

Type 21FL Flowing Arch Type Joint



No needs for filled arches on slurry services.

Kurbo Type 21FL expansion joints utilize wide flowing arch and can easily replace and interchange with filled arches and molded spherical expansion joints. The 21FL expansion joints have been widely used in major industries including HVAC, chemical, petrochemical, marine, power plants, pulp & paper, process piping systems, water/waste water treatment and steel mill.

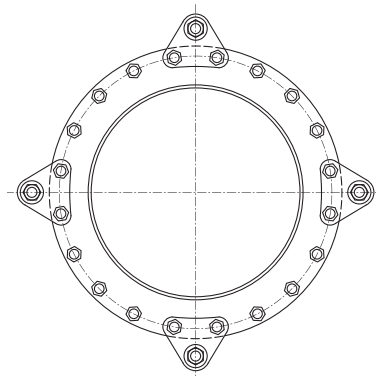
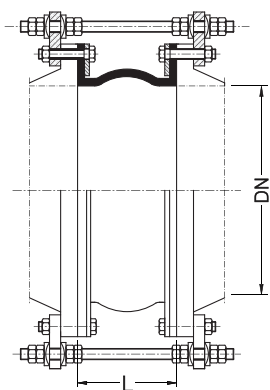
Features

- The "flowing arch" is self-flushing which prevents media buildup and reduces fluid turbulence, thus eliminates the requirement for a filled arch joint.
- Increased movement : The flowing arch design provides more movement in comparison to narrow or filled arch spool type joints.
- 30% increased compression movement and 45% reduced spring rates compared to the Kurbo Type F21W-filled wide arch design
- Exclusive construction with no metal reinforcing rings or wires while providing higher pressure and vacuum ratings.
- The 21FL weighs up to 30–40% less compared to filled arch type joint—Lightweight design installs easily and costs less to ship
- Minimize water hammer and hydraulic shock
- Available in a wide variety of tube and cover elastomers, including natural, butyl, neoprene, nitrile, CSM, EPDM and viton.
- All Kurbo Type 21FL expansion joints have been in–factory and field tested to ensure long life and reliable field service.

Performance Comparison - Spring Rate and Pressure Test Results

Size (DN X L)	Company (Competitor)	Spring Rate at zero pressure (kg/mm)			Burst Pressure (bar)	Vacuum at 12mm Axial Extension (mmHg)
		Comp.	Ext.	Lat.		
150 X 150	Competitor - A	24.9	32.9	25.8	30	660
	Competitor - B	32.2	21.7	18.8	42	660
	Kurbo 21FL	18.7	19.8	17.1	52	700
300 X 200	Competitor - A	27.5	39.5	47.2	20	600
	Competitor - B	36.3	34.3	27.4	38	350
	Kurbo 21FL	29.6	29.1	26.2	45	700

1. Test Results above show that Kurbo Type 21FL have lower spring rates than other competitors' products while offering higher burst pressure and vacuum resistance



Movement · Pressure · Weight

Nominal Size		Face to Face Length		Movement Capability				Max. Pressure (bar)	Vacuum Rating (mmHg)	Weights (kg)		
				Comp. (mm)	Ext. (mm)	Lat. (mm)	Ang. (deg.)			Exp Joint	Retaining Ring Set	Control Rod Set (1)
DN	inch	mm	inch									
50	2	150	6	25	12	12	25.3	13	720	0.7	1.7	2.2
65	2.5	150	6	25	12	12	20.7	13	720	0.9	2.5	2.4
80	3	150	6	25	12	12	17.5	13	720	1.0	2.7	2.5
100	4	150	6	25	12	12	13.3	13	720	1.4	3.8	2.0
125	5	150	6	25	12	12	10.7	13	720	1.7	4.0	2.2
150	6	150	6	25	12	12	8.9	13	720	2.0	4.6	2.6
200	8	150	6	25	12	12	6.7	10	720	2.8	6.7	3.8
250	10	200	8	30	12	12	5.4	10	720	4.7	8.7	5.5
300	12	200	8	30	12	12	4.5	10	720	7.4	12.3	6.9
350	14	200	8	30	12	12	3.9	8	660	8.4	13.5	7.6
400	16	200	8	30	12	12	3.4	8	660	9.9	16.6	8.5
450	18	200	8	30	12	12	3.0	8	660	10.4	16.0	9.0
500	20	200	8	30	12	12	2.7	8	660	12.0	19.3	8.7
550	22	250	10	30	12	12	2.5	7	660	17.1	19.5	12.9
600	24	250	10	30	12	12	2.3	7	660	19.4	23.9	13.4
650	26	250	10	30	12	12	2.1	6	660	21.2	26.4	13.1
700	28	250	10	30	12	12	1.9	6	660	23.0	29.2	16.4
750	30	250	10	30	12	12	1.8	6	450	25.0	32.7	19.2
800	32	250	10	30	12	12	1.7	6	450	30.3	38.4	20.9
850	34	250	10	30	12	12	1.6	6	450	31.9	39.9	24.0
900	36	250	10	30	12	12	1.5	6	450	34.3	44.0	25.9
950	38	250	10	30	12	12	1.4	6	450	37.9	52.2	26.5
1000	40	250	10	30	12	12	1.4	6	450	39.6	54.1	23.4
1050	42	300	12	35	15	12	1.3	5	380	48.6	57.1	25.6
1100	44	300	12	35	15	12	1.2	5	380	51.3	61.1	25.3
1150	46	300	12	35	15	12	1.2	5	380	53.6	63.9	25.6
1200	48	300	12	35	15	12	1.1	5	380	56.3	68.1	28.5

1. Pressure rating is based on 70°C. At lower operating temperatures, ratings will increase.
2. Pressure and vacuum ratings are for standard "face to face" length only. Contact Kurbo for other longer length.
3. The 21FL with higher pressure and vacuum ratings are available upon request.
4. For additional information such as other sizes, lengths and pressures not listed, contact Kurbo.