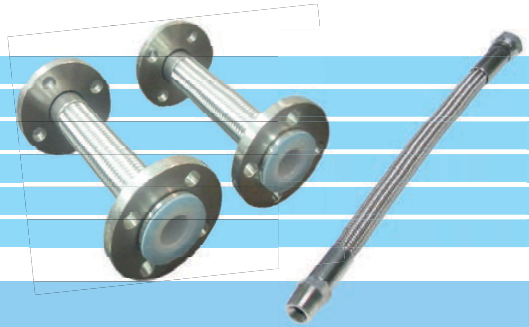


POLIFLEX-T

PTFE FLEXIBLE JOINT



FEATURES

Polytetrafluoroethylene (PTFE) hose has solved the short life problem of metallic hose from using with most dangerous fluids like acids, caustics, chemicals, organic solvent, noxious gas, etc. This material has outstanding chemical resistance to wide variety of chemicals and the long service life that make it ideal for use in hose application. Besides, the nonstick feature of PTFE makes it ideal for food and pharmaceutical process. Many other critical applications of PTFE hose is used for imperative reliability such as submarine and life saving devices. The additional benefit is the reduced maintenance costs and low inventory costs.

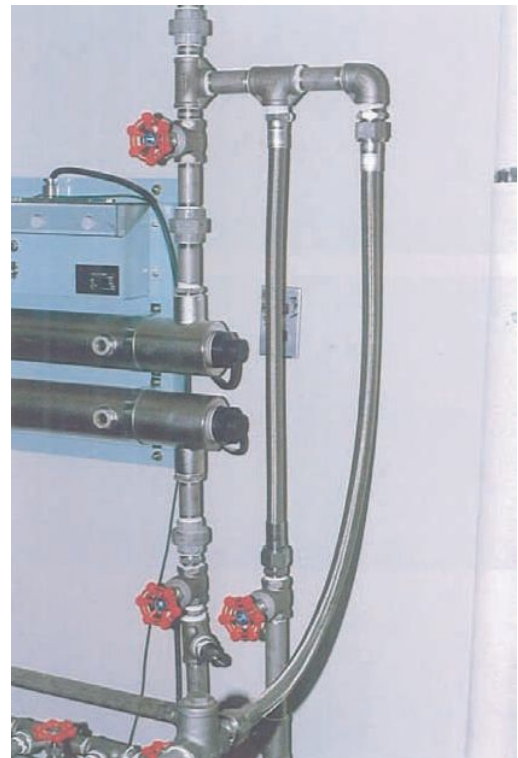
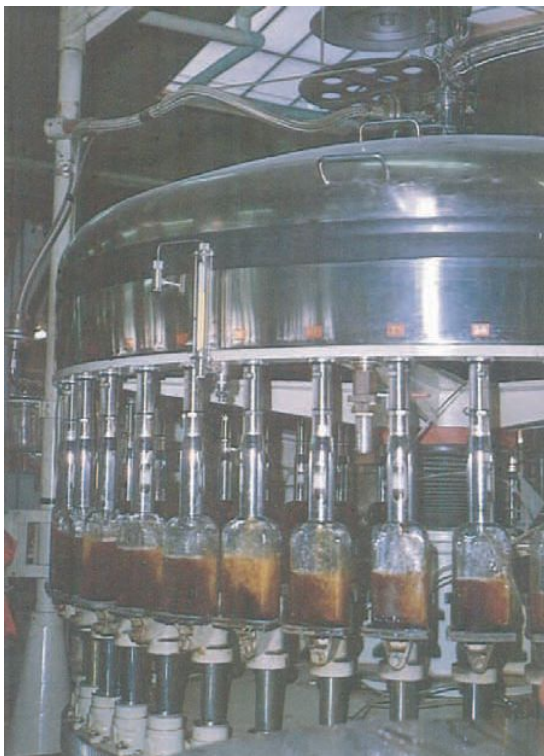
Poliflex-T is available with either a corrugated profile enhancing flexibility or smooth bore for minimizing pressure drop and stabilizing the flow. When completed with stainless steel wire braid, PTFE hose are able to be used under high pressure, continuous flexing, and vibration condition.

TEMPERATURE SERVICE

The service temperature of PTFE is ranging from -73°C to $+260^{\circ}\text{C}$. However in considering the demand of other factors or parameters such as movement and pressure load, we recommend the maximum service temperature up to 200°C .

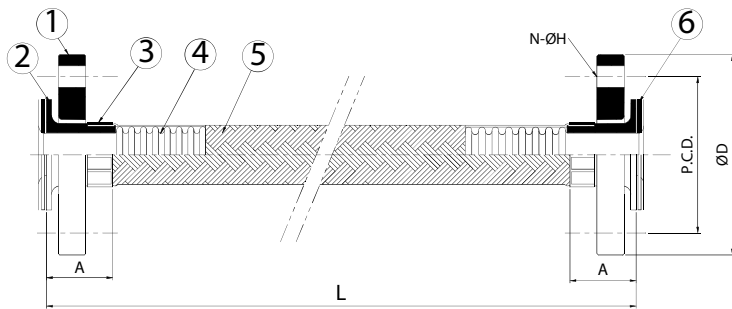
CAUTION

Although PTFE resists most corrosive media, it is not suitable for Alkali metals (such as sodium and potassium, dissolved on metals) and fluorine compounds (such as fluorides, fluorine oxide, fluorine gas, and fluorinated hydrocarbons).



TJ-78800

Loose Flanges Type with Flare



No.	Parts	Standard Materials
1	Loose flange	SUS304
2	Lap joint	SUS304
3	Collar	SUS304
4	Corrugated hose	PTFE
5	Wire braid	SUS304
6	Gasket	ASBESTOS

SPECIFICATION :

Max. Operating Temperature : 260°C

Application : Chemicals, Pharmaceutical, Biomedical, Food, Cosmetic, etc.

The flange type of PTFE convoluted hose with flare over the face of fitting is the benefit for all wet surfaces with providing 100% PTFE coverage. This type protects all parts of hose from abrasive proceeding of fluid.

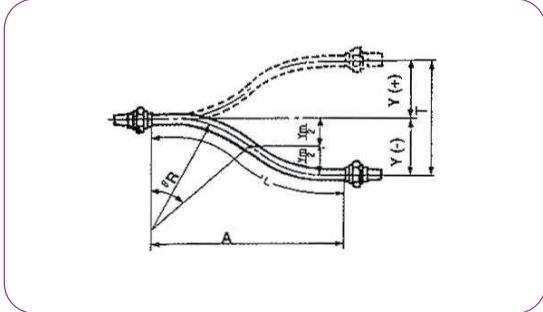
- Flanges can be selected in standard of JIS, ANSI, ISO/PN, BS, etc.
- Flange material can be changeable to mild steel, carbon steel, and SUS316.
- Lap joint material can be changeable to SUS316.



Nominal Size A (B)	Min. ID of Hose (mm)	Wall Thickness (mm)	Min. Bending Radius (mm)	Max. Working Pressure (bar)	Bursting Pressure (bar)	Ineffective Length Ax2 (mm)	Overall Length			
							300mm	500mm	1000mm	2000mm
							Eccentric (mm)			
15 (1/2")	11.6	0.82	25	10	40	60	156	298	651	1358
20 (3/4")	19.5	1.00	55	10	40	60	140	282	635	1342
25 (1")	24.5	1.10	85	10	40	100	96	238	591	1298
32 (1 1/4")	31.5	1.15	100	10	40	100	88	230	583	1291
40 (1 1/2")	36.5	1.45	120	10	40	100	78	219	573	1280
50 (2")	49.5	1.50	165	10	40	100	58	196	549	1256
65 (2 1/2")	62.5	1.60	230	10	40	127	32	143	496	1203
80 (3")	73.5	1.60	260	10	40	127	28	128	480	1187
100 (4")	94.5	1.82	400	10	40	152	18	98	442	1149
150 (6")	150	2.5	520	6	24	178	NA***	84	308	1015

*** 150A (6") : Min Overall Length 400 mm and Eccentric 23.6 mm

Calculation for Hose Length (L) with Movement



1. Offset Movement

(in case of non-alignment)

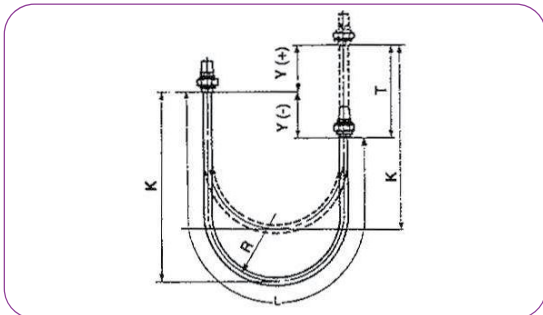
$$Y_m = 2 \cdot R \cdot (1 - \cos \theta) \dots\dots\dots (1)$$

$$Y_L = 2 \cdot R \cdot (1 - \cos \theta) + (L - \frac{\theta \cdot R}{90}) \cdot \sin \theta \dots\dots\dots (2)$$

$$A_m = 2 \cdot R \cdot \sin \theta \dots\dots\dots (3)$$

$$A_L = 2 \cdot R \cdot \sin \theta + (L - \frac{\theta \cdot R}{90}) \cdot \cos \theta \dots\dots\dots (4)$$

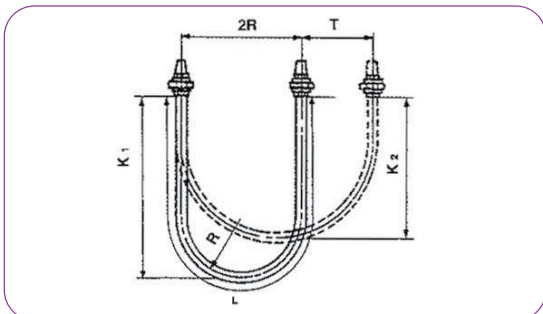
$$R = \frac{D_m \cdot Q}{2 \cdot e} \dots\dots\dots (5)$$



2. Vertical Movement

$$L = 4R + \frac{T}{2} \dots\dots\dots (6)$$

$$K = 1.43R + \frac{T}{2} \dots\dots\dots (7)$$



3. Horizontal Movement

$$L = 4R + 1.57T \dots\dots\dots (8)$$

$$K1 = 1.43R + 0.785T \dots\dots\dots (9)$$

$$K2 = 1.43R + \frac{T}{2} \dots\dots\dots (10)$$

Symbols :

T	: Total value of displacement (Movement)	mm
L	: Length of the hose	mm
Lm	: Min. effective length of the hose	mm
Y	: Movement from the centre	mm
Ym	: The value of min. effective length of the hose (Short length hose)	mm
YL	: The value by the effective length of the hose > Lm (Long length hose)	mm
A	: Face-to-face Dimension	
Am	: The value by Lm of the effective length of the hose (Short length hose)	mm
AL	: The value by the effective length of the hose > Lm (Long length hose)	mm
R	: Allowable bending radius	mm
Dm	: Effective Diameter	mm
Q	: Hose Pitch	mm
e	: Elongation and Compression per Bellows	mm
θ	: Bend Angle	degree
K	: Loop Length	mm