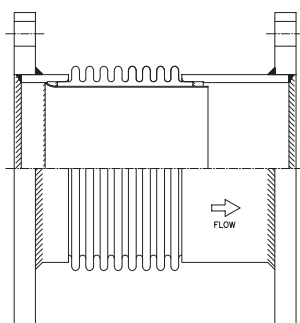
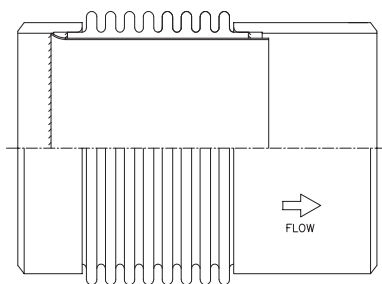
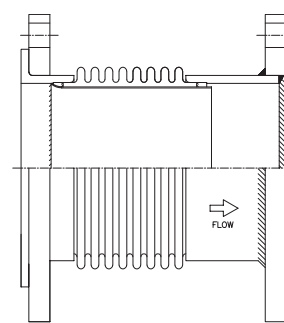


1501 Fixed Flange

1502 Weld End

1504 Fixed/Floating Flange


Flanges: Flat face carbon steel made from ASME A-36 plate. Outside diameter and drilling per ASME/ANSI B16.5. Table 2 designs—150 lb. drilling, Table 3 designs—300 lb. drilling.

Pipe: Schedule 40 ASME A53 Grade B. Model 1502 weld preparation per ASME/ANSI B16.9

Lap Joint Stub Ends: Schedule 40 ASME/ANSI B16.9 carbon steel. Back-up flange construction same as flanges above.

Bellows: Laminated (multiply) ASTM A240 type 321 stainless steel 3" diameter and under, type 304 over 3" diameter.

Flow Liner: ASTM A240 type 304 stainless steel.

Table 1
Pressure and Force Data/Laminated Expansion Joints—Types 1501, 1502 & 1504

Nominal Size NPS	Effective Area (square inches)	Tabulated Force (pounds) for Individual Pressures												
		50 PSI	75 PSI	100 PSI	125 PSI	150 PSI	175 PSI	200 PSI	225 PSI	250 PSI	300 PSI	350 PSI	400 PSI	450 PSI
2	4.1	208	312	415	519	623	727	831	935	1039	1246	1454	1662	1870
2-1/2	5.8	290	436	581	726	872	1017	1162	1307	1453	1743	2034	2324	2615
3	8.8	445	667	889	1112	1334	1556	1779	2001	2223	2668	3113	3557	4002
4	15.4	774	1161	1548	1935	2322	2709	3097	3484	3871	4645	5419	6193	6967
5	23.5	1179	1769	2358	2948	3538	4127	4717	5307	5896	7076	8255	9434	10614
6	33.3	1669	2504	3339	4173	5008	5843	6677	7512	8347	10016	11686	13355	15024
8	56.8	2840	4261	5681	7101	8522	9942	11362	12783	14203	17043	19884	22725	25565
10	87.2	4362	6544	8725	10906	13088	15269	17450	19631	21813	26175	30538	34900	39263
12	122	6146	9219	12291	15364	18437	21510	24583	27656	30729	36874	43020	49166	55312
14	152	7600	11400	15200	19000	22800	26600	30400	34200	38000	45600	53200	60800	68400
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Note: Tabulated data is force produced by pressure only. Refer to Column 3 of Tables 2 & 3 for force resulting from bellows stiffness.