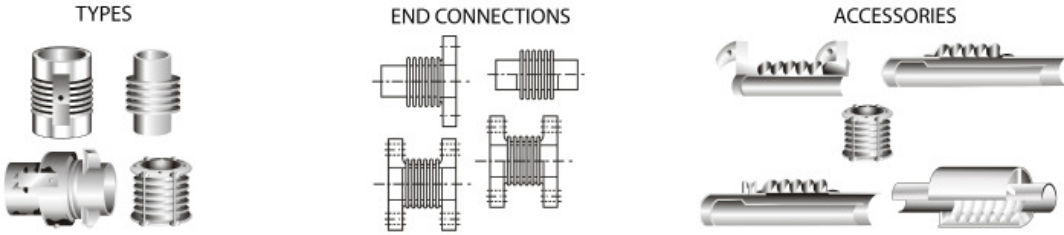


**SINGLE EXPANSION JOINTS**

**30-INCH NOMINAL DIAMETER**

Effective (Thrust) Area: 784.07 in<sup>2</sup> (5057.25 cm<sup>2</sup>)



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.	WT.	O.A.L.	WT.	O.A.L.	WT.	C O M P						
		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>	
30	50	12	328	16	114	14	221	3.98	0.36	10	514	10605	1114	3.3278
	3.5	305	149	406	51.8	356	100	101	9.14	11	9	190	113.3	3.3844
	50	18	346	22	132	20	239	6.8	1.04	10	308	2187	669	1.9880
	3.5	457	157	559	60	508	109	173	26.4	11	6	39	68.0	2.0218
	35	24	364	28	150	26	257	9.62	2.08	10	220	781	478	1.4174
	2.5	610	165	711	68.2	660	117	244	52.8	11	4	14	48.6	1.4415
30	135			16	127			2.27	0.19	8	2370	55283	5146	6.0143
	9.5			406	57.7			57.7	4.83	9	42	989	523.3	6.1165
	135			22	155			3.97	0.59	10	1354	10315	2941	3.4367
	9.5	Customer to specify flange configuration. Weights and O.A.L. will be furnished upon receipt of this information.		559	70.5	Customer to specify flange configuration. Weights and O.A.L. will be furnished upon receipt of this information.		101	15	11	24	185	299.1	3.4952
	135			28	183			5.67	1.2	10	948	3538	2058	2.4057
	9.5			711	83.2			144	30.5	11	17	63	209.3	2.4466
30	290			16	193			2.12	0.18	8	4752	111181	10349	6.2620
	20.4			406	87.7			53.8	4.57	9	85	1990	1052.5	6.3684
	290			22	248			3.7	0.55	10	2715	20745	5914	3.5783
	20.4			559	113			94	14	11	48	371	601.5	3.6391
	290			28	303			5.29	1.12	10	1901	7116	4140	2.5048
	20.4			711	138			134	28.4	11	34	127	421.0	2.5474

**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.  
 35-50 psig Series: 125 lb Lt. Wt. FF50.  
 For 135 psig and 290 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.  
 35-50 psig Series: 0.375-inch wall.  
 135 psig Series: 0.375-inch wall.  
 290 psig Series: 0.500-inch wall.  
**LINERS:** A240-T304.  
**COVERS:** Carbon steel.  
**TIE RODS, HINGES, GIMBALS:** Carbon steel