

POFCO

RUBBER FLEXIBLE JOINT



POFPO

POFPO Rubber flexible joint are designed for tough demanding industrial application, as found in : Air conditioning- heating and ventilating systems, chemical-petrochemical and industrial process piping systems. Power generating systems, marine service, pulp & paper systems, water-wastewater sewage and pollution control system. Installed next to mechanical equipment or between the anchor point of piping system. Specify the **POFPO** Rubber flexible joint to :

1. Absorb pipe/movement/stress
2. Decrease systems noise
3. Isolate Vibration
4. Compensate alignment/offset
5. Eliminate electrolysis
6. Protect against start up, Surge forces

FEATURES

VIBRATION, SOUND AND SHOCK ABSORPTION

Noises, vibration of motor and compressor, water hammer, pumping impulses and water born noises can be absorbed. Also withstands surge pressures without shattering owing to their tensile strength.

HIGHER BURST STRENGTH

Spherical shape is stronger than cylindrical shape or other configuration. Under pressure, POFPO joint is 4 times as strong as a cylindrical joint. Also our products are made of the most suitable materials resulting in burst pressures much higher than those of other makes.

GREATER RECOVERY FROM MOVEMENT

They will neither crack nor fracture under repeated flexing. They have a remarkable long life expectancy even under adverse conditions due to the finest grades of rubber and other materials used in their manufacture.

FREE FROM CORROSION

They are made to withstand corrosive chemicals and can be supplied to resist acid fumes and ozone attack.

SECURITY ASSURED IN USAGE

Special spherical design prevents the body of the coming into contact with the bolt heads when subjected to high pressure and expansion. The robust coupling provide a sense of security as a result of the damage proof design.

LOW DEFORMATION UNDER PRESSURE

Internal pressure is exerted in all directions distributing forces evenly over a large area. This results in very low deformation of the joints.

SUITABLE FOR SUCTION AND DELIVERY

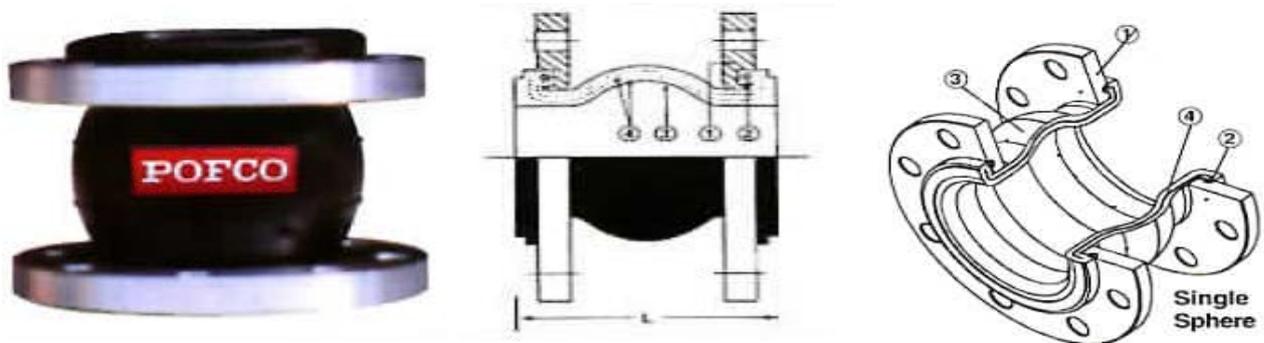
Because of the excellent moulding technique with its tough chemical fiber. The joints can satisfactorily withstand the suction and discharge. Vacuum rating can stand up to 650 mm/Hg

GREATER MOVEMENTS ARE AVAILABLE

Four-way movements-axial compression and extension. Lateral movement and angular deflections provide a high level of installation flexibility.

POFCO Series : S

SINGLE SPHERE RUBBER FLEXIBLE JOINT C/W FLANGES



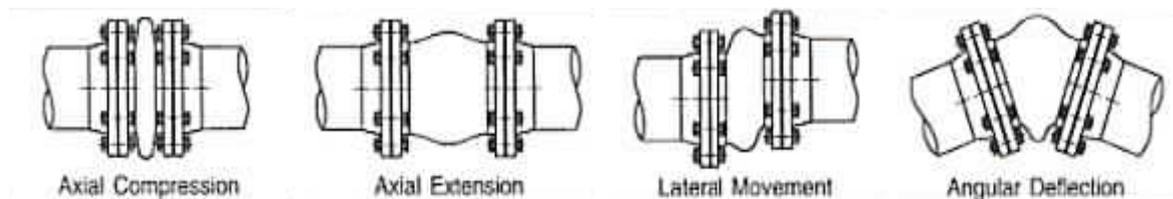
Elastomer : EPDM, NEOPRENE, NITRILE, ETC.

Item	Part Name	Material
1	Flange	Galvanized mild steel
2	Wire	Carbon steel wries strand
3	Elastomer	Synthetic Fiber
4	Reinforcing fabric	Synthetic Fiber

· Flange drilling : ANSI, JIS, DIN, ETC.

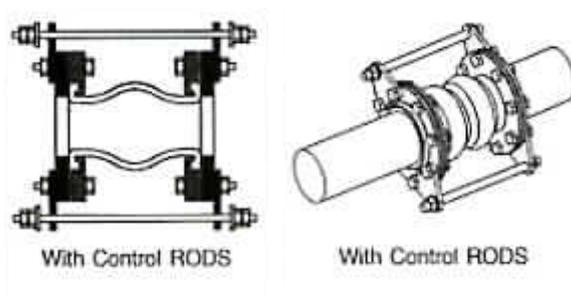
· Applicable fluids : Water, Warm water, Seawater, Weak acids, Alkalis, ETC.

ALLOWABLE MOVEMENTS



OPERATING CONDITIONS

Size	1" - 12"	14" - 24"
Working Pressure	250 PSI	150 PSI
Test Pressure	380 PSI	230 PSI
Burst Pressure	870 PSI	680 PSI
Vacuum Rating	650 mm/Hg	
Temperature Range	20 °C to +120 °C	



· Note : Working pressure 300 PSI (Test pressure 450 PSI) can be produced on request

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CONTROL RODS RECOMMENDATION

In case of either or both side (s) of the rubber expansion joint has no firm anchor. Control rods must be installed when pressure (Test surge, Operating, starting a pump, etc.) exceed the rating below.

Size	1" - 4"	5" - 10"	12" - 14"	16" - 24"
Pressure (PSI)	150	135	90	45

POFCO FIG. J

Size		L (mm.)	Compression (mm.)	Extension (mm.)	Lateral (mm.)	Angular
Inch.	mm.					
1"	25.40	95.00	8.00	4.00	8.00	15 °
1 1/4"	31.75	95.00	8.00	4.00	8.00	15 °
1 1/2"	38.10	95.00	8.00	4.00	8.00	15 °
2"	50.80	105.00	8.00	5.00	8.00	15 °
2 1/2"	63.50	115.00	12.00	6.00	10.00	15 °
3"	76.20	130.00	12.00	6.00	10.00	15 °
4"	101.60	135.00	18.00	10.00	12.00	15 °
5"	127.00	170.00	18.00	10.00	12.00	15 °
6"	152.40	180.00	18.00	10.00	12.00	15 °
8"	203.20	205.00	25.00	14.00	22.00	15 °
10"	254.00	240.00	25.00	14.00	22.00	15 °
12"	304.80	260.00	25.00	14.00	22.00	15 °
14"	355.60	265.00	25.00	16.00	22.00	15 °
16"	406.40	265.00	25.00	16.00	22.00	15 °
18"	457.20	265.00	25.00	16.00	22.00	15 °
20"	508.00	265.00	25.00	16.00	22.00	15 °
24"	609.60	254.00	19.00	13.00	19.00	15 °

POFCO FIG. A

Size		L (Inch.)	Compression (Inch.)	Extension (Inch.)	Lateral (Inch.)	Angular
Inch.	mm.					
1"	25.40	6"	1/2"	3/8"	1/2"	15 °
1 1/4"	31.75	6"	1/2"	3/8"	1/2"	15 °
1 1/2"	38.10	6"	1/2"	3/8"	1/2"	15 °
2"	50.80	6"	1/2"	3/8"	1/2"	15 °
2 1/2"	63.50	6"	1/2"	3/8"	1/2"	15 °
3"	76.20	6"	1/2"	3/8"	1/2"	15 °
4"	101.60	6"	5/8"	3/8"	1/2"	15 °
5"	127.00	6"	5/8"	3/8"	1/2"	15 °
6"	152.40	6"	5/8"	3/8"	1/2"	15 °
8"	203.20	6"	5/8"	3/8"	1/2"	15 °
10"	254.00	8"	5/8"	1/2"	3/4"	15 °
12"	304.80	8"	3/4"	1/2"	3/4"	15 °
14"	355.60	8"	3/4"	1/2"	3/4"	15 °
16"	406.40	8"	3/4"	1/2"	3/4"	15 °
18"	457.20	8"	3/4"	1/2"	3/4"	15 °
20"	508.00	8"	3/4"	1/2"	3/4"	15 °
24"	609.60	10"	3/4"	1/2"	3/4"	15 °

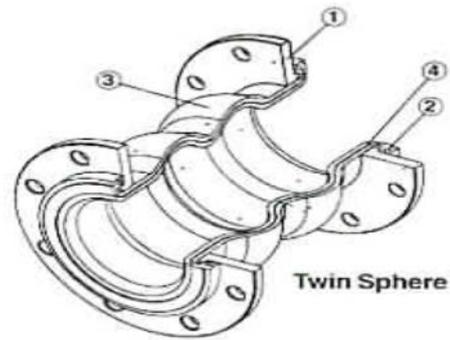
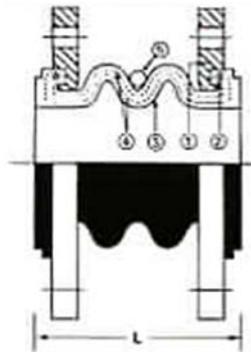
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POFCO FIG. G

Size		L (mm.)	Compression (mm.)	Extension (mm.)	Lateral (mm.)	Angular
Inch.	mm.					
1"	25.40	130	12	9	12	15 °
1 1/4"	31.75	130	12	9	12	15 °
1 1/2"	38.10	130	12	9	12	15 °
2"	50.80	130	12	9	12	15 °
2 1/2"	63.50	130	12	9	12	15 °
3"	76.20	130	12	9	12	15 °
4"	101.60	130	14	9	14	15 °
5"	127.00	130	14	9	14	15 °
6"	152.40	130	14	9	14	15 °
8"	203.20	130	14	9	14	15 °
10"	254.00	130	14	9	14	15 °
12"	304.80	130	16	9	16	15 °

POFCO Series : T

TWIN SPHERES RUBBER FLEXIBLE JOINT C/W FLANGES



Elastomer : EPDM, NEOPRENE, NITRILE, ETC.

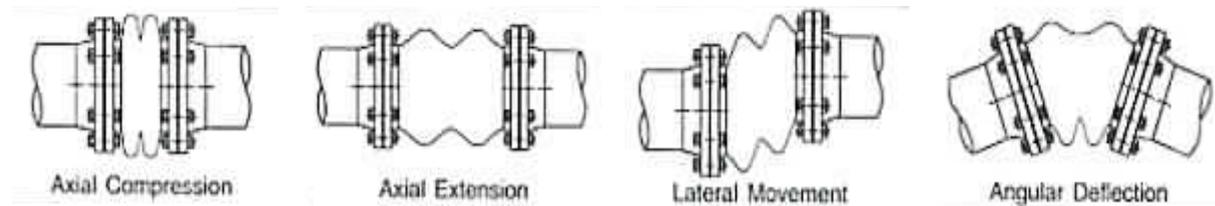
Item	Part Name	Material
1	Flange	Galvanized mild steel
2	Wire	Carbon steel wries strand
3	Elastomer	Synthetic Rubber
4	Reinforcing fabric	Synthetic Fiber
5	Ring	Carbon steel

· Flange drilling : ANSI, JIS, DIN, ETC.

· Applicable fluids : Water, Warm water, Seawater, Weak acids, Alkalis, ETC.

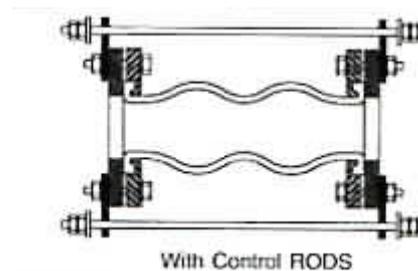
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ALLOWABLE MOVEMENTS



OPERATING CONDITIONS

Size	1 1/2" - 12"	14" - 24"
Working Pressure	250 PSI	150 PSI
Test Pressure	380 PSI	230 PSI
Burst Pressure	725 PSI	600 PSI
Vacuum Rating	650 mm/Hg	
Temperature Range	20 °C to +120 °C	



· Note : Working pressure 300 PSI (Test pressure 450 PSI) can be produced on request

OPERATING RODS RECOMMENDATION

Installed with control rods to prevent internal pressure and motion by over limit usage and vacuum for dropping.

Control rods and reinforcing ring unit must be installed when pressure (Test surge. Operating. Starting a pump. Etc.) exceeds the rating below

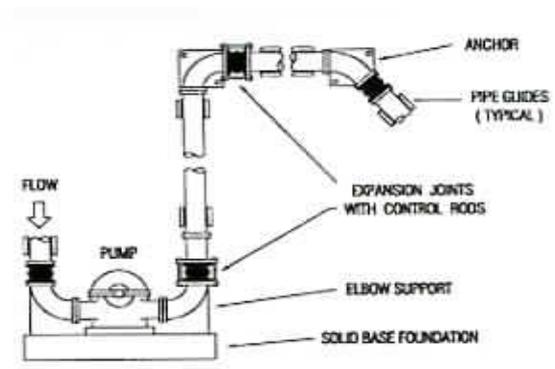
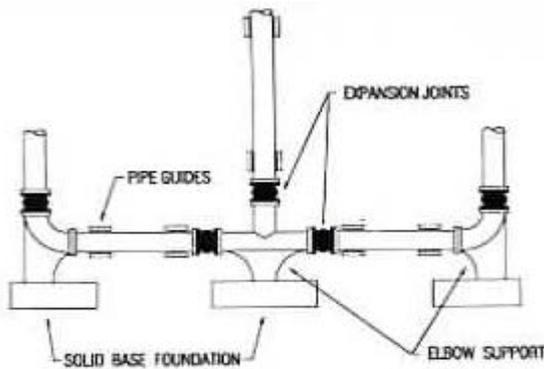
Size	1 1/2" - 4"	5" - 10"	12" - 14"	16" - 24"
Pressure (PSI)	150	135	90	45

POFCO FIG. T

Size		L (mm.)	Compression (mm.)	Extension (mm.)	Lateral (mm.)	Angular
Inch.	mm.					
1 1/2"	38.10	175	50	30	45	35 °
2"	50.80	175	50	30	45	35 °
2 1/2"	63.50	175	50	30	45	35 °
3"	76.20	175	50	30	45	35 °
4"	101.60	225	50	35	40	35 °
5"	127.00	225	50	35	40	35 °
6"	152.40	225	50	35	40	35 °
8"	203.20	325	60	35	35	30 °
10"	254.00	325	60	35	35	30 °
12"	304.80	325	60	35	35	30 °
14"	355.60	350	40	30	30	20 °
16"	406.40	350	40	30	30	20 °
18"	457.20	350	40	30	30	20 °
20"	508.00	350	40	30	30	20 °

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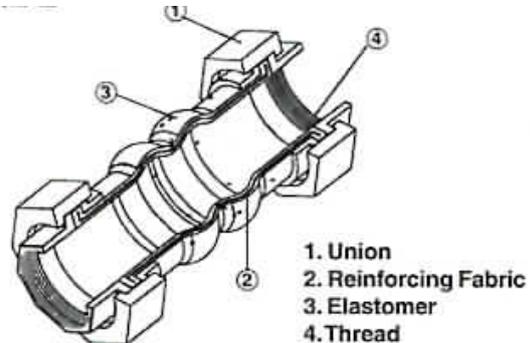
PIPING APPLICATION



- The pipes guides must be installed on pipe at a distance less than 3 times of the pipes nominal diameter from joint to support and guide the pipe.
- Because of the weight of upstream or downstream pipe. The joint do not support compression or extension when instatting. Mounting order : (a) upstream pipe-anchor (b) downstream pipe-anchor (c) expansion joint.
- Verify that the upstream and donwstream pipe aligment does not deviate more than 1/8 inches (3 mm) and the joint does not support heavy weight.
- The joint must not be twisted in any case (especially for type TU). The precompression should not exceed 5 mm
- Insert the bolts on the arch side of the joint avoid contacting with the rubber directly. Check the bolt tightness daily within the first month (at least one week) after services and check periodically therealter. Also verify that the surfaces coming on contact with the joint are perfectly clean and without cutting edges (pipe) for avoiding damage to the joint.
- Cover or dismount the joint if welding is nearby it Also do not paint or coat the joint with insulation (material)
- Store the joint in flat that position to avoid humidity and extreme temperature.

POFCO Series : TU

TWIN SPHERS RUBBER FLEXIBLE JOINT C/W UNION-THREADED ENDS



Elastomer : EPDM, NEOPRENE, NITRILE, ETC.

Item	Part Name	Material
1	UNION	FCD 40
2	Reinforcing fabric	Synthetic Fiber
3	Elastomer	Synthetic Rubber
4	Thread	FCD 40

POFCO Series TU is designed for supply distribution pipeline service or to connect piping to specific equipment application such as : Pumps, Chillers, Cooling Towers, Compressures, Blowers, Fans, Absorption Machines, Etc. Installed next to mechanical equipment or between the anchor points of piping System, specify the **POFCO Series TU** to :

- (1) Absorb Pipe / Movement / Stress.
- (2) Decrease System Noise.
- (3) Isolate Vibration.
- (4) Compensate alignment / offset.
- (5) Eliminate Electrolysis
- (6) Protect Against Start up / Surge Forces.

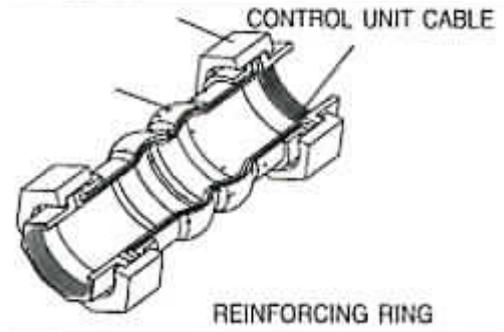
The **POFCO SERIES TU** is engineered for tough, demanding industrial and commercial application, as found in : Air Conditioning Heating and Ventilating Systems, Chemical-Petrochemical and Industrial Process Piping Systems, Power Generating Plants, Steel Mills, Marine Service, Pulp & Paper Systems, Water-Wastewater Sewage and Pollution Control Systems.

Size		L (mm.)	Compression (mm.)	Extension (mm.)	Lateral (mm.)	Angular
Inch.	mm.					
1/2"	12.70	203	22	6	22	30 °
3/4"	19.05	203	22	6	22	30 °
1"	25.40	203	22	6	22	25 °
1 1/4"	31.75	203	22	6	22	25 °
1 1/2"	38.10	203	22	6	22	20 °
2"	50.80	203	22	6	22	15 °
2 1/2"	63.50	225	22	6	22	12 °
3"	76.20	225	22	6	22	10 °

• Note : Working pressure 200 PSI (Test pressure 300 PSI) can be produced on request.

OPERATING CONDITIONS

Size	1' - 3"
Working Pressure	200 PSI
Test Pressure	300 PSI
Burst Pressure	1030 PSI
Vacuum Rating	400 mm/Hg
Temperature Range	20 °C to +120 °C



- Note : Working pressure more than 200 PSI can be produced on request.
- Control Union cable and Reinforcing ring must be installed when pressure (test surge, operating, Starting a pump, etc.) exceeds the rating.
- Elastomer : EPDM, NEOPRENE, NITRILE, ETC.
- Union-Standard item employs BS UNION
- Applicable fluids-water, warm water, seawater, weak acids, alkalis, etc.