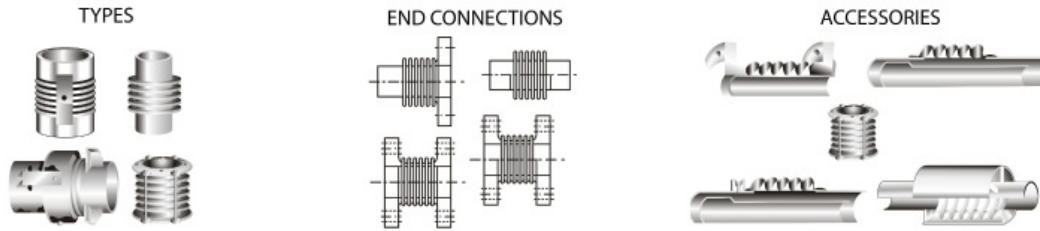


SINGLE EXPANSION JOINTS

22-INCH NOMINAL DIAMETER

Effective (Thrust) Area: 432.67 in² (2790.72 cm²)



D I A M E T E R	P R E S S U R E	O V E R A L L L E N G T H A N D W E I G H T						N O N - C O N C U R R E N T M O V E M E N T S			S P R I N G R A T E S			
		F L A N G E D E N D S		W E L D E N D S		C O M B I N A T I O N E N D S		A X I A L	L A T E R A L	A N G U L A R	A X I A L	L A T E R A L	A N G U L A R	T O R S I O N A L
		O.A.L.	W.T.	O.A.L.	W.T.	O.A.L.	W.T.	C O M P						
		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	MM	KG	MM	MM	MM	GRAD	KG/MM	KG/MM	N-M/GRAD	N-M/GRAD x 10 ⁵	
22	60	12	171	17	82	15	127	3.64	0.44	10	487	5534	582	1.4134
	4.2	305	77.7	432	37.3	381	57.7	92.5	11.2	11	9	99	59.2	1.4374
	60	18	184	23	94	21	139	6.07	1.25	10	292	1141	349	0.8441
	4.2	457	83.6	584	42.7	533	63.2	154	31.8	11	5	20	35.5	0.8584
	30	24	196	29	107	27	151	9.48	2.77	10	209	408	249	0.6017
	2.1	610	89.1	737	48.6	686	68.6	2.41	70.4	11	4	7	25.3	0.6119
22	165	12	391	14	84	13	237	1.45	0.12	7	2994	74513	3583	3.4407
	11.6	305	178	356	38.2	330	108	36.8	3.05	8	54	1333	364.4	3.4992
	165	18	411	20	103	19	257	2.41	0.49	10	1497	8922	1792	1.7127
	11.6	457	187	508	46.8	483	117	73.9	12.4	11	27	160	182.2	1.7419
	165	24	430	26	123	25	276	4.36	1.1	10	998	2606	1194	1.1401
	11.6	610	195	660	55.9	635	125	111	27.9	11	18	47	121.4	1.1595
22	350	12	769	12	112	12	441	0.92	0.05	5	9012	465407	10831	5.3572
	24.6	305	350	305	50.9	305	200	23.4	1.27	5	161	8329	1101.5	5.4483
	350	18	807	18	150	18	478	2.3	0.33	10	3605	29786	4332	2.1429
	24.6	457	367	457	68.2	457	217	58.4	8.38	11	65	533	440.6	2.1793
	350	24	844	24	187	24	516	3.69	0.84	10	2253	7272	2708	1.3393
	24.6	610	384	610	85	610	235	93.7	21.3	11	40	130	275.4	1.3621

GENERAL NOTES

- Rated life cycle at 650°F is 3000 cycles for any one tabulated movement.
- To combine axial, lateral and angular movements, please refer to page 43.
- To increase cycle life or movements, please refer to graph on page 42.
- 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.
- Maximum test pressure: 1.5 X rated working pressure.
- Bellows rated for 650°F: See page 31 for appropriate flange temperature/pressure ratings.
- Torsional spring rate data provided only for modeling expansion joints on computer stress programs. Please consult factory for allowable torsional loadings.
- Overall lengths and weights for unrestrained expansion joints only. Consult factory for information regarding tied, hinged, or gimbal expansion joints.
- 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.
 30-60 psig Series: 125 lb Lt. Wt. FF50.
 165 psig Series: 150 lb ANSI B16.5 RF50.
 350 psig Series: 300 lb ANSI B16.5 RF50.
 Plate flanges and angle flanges available for low pressure systems. Please refer to page 32.
PIPE: ASTM A53/A106/285-C.
 30-60 psig Series: 0.375-inch wall.
 165 psig Series: 0.375-inch wall.
 350 psig Series: 0.500-inch wall.
LINERS: A240-T304.
COVERS: Carbon steel.
TIE RODS, HINGES, GIMBALS: Carbon steel