

Spring plungers

Spring plunger FSTA-HD



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Our highlights...

- Spring plunger with high-quality sliding bearings and specially machined plunger rod
- Spring plunger with two damping springs
- Wide range of different connection threads and stroke lengths
- Optionally available with anti-rotation guard

Your advantages...

- > Maintenance-free, with extremely long operating life-time; suitable for short cycle times
- > Guarantees soft placement on easily damaged workpieces. Absorbs shocks and vibration. Prevents excessively long strokes
- > Available for a wide range of applications and for all suction pads of the standard range
- > Suitable for use with oval suction pads

Applications

- Handling of workpieces with differing heights (such as curved metal sheets, etc.)
- Handling of easily damaged workpieces (such as sheets of glass) without additional control functions to prevent damage, since the plunger ensures soft placement
- For use under rough operating conditions
- For handling tasks with very dynamic motion and short cycle times

Construction

- Spring plunger consisting of high-strength steel rod, guide sleeve with integrated bearing and damping springs
- Plunger rod with integrated vacuum feed (connection thread at top)
- Anti-rotation guard due to flat side on the rod and a correspondingly shaped guide sleeve
- Thread for suction pad is always a male thread
- Thread for vacuum line is always a female thread

Suitability for branch-specific applications



Designation code Spring plunger FSTA-HD

Short designation	Version	Suction-pad connection	Plunger stroke in mm	Additional function
Example: FSTA	HD	G1/4-AG	25	VG
FSTA	HD... Heavy Duty (hard use)	G1/4-AG (AG = male) G3/8-AG G1/2-AG	25 to 90	VG...with anti-rotation guard

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Ordering data Spring plunger FSTA-HD

Type*	Plunger stroke in mm*		
	25	50	90
FSTA-HD G1/4	10.01.02.00777	10.01.02.00778	-
FSTA-HD G1/4 VG	10.01.02.00884	10.01.02.00885	-
FSTA-HD G3/8	10.01.02.00814	10.01.02.00815	10.01.02.00816
FSTA-HD G3/8 VG	10.01.02.00886	10.01.02.00887	10.01.02.00888
FSTA-HD G1/2	10.01.02.00779	10.01.02.00780	10.01.02.00781
FSTA-HD G1/2 VG	10.01.02.00889	10.01.02.00890	10.01.02.00891

* Commendation: To raise the lifetime in continuous duty, prevent the maximal slide stroke

Technical data Spring plunger FSTA-HD

Type	Spring rate [N/mm]	Spring pre-tension [N]	Spring force [N]*	Vertical load [N]**	Horizontal load [N]***	Weight [g]	Operating temperature [°C]
FSTA-HD G1/4-AG 25	0,711	8,95	17,8	2400	800	185	0...80
FSTA-HD G1/4-AG 25 VG	0,711	8,95	17,8	2400	800	185	0...80
FSTA-HD G1/4-AG 50	0,262	14,10	20,6	2400	490	210	0...80
FSTA-HD G1/4-AG 50 VG	0,262	14,10	20,6	2400	490	210	0...80
FSTA-HD G3/8-AG 25	3,828	25,65	73,5	4800	1870	495	0...80
FSTA-HD G3/8-AG 25 VG	3,828	25,65	73,5	4800	1870	495	0...80
FSTA-HD G3/8-AG 50	1,810	3,95	49,2	4800	1200	540	0...80
FSTA-HD G3/8-AG 50 VG	1,810	3,95	49,2	4800	1200	540	0...80
FSTA-HD G3/8-AG 90	1,072	24,38	75,3	4800	730	645	0...80
FSTA-HD G3/8-AG 90 VG	1,072	24,38	75,3	4800	730	645	0...80
FSTA-HD G1/2-AG 25	3,828	25,65	73,5	4900	1870	493	0...80
FSTA-HD G1/2-AG 25 VG	3,828	25,65	73,5	4900	1870	495	0...80
FSTA-HD G1/2-AG 50	1,810	3,95	49,2	4900	1200	539	0...80
FSTA-HD G1/2-AG 50 VG	1,810	3,95	49,2	4900	1200	540	0...80
FSTA-HD G1/2-AG 90	1,072	24,38	75,3	4900	730	645	0...80
FSTA-HD G1/2-AG 90 VG	1,072	24,38	75,3	4900	730	645	0...80

* Referred to 50% of operating stroke

** Maximum static loading

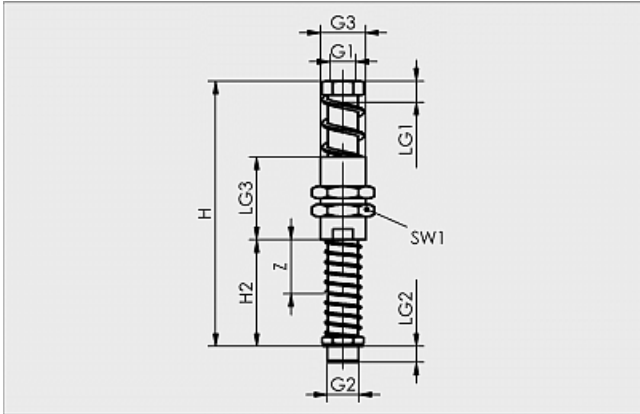
*** The horizontal loading is a maximum static loading and has a negative effect on the in and out movement in a horizontal position

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Design data Spring plunger FSTA-HD



FSTA-HD 1/4 to 1/2

Mounting elements
4

Type	Dimensions in mm									
	G1	G2	G3	H	H2	LG1	LG2	LG3	SW1	Z (Stroke)
FSTA-HD G1/4-AG 25	G1/8"-F	G1/4"-M	M20x1.5-M	114,5	37,0	12	8,5	40	24	25
FSTA-HD G1/4-AG 25 VG	G1/8"-F	G1/4"-M	M20x1.5-M	114,5	37,0	12	8,5	40	24	25
FSTA-HD G1/4-AG 50	G1/8"-F	G1/4"-M	M20x1.5-M	144,0	66,5	12	8,5	40	24	50
FSTA-HD G1/4-AG 50 VG	G1/8"-F	G1/4"-M	M20x1.5-M	144,0	66,5	12	8,5	40	24	50
FSTA-HD G3/8-AG 25	G3/8"-F	G3/8"-M	M30x1.5-M	146,5	49,5	12	10,5	53	36	25
FSTA-HD G3/8-AG 25 VG	G3/8"-F	G3/8"-M	M30x1.5-M	147,0	57,0	12	10,5	53	36	25
FSTA-HD G3/8-AG 50	G3/8"-F	G3/8"-M	M30x1.5-M	176,5	79,5	12	10,5	53	36	50
FSTA-HD G3/8-AG 50 VG	G3/8"-F	G3/8"-M	M30x1.5-M	177,0	87,0	12	10,5	53	36	50
FSTA-HD G3/8-AG 90	G3/8"-F	G3/8"-M	M30x1.5-M	229,5	132,5	12	10,5	53	36	90
FSTA-HD G3/8-AG 90 VG	G3/8"-F	G3/8"-M	M30x1.5-M	230,0	140,0	12	10,5	53	36	90
FSTA-HD G1/2-AG 25	G3/8"-F	G1/2"-M	M30x1.5-M	146,5	56,5	12	10,5	53	36	25
FSTA-HD G1/2-AG 25 VG	G3/8"-F	G1/2"-M	M30x1.5-M	146,5	56,5	12	10,5	53	36	25
FSTA-HD G1/2-AG 50	G3/8"-F	G1/2"-M	M30x1.5-M	176,5	86,5	12	10,5	53	36	50
FSTA-HD G1/2-AG 50 VG	G3/8"-F	G1/2"-M	M30x1.5-M	176,5	86,5	12	10,5	53	36	50
FSTA-HD G1/2-AG 90	G3/8"-F	G1/2"-M	M30x1.5-M	229,5	139,5	12	10,5	53	36	90
FSTA-HD G1/2-AG 90 VG	G3/8"-F	G1/2"-M	M30x1.5-M	229,5	139,5	12	10,5	53	36	90