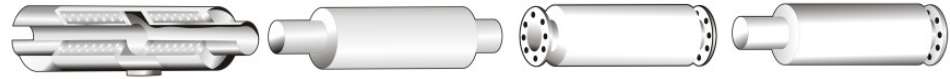


**U.S. Bellows, Inc.**  
**EXTERNALLY PRESSURIZED EXPANSION JOINTS**

**SINGLE X-FLEX  
150# DESIGN**



S I Z E	AXIAL MOVEMENT	SPRING RATE	O.A.L	WEIGHT		EFF AREA	SHELL O.D.	ANCHOR FOOT HEIGHT	ANCHOR FOOT TYPE
				FLANGED ENDS	WELD ENDS				
	IN	LB/IN	IN	LB	LB	IN <sup>2</sup>	IN	IN	
MM	KG/MM	MM	KG	KG	CM <sup>2</sup>	MM	MM		
12	4	922	30	436	308	180.81	18.000	PLEASE CONSULT FACTORY REGARDING ANCHOR FOOT USAGE ON SINGLE X-FLEX	
	102	16.5	762	198	140.00	82.19	457		
	8	461	49	611	483	180.81	18.000		
	203	82	1245	278	220	82.19	457		
14	4	1010	30	516	336	211.83	20.000		
	102	18.1	762	235	153	96.29	508		
	8	505	49	711	531	211.83	20.000		
	203	9.0	1245	323	241	96.29	508		
16	4	962	30	610	414	270.20	24.000		
	102	17.2	762	277	188	122.82	610		
	8	481	48	810	614	270.20	24.000		
	203	8.6	1219	368	279	122.82	610		
18	4	1080	30	661	401	331.61	24.000		
	102	19.3	762	300	182	150.73	610		
	8	540	48	877	617	331.61	24.000		
	203	9.7	1219	399	280	150.73	610		
20	4	1196	31	985	685	399.31	30.00		
	102	21.4	787	448	311	181.50	762		
	8	598	49	1240	910	399.31	30.00		
	203	10.7	1245	564	413	181.50	762		
24	4	1430	32	1074	634	553.55	30.00		
	102	25.6	813	488	288	251.61	762		
	8	725	50	1304	864	553.55	30.00		
	203	13.0	1270	593	393	251.61	762		

**GENERAL NOTES**

1. Rated life cycle at 650°F is 1000 cycles for full rated movement shown above.
2. To increase cycle life, please refer to graph on page 93.
3. Expansion joint is capable of taking 10% of rated movement as extension, with remaining 90% as axial compression.
4. Maximum test pressure: 1.5 X rated working pressure.
5. Bellows rated for 650°F: See page 31 for appropriate flange temperature/pressure ratings.
6. Maximum installation misalignment is ±1/4-inch axial and 1/16-inch lateral.

**MATERIALS**

**BELLOWS:** A240-T304. Alternate materials available upon request. Refer to page 33.  
**FLANGES:** ASTM A105.  
 150 lb ANSI B16.5 RF50.  
**PIPE:** ASTM A53/A106.  
**SHELL:** ASTM A53/A106; API-5L.  
**RINGS:** ASTM A285-C.