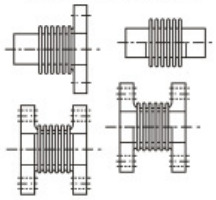
SINGLE EXPANSION JOINTS

Effective (Thrust) Area: 682.15 in^2 (4399.9 cm^2)

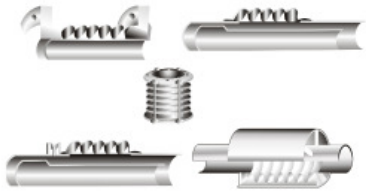
28-Inch Nominal Diameter

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
28	60	12	305	16	105	14	205	3.57	0.34	10	623	11183	1175	2.9088
	4.2	305	139	406	47.7	356	93.2	90.7	8.64	11	11	200	119.5	2.9582
	60	18	320	22	120	20	220	5.95	0.98	10	374	2306	705	1.7371
	4.2	457	145	559	54.5	508	100	151	24.9	11	7	41	71.7	1.7666
	40	24	336	28	136	26	236	9.04	2.1	10	267	824	504	1.2383
	2.8	610	153	711	61.8	660	107	230	53.3	11	5	15	51.3	1.2594
28	16	Customer to specify flange configuration. Weights and O.A.L. will be furnished upon receipt of this information.		16	116	Customer to specify flange configuration. Weights and O.A.L. will be furnished upon receipt of this information.		1.92	0.17	8	2873	58303	5427	5.2585
	11.2			406	52.7			48.8	4.32	8	51	1043	551.9	5.3479
	160			22	140			3.37	0.53	10	1642	10879	3101	3.0048
	11.2			559	63.6			85.6	13.5	11	29	195	315.4	3.0559
	160			28	165			4.81	1.09	10	1149	3731	2171	2.1034
	11.2			711	75			122	27.7	11	21	67	220.8	2.1391
28	315			16	175			1.81	0.16	7	5762	117299	10919	5.4916
	22.1			406	79.5			46	4.06	8	103	2099	1110.5	5.5849
	315			22	223			3.25	0.51	10	3293	21887	6239	3.1380
	22.1			559	101			82.6	13	11	59	392	634.5	3.1914
	315			28	271			4.64	1.05	10	2305	7507	4367	2.1966
	22.1			711	123			118	26.7	11	41	134	444.1	2.2340

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.
40-60 psig Series: 125 lb Lt. Wt. FFSO.
For 160 psig and 315 psig Series: Customer to specify actual flanges required.
Plate flanges and angle flanges available for low pressure systems. Please refer to page 32.
Pipe: ASTM A285-C.
40-60 psig Series: 0.375-inch wall.
165 psig Series: 0.375-inch wall.
315 psig Series: 0.500-inch wall.
Liners: A240-T304.
Covers: Carbon steel.
Tie Rods, Hinges, Gimbals: Carbon steel