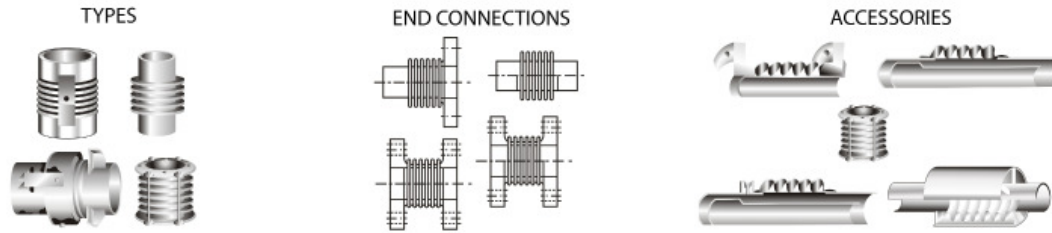


**SINGLE EXPANSION JOINTS**

**46-INCH NOMINAL DIAMETER**

Effective (Thrust) Area: 1794 in<sup>2</sup> (11,575 cm<sup>2</sup>)



D I A M E T E R	P R E S S U R E	OVERALL LENGTH AND WEIGHT						NON-CONCURRENT MOVEMENTS			SPRING RATES			
		FLANGED ENDS		WELD ENDS		COMBINATION ENDS		AXIAL	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.	WT.	O.A.L.	WT.	O.A.L.	WT.							
		PSIG	IN	LB	IN	LB	IN	LB	IN	IN	DEG	LB/IN	LB/IN	IN-LB/DEG
KG/CM <sup>2</sup>	MM	KG	MM	KG	MM	KG	MM	MM	GRAD	KG/MM	KG/MM	N-M/GRAD	N-M/GRAD x 10 <sup>5</sup>	
46	35	12	774	16	176	14	475	3.51	0.18	8	561	34157	2794	11.8403
	2.5	305	352	406	80	356	216	89.2	4.57	9	10	611	284.1	12.0416
	35	18	805	22	207	20	506	6.33	0.6	10	321	6024	1597	6.7347
	2.5	457	366	559	94.1	508	230	161	15.2	11	6	108	162.4	6.8492
	35	22	826	26	228	24	527	8.21	1	10	249	2788	1242	5.2309
	2.5	559	375	660	104	610	240	209	25.4	11	4	50	126.3	5.3199
46	95	Customer to specify flange configuration.		16	202	Customer to specify flange configuration.		2.84	0.15	7	2300	140096	11462	19.1806
	6.7			406	91.8			72.1	3.81	8	41	2507	1165.7	19.5067
	95	Weights and O.A.L. will be furnished upon receipt of this information.		22	251	Weights and O.A.L. will be furnished upon receipt of this information.		5.1	0.48	10	1314	24708	6549	10.9093
	6.7			559	114			130	12.2	11	24	442	666.0	11.0848
	95			26	284			6.55	0.8	10	1022	11436	5094	8.4734
	6.7			660	129			166	20.3	11	18	205	518.1	8.6174

**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 psig Series: 125 lb Lt. Wt. FFSO.  
 95 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.  
 35 psig Series: 0.375-inch wall.  
 95 psig Series: 0.375-inch wall.  
**LINERS:** A240-T304.  
**COVERS:** Carbon steel.  
**TIE RODS, HINGES, GIMBALS:** Carbon steel