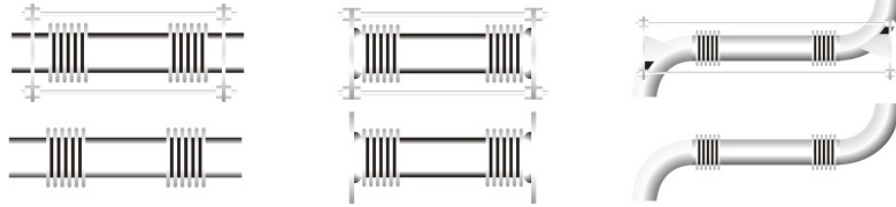


**UNIVERSAL EXPANSION JOINTS**

**10- / 12- / 14-INCH  
NOMINAL DIAMETER**



S I Z E	P R E S S U R E	NON-CONCURRENT MOVEMENTS/SPRING RATES							
		LATERAL MOVEMENT/SPRING RATES						AXIAL	
		42 IN O.A.L.		54 IN O.A.L.		66 IN O.A.L.		M O V E M E N T	S P R I N G R A T E
		1067 MM O.A.L.		1372 MM O.A.L.		1676 MM O.A.L.			
		MOVEMENT	SPRING RATE	MOVEMENT	SPRING RATE	MOVEMENT	SPRING RATE		
		PSIG	IN	LB/IN	IN	LB/IN	IN	LB/IN	IN
KG/ CM <sup>2</sup>	MM	KG/MM	MM	KG/MM	MM	KG/MM	MM	KG/MM	
10	45	6.26	49	11.80	18	17.63	9	6.08	213
	3.2	159	0.9	300	0.32	448	0.16	154	4
	260	2.72	256	5.04	92	7.45	47	2.48	1127
	18.3	69	4.6	128	1.65	189	0.84	63	20
12	45	5.07	80	10.01	27	15.23	13	6.4	208
	3.2	129	1.4	254	0.48	387	0.23	163	4
	200	2.41	369	4.67	123	7.02	60	2.85	976
	14.1	61	6.6	119	2.20	178	1.07	72	17
14	50	4.80	95	9.24	33	13.90	16	6.23	229
	3.5	122	1.7	235	0.59	353	0.29	158	4
	200	2.04	548	3.92	184	5.87	91	2.56	1255
	14.1	52	9.8	100	3.29	149	1.63	65	22

**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 80.
3. To increase cycle life or movements, please refer to graph on page 79.
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. Tabulated values are for tied joints, with butt weld ends. Performance of joints with flanged ends, and unrestrained joints, will exceed tabulated values.
6. Maximum test pressure: 1.5 X rated working pressure.
7. Bellows are rated for 650°F: See page 31 for appropriate flange temperature/pressure ratings.
8. Pressure thrust load applied to adjacent pipe anchors/equipment when unrestrained expansion joints are used.
9. Please refer to page 81 for part number example.

**MATERIALS**

**BELLOWS:** A240-T304. Alternate materials available upon request. Refer to page 33.  
**FLANGES:** ASTM A105.  
 45-50 psig Series: 150 lb ANSI B16.5 RPSO.  
 200-260 psig Series: 300 lb ANSI B16.5 RPSO  
 Plate flanges and angle flanges available for low pressure systems. Please refer to page 32.  
**PIPE:** ASTM A-53/A-106.  
 45-50 psig Series: Std. Wt. pipe.  
 200-260 psig Series: Std. Wt. pipe.  
**LINERS:** A240-T304.  
**COVERS:** Carbon steel.  
**TIE RODS, HINGES, GIMBALS:** Carbon steel