

Type 60 Pipe Connector



Application

Kurbo pipe connectors as a vibration dampeners are primarily used to absorb noise and vibration in a piping system and to muffle high frequency oscillations in connecting pumps, compressors and other operating equipments. They are also used to accommodate lateral movement caused by settling and ground motion.

Construction

Smooth cylindrical connectors with no arch, incorporating full face rubber flange integral with body of the pipe, reinforced with helical steel wire and high tensile fabric provide strength for high pressure operations and prevent collapse under vacuum.

Movement

Type 60 pipe connectors are suitable only for absorption of lateral and angular movement. They are not designed to absorb expansion, compression axially. For these purposes, use other arch type expansion joints.

Movement · Pressure · Weight

Nominal Size		Recommended Length		Movement Capability				Max. Pressure (bar)	Vacuum Rating (mmHg)	Weight (kg)	
				Comp. (mm)	Ext. (mm)	Lateral (mm)	Angular (deg.)			Pipe Connector	Retaining Ring Set
DN	inch	mm	inch								
25	1	300	12	3	3	50	13.3	15	760	0.9	0.8
32	1.25	300	12	3	3	50	10.7	15	760	1.2	1.0
40	1.5	300	12	3	3	45	8.9	15	760	1.4	1.1
50	5	300	12	3	3	45	6.7	15	760	1.8	1.6
65	2.5	300	12	3	3	45	5.4	15	760	2.7	2.2
80	3	450	18	4	4	45	6.0	15	760	4.4	2.3
100	4	450	18	4	4	45	4.5	15	760	5.7	3.3
125	5	600	24	6	6	50	5.4	15	760	9.8	3.5
150	6	600	24	6	6	50	4.5	15	760	11.4	3.9
200	8	600	24	6	6	40	3.4	15	760	16.6	5.9
250	10	600	24	6	6	40	2.7	15	760	19.6	7.8
300	12	600	24	6	6	35	2.3	15	760	27.8	11.4
350	14	600	24	6	6	35	1.9	10	760	34.5	12.7
400	16	600	24	6	6	30	1.7	10	760	39.6	16.0
450	18	600	24	6	6	30	1.5	10	760	40.4	14.7
500	20	600	24	6	6	25	1.4	10	760	46.3	17.9

1. For optimum noise and vibration absorption, use recommended length or longer one
 2. Larger sizes available upon request

Amount of Lateral Displacement by Size and Length

Nominal Size		Lateral Displacement by Length - mm									
DN	inch	300L	350	400	450	500	600	700	800	900	1000
25	1	50	60	65	70	75	80	85	90	95	100
32	1.25	50	65	65	70	75	80	85	90	95	100
40	1.5	45	50	55	60	65	70	75	80	85	90
50	2	45	50	55	60	65	70	75	80	85	90
65	2.5	45	50	55	60	65	70	75	80	85	90
80	3	30	35	40	45	50	55	60	65	70	75
100	4	30	35	40	45	50	55	60	65	70	75
125	5	25	30	35	40	45	50	55	60	65	70
150	6	25	30	35	40	45	50	55	60	65	70
200	8	15	20	25	30	35	40	45	50	55	60
250	10	15	20	25	30	35	40	45	50	55	60
300	12	15	20	24	28	30	35	40	45	50	55
350	14	15	20	24	28	30	35	40	45	50	55
400	16	10	13	16	20	25	30	35	40	45	50
450	18	10	13	16	20	25	30	35	40	45	50
500	20	10	12	15	17	20	25	30	35	40	45

Standard Length of Pipe Connector recommended by Kurbo

Mechanical Vibration Reduced with Installation of Kurbo Type 60

Pipe System Vibration Frequency	Installation Pipe with :						Remarks
	Type 60-Pipe Connector DN200 X 600mm			Type 21W-Expansion Joint DN200 X 150mm			
	Vibration Reduction at			Vibration Reduction at			
	0.7 bar	3.5 bar	5.5 bar	0.7 bar	3.5 bar	5.5 bar	
40	87%	91%	93%	37%	55%	72%	If DN200 steel piping system had a major vibration frequency of 1000 HZ at 5.5 bar, the installation of pipe connector into the system would reduce vibration 96%.
68	95%	96%	99%	60%	68%	78%	
125	98%	99%	99%	44%	50%	60%	
250	96%	97%	99%	44%	50%	50%	
500	91%	93%	94%	65%	89%	90%	
1000	82%	91%	96%	90%	96%	98%	
2000	99%	99%	99%	94%	95%	96%	
4000	97%	99%	99%	90%	93%	97%	
8000	94%	97%	98%	89%	89%	94%	

Type 60E Elbow Connector



Application

Kurbo Elbow Connectors are used in place of metal fittings where high abrasion, tear and chemical resistance is required. In many material transport systems, the bends are sensitive to wear and tear. Kurbo supply an extensive range of pre-formed bends for both suction and discharge purposes, in various sizes and shapes. Kurbo can also offer specialized hose bends outside of the standard bend radii to meet your particular needs with various tube (lining) materials to suit the media within your plant.

The other important function is to provide vibration and stress relief. Many of Kurbo Elbows are found in mining industry.



Features

- Best choice for noise and vibration control for pumps, compressors and other equipments
- Absorption of thermal movements of piping and accommodation of minor misalignment
- 45° Elbow, 90° Elbow and 90° Long Radius Elbow are available for easy connection.
- Can be manufactured with single arch design in 90° Long Radius Elbow.
- Smooth bore of elbow connector allows for unrestricted flow
- Great flexibility with its shortest dimension
- Excellent abrasion and corrosion resistance
- Integrally flanged design : No gasket required
- Other fittings like Tee, Lateral and Cross are available upon request.

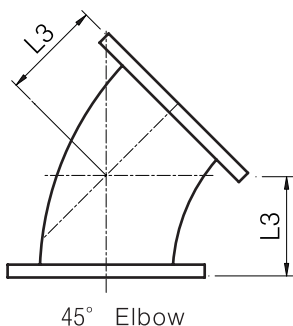
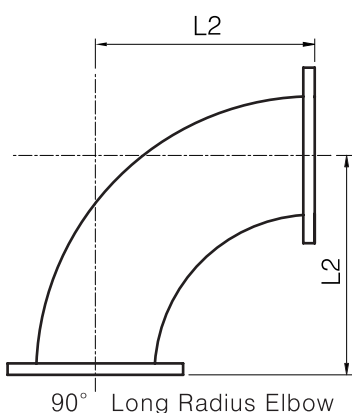
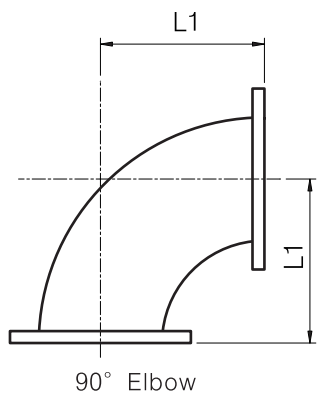
End Types

Beaded (Floating or Swivel Flange) End

These ends are designed as an alternative to fixed flanged ends due to the ability to rotate the floating flange. Beaded end elbow connector has the advantage of ease of alignment of the bolt holes and quick installation in limited space.

Flanged End

These ends are recommended for connectors that have medium and high pressures. The rubber and fabric reinforcement of the connector body is extended to form a full face flange. This rubber and fabric flange is backed by split steel retaining ring. Full circle retaining rings are available upon request.



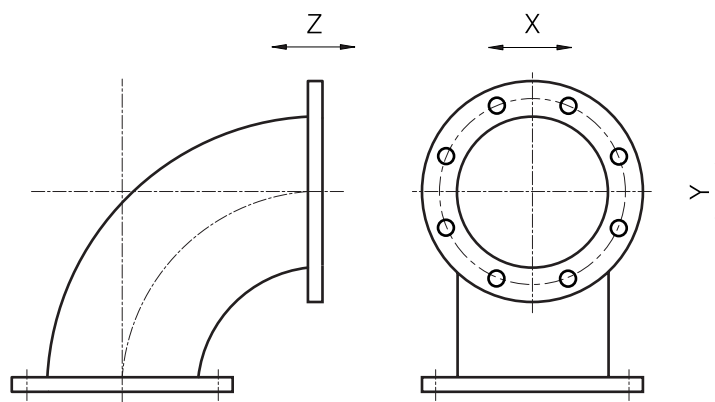
Material of Construction

Elastomers

- Natural rubber, Neoprene, Nitrile, Chlorobutyl, EPDM, CSM.
- Flame resistance rubber and Food grade rubber also available.

Reinforcements

- Standard constructions normally utilize high quality nylon tire cord or polyester fabric.
- For extra strength or vacuum service, helical steel wires are embedded in the carcass of elbow connector
- 60E with full vacuum available upon request



Movement and Pressure Rating

Nominal Size		Center to Flange			Max. Allowable Movements (mm)			Max. Working Pressure	
		90° Elbow (L1)	90° Long Radius (L2)	45° Elbow (L3)	X	Y	Z	Positive (bar)	Vacuum (mmHg)
DN	inch								
50	2	115	165	65	6	10	10	10	700
65	2.5	125	180	75	6	10	10	10	700
80	3	140	195	75	6	10	10	10	700
100	4	165	230	100	6	10	10	10	700
125	5	190	260	115	6	8	8	10	700
150	6	200	290	125	6	8	8	5	700
200	8	230	355	140	6	8	8	5	660
250	10	280	420	165	6	6	6	5	660
300	12	305	480	190	6	6	6	5	660
350	14	355	570	190	6	6	6	5	660