

Suspension Bolt

with bushing FSBB



Description

Robust suspension bolt with upper and lower dampening spring. The bolt consists of a precision steel tube with integrated vacuum feed, the bushing is made of high-quality brass. The suspension bolt can be directly fastened to drillings or with appropriate holders to aluminum or hollow profiles. The bolt is sealed with an o-ring against the suction pad retainers.

Application

- applications with high cycle times
- soft touch-down on workpieces
- workpieces with uneven surfaces (load compensation)
- height adjustment via outer thread of bushing



FSBB-M12x1- ... FSBB-M30x1.5-

Article number

Type	Bolt stroke 25 mm	Bolt stroke 50 mm	Bolt stroke 75 mm	Bolt stroke 100 mm
FSBB-M12x1-M5	1.34.3.0047	1.34.3.0048	1.34.3.0049	---
FSBB-M16x1,5-1/8	1.34.3.0037	1.34.3.0042	1.34.3.0043	---
FSBB-M20x1,5-1/4	1.34.3.0044	1.34.3.0045	1.34.3.0046	---
FSBB-M20x1,5*	---	1.34.3.0068	1.34.3.0069	1.34.3.0072
FSBB-M30x1,5*	---	1.34.3.0062	1.34.3.0074	1.34.3.0075

* w/o central vacuum feed

Technical data

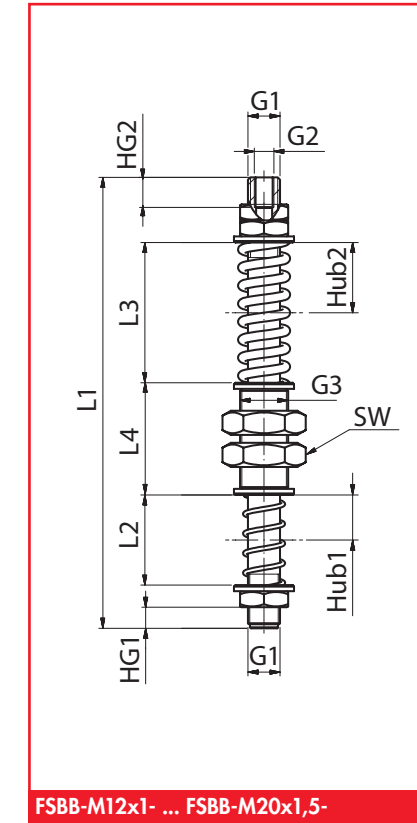
Type	Bolt stroke (mm)	Spring rate (N/mm)	Spring force max. (N)**	Tensile load max. (N)***	Bending mom. max. (Nm)	Volume (l)	Temperature (°C)	Weight (kg)
FSBB-M12x1-M5-25	25	2,545	31,8	350	20	0,006	0 ... +80	0,31
FSBB-M12x1-M5-50	50	1,647	41,2	350	20	0,007	0 ... +80	0,33
FSBB-M12x1-M5-75	75	1,120	42,0	350	20	0,008	0 ... +80	0,38
FSBB-M16x1,5-1/8-25	25	3,711	46,4	1.250	50	0,012	0 ... +80	0,58
FSBB-M16x1,5-1/8-50	50	1,944	48,6	1.250	50	0,014	0 ... +80	0,63
FSBB-M16x1,5-1/8-75	75	1,512	56,7	1.250	50	0,016	0 ... +80	0,67
FSBB-M20x1,5-1/4-25	25	6,250	78,1	3.500	100	0,012	0 ... +80	1,05
FSBB-M20x1,5-1/4-50	50	3,977	99,4	3.500	100	0,014	0 ... +80	1,10
FSBB-M20x1,5-1/4-75	75	2,574	96,4	3.500	100	0,016	0 ... +80	1,17
FSBB-M20x1,5-50*	50	6,250	78,1	5.500	120	---	0 ... +80	1,26
FSBB-M20x1,5-75*	75	3,977	99,4	5.500	120	---	0 ... +80	1,36
FSBB-M20x1,5-100*	100	2,574	96,4	5.500	120	---	0 ... +80	1,47
FSBB-M30x1,5-50*	50	15,536	388	9.500	350	---	0 ... +80	4,68
FSBB-M30x1,5-75*	75	10,0	375	9.500	350	---	0 ... +80	4,94
FSBB-M30x1,5-100*	100	6,836	342	9.500	350	---	0 ... +80	5,38

** lower spring force at 50% of bolt stroke

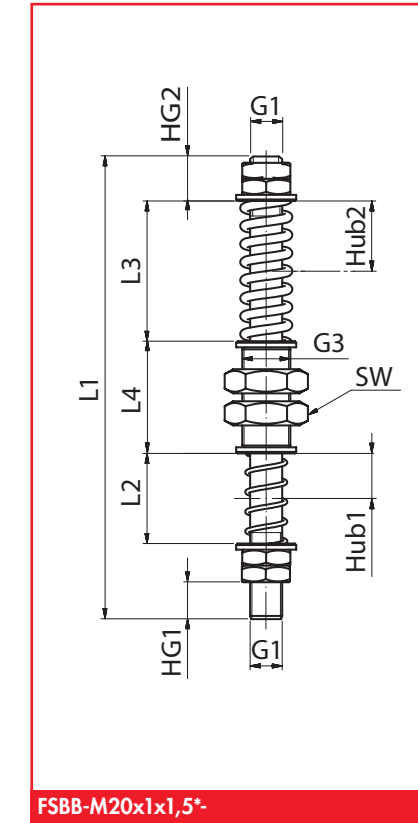
*** Tensile load relates to 50% stroke of the upper pressure spring. Mounted suction pads must not exceed these capacities.

Suspension Bolt

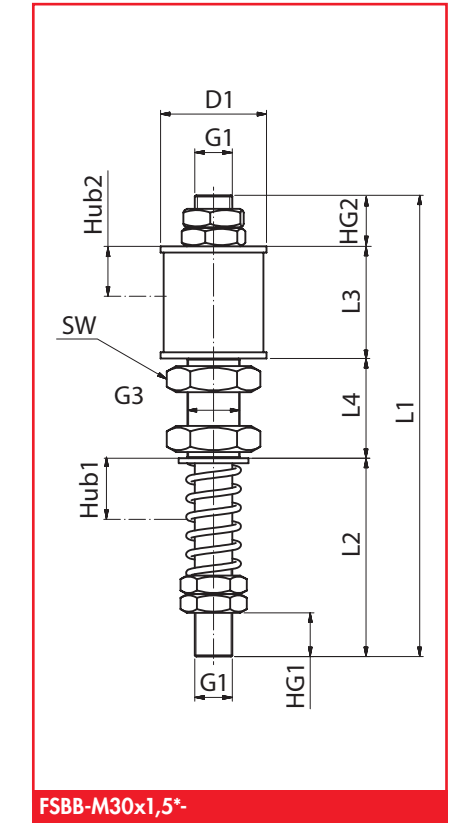
with bushing FSBB



FSBB-M12x1- ... FSBB-M20x1,5-



FSBB-M20x1x1,5-



FSBB-M30x1,5-

Dimensions

Type	L1	L2	L3	L4	Hub1	Hub2	G1	G2	G3	D1	HG1	HG2	SW
FSBB-M12x1-M5-25	165	51	41	50	25	20	M12x1	M5	M20x1,5	---	10,5	10	36
FSBB-M12x1-M5-50	190	74	41	50	50	20	M12x1	M5	M20x1,5	---	10,5	10	36
FSBB-M12x1-M5-75	230	110	41	50	75	20	M12x1	M5	M20x1,5	---	10,5	10	36
FSBB-M16x1,5-1/8-25	210	42	70	63	25	24	M16x1,5	G1/8	M24x1,5	---	10,5	15	36
FSBB-M16x1,5-1/8-50	250	82	70	63	50	24	M16x1,5	G1/8	M24x1,5	---	10,5	15	36
FSBB-M16x1,5-1/8-75	280	112	70	63	75	24	M16x1,5	G1/8	M24x1,5	---	10,5	15	36
FSBB-M20x1,5-1/4-25	235	49	80	63	25	13	M20x1,5	G1/4	M30x1,5	---	10,5	15	46
FSBB-M20x1,5-1/4-50	260	74	80	63	50	13	M20x1,5	G1/4	M30x1,5	---	10,5	15	46
FSBB-M20x1,5-1/4-75	300	115	80	63	75	13	M20x1,5	G1/4	M30x1,5	---	10,5	15	46
FSBB-M20x1,5-50*	260	74	80	63	80	13	M20x1,5	---	M30x1,5	---	10,5	---	46
FSBB-M20x1,5-75*	300	115	80	63	75	13	M20x1,5	---	M30x1,5	---	10,5	---	46
FSBB-M20x1,5-100*	345	160	80	63	100	13	M20x1,5	---	M30x1,5	---	10,5	---	46
FSBB-M30x1,5-50*	370	80	80	83	50	13	M30x1,5	---	M42x1,5	85	35	---	65
FSBB-M30x1,5-75*	410	140	80	83	75	13	M30x1,5	---	M42x1,5	85	35	---	65
FSBB-M30x1,5-100*	480	205	80	83	100	13	M30x1,5	---	M42x1,5	85	35	---	65