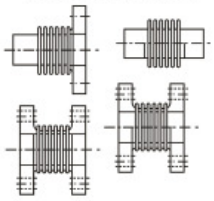
SINGLE EXPANSION JOINTS

Effective (Thrust) Area: 509.54 in^2 (3286.53 cm^2)

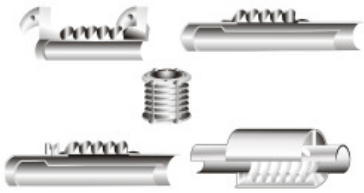
24-Inch Nominal Diameter

TYPES

END CONNECTIONS



ACCESSORIES



DIAMETER	PRESSURE	OVERALL LENGTH AND WEIGHT						NON-CONCURRENT MOVEMENTS			SPRING RATES			
		FLANGED ENDS		WELD ENDS		COMBINATION ENDS		AXIAL	LATERAL	ANGULAR	AXIAL	LATERAL	ANGULAR	TORSIONAL
		O.A.L	WT.	O.A.L	WT.	O.A.L	WT.	COMP						
	PSIG	IN	LB	IN	LB	IN	LB	IN	IN	DEG	LB/IN	LB/IN	IN-LB/DEG	IN-LB/DEG x 10^6
	KG/CM^2	MM	KG	MM	KG	MM	KG	MM	MM	GRAD	KG/MM	KG/MM	N-M/GRAD	N-M/GRAD x 10^5
24	60	12	251	17	90	15	170	3.6	0.4	10	532	7129	749	1.8337
	4.2	305	114	432	40.9	381	77.3	91.4	10.2	11	10	128	76.2	1.8649
	60	18	265	23	103	21	184	6.06	1.15	10	319	1470	449	1.0951
	4.2	457	120	584	46.8	533	83.6	154	29.2	11	6	26	45.7	1.1137
	35	24	278	29	116	27	197	9.27	2.49	10	228	525	321	0.7806
	2.5	610	126	737	52.7	686	89.5	235	63.2	11	4	9	32.6	0.7939
24	160	12	463	14	92	13	277	1.42	0.1	6	3273	104888	4615	4.5021
	11.2	305	210	356	41.8	330	126	36.1	2.54	7	59	1877	469.3	4.5787
	160	18	484	20	113	19	298	2.89	0.44	10	1636	11996	2307	2.2311
	11.2	457	220	508	51.4	483	135	73.4	11.2	11	29	21.5	234.6	2.2690
	160	24	505	26	134	25	319	4.37	1	10	1091	3454	1538	1.4830
	11.2	610	230	660	60.9	635	145	1.11	25.4	11	20	62	156.4	1.5082
24	350	12	981	12	122	12	551	0.88	0.04	4	9849	729392	13940	7.0853
	24.6	305	446	305	55.5	305	250	22.4	1.02	4	176	13053	1417.7	7.2057
	350	18	1022	18	163	18	592	2.24	0.28	10	3940	41384	5576	2.7990
	24.6	457	465	457	74.1	457	269	56.9	7.11	11	71	741	567.1	2.8466
	350	24	1063	24	204	24	633	3.65	0.75	10	2462	9815	3485	1.7440
	24.6	610	483	610	92.7	610	288	92.7	19.1	11	44	176	354.4	1.7736

General Notes

1. Rated life cycle at 650°F is 3000 cycles for any one tabulated movement.
2. To combine axial, lateral and angular movements, please refer to page 43.
3. To increase cycle life or movements, please refer to graph on page 42.
4. Rated bellows extension is equal to rated axial movement. Provided bellows is precompressed the amount of design extension. Installed O.A.L. will decrease by the amount of precompression.
5. Maximum test pressure: 1.5 X rated working pressure.
6. Bellows rated for 650°F: See page 31 for appropriate flange temperature/pressure ratings.
7. Torsional spring rate data provided only for modeling expansion joints on computer stress programs. Please consult factory for allowable torsional loadings.
8. Overall lengths and weights for unrestrained expansion joints only. Consult factory for information regarding tied, hinged, or gimbal expansion joints.
9. Pressure thrust load applied to adjacent pipe anchors/equipment when unrestrained expansion joints are used.

Materials

Bellows: A240-T304. Alternate materials available upon request. Refer to page 33.
Flanges: ASTM A105.
35-60 psig Series: 125 lb ANSI B16.5 RFSO.
160 psig Series: 150 lb ANSI B16.5 RFSO.
350 psig Series: 300 lb ANSI B16.5 RFSO.
Plate flanges and angle flanges available for low pressure systems. Please refer to page 32.
Pipe: ASTM A53/A106/A285-C.
35-60 psig Series: Std. Wt. Pipe.
160 psig Series: Std. Wt. Pipe.
350 psig Series: Std. Wt. Pipe
Liners: A240-T304.
Covers: Carbon steel.
Tie Rods, Hinges, Gimbals: Carbon steel