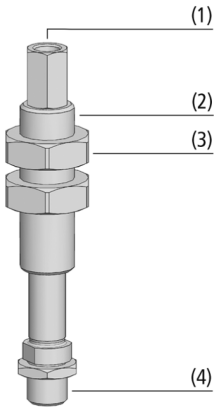
Spring Plungers FSTI

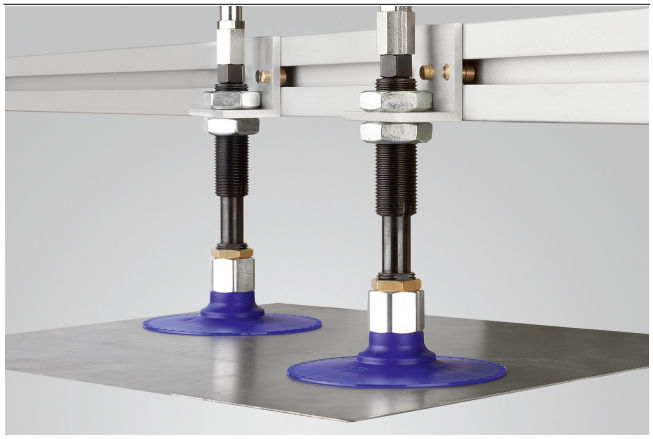
Stroke from 10 mm to 50 mm

UNIVERSAL

Spring Plungers FSTI



System design Spring Plungers FSTI



Mounting example spring plungers FSTI

Suitability for industry specific applications

Application

- Spring plunger with internal damping spring for handling of workpieces with differing heights, such as curved metal sheets, etc.
- Handling of very sensitive workpieces (such as sheets of glass) without additional control functions to prevent damage, since the plunger ensures soft placement
- Particularly suitable for handling tasks in the automotive sector

Design

- Spring plunger consisting of high strength steel rod, guide sleeve with integrated sliding bearing (2) and internal damping spring
- Connection thread for suction cup always male (4); connection thread for vacuum supply (1) either female or male
- Two lock nuts (3) for attachment
- Burnished surface; on the version with anti-rotation function, the plunger rod is coated for optimum sliding behaviour
- Plunger rod with integrated vacuum feed
- Anti-rotation guard due to flat side on the rod and a correspondingly shaped guide sleeve

Product highlights

- High-quality, maintenance-free slide bearings and excellent guidance
- Internal damping spring for gentle placement on sensitive workpieces, protected against dirt and mechanical influences
- Minimal, lightweight design optimized for the smallest space and highest dynamics
- Optionally in non-rotating version for oval suction cups

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Designation code Spring Plungers FSTI

FSTI	–	G1/4-AG	–	G1/8-AG	–	10	–	VG
1		2		3		4		5

1 – Abbreviated designation

Code	Version
FSTI	FSTI

2 – Suction cup connection

Code	Connection
G1/4-AG	G1/4-AG (AG = male (M))
G3/8-AG	G3/8-AG

3 – Vacuum connection

Code	Connection
G1/8-AG	G1/8-AG (AG = male (M))
G1/8-IG	G1/8-IG (IG = female (F))

4 – Plunger stroke

Code	Plunger stroke in mm
10…50	10 to 50

5 – Product addition

Code	Type
VG	With anti-rotation guard

The spring plunger FSTI is delivered as a ready-to-connect product.

Ordering data Spring Plungers FSTI

Type*				Plunger stroke in mm: **		
				10	25	50
FSTI	G1/8-AG	G1/4-AG	-	10.01.02.00864	10.01.02.00868	10.01.02.00992
FSTI	G1/8-AG	G1/4-AG	VG	10.01.02.00865	10.01.02.00869	10.01.02.00993
FSTI	G1/8-IG	G1/4-AG	-	10.01.02.00866	10.01.02.00870	10.01.02.00994
FSTI	G1/8-IG	G1/4-AG	VG	10.01.02.00867	10.01.02.00871	10.01.02.00995
FSTI	G1/8-AG	G3/8-AG	-	10.01.02.00755	10.01.02.00843	10.01.02.00996
FSTI	G1/8-AG	G3/8-AG	VG	10.01.02.00860	10.01.02.00862	10.01.02.00997
FSTI	G1/8-IG	G3/8-AG	-	10.01.02.00851	10.01.02.00850	10.01.02.00998
FSTI	G1/8-IG	G3/8-AG	VG	10.01.02.00861	10.01.02.00863	10.01.02.00999

*VG = Version with anti-rotation guard for repeatably accurate positioning of suction cups

**Recommendation: To raise the lifetime in continuous operation, prevent the maximal slide stroke

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Technical data Spring Plungers FSTI

Type	Spring rate [N/mm]	Spring pretension [N]	Spring force center [N]*	Vertical load [N]**	Horizontal load [N]***	Anzugsdrehmoment (max) [Nm]	Weight [g]	Operating temperature [°C]
FSTI G1/4-AG G1/8-AG 10	0.097	7.08	7.57	1,000	700	40	150	0 ... 80 °C
FSTI G1/4-AG G1/8-AG 10 VG	0.097	7.08	7.57	1,000	500	40	150	0 ... 80 °C
FSTI G1/4-AG G1/8-IG 10	0.097	7.08	7.57	1,000	700	40	150	0 ... 80 °C
FSTI G1/4-AG G1/8-IG 10 VG	0.097	7.08	7.57	1,000	500	40	150	0 ... 80 °C
FSTI G1/4-AG G1/8-AG 25	0.097	5.63	6.84	1,000	700	40	180	0 ... 80 °C
FSTI G1/4-AG G1/8-AG 25 VG	0.097	5.63	6.84	1,000	500	40	180	0 ... 80 °C
FSTI G1/4-AG G1/8-IG 25	0.097	5.63	6.84	1,000	700	40	180	0 ... 80 °C
FSTI G1/4-AG G1/8-IG 25 VG	0.097	5.63	6.84	1,000	500	40	180	0 ... 80 °C
FSTI G1/4-AG G1/8-AG 50	0.097	2.30	4.70	1,000	700	40	230	0 ... 80 °C
FSTI G1/4-AG G1/8-AG 50 VG	0.097	2.30	4.70	1,000	500	40	230	0 ... 80 °C
FSTI G1/4-AG G1/8-IG 50	0.097	2.30	4.70	1,000	700	40	230	0 ... 80 °C
FSTI G1/4-AG G1/8-IG 50 VG	0.097	2.30	4.70	1,000	500	40	230	0 ... 80 °C
FSTI G3/8-AG G1/8-AG 10	0.097	7.08	7.57	1,000	700	40	150	0 ... 80 °C
FSTI G3/8-AG G1/8-AG 10 VG	0.097	7.08	7.57	1,000	500	40	150	0 ... 80 °C
FSTI G3/8-AG G1/8-IG 10	0.097	7.08	7.57	1,000	700	40	150	0 ... 80 °C
FSTI G3/8-AG G1/8-IG 10 VG	0.097	7.08	7.57	1,000	500	40	150	0 ... 80 °C
FSTI G3/8-AG G1/8-AG 25	0.097	5.63	6.84	1,000	700	40	180	0 ... 80 °C
FSTI G3/8-AG G1/8-AG 25 VG	0.097	5.63	6.84	1,000	500	40	180	0 ... 80 °C
FSTI G3/8-AG G1/8-IG 25	0.097	5.63	6.84	1,000	700	40	180	0 ... 80 °C
FSTI G3/8-AG G1/8-IG 25 VG	0.097	5.63	6.84	1,000	500	40	180	0 ... 80 °C
FSTI G3/8-AG G1/8-IG 50	0.097	2.30	4.70	1,000	700	40	230	0 ... 80 °C
FSTI G3/8-AG G1/8-IG 50 VG	0.097	2.30	4.70	1,000	500	40	230	0 ... 80 °C
FSTI G3/8-AG G1/8-AG 50	0.097	2.30	4.70	1,000	700	40	230	0 ... 80 °C
FSTI G3/8-AG G1/8-AG 50 VG	0.097	2.30	4.70	1,000	500	40	230	0 ... 80 °C

*Referred to 50 % of operating stroke
**Maximum static loading
***The specification of the horizontal load refers to the lower edge of the plunger with extended spring. It is a maximum static stress and it impairs the spring compression and extension in horizontal position.

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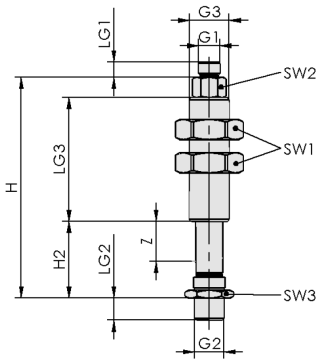
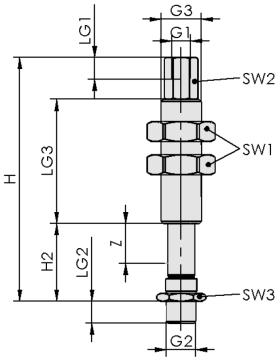
Stroke from 10 mm to 50 mm

Design data Spring Plungers FSTI



FSTI AG/AG (VG)



FSTI AG/IG (VG)

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Design data Spring Plungers FSTI

Type	G1	G2	G3	H [mm]	H2 [mm]	LG1 [mm]	LG2 [mm]	LG3 [mm]	SW1 [mm]	SW2 [mm]	SW3 [mm]	Z (Stroke) [mm]
FSTI G1/4-AG G1/8-AG 10	G1/8"-M	G1/4"-M	M18x1.5-M	71.0	21.0	6.5	10	41	27	13	17	10
FSTI G1/4-AG G1/8-AG 10 VG	G1/8"-M	G1/4"-M	M18x1.5-M	71.0	21.0	6.5	10	41	27	13	17	10
FSTI G1/4-AG G1/8-IG 10	G1/8"-F	G1/4"-M	M18x1.5-M	82.5	19.5	12.0	10	41	27	13	17	10
FSTI G1/4-AG G1/8-IG 10 VG	G1/8"-F	G1/4"-M	M18x1.5-M	79.5	19.5	12.0	10	41	27	13	17	10
FSTI G1/4-AG G1/8-AG 25	G1/8"-M	G1/4"-M	M18x1.5-M	101.0	36.0	6.5	10	56	27	13	17	25
FSTI G1/4-AG G1/8-AG 25 VG	G1/8"-M	G1/4"-M	M18x1.5-M	101.0	36.0	6.5	10	56	27	13	17	25
FSTI G1/4-AG G1/8-IG 25	G1/8"-F	G1/4"-M	M18x1.5-M	109.5	34.5	12.0	10	56	27	13	17	25
FSTI G1/4-AG G1/8-IG 25 VG	G1/8"-F	G1/4"-M	M18x1.5-M	109.5	34.5	12.0	10	56	27	13	17	25
FSTI G1/4-AG G1/8-AG 50	G1/8"-M	G1/4"-M	M18x1.5-M	163.0	59.0	6.5	8	91	27	13	17	50
FSTI G1/4-AG G1/8-AG 50 VG	G1/8"-M	G1/4"-M	M18x1.5-M	163.0	59.0	6.5	8	91	27	13	17	50
FSTI G1/4-AG G1/8-IG 50	G1/8"-F	G1/4"-M	M18x1.5-M	173.0	59.0	12.0	8	91	27	13	17	50
FSTI G1/4-AG G1/8-IG 50 VG	G1/8"-F	G1/4"-M	M18x1.5-M	173.0	59.0	12.0	8	91	27	13	17	50
FSTI G3/8-AG G1/8-AG 10	G1/8"-M	G3/8"-M	M18x1.5-M	72.0	22.0	6.5	9	41	27	13	19	10
FSTI G3/8-AG G1/8-AG 10 VG	G1/8"-M	G3/8"-M	M18x1.5-M	72.0	22.0	6.5	9	41	27	13	19	10
FSTI G3/8-AG G1/8-IG 10	G1/8"-F	G3/8"-M	M18x1.5-M	82.5	22.5	12.0	9	41	27	13	19	10
FSTI G3/8-AG G1/8-IG 10 VG	G1/8"-F	G3/8"-M	M18x1.5-M	82.5	22.5	12.0	9	41	27	13	19	10
FSTI G3/8-AG G1/8-AG 25	G1/8"-M	G3/8"-M	M18x1.5-M	102.0	37.0	6.5	9	56	27	13	19	25
FSTI G3/8-AG G1/8-AG 25 VG	G1/8"-M	G3/8"-M	M18x1.5-M	102.0	37.0	6.5	9	56	27	13	19	25
FSTI G3/8-AG G1/8-IG 25	G1/8"-F	G3/8"-M	M18x1.5-M	112.5	37.5	12.0	9	56	27	13	19	25
FSTI G3/8-AG G1/8-IG 25 VG	G1/8"-F	G3/8"-M	M18x1.5-M	112.5	37.5	12.0	9	56	27	13	19	25
FSTI G3/8-AG G1/8-AG 50	G1/8"-M	G3/8"-M	M18x1.5-M	163.0	54.0	6.5	8	91	27	13	19	50
FSTI G3/8-AG G1/8-AG 50 VG	G1/8"-M	G3/8"-M	M18x1.5-M	163.0	54.0	6.5	8	91	27	13	19	50

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FSTI G3/8-AG G1/8-IG 50	G1/8"-F	G3/8"-M	M18x1.5-M	173.0	62.0	12.0	8	91	27	13	19	50
FSTI G3/8-AG G1/8-IG 50 VG	G1/8"-F	G3/8"-M	M18x1.5-M	173.0	54.0	12.0	8	91	27	13	19	50

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