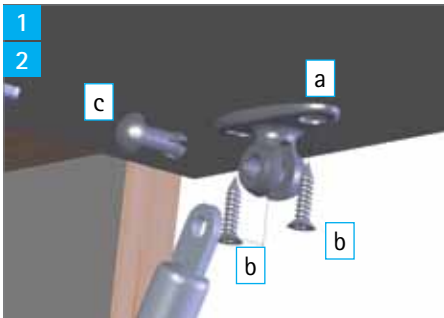
Applications

- 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





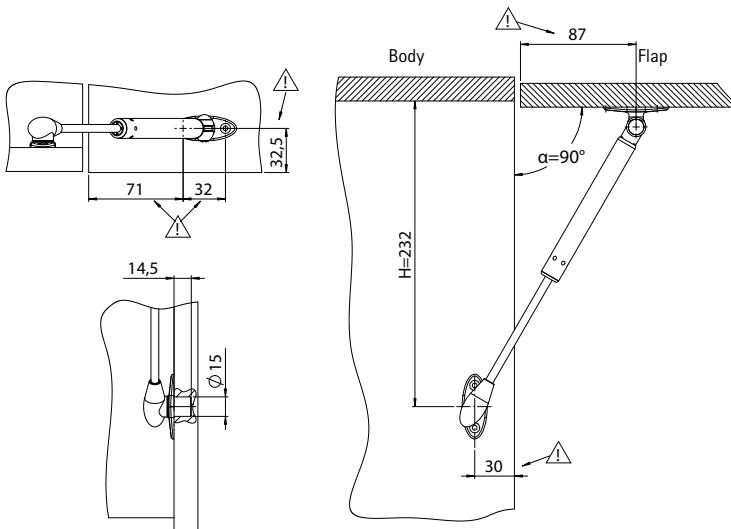
Assembly instructions



- 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

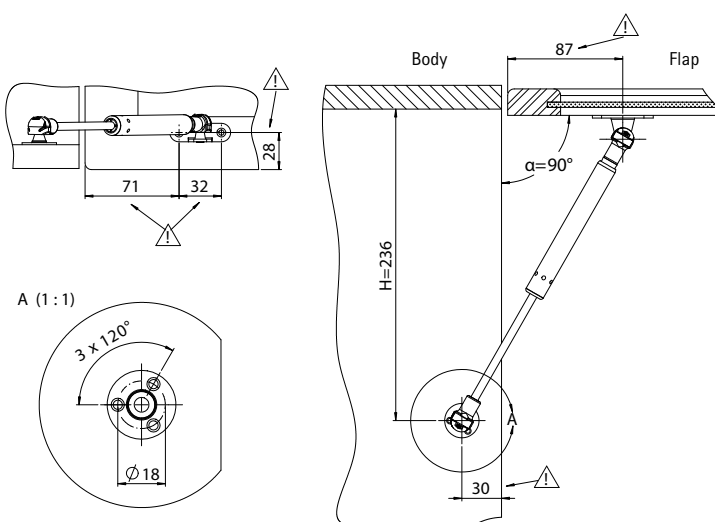
For flaps made of MDF or chipboard with 18 mm wall thickness



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

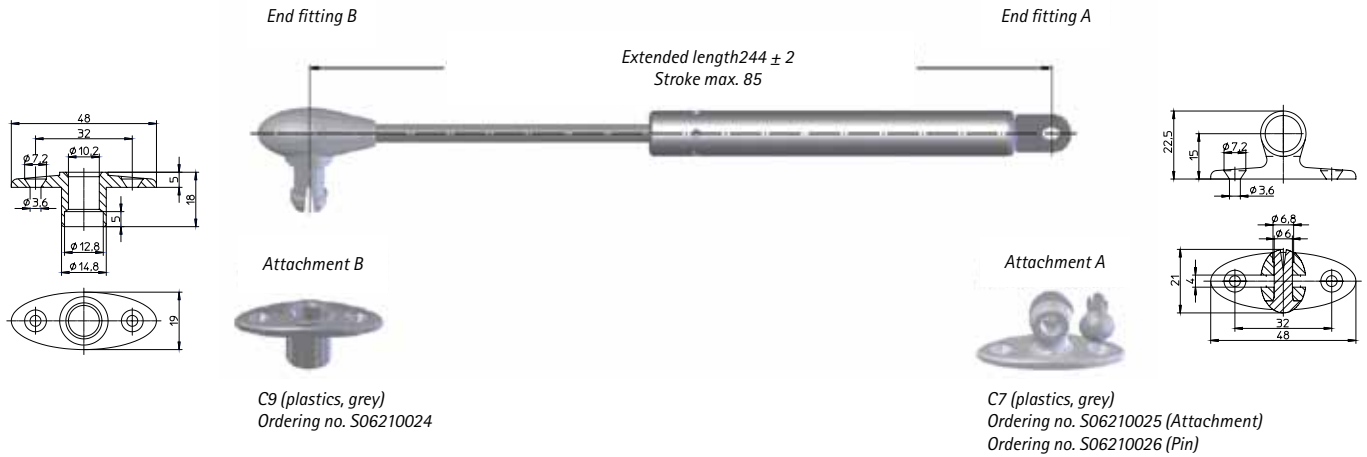
The right gas spring for this installation can be found on Page 7 (Quickship program) or Page 9 (Individual program).

*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 (Liftline): 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:

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

1. Standard gas spring or Soft-Stop gas spring

Flap-height [mm]	Flap-breadth 450 mm (17.7 in)					Flap-breadth 600 mm (23.6 in)				
	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number		Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	
				Standard	Soft-Stop				Standard	Soft-Stop
300-350	1.6 - 1.8	1	80	S01625513	S01625521	2.1 - 2.5	1	80	S01625513	S01625521
351-400	1.8 - 2.1	1	80	S01625513	S01625521	2.5 - 2.8	2	50	S01625512	S01625520
401-450	2.1 - 2.4	2	50	S01625512	S01625520	2.8 - 3.2	2	80	S01625513	S01625521
451-500	2.4 - 2.6	2	80	S01625513	S01625521	3.2 - 3.5	2	80	S01625513	S01625521
501-550	2.6 - 2.9	2	80	S01625513	S01625521	3.5 - 3.9	2	100	S01625514	S01625522
551-600	2.9 - 3.2	2	100	S01625514	S01625522	3.9 - 4.2	2	120	S01625515	S01625523

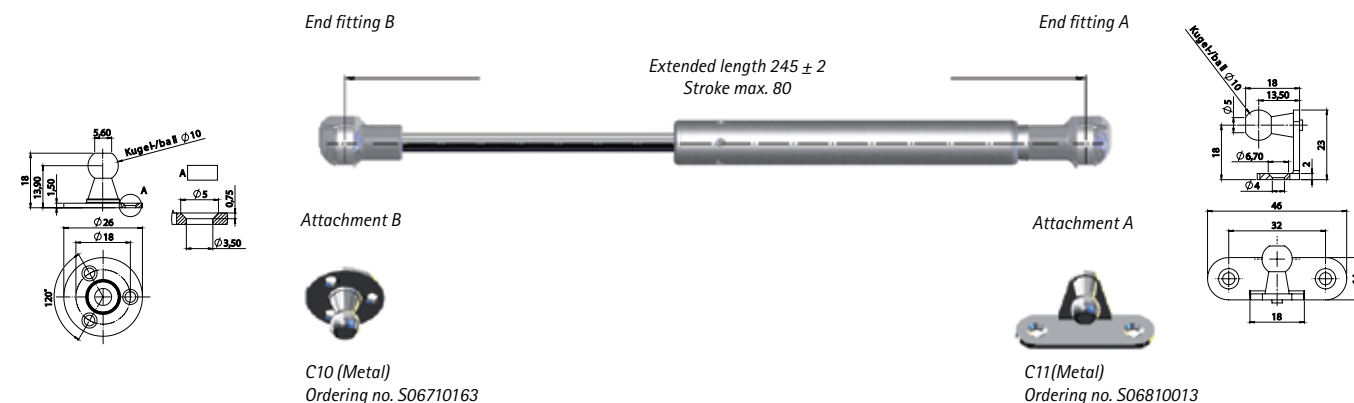
Flap-height [mm]	Flap-breadth 900 mm (35.4 in)					Flap-breadth 1,200 mm (47.2 in)				
	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number		Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	
				Standard	Soft-Stop				Standard	Soft-Stop
300-350	3.2 - 3.7	2	80	S01625513	S01625521	4.2 - 4.9	2	80	S01625513	S01625521
351-400	3.7 - 4.2	2	80	S01625513	S01625521	4.9 - 5.6	2	100	S01625514	S01625522
401-450	4.2 - 4.7	2	100	S01625514	S01625522	5.7 - 6.4	2	120	S01625515	S01625523
451-500	4.7 - 5.3	2	120	S01625515	S01625523	-	-	-	-	-

2. Positioning gas spring

Flap-height [mm]	Flap-breadth 450 mm (17.7 in)				Flap-breadth 600 mm (23.6 in)				Flap-breadth 900 mm (35.4 in)				Flap-breadth 1,200 mm (47.2 in)			
	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number
300-350	1.6 - 1.8	1	45	S01625528	2.1 - 2.5	1	60	S01625529	3.2 - 3.7	1	90	S01625530	4.2 - 4.9	2	60	S01625529
351-400	1.8 - 2.1	1	45	S01625528	2.5 - 2.8	1	60	S01625529	3.7 - 4.2	2	45	S01625528	4.9 - 5.6	2	60	S01625529
401-450	2.1 - 2.4	1	60	S01625529	2.8 - 3.2	2	45	S01625528	4.2 - 4.7	2	60	S01625529	5.6 - 6.3	2	90	S01625530
451-500	2.4 - 2.6	2	45	S01625528	3.2 - 3.5	2	60	S01625529	4.7 - 5.3	2	60	S01625529	-	-	-	-
501-550	2.6 - 2.9	2	60	S01625529	3.5 - 3.9	2	60	S01625529	5.3 - 5.8	2	90	S01625530	-	-	-	-

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:

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

1. Standard gas spring or Soft-Stop gas spring

Flap-height [mm]	Flap-breadth 450 mm (17.7 in)					Flap-breadth 600 mm (23.6 in)				
	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number		Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	
				Standard	Soft-Stop				Standard	Soft-Stop
300-350	1.6 - 1.8	1	80	S01625517	S01625525	2.1 - 2.5	1	80	S01625517	S01625525
351-400	1.8 - 2.1	1	80	S01625517	S01625525	2.5 - 2.8	2	50	S01625516	S01625524
401-450	2.1 - 2.4	2	50	S01625516	S01625524	2.8 - 3.2	2	80	S01625517	S01625525
451-500	2.4 - 2.6	2	80	S01625517	S01625525	3.2 - 3.5	2	80	S01625517	S01625525
501-550	2.6 - 2.9	2	80	S01625517	S01625525	3.5 - 3.9	2	100	S01625518	S01625526
551-600	2.9 - 3.2	2	100	S01625518	S01625526	3.9 - 4.2	2	120	S01625519	S01625527

Flap-height [mm]	Flap-breadth 900 mm (35.4 in)					Flap-breadth 1,200 mm (47.2 in)				
	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number		Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	
				Standard	Soft-Stop				Standard	Soft-Stop
300-350	3.2 - 3.7	2	80	S01625517	S01625525	4.2 - 4.9	2	80	S01625517	S01625525
351-400	3.7 - 4.2	2	80	S01625517	S01625525	4.9 - 5.6	2	100	S01625518	S01625526
401-450	4.2 - 4.7	2	100	S01625518	S01625526	5.7 - 6.4	2	120	S01625519	S01625527
451-500	4.7 - 5.3	2	120	S01625519	S01625527	-	-	-	-	-

2. Positioning gas spring

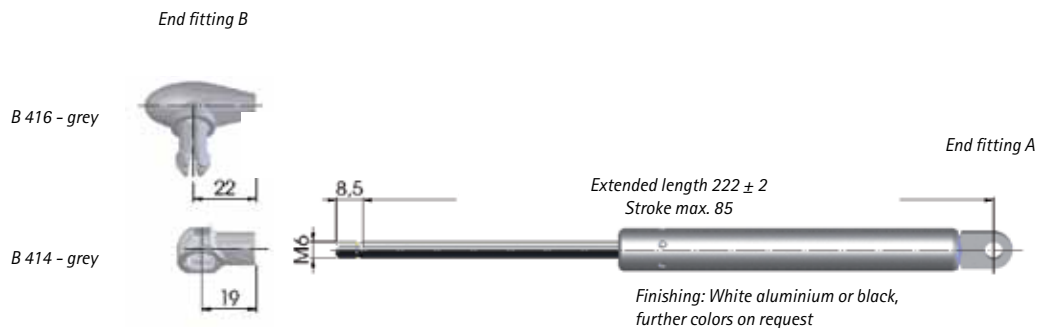
Flap-height [mm]	Flap-breadth 450 mm (17.7 in)				Flap-breadth 600 mm (23.6 in)				Flap-breadth 900 mm (35.4 in)				Flap-breadth 1,200 mm (47.2 in)			
	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number	Flap-weight [kg]	Number of gas springs	Force [N]	Ordering number
300-350	1.6 - 1.8	1	45	S01625531	2.1 - 2.5	1	60	S01625532	3.2 - 3.7	1	90	S01625533	4.2 - 4.9	2	60	S01625532
351-400	1.8 - 2.1	1	45	S01625531	2.5 - 2.8	1	60	S01625532	3.7 - 4.2	2	45	S01625531	4.9 - 5.6	2	60	S01625532
401-450	2.1 - 2.4	1	60	S01625532	2.8 - 3.2	2	45	S01625531	4.2 - 4.7	2	60	S01625532	5.6 - 6.3	2	90	S01625533
451-500	2.4 - 2.6	2	45	S01625531	3.2 - 3.5	2	60	S01625532	4.7 - 5.3	2	60	S01625532	-	-	-	-
501-550	2.6 - 2.9	2	60	S01625532	3.5 - 3.9	2	60	S01625532	5.3 - 5.8	2	90	S01625533	-	-	-	-

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. 0.453kg = 1 lb.

S 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



All information in mm.
25.4 mm = 1 in.
Subject to changes.

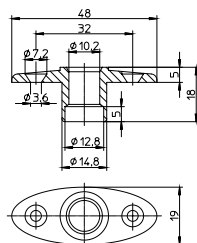
Selection of attachments

Attachment piston rod side (body):

C9 (Plastics, grey)

Ordering no. S06210024

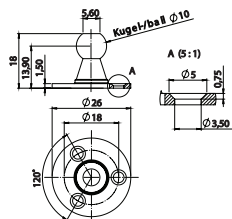
Suitable for B416



C10 (Metal)

$F_{max} = 270N$

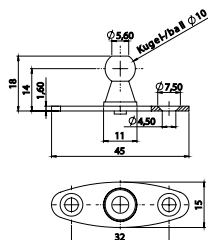
Ordering no. S06710163



C14 (Metal)

$F_{max} = 270N$

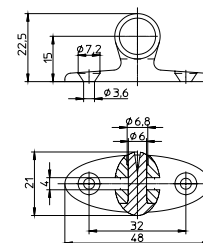
Ordering no. S06710167



Attachment pipe side (flap):

C7 (Plastics, grey, consistend with C9)

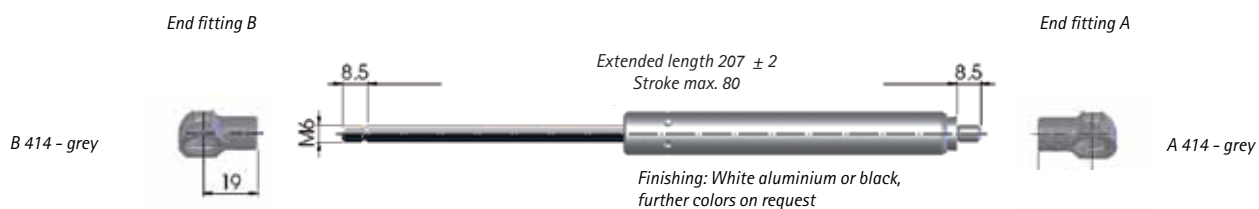
Ordering no. S06210025 (Attachment)
S06210026 (Pin)



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



All information in mm
25.4 mm = 1 in.
Subject to changes.

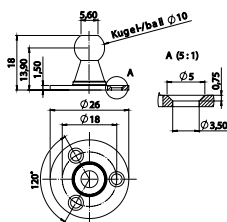
Selection of attachments

Attachment piston rod side (body):

C10 (Metal)

$F_{\max} = 270\text{N}$

Ordering no. S06710163

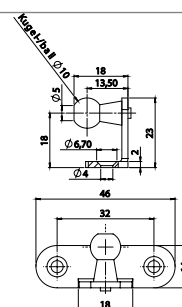


Attachment pipe side (flap):

C11 (Metal)

$F_{\max} = 270\text{N}$

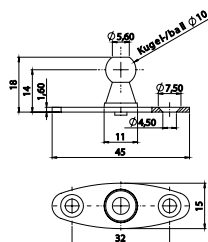
Ordering no. S06810013



C14 (Metal)

$F_{\max} = 270\text{N}$

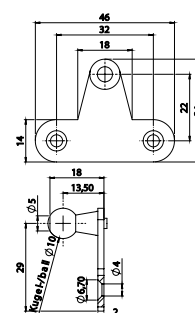
Ordering no. S06710167



C15 (Metal)

$F_{\max} = 270\text{N}$

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.



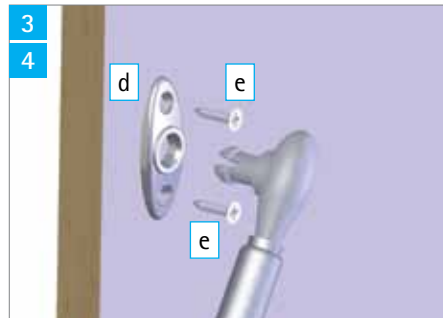
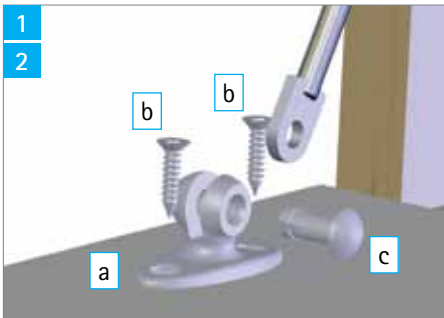
Dampers (Softline): Assembly and configuration

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

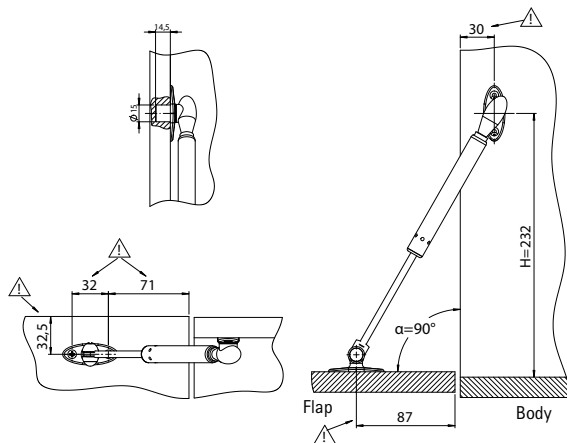
Assembly instructions



- 1 Fit attachment **a** to the hatch using screws **b**
- 2 Attach the damper on the piston rod side to the attachment **a** and secure with pin **c**
- 3 Fit attachment **d** to the body using screws **e**
- 4 Snap the damper on the pipe side to the attachment **d**

Installation recommendation

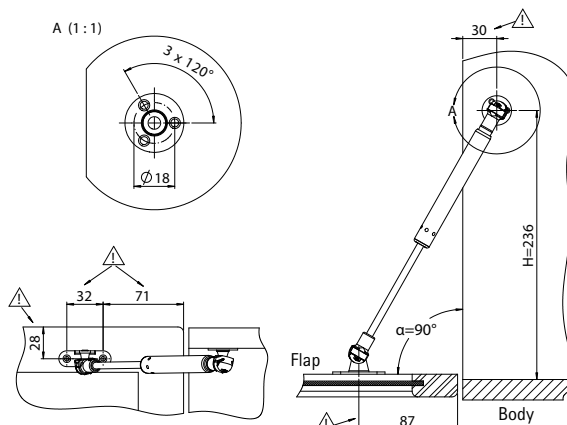
For flaps made of MDF or chipboard with 18 mm wall thickness



When complying with the relevant fixed dimension Δ , 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 Δ , 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.*

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

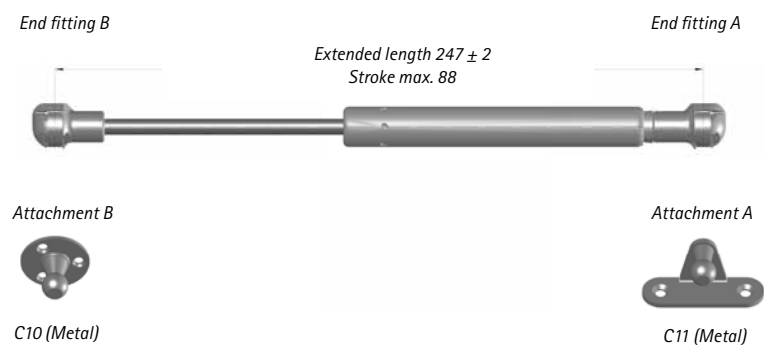
Ordering number: S01110478



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

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

Ordering number: S01110479

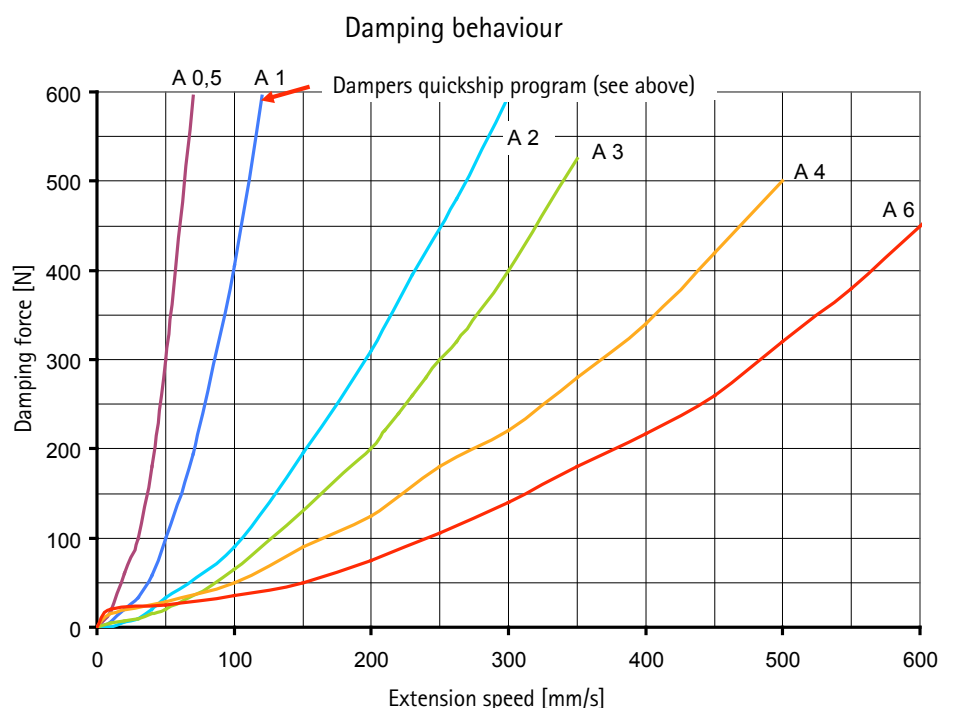


All information in mm,
25.4 mm = 1 in., standard
color of gas spring is white
aluminium, subject to
changes.

S 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 aluminium or black. Other colors are available on request.





SUSPA GmbH
Mechanical Applications

Industriestr. 12-14
90518 Altdorf
Germany

Phone +49 9187 930-355
Fax +49 9187 930-311

E-Mail infoindustry@de.suspa.com
Internet www.suspa.com

www.suspa.com