



**Chemical & Industrial Plastics**

# CHEMLINE

**PLASTIC LINED PIPING SYSTEMS**



**AGGRESSIVE CHEMICAL  
SOLUTIONS**

[www.ptfeplastics.com](http://www.ptfeplastics.com)



### **Company Profile**

C.I.P is a 100% locally owned South African Company specializing in PTFE / PFA / TEFZEL / FEP/ PP lined pipes and fittings, PTFE moulding and machining of customized products to O.E.M specifications such as:

- PTFE Bellows
- PTFE/FEP/PFA Hoses with flanges to specifications
- Gaskets – Taskline stainless steel inserts, U-type & V-type envelope gaskets
- Ball valve seats & Seals
- Automatic moulding insulator – PTFE Sleeves
- PTFE/PFA Thin wall tubing

### **Vision & Mission statement**

Chemical & Industrial Plastics offer the highest quality in products and services. While supplying the platinum, chemical, mining, confectionery, pharmaceutical and general industry with excellent customer service, we provide consistency and value to the industry and our client's organization.

We are A B.E.E. company offering equal opportunities to all employees and meeting the needs of our customers, working together effectively and keeping ahead with technology, being a company of integrity & complying with applicable standards and specifications in the products and services we supply as well as excellent customer services while providing products as competitive prices.



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PLASTIC LINED PIPING SYSTEMS



### PLASTIC LINED PIPE AND FITTINGS

In pipe design of PTFE and steel, the high mechanical strength of steel is combined with the superior chemical resistance and adhesion properties of PTFE. The steel pipe is lined with a PTFE Pipe, which is flared over the flanges at the ends. The PTFE works like an efficient sealing. Our PTFE lined pipe and PTFE lined fittings are vented according to the ASTM specification for plastic lined pipe and plastic lined fittings, F-1545. PTFE is the most permeable fluoropolymer we line with and because it is vented, everything that permeates the liner is released into the atmosphere.

Chemical & Industrial Plastics offers a wide range of PTFE lined pipe systems. Our range of lined products comprises lined pipes, expansion joints, elbows, concentric eccentric reducers, dip tubes, blind flanges, reducing flanges and tees. We can also line pipe with other plastic products such as Polypropylene, FEP or PFA. The products are produced according to ANSI or DIN standard. On request we also line other products according to customer drawings.

We deliver high quality lined products to several customers all around Africa.

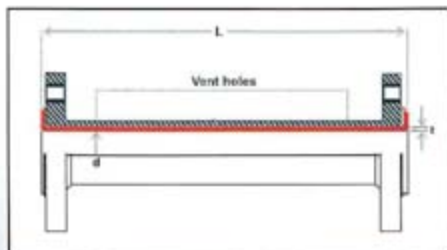
The main uses of our products are in chemical industry, medical and pharmaceutical industry, food industry, and pulp and paper industry. We can also assist your company with technical advice and construction propositions when planning a factory or installation.

#### RECOMMENDED BOLT TORQUES

#### TECHICAL SPECIFICATIONS

<b>LINING</b>	According to ASTM F 1545
<b>WORKING TEMPERATURE</b>	(-)29°C to (+) 260°C
<b>WORKING PRESSURE</b>	16 Bar
<b>TESTS</b>	10kV Spark Test/16 Bar Hydrostatic Test
<b>LINING THICKNESS</b>	3.04mm - 5.08mm
<b>PTFE</b>	ASTM D-1457 Type III
<b>FITTINGS</b>	ASTM A 234 WPB
<b>PIPES</b>	A106 Gr.B Sch 40/80/20, A53
<b>FLANGES</b>	Material according to ASTM A 105 Dimensions to ANSI B 16.5/ASA 150/300. 395-DI

PIPE SIZE	BOLT TORQUE	
	PTFE/PFA	PP
1'	25	35
1.5'	55	75
2'	75	110
3'	110	125
4'	95	125
6'	125	225
8'	190	225
10'	200	345
12'	200	345

**LINED SPOOL**

**NOTE**

1. Fixed / Loose flanges on one / both sides can be supplied on request.
2. Other specifications / dimensions / vacuum service available on request.
3. Lengths from pipe size 1" up to 6" - 4 metres.

Tolerance upto 1 metre will be  $\pm 0.00\text{mm} / 3.56\text{mm}$  and beyond 1 metre will be  $\pm 0.00\text{mm} / 5.08\text{mm}$ .

**SPECIFICATIONS**
**PPE**

ANSI B 34.10, ASTM A104 Gr. B Schedule 40 upto 4 inch

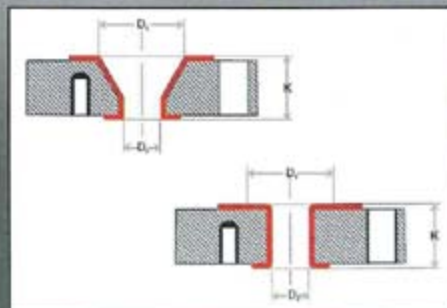
**LINER**

ASTM D 1457, PTFE

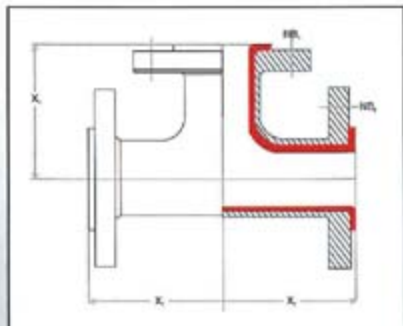
**TOLERANCES**

Lining & other Dimensional Tolerances as per ASTM F 1545-95 / ASTM D 1457

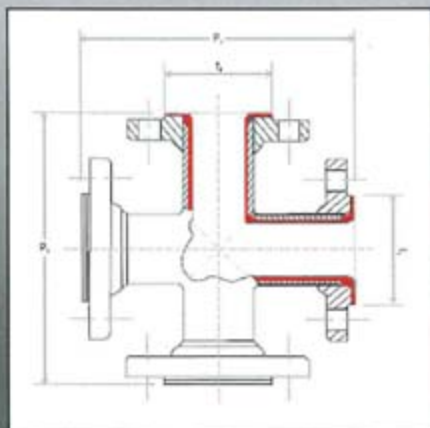
NB (inch)	Internal Dia (d) (+5%) (mm)	Liner Thickness (t) (+5%) (mm)	PCD (mm)	Flange Hole dia (mm)	Flared Dia (mm)
1'	20.98	3.3	79.37	16	50.8
1.5'	33.1	3.81	98.42	16	69.85
2'	43.38	4.06	120.65	19.05	95.25
3'	68.78	4.06	152.4	19.05	127
4'	90.6	4.06	190.5	19.05	158.75
6'	143.98	5	241.3	22.09	215.9
8'	200.55	5.51	298.45	22.09	273.05

**LINED REDUCING FLANGES**


D1 (inch)	D2 (inch)	K (mm)
1'	1'	35.05
1.5'	1'	35.05
1'	1.5'	35.05
3'	1'	35.05
3'	1.5'	35.05
3'	2'	35.05
4'	2'	45.21
4'	3'	45.21
6'	3'	45.21
6'	4'	45.21

**PTFE LINED TEES – EQUAL & REDUCING**


NB2 (inch)	NB1 (inch)	X1 (mm)
1'	1'	88.9
1.5'	1'	101.6
1.5'	1.5'	101.6
2'	1'	114.3
2'	1.5'	114.3
2'	2'	114.3
3'	1.5'	139.7
3'	2'	139.7
3'	3'	139.7
4'	2'	165.1
4'	3'	165.1
4'	4'	165.1
6'	3'	203.2
6'	4'	203.2
6'	6'	203.2

**PTFE LINED CROSS**


N1 (inch)	P1 (inch)	f1 (mm)
1'	1'	88.9
1.5'	1'	101.6
1.5'	1.5'	101.6
2'	1'	114.3
2'	1.5'	114.3
2'	2'	114.3
3'	1.5'	139.7
3'	2'	139.7
3'	3'	139.7
4'	2'	165.1
4'	3'	165.1
4'	4'	165.1
6'	3'	203.2
6'	4'	203.2
6'	6'	203.2

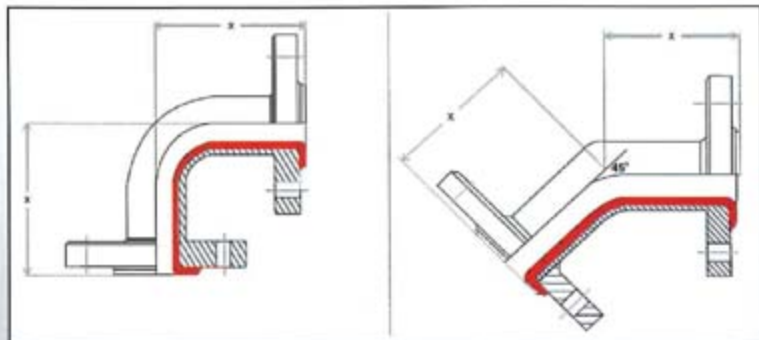


**PLASTIC LINED PIPING SYSTEMS**

**PTFE LINED ELBOWS**

**90° Elbow**

**45° Elbow**



NB	X
(inch)	(mm)
1'	88.9
1.5'	101.6
2'	114.3
3'	139.7
4'	165.1
6'	203.2

NB	X
(inch)	(mm)
1'	44.45
1.5'	57.15
2'	63.5
3'	76.2
4'	101.6
6'	127

**PTFE LINED BLIND FLANGE**

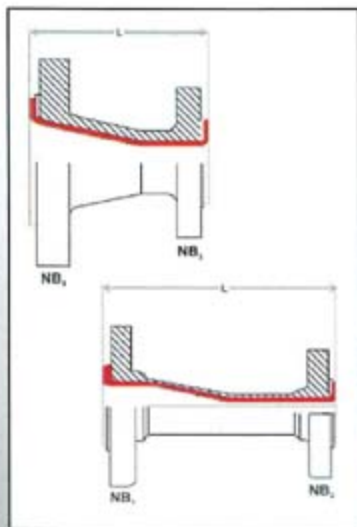


NB	F
(inch)	(mm)
1	13.2
1.5	16.2
2	25.4
3	25.4
4	25.4
6	30
8	30



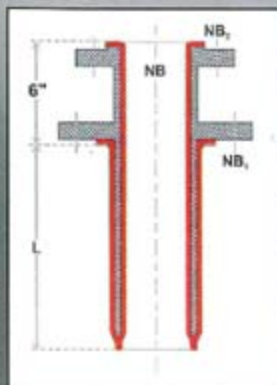
**PLASTIC LINED PIPING SYSTEMS**

## PTFE LINED REDUCERS – CONCENTRIC & ECCENTRIC



NB1	NB2	L
(inch)	(inch)	(mm)
1	0.5	114.3
1	0.5	114.3
1.5	0.5	114.3
1.5	1	114.3
2	1	127
2	1.5	127
3	1.5	152.4
3	2	152.4
4	1.5	177.8
4	2	177.8
4	3	177.8
6	3	228.6
6	4	228.6

## PTFE LINED DIP TUBES



### NOTE

We can offer PTFE Dip-tubes, PTFE lined Dip-tubes, Lined Sparger Pipe, Lined Thermowell.

We can supply PTFE Lined Dip-Tube as per your drawings

### SPECIFICATIONS

**PIPE:** ANSI B36.10, ASTM A 106 Gr. B SCHEDULE 40

**FLANGE:** ANSI B16.5, ANSI 150#, ASTM A 105

**LINER:** PTFE ASTM D 1457