

WIDE TYPE BS

Material 1.4435 (AISI 316L)

Shaft diameter	Inside diameter	Outside diameter	Standard wall thickness of diaphragms	Compressed length per convolution	Free length per convolution	Working stroke per convolution	Extended length per convolution	Effective area of differential pressure (cm ²)	Spring constant per convolution [N/mm]	Largest bending angle per convolution [°]	Smallest bending radius	
S	Ø	ID	OD	t	lc	lf	z₀	le₀	EA	SRCz	Q₀	R₀
8		9	31.5	0.13	0.48	1.90	1.40	1.88	3.55	52	2.55	26.6
20		21	49	0.13	0.50	1.75	2.10	2.60	10.1	55	2.46	36.2
35		36.8	72	0.15	0.60	3.05	3.00	3.60	24.1	72	2.39	50.4
40		41.5	81	0.20	0.70	3.06	3.40	4.10	30.5	97	2.41	57.2
45		47	88	0.20	0.70	3.95	3.40	4.10	36.9	86	2.21	62.1
50	2"	52	95	0.20	0.80	3.65	3.60	4.40	43.6	88	2.17	68.6
55		56	102	0.20	0.75	4.20	3.70	4.45	50.4	81	2.08	71.7
70		72	115	0.20	0.75	4.10	3.60	4.35	69.9	77	1.79	81.5
75	3"	77.5	120	0.20	0.75	3.60	3.40	4.15	77.8	88	1.62	86.5
80		82	125	0.20	0.85	3.71	3.45	4.30	85.3	70	1.58	93.3
90		90.5	135	0.20	0.75	4.45	4.20	4.95	101	73	1.78	91.6
100	4"	102.5	150	0.20	0.95	5.20	5.00	5.95	127	56	1.91	104
105		107.5	155	0.20	1.10	5.10	4.90	6.00	130	65	1.81	112
130	5"	132.5	165	0.20	0.75	3.10	3.25	4.00	174	120	1.13	121
150	6"	162.5	210	0.20	1.00	5.15	5.00	6.00	274	49	1.36	147
275		280	330	0.20	1.28	4.60	5.00	6.28	732	55	0.87	249
400		403	462	0.30	1.00	3.70	5.00	6.00	1471	200	0.62	323
500		506	564	0.30	1.00	3.80	5.20	6.20	2250	250	0.53	390

WIDE TYPE BS

Material AM 350 (AISI 633)

Shaft diameter	Inside diameter	Outside diameter	Standard wall thickness of diaphragms	Compressed length per convolution	Free length per convolution	Working stroke per convolution	Extended length per convolution	Effective area of differential pressure (cm ²)	Spring constant per convolution [N/mm]	Largest bending angle per convolution [°]	Smallest bending radius	
S	Ø	ID	OD	t	lc	lf	z₀	le₀	EA	SRCz	Q₀	R₀
8		9	31.5	0.13	0.45	1.90	2.10	2.55	3.55	51	3.82	22.5
20		21	49	0.13	0.60	3.40	3.50	4.10	10.1	43	4.09	32.9
35		36.8	72	0.13	0.60	3.90	3.80	4.40	24.1	68	3.02	47.4
40		41.5	81	0.13	0.60	3.60	4.20	4.80	30.5	45	2.97	52.1
45		47	88	0.13	0.60	4.70	4.40	5.00	36.9	75	2.86	56.0
50	2"	52	95	0.13	0.60	4.70	4.40	5.00	43.6	80	2.65	60.5
55		56	102	0.13	0.60	5.00	5.10	5.70	50.4	40	2.86	63.0
70		72	115	0.15	0.68	4.60	4.80	5.48	69.9	55	2.39	73.8
75	3"	77.5	120	0.15	0.68	4.30	4.00	4.68	77.8	72	1.91	80.4
80		82	125	0.15	0.75	4.50	4.60	5.35	85.3	100	2.11	82.9
90		90.5	135	0.15	0.75	4.20	4.10	4.85	101	80	1.74	92.2
100	4"	102.5	150	0.20	1.20	5.00	5.00	6.20	127	55	1.91	111
105		107.5	155	0.20	1.20	5.50	5.00	6.20	137	65	1.85	115
130	5"	132.5	165	0.20	0.75	3.60	3.80	4.55	174	80	1.32	115
150	6"	162.5	210	0.20	1.10	5.15	7.00	8.10	274	85	1.91	138
400		403	462	0.20	0.80	4.00	6.00	6.80	1471	150	0.74	293

Datas under the following conditions:

Differential pressure $\Delta p = 1 \text{ bar}$, lifetime $N_z = 10'000$ cycles,

Operating temperature $OT = 20^\circ\text{C}$, Heating temperature $HT = 80^\circ\text{C}$

Other sizes, materials and specifications are available on request.

For more informations please see enclosed pages or contact us.

Technical changes are reserved!

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