

M.S.T.L. Pipe Section, Dip Pipe, Sparger, Elbow (45° & 90°) ., F.E.P, P.F.A., H.D.P.E., P.P. & All linings



Unity Glass Industry Introduces New Segment

Since two decades Unity is catering best of services in Borosilicate Glassware Industrial as well as Laboratory Products and proud to add new segment Polymer, Lining & Coating. Unity is specializes in manufacturing of fluoro polymer lined Pipes, fittings, valves and customized products.

In Today Global Competition every company has to upgrade and emerge as a all-round expertise and to serve better to various industries like chemical, mining, power plants, pharmaceutical, paper, petrochemical, oil & gas industry, We are Trusted Brand for best-quality PTFE Lined, FEP Lined and PFA Lined products Globally.

Our products are specially designed for use in highly corrosive applications and comply to Standards such as ASTM-A 106 Gr.B, Seamless Sch 40. & IS 2062 ASA 150 class and dimension as per ANSIB 16.5 depending upon material availability. We have strict quality processes with best experience of working in the corrosion resistant industry allow us to offer better result to customer's supplies. Our unmatched production capability, manufacturing skill, and strict quality standards have helped us build a strong legacy over the years. We are recognized for our strong commitment towards delivering world-class quality.

Vision & Mission

Our Mission is to be leading in the industry for Lined PTFE/ FEP / PFA Lined products with our high standard quality at the right price for utmost customer satisfaction. **UNITY** always stands for quality, service, value, transparency, ethics and honesty to clients. We believe in continuous improvement and innovative changes in our product range to provide our customers best of our services. Our organization believes in business ethics, trust, human relationship, and will strive to strengthen all three elements in our employees, customers and business peers. **"VENTURE WITH UNITY"** and let us build trust and reputation in our business relationship, and grow together unitedly.



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Technical Specifications for PTFE Pipes & Fittings

1. Chemical Resistance :

PTFE is chemically inert to all chemical and solvents with the exception of molten alkali metals and strong fluorine donors. We use PTFE liners made from fine virgin PTFE Powder(not any recycled material) to produce with the ultimate chemical and physical properties. PTFE lined pipe work can be used with aggressive media such as HCL, H₂SO₄ (Various Conc.),HNO₃, Hot NaOH solutions, all chlorides-Organic & inorganic, all phenols, all sulphates etc.

2. Temperature Resistance:

PTFE has good flexibility and ductility in the temperature range of -50° to 235° C. It should be noted that PTFE can be used at higher temperature (above 200° C) and at lower temperature below (-10° C) under certain conditions.

PTFE lined pipe work can be used to 20 bar/300 psi.g. Full vacuum resistance depending upon the Process conditions. Details to be Provided by client for specific applications.

3. Resistant to Light & Atmospheric Conditions:

PTFE may be used without any problem in open air and there are no mechanical and electrical characteristics even then subject to extreme climatic conditions.

4. Electrical Properties:

PTFE has good electrical insulation with a very low dielectric constant.





5. Material Specifications:

Pipe	:	ASTM-A 106 Gr.B, Seamless Sch 40. All pipe spools have lap joint flange at one end and fix flange at other end lined pipes are available up to 3mtrs. Length max. (higher length available upon request)
Flange	:	Flanges made from boiler quality plate material confirming to IS 2062 ASA 150 class and dimension as per ANSIB 16.5 depending upon material availability.
Collar	:	Collar made from boiler quality plate/ plate material confirming to IS 2062 depending upon the material availability.
Fittings	:	Formed and fabricated from seamless C.S. Pipe/ Ductile casting lined with PTFE/FEP/PFA PFA- Max. service temperature is 265° C. FEP- Max service temperature is 170° C.
Lining	:	As per ASTM 1545/95
Min Flare	:	80% of the actual extruded liner thickness.
Thickness		
Flare Diameter	:	As per ASTM 1545/95

6. Inspection:

Dimensional Check	:	As per Catalogue.
Hydro Test	:	All 150 Class pipes & fittings shall be tested at 35 bar after lining and 46.5 bar for 300 class pipes and fittings.
Electrostatic Test	:	A test voltage of 15 KV to 25 KV depending upon liner thickness.





7. Storage:

- Pipes Spools and Fittings should not be stored in open area.
- Keep away from all source of corrosive vapour/ flame/ Heat during storage.
- Keep flare cover till pipes/fittings are installed to avoid damage and deformation of the flare faces. Flange covers should be put back immediately on any sections removed for inspection or for maintenance from the system.

8. Installation:

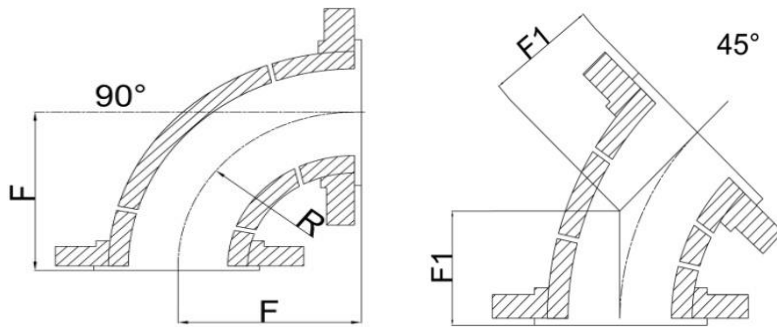
- Gaskets are not required between piping components except, where they are connected to a flange face of other materials.
- Metal part of Pipe/Fittings should not be used for electrical earthing.
- Avoid rough handling, Do not drop from a height. Do not bend, weld, solder, braze on Lined Pipes/ Fittings.
- Use expansion joints for thermal expansion of long lengths of lined piping.



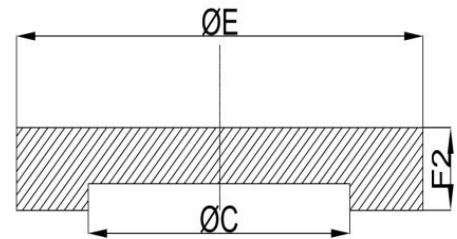
Specifications for Lined Elbows

NB	F	F1	F2
15	89	44	13.6
20	89	44	15.2
25	89	44	16.7
32	95	51	19.3
40	102	57	21.0
50	114	63	22.6
65	127	76	25.7
80	140	76	27.3
100	165	102	27.3

ELBOWS

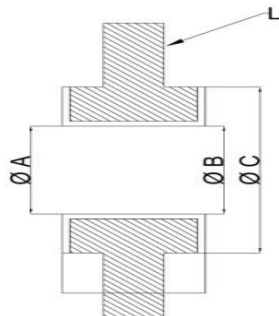


BLIND FLANGE

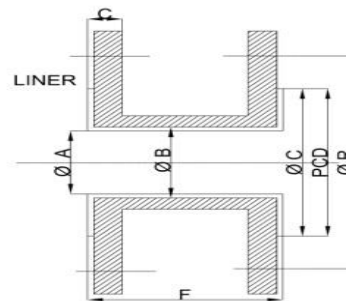


01. All dimensions are in millimeters
02. For Elbows Split Flanges can be supplied on request in either RF/FF Type
03. Lined Blind Flanges can be supplied in either RF/FF Type
04. Tolerances as follows:
 $F = +0.0 / - 5.0 \text{ mm}$, $F1 = +0.0 / - 3.0 \text{ mm}$, $F2 = +0.0 / - 1.0 \text{ mm}$

BLIND SPACER

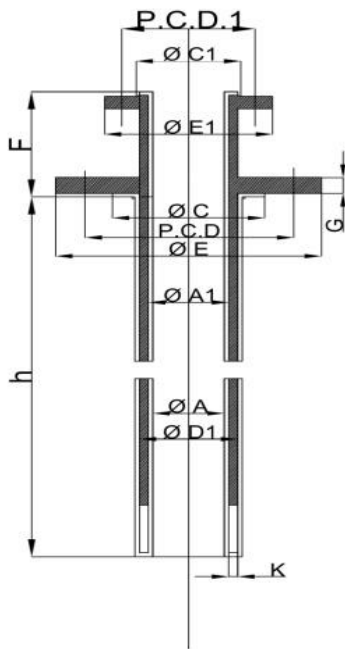


LINED SPACER

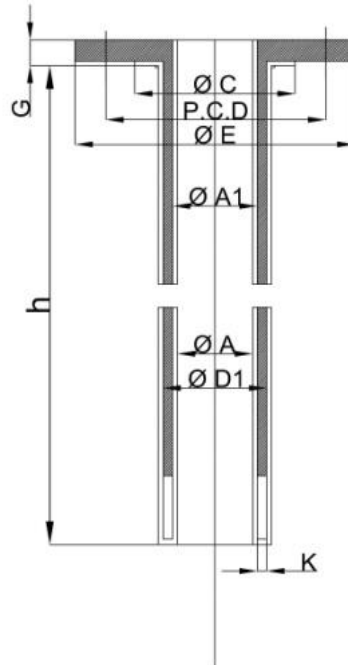




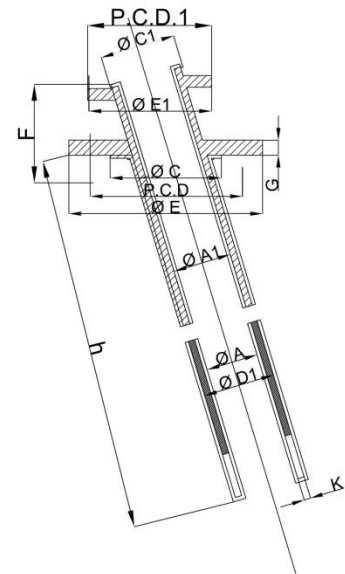
M.S.T.L. DIP PIPE / SPARGER



TYPE A



TYPE B



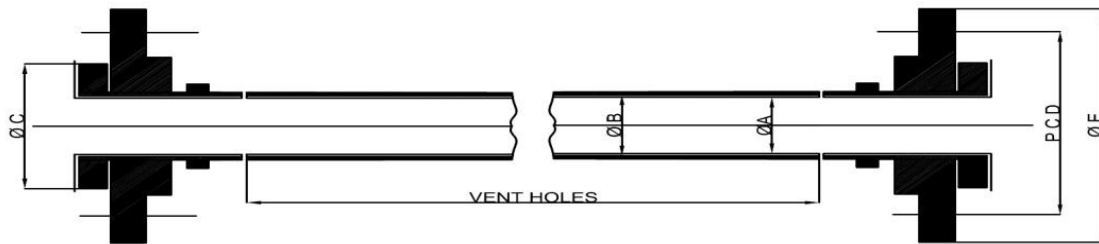
TYPE C

1. All dimensions are in millimeters.
2. Tolerance as follows:
 $h = + 0.0 / - 7.0$ mm $F = 0.0 / - 4.0$ mm
3. Product Features: Continues lining, No welded Joints, Straight or curved shape 25mm to 100mm Nominal Bore, Lengths (h) up to 3000mm, longer lengths on request.
4. For quotation purposes please specify Length required; Flange Details; Tip requirement.
5. Special ends available for spargers and other tailor made requirements





M.S.T.L. PIPE



NB	OA(=1)	OB	OC	PCD	OE	No. of Holes	Hole Dia
15	12.8	15.8	34.9	60.3	88.9	4	15.9
20	18.0	21.0	42.7	69.8	98.4	4	15.9
25	23.6	26.6	50.8	79.4	108.0	4	15.9
32	32.1	35.1	63.5	88.9	117.5	4	15.9
40	37.9	40.9	73.0	98.4	127.0	4	15.9
50	49.9	52.5	92.1	120.7	152.4	4	19.0
65	59.7	62.7	104.8	139.7	177.8	4	19.0
80	74.9	77.9	127.0	152.4	190.5	4	19.0
100	99.3	102.3	157.2	190.5	228.6	8	19.0
125	124.2	128.2	185.7	215.9	254.0	8	22.2
150	150.1	154.1	215.9	241.3	279.4	8	22.2
200	201.1	205.1	269.9	298.5	342.9	8	22.2
250	253.4	257.4	323.9	362.0	406.4	12	25.4
300	302.0	307.0	381.0	431.8	482.6	12	25.4

1. All dimensions are in millimeters.
2. Fixed / loose / split flanges on one/both sides can be supplied on request.
3. Other specifications/dimensions/vacuum service available on request.
4. Length : 3 meter lengths, Longer Lengths are available on request.
Tolerance up to 1 meter length will be + 0.0 mm /- 3.5 mm and beyond 1 meter will be + 0.0 mm /- 5.0 mm.