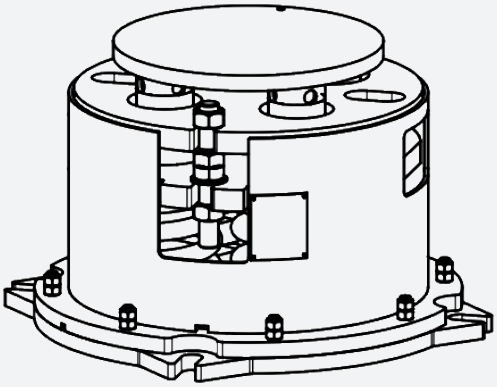
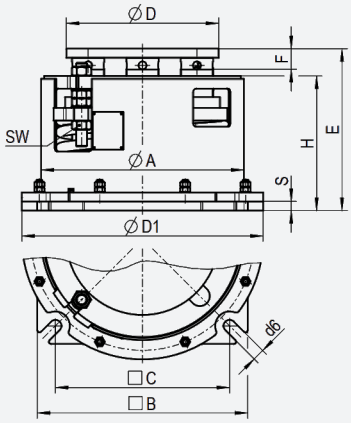
SPRING SUPPORT

TYPE 28 .. 19-HD
STANDARD DESIGN





To balance slight vertical displacements of the pipelines, spring components are used as supports. These components function on the basis of preset helical coil springs, which exert a variable supporting load over the range of movement in accordance with their specified spring characteristics.

	ØA	□B	□C	ØD	ØD1	d6	E	F	H	S	SW	Load range [lbs]	Travel range [inch]	Spring rate [lbs/ inch]	Temp. permanent [°F]	Temp. short-term [°F]	Weight [lbs]
281119-HD	20.08	20.87	17.32	16.54	23.62	1.3	15.94	2.36	12.99	0.98	1.81	11989 - 35969	0 - 1.97	12181	176	302	551
281219-HD	20.08	20.87	17.32	16.54	23.62	1.3	21.06	2.36	17.72	0.98	1.81	11989 - 35969	0 - 3.94	6090	176	302	619
281319-HD	20.08	20.87	17.32	16.54	23.62	1.3	32.87	2.36	28.74	0.98	1.81	11989 - 35969	0 - 7.87	3045	176	302	873
282119-HD	22.05	22.83	19.29	16.54	26.18	1.3	17.72	2.56	14.57	0.98	1.81	14986 - 44962	0 - 1.97	15227	176	302	750
282219-HD	22.05	22.83	19.29	16.54	26.18	1.3	23.03	2.56	19.69	0.98	1.81	14986 - 44962	0 - 3.94	7613	176	302	844
282319-HD	22.05	22.83	19.29	16.54	26.18	1.3	34.65	2.56	30.51	0.98	1.81	14986 - 44962	0 - 7.87	3806	176	302	1096
283119-HD	24.02	24.8	20.87	17.72	28.35	1.3	18.11	2.56	14.96	0.98	1.81	17985 - 53954	0 - 1.97	18272	176	302	897
283219-HD	24.02	24.8	20.87	17.72	28.35	1.3	23.43	2.56	20.08	0.98	1.81	17985 - 53954	0 - 3.94	9136	176	302	1014
283319-HD	24.02	24.8	20.87	17.72	28.35	1.3	35.04	2.56	30.91	0.98	1.81	17985 - 53954	0 - 7.87	4568	176	302	1305
284119-HD	24.02	24.8	20.87	17.72	28.35	1.54	19.88	2.76	16.73	1.18	2.17	22481 - 67443	0 - 1.97	22841	176	302	1025
284219-HD	24.02	24.8	20.87	17.72	28.35	1.54	26.97	2.76	23.43	1.18	2.17	22481 - 67443	0 - 3.94	11420	176	302	1208
284319-HD	24.02	24.8	20.87	17.72	28.35	1.54	42.32	2.76	37.99	1.18	2.17	22481 - 67443	0 - 7.87	5710	176	302	1761
285119-HD	24.02	24.8	20.87	18.9	28.35	1.54	22.05	2.95	18.7	1.38	2.56	29974 - 89924	0 - 1.97	30454	176	302	1146
285219-HD	24.02	24.8	20.87	18.9	28.35	1.54	29.53	2.95	25.79	1.38	2.56	29974 - 89924	0 - 3.94	15227	176	302	1351
285319-HD	24.02	24.8	20.87	18.9	28.35	1.54	44.69	2.95	40.16	1.38	2.56	29974 - 89924	0 - 7.87	7613	176	302	1843

The dimensions E are reduced by the corresponding spring travel under load.

Corrosivity category and protection version: C4(h) / HD (hot-dip galvanized).

The permissible loads on the components are shown according to load groups and load cases. The definition of the load cases are in line with DIN EN 13480-3, ASME B31.1, ASME B31.3, MSS SP-58, ASME III, Div. I Subsection NF, RCC-M and KTA 3205.

In design, in stress and load calculations, as well as in production, the relevant European and other international standards are taken into account.

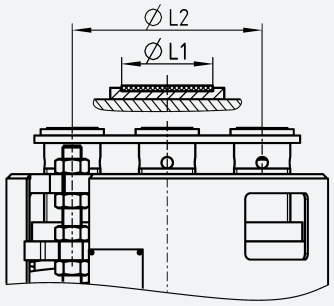
Design with sliding plate max. contact temperature:

Type 28..17-HD (up to 356 °F)

	ØL1	ØL2
281.17-HD	3.15	11.81
282.17-HD	3.15	11.81
283.17-HD	4.33	12.2
284.17-HD	4.33	12.2
285.17-HD	5.91	11.81

Type 28..16-HD (up to 660 °F)

	ØL1	ØL2
281.16-HD	3.15	11.81
282.16-HD	3.15	11.81
283.16-HD	4.33	12.2
284.16-HD	4.33	12.2
285.16-HD	5.91	11.81



When slide plates are used, the E dimension increases by 0.08inch [2mm].

Further information refer to the chapters PG0 and PG2 of the catalogue "Standard Supports".