FLUID DAMPERS
SERIES GALANTE

▶ PRODUCT SPECIFICATIONS

Suitable for long-term use! A service life of over 100,000 cycles is guaranteed for this product. This is enabled by the use of high-quality materials and automated production methods on the highest level.

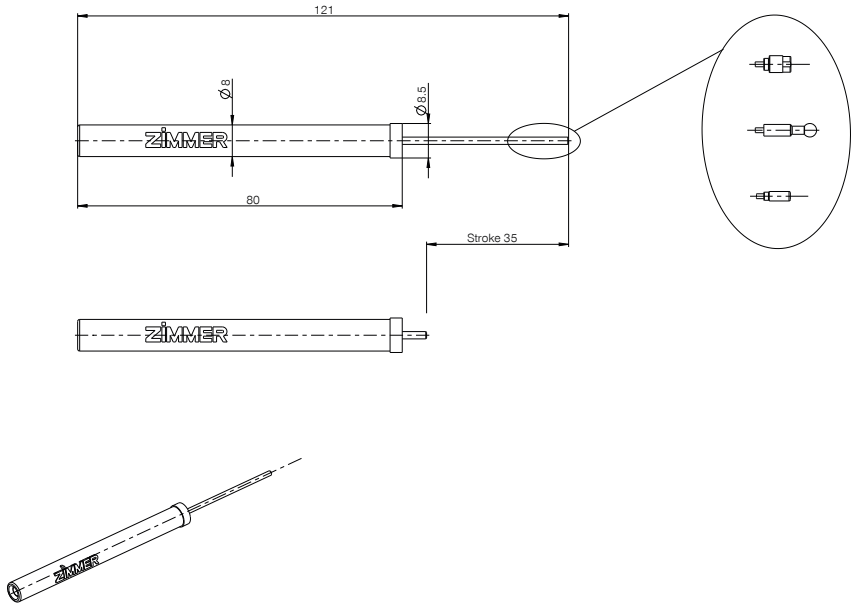
▶ APPLICATION AREAS

Door	
Sliding door	●
Drawer	●
Hinge	

▶ SERIES CHARACTERISTICS

Series	Stroke [mm]	Medium	Operating direction
Galante	35.0	Fluid	Pressure dampers

▶ TECHNICAL DRAWING



▶ TECHNICAL DATA

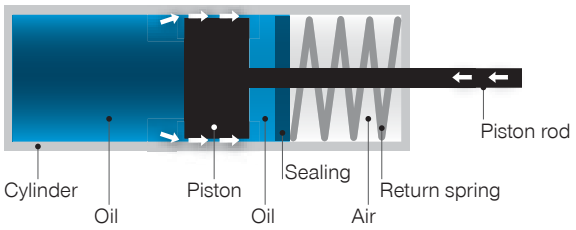
Order no.	F035-08-002	F035-08-007	F035-08-011	F035-08-014
Technology	Defined Comfort	Defined Comfort	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant	Linear-constant with free-run	Linear-constant with free-run	Linear-constant with free-run
Damper force [N]	11	9	46	5
Damper tolerance [N]	+2/-2	+2/-2	+5/-5	+1/-1
Damper speed [mm/s]	50	50	50	10
Free-run	Yes	Yes	Yes	Yes
Free-run length [mm]	10.0	10.0	10.0	10.0
Damper spring return	Yes	Yes	Yes	Yes
Damper housing color	Red RAL3027	Gray RAL7042	Natural	Gray RAL7042
Damper cover color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
Damper Ø housing [mm]	8.0	8.0	8.0	8.0
Damper housing length [mm]	80.0	80.0	80.0	80.0
Damper Ø piston rod [mm]	1.8	1.8	1.8	1.8
Damper housing connection	Collar	Collar	Collar	Collar
Damper piston rod connection	Bumper	Bumper	Bumper	Ball head
Application environment	Standard	Standard	Standard	Standard

Order no.	F035-08-017	F035-08-022
Technology	Defined Comfort	Defined Comfort
Damper characteristic curve	Linear-constant with free-run	Linear-constant with free-run
Damper force [N]	79	25
Damper tolerance [N]	+9/-9	+5/-5
Damper speed [mm/s]	50	50
Free-run	Yes	Yes
Free-run length [mm]	10.0	10.0
Damper spring return	Yes	Yes
Damper housing color	Natural	Natural
Damper cover color	Gray RAL7035	Green PMS364C
Damper Ø housing [mm]	8.0	8.0
Damper housing length [mm]	80.0	80.0
Damper Ø piston rod [mm]	1.8	1.8
Damper housing connection	Collar	Collar
Damper piston rod connection	Bumper	No head
Application environment	Standard	Standard

INDIVIDUAL DAMPERS
FLUID DAMPERS

PRINCIPLE OF FUNCTION

- In a closed housing a piston is moving back- and forward. A food-safe silicon-oil can flow in both directions through small channels. The viscosity of the oil, as well as the modification of the cross-section of the channels, leads to the friction needed to reduce the speed. The friction-heat will be channeled outside through the cylinder-wall.
- Highest energy-consumption on smallest cross section
- Different damping-characteristics possible



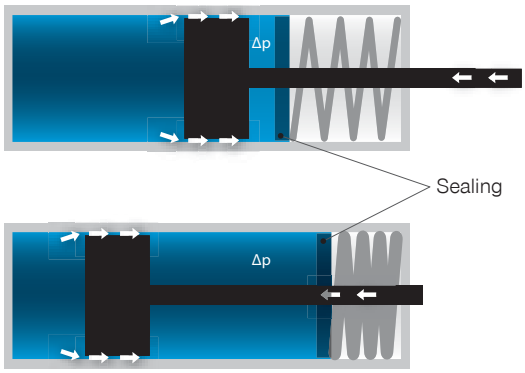
DAMPER WITH AND WHITOUT RESET-FUNCTION

Damper **without** reset-function needs a coupler onto the pistonrod is needed to be used within the fitting. The pistonrod do not extract by itself, it has to be extracted manually.

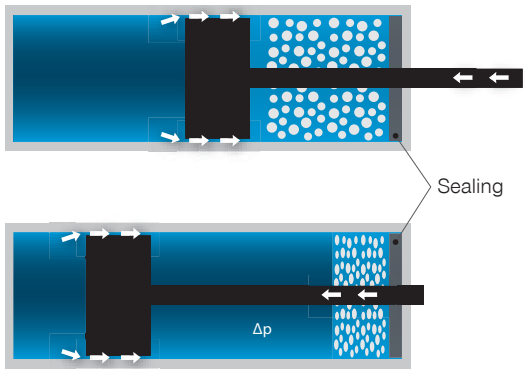
Damper **with** a integrated reset-function a Coupler is not needed onto the pistonrod within the fitting. The pistonrod will be extracted automatically.

VOLUME-COMPENSATION

Volume-compensation by means of a spring in an air-filled chamber (ZIMMER-principle)



Volume-adjustment by using a sponge (competitors)



Δp = Pressure in cylinder higher than surrounding-pressure

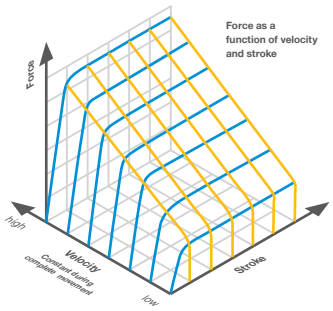
	Function	Leak-proof	Life-endurance
Cellular rubber	X	–	–
Volume-compensation	X	X	X

TYPES

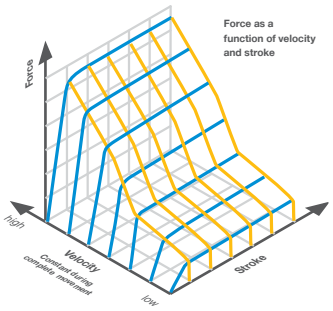
The nozzle let the oil flow constantly:

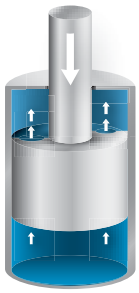
- Highest force on smallest space available
- Force can be modified through the crosssection of the nozzle
- No overload-protection

Classic defined



Classic smooth

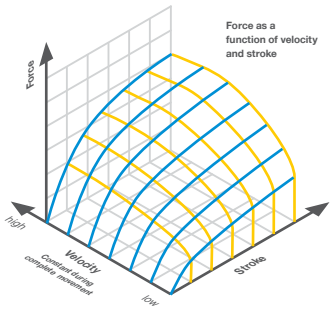




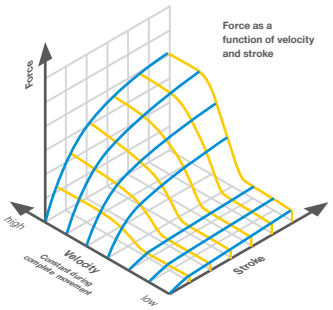
Oil is flowing around the piston. The housing is expanding at high pressure whereas through this gap the oil is flowing.

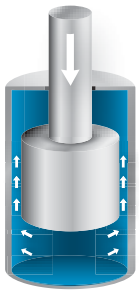
- Overload-protection
- Different graphs possible

Comfort defined



Comfort smooth

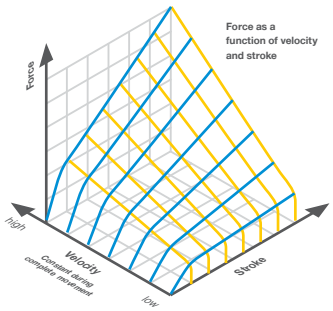




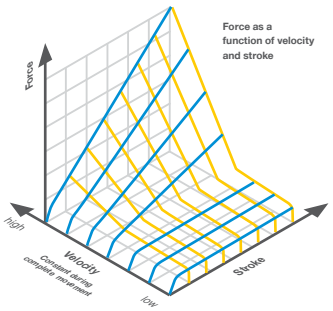
Through these two nozzles the oil can flow constantly. Channels in the housing enhances special cross-sections. Within this example the cross-section becomes smaller during retraction; thus the damping force becomes stronger.

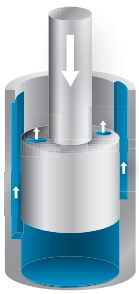
- Various damper-characteristics possible
- Force can be modified by varying the cross-section and by changing the number of the channels

Versatile defined



Versatile smooth



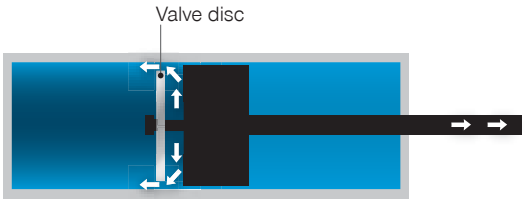


defined: speed independent
smooth: depending on speed, smooth reaction at low velocities, less opening time, constant closing picture, small opening force

INDIVIDUAL DAMPERS
FLUID DAMPERS

OPENING-MOVEMENT

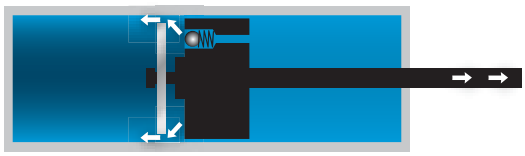
Piston defined



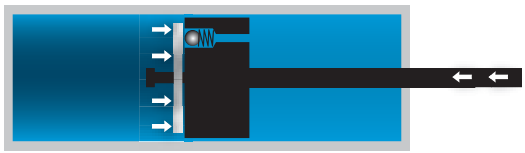
Damper pulled out (release)

Damping

Piston smooth



Damper pulled out (release)

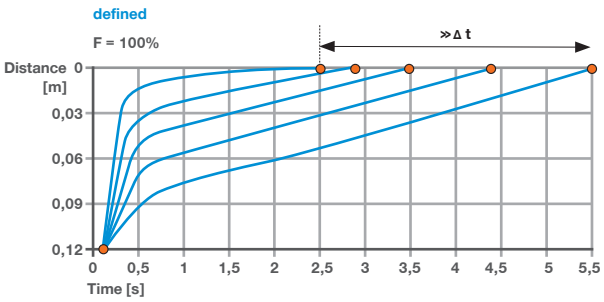


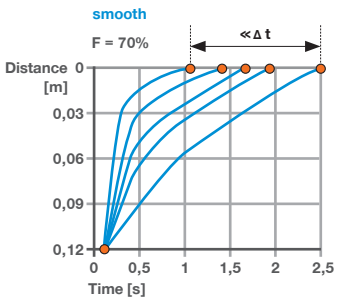
Damping

Valve disc as well as drillings lead to a minimalized resistance at opening and the damping force needed during closing-movement.

COMPARSATION DEFINED/SMOOTH IN SELF-CLOSING UNIT

- **EXAMPLE CHARACTERISTIC CHIUSO 100**
- Load: 70kg sliding door
- Chart shows the closing time from 0,1–0,5 m/s in different graphs
- Opening force is reduced about 30% in version: smooth



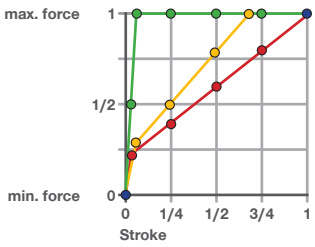


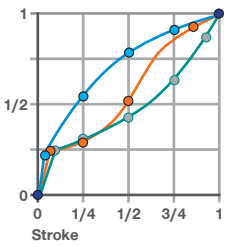
FLUID DAMPER CHARACTERISTIC WITH CONSTANT SPEED

Characteristic curves fluid damper
Damping force according to the stroke

- Linear rising
- Linear rising – constant
- Linear constant

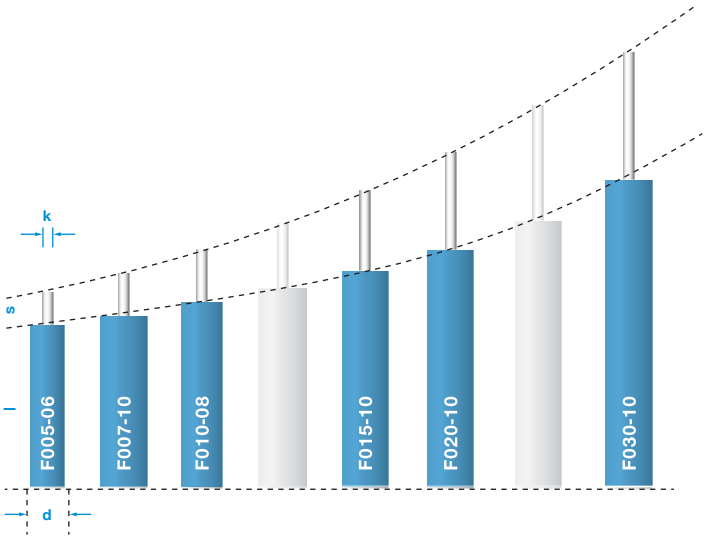
- Inclining
- S-Line
- Declining





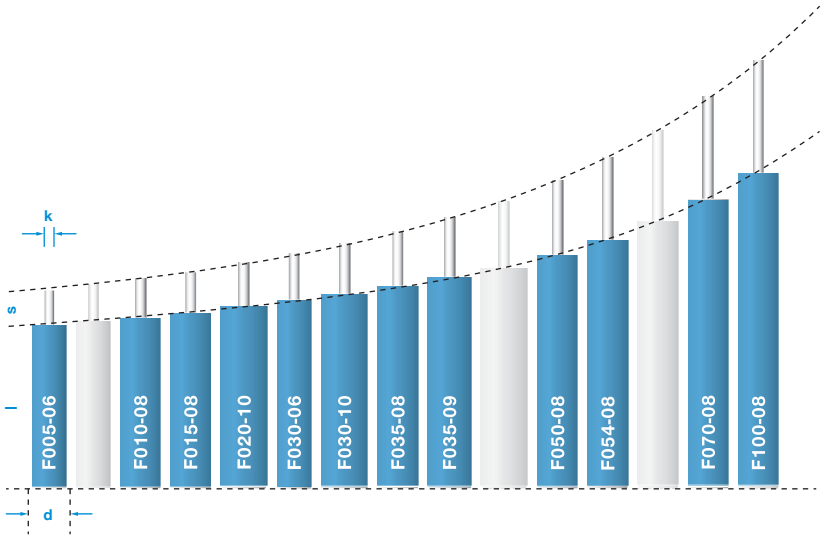
PRODUCT RANGE DAMPER CLASSIC

- Housing length (l): 42 mm bis 67 mm
- Housing diameter (d): 6 mm, 8 mm und 10 mm
- Stroke (s): 5 mm bis 30 mm
- Piston rod diameter (k): 2,3 mm



PRODUCT RANGE DAMPER COMFORT

- Housing length (l): 29,5 mm bis 151,6 mm
- Housing diameter (d): 6 mm, 8 mm und 10 mm
- Stroke (s): 10 mm bis 100 mm
- Piston rod diameter (k): 1,5 bis 2,3 mm



PRODUCT RANGE DAMPER VERSATILE

- Housing length (l): 42 mm bis 67 mm
- Housing diameter (d): 6 mm, 8 mm und 10 mm
- Stroke (s): 5 mm bis 30 mm
- Piston rod diameter (k): 2,3 mm