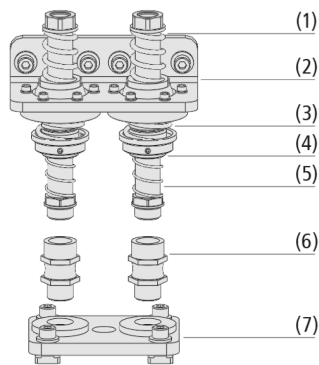


Suspension Flexible FST-FLEX

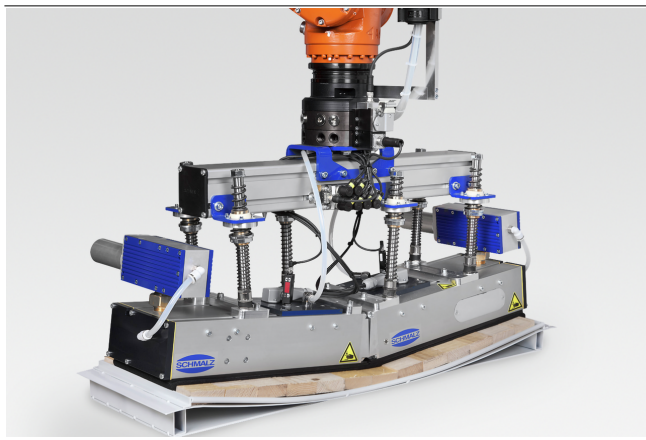
Stroke from 25 mm to 75 mm



Suspension Flexible FST-FLEX



System Design Suspension Flexible FST-FLEX



Mounting example flexible suspension FST-FLEX

Suitability for Industry Specific Applications

Applications

- Spherically mounted spring plunger with two damping springs, centering spring and special universal ball joint for handling workpieces with height differences
- Handling very sensitive components without additional control requirements (e.g. glass sheets), it ensures the workpieces are set down gently
- Handling very warped and naturally grown materials (e.g. dried wood) without additional technical control requirements
- Use under harsh conditions
- For handling tasks with very dynamic motion and short cycle times

Design

- Spring plunger with stainless steel plunger rod, brass guide sleeve with integrated sliding sleeve both lower (5) and upper (1) damping spring
- Powder coated plate (2) as attachment to an aluminum section and to hold the automatic centering unit consisting of the centering spring (3) and the spring seat nut (4); the centering spring pretensioning (3) can be set using locking screws in the spring seat nut (4).
- Jointed mounting (6) available as an option
- Powder coated connection plate (7) for connection to an area gripper; the connection plate can be adapted to individual area gripping systems

Product Highlights

- Maintenance-free and durable thanks to high-quality plain bearings and machined push rod; enables minimum cycle times
- With two damping springs optimized for sensitive workpieces
- Plunger with centering spring and spherical calotte optimized for extremely uneven workpiece positions

Suspension Flexible FST-FLEX

Stroke from 25 mm to 75 mm

Designation Code Suspension Flexible FST-FLEX

FST-FLEX 1	–	50 2	–	HD 3	–	1 4	–	G1/2-AG 5	–	G3/8-IG 6
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1 – Abbreviated designation		2 – Plunger stroke		3 – Variant	
Code	Version	Code	Plunger stroke in mm	Code	Type
FST-FLEX	Flexible	25...75	25 to 75	HD	Heavy duty

4 – Number of spring plungers		5 – Suction cup connection		6 – Vacuum connection	
Code	Number	Code	Connection	Code	Connection
1...2	1 and 2	G1/2-AG	G1/2-AG	G3/8-IG	G3/8-IG

The flexible suspension FST-FLEX (retaining plate + spring plunger) is supplied as an individual part. To receive a complete flexible suspension (retaining plate + spring plunger + connection plate + accessories), the following ordering steps are required:

- Flexible suspension FST-FLEX (step 1) – retaining plate + spring plunger, available with different strokes and number of spring plungers
- Connection plate FLAN-PL (step 2) – available for different area grippers

Available accessories: Flexolink (FLK), flange plate (FLAN-PL)

Ordering Data Suspension Flexible FST-FLEX

Type*	Part no.
FST-FLEX 25 HD1 G1/2-AG G3/8-IG	10.01.10.05697
FST-FLEX 50 HD1 G1/2-AG G3/8-IG	10.01.10.05687
FST-FLEX 75 HD1 G1/2-AG G3/8-IG	10.01.10.05698
FST-FLEX 25 HD2 G1/2-AG G3/8-IG	10.01.10.05695
FST-FLEX 50 HD2 G1/2-AG G3/8-IG	10.01.10.05168
FST-FLEX 75 HD2 G1/2-AG G3/8-IG	10.01.10.05696

*MO-PROF 90x90, 120x120

Type*	Part no.
FST-FLEX 25 HD1 G1/2-AG G3/8-IG	10.01.10.07015
FST-FLEX 50 HD1 G1/2-AG G3/8-IG	10.01.10.07016
FST-FLEX 75 HD1 G1/2-AG G3/8-IG	10.01.10.07017
FST-FLEX 25 HD2 G1/2-AG G3/8-IG	10.01.10.07018
FST-FLEX 50 HD2 G1/2-AG G3/8-IG	10.01.10.07019
FST-FLEX 75 HD2 G1/2-AG G3/8-IG	10.01.10.07020

*MO-PROF 40x40, 80x40

Ordering Data Accessories Suspension Flexible FST-FLEX

Type	Part no.	
Flange plate	FLAN-PL 120x85x10 ST FLGR	10.01.10.05701
Flange plate	FLAN-PL 400x90x10 ST SBX	10.01.10.05702

Type	Part no.	
Flexolink	FLK G1/2-IG G1/2-AG	10.01.03.00175
Flexolink	FLK G1/2-IG G1/2-AG V	10.01.03.00207

Suspension Flexible FST-FLEX

Stroke from 25 mm to 75 mm

Technical Data Suspension Flexible FST-FLEX

Type	Spring rate [N/mm]	Spring pretension [N/mm]	Spring force center [N]*	Vertical load [N]**	Weight [g]	Operating temperature [°C]
FST-FLEX 25 HD1 G1/2-AG G3/8-IG	3.828	25.60	74	3,000	1,450	0 ... 80 °C
FST-FLEX 50 HD1 G1/2-AG G3/8-IG	1.810	5.40	51	3,000	1,500	0 ... 80 °C
FST-FLEX 75 HD1 G1/2-AG G3/8-IG	1.072	36.90	78	3,000	1,550	0 ... 80 °C
FST-FLEX 25 HD2 G1/2-AG G3/8-IG	3.828	51.30	147	6,000	2,700	0 ... 80 °C
FST-FLEX 50 HD2 G1/2-AG G3/8-IG	1.810	10.90	102	6,000	2,800	0 ... 80 °C
FST-FLEX 75 HD2 G1/2-AG G3/8-IG	1.072	73.91	155	6,000	2,900	0 ... 80 °C
FST-FLEX 25 HD1 G1/2-AG G3/8-IG	3.828	25.60	74	2,100	1,450	0 ... 80 °C
FST-FLEX 50 HD1 G1/2-AG G3/8-IG	1.810	5.40	51	2,100	1,500	0 ... 80 °C
FST-FLEX 75 HD1 G1/2-AG G3/8-IG	1.072	36.90	78	2,100	1,550	0 ... 80 °C
FST-FLEX 25 HD2 G1/2-AG G3/8-IG	3.828	51.30	147	4,200	2,700	0 ... 80 °C
FST-FLEX 50 HD2 G1/2-AG G3/8-IG	1.810	10.90	102	4,200	2,800	0 ... 80 °C
FST-FLEX 75 HD2 G1/2-AG G3/8-IG	1.072	73.91	155	4,200	2,900	0 ... 80 °C

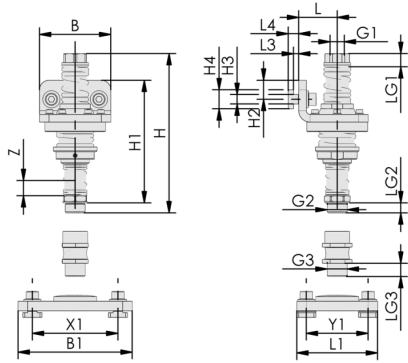
*Referred to 50 % of operating stroke

**Maximum static loading

Suspension Flexible FST-FLEX

Stroke from 25 mm to 75 mm

Design Data Suspension Flexible FST-FLEX



FST-FLEX, FLAN-PL

Suspension Flexible FST-FLEX

Stroke from 25 mm to 75 mm

Design Data Suspension Flexible FST-FLEX

Type	B [mm]	G1	G2	G3	H [mm]*	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	L [mm]	L3 [mm]	L4 [mm]	LG1 [mm]	LG2 [mm]	LG3 [mm]	Z (Stroke) [mm]
FST-FLEX 25 HD1 G1/2-AG G3/8-IG	75	G3/8"-F	G1/2"-M	G1/2"-M	168	129	20	10	20	41	6	11	15	11	14	25
FST-FLEX 50 HD1 G1/2-AG G3/8-IG	75	G3/8"-F	G1/2"-M	G1/2"-M	200	161	20	10	20	41	6	11	15	11	14	50
FST-FLEX 75 HD1 G1/2-AG G3/8-IG	75	G3/8"-F	G1/2"-M	G1/2"-M	239	200	20	10	20	41	6	11	15	11	14	75
FST-FLEX 25 HD2 G1/2-AG G3/8-IG	150	G3/8"-F	G1/2"-M	G1/2"-M	168	129	20	10	20	41	6	11	15	11	14	25
FST-FLEX 50 HD2 G1/2-AG G3/8-IG	150	G3/8"-F	G1/2"-M	G1/2"-M	200	161	20	10	20	41	6	11	15	11	14	50
FST-FLEX 75 HD2 G1/2-AG G3/8-IG	150	G3/8"-F	G1/2"-M	G1/2"-M	239	200	20	10	20	41	6	11	15	11	14	75
FST-FLEX 25 HD1 G1/2-AG G3/8-IG	75	G3/8"-F	G1/2"-M	G1/2"-M	168	129	20	10	20	41	2	6	15	11	14	25
FST-FLEX 50 HD1 G1/2-AG G3/8-IG	75	G3/8"-F	G1/2"-M	G1/2"-M	200	161	20	10	20	41	1	6	15	11	14	50
FST-FLEX 75 HD1 G1/2-AG G3/8-IG	75	G3/8"-F	G1/2"-M	G1/2"-M	239	200	20	10	20	41	2	6	15	11	14	75
FST-FLEX 25 HD2 G1/2-AG G3/8-IG	150	G3/8"-F	G1/2"-M	G1/2"-M	168	129	20	10	20	41	2	6	15	11	14	25
FST-FLEX 50 HD2 G1/2-AG G3/8-IG	150	G3/8"-F	G1/2"-M	G1/2"-M	200	161	20	10	20	41	2	6	15	11	14	50
FST-FLEX 75 HD2 G1/2-AG G3/8-IG	150	G3/8"-F	G1/2"-M	G1/2"-M	239	200	20	10	20	41	2	6	15	11	14	75

*when installed, 33.5 mm higher with Flexolink; 53.0 mm higher with Flexolink in reinforced design

Type	B1 [mm]	L1 [mm]	X1 [mm]	Y1 [mm]
FLAN-PL 120x85x10 ST FLGR	-	-	90	65
FLAN-PL 400x90x10 ST SBX	-	-	280	65