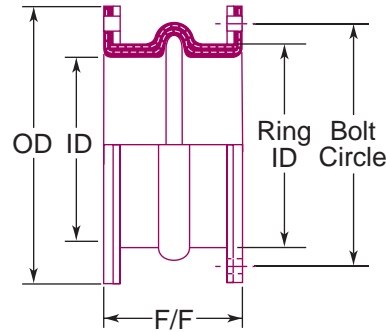


## SJ-221 EXPANSION JOINT

The SJ-221 expansion joint features a unique arch design which provides greater

movement capabilities without increasing face-to-face requirements. The single arch SJ-221 provides the same movement capabilities as a traditional double arch design, while the double arch SJ-222 is equivalent to a quadruple arch product. This design also increases the flexibility of the joint, resulting in lower spring rates. This means less stress on adjacent piping system components.



SR = Standard Pressure(psi) LP = Low Pressure(psi) HP = High Pressure(psi) AM<sup>(2)</sup> = Allowable Movement(in.) TF<sup>(3)</sup> = Total Force(lbs.)

Size ID	Flange OD <sup>(4)</sup>	Bolt Circle	Holes No.	Holes Dia.	Ring ID	F/F <sup>(1)</sup>		Work Pressure			Axial Comp.		Axial Ext.		Traverse Def.		Est. Weight Joint Rings	
						1	2	SR	LP	HP	AM	TF	AM	TF	AM	TF		
2	6	4-3/4	4	3/4	3-5/8	6	10	225	25	250	1-1/2	80	.90	80	3/4	175	3	5
2-1/2	7	5-1/2	4	3/4	4-1/8	6	10	225	25	250	1-1/2	130	.90	130	3/4	219	3.8	6
3	7-1/2	6	4	3/4	4-5/8	6	10	225	25	250	1-1/2	180	.90	180	3/4	262	4	7
4	9	7-1/2	8	3/4	5-7/8	6	10	225	25	250	1-1/2	230	.90	230	3/4	350	5.5	8
5	10	8-1/2	8	7/8	6-7/8	6	10	225	25	250	1-1/2	240	.90	240	3/4	381	5.8	9
6	11	9-1/2	8	7/8	7-7/8	6	10	225	25	250	1-1/2	270	.90	270	3/4	412	9	10
8	13-1/2	11-3/4	8	7/8	9-7/8	6	10	225	25	250	1-1/2	330	.90	330	3/4	476	18	15
10	16	14-1/4	12	1	12-1/8	8	16	225	25	250	1-3/4	750	1	750	1	1334	27	18
12	19	17	12	1	14-1/2	8	16	200	25	250	1-3/4	800	1	800	1	1541	31	25
14	21	18-3/4	12	1-1/8	16-1/2	8	16	185	25	250	1-3/4	865	1	865	1	1748	38	27
16	23-1/2	21-1/4	16	1-1/8	18-1/2	8	16	160	25	200	1-3/4	933	1	933	1	1943	44	33
18	25	22-3/4	16	1-1/4	20-1/2	8	16	135	25	200	1-3/4	1000	1	1000	1	2150	49	33
20	27-1/2	25	20	1-1/4	22-5/8	8	16	130	25	200	1-3/4	1065	1	1065	1	2358	53	38
22	29-1/2	27-1/4	20	1-3/8	24-5/8	10	16	120	25	150	1-3/4	1135	1	1135	1	2553	54	44
24	32	29-1/2	20	1-3/8	26-5/8	10	16	110	25	150	1-3/4	1200	1	1200	1	2760	64	48
26	34-1/4	31-3/4	24	1-3/8	28-7/8	10	16	110	25	150	1-3/4	1265	1	1265	1	2990	73	57
28	36-1/2	34	28	1-3/8	30-7/8	10	16	100	25	125	1-3/4	1335	1	1335	1	3174	81	62
30	38-3/4	36	28	1-3/8	32-7/8	10	16	95	25	125	1-3/4	1400	1	1400	1	3381	84	66
32	41-3/4	38-1/2	28	1-5/8	35	10	16	90	25	125	1-3/4	1465	1	1465	1	3600	95	75
34	43-3/4	40-1/2	32	1-5/8	37	10	16	80	25	125	1-3/4	1535	1	1535	1	3795	103	78
36	46	42-3/4	32	1-5/8	39	10	18	90	25	115	2-1/4	1771	1-1/4	1771	1	4455	110	81
38	48-3/4	45-1/4	32	1-5/8	41	10	18	87	25	115	2-1/4	1843	1-1/4	1843	1	5097	119	95
40	50-3/4	47-1/4	36	1-5/8	43	10	18	87	25	115	2-1/4	1921	1-1/4	1921	1	5375	125	106
42	53	49-1/2	36	1-5/8	45-1/4	12	18	83	25	115	2-1/4	1992	1-1/4	1992	1	5625	155	116
44	55-1/4	51-3/4	40	1-5/8	47-1/4	12	18	83	25	115	2-1/4	2065	1-1/4	2065	1	5863	165	127
46	57-1/4	53-3/4	40	1-5/8	49-1/4	12	18	78	25	115	2-1/4	2142	1-1/4	2142	1	6116	178	132
48	59-1/2	56	44	1-5/8	51-1/4	12	18	78	25	115	2-1/4	2214	1-1/4	2214	1	6366	187	138
50	61-3/4	58-1/4	44	1-7/8	53-1/4	12	18	85	25	105	2-1/4	2286	1-1/4	2286	1	6603	200	154
52	64	60-1/2	44	1-7/8	55-1/4	12	18	85	25	105	2-1/4	2365	1-1/4	2365	1	6868	213	157
54	66-1/4	62-3/4	44	1-7/8	57-1/4	12	18	85	25	105	2-1/4	2435	1-1/4	2435	1	7121	224	160
56	68-3/4	65	48	1-7/8	59-1/4	12	18	85	25	105	2-1/4	2507	1-1/4	2507	1	7344	237	174
58	71	67-1/4	48	1-7/8	61-1/4	12	18	85	25	105	2-1/4	2585	1-1/4	2585	1	7622	250	182
60	73	69-1/4	52	1-7/8	63-1/4	12	18	80	25	105	2-1/4	2657	1-1/4	2657	1	7875	262	190
62	75-3/4	71-3/4	52	1-7/8	65-1/4	12	18	80	25	105	2-1/4	2834	1-1/4	2834	1	8377	275	212
66	80	76	52	1-7/8	69-1/4	12	18	80	25	105	2-1/4	2988	1-1/4	2988	1	8878	305	236
72	86-1/2	82-1/2	60	1-7/8	75-1/4	12	18	80	25	95	2-1/4	3210	1-1/4	3210	1	9632	350	278
78	93	89	64	2-1/8	81-1/4	12	18	80	25	95	2-1/4	3432	1-1/4	3432	1	10387	394	296
84	99-3/4	95-1/2	64	2-1/8	87-1/2	12	18	80	25	95	2-1/4	3653	1-1/4	3653	1	11086	438	336
90	106-1/2	102	68	2-3/8	93-3/8	12	18	75	25	95	2-1/4	3875	1-1/4	3875	1	11838	481	400
96	113-1/4	108-1/2	68	2-3/8	--	12	18	75	25	95	2-1/4	4096	1-1/4	4096	1	12620	526	480

(1) - Lengths shown are for new design. Replacement parts should be ordered to the exact F/F dimension. \*Items are not normally supplied in multiple open arches, as squirm can occur. Minimum length of "face to face" can be reduced by eliminating the arch. Number of arches required depends upon anticipated total movement of the expansion joint.

2 - Multiple arch movement = single arch movement x number of arches. Filled arch construction reduces movement by 50%.

3 - Forces are based on one single open arch at zero pressure conditions, and should only be considered as approximate. Contact EVR for forces of multiple and filled arch products. Angular force is expressed in "foot pounds". For spring rates, contact EVR.

4 - Flange dimensions shown are in accordance with 125/150 pound standards of ANSI B16.1, B16.5, AWWA C-207 Table 3 Class E; AWWA C-207 Table 1 and 2 Class D. Retaining ring width is 3/8" in all sizes. Flange thickness is EVR standard.

5 - Flange drilling is also available in all international standards or custom applications. For more information, contact EVR.

**Notes:** Control unit assemblies are recommended for all applications. To ensure correct length, customer should provide width of mating flange or flange specification.