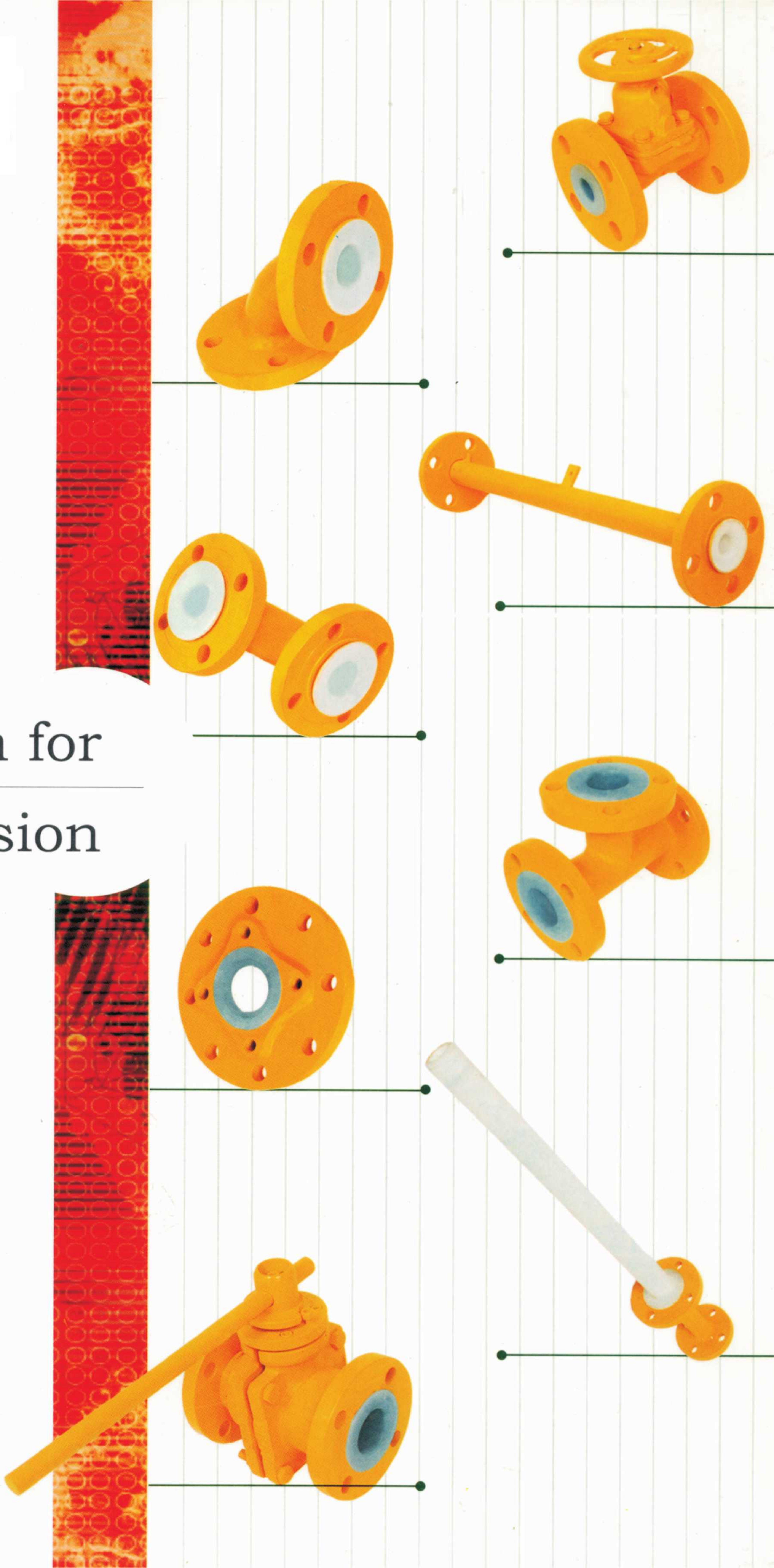




# SINGHAL

SINGLA SCIENTIFIC GLASS INDUSTRIES

## Solution for Corrosion





- [FEP Lined Ball valve](#)
- [Pipe Section](#)
- [Dip Pipe / Sparger](#)
- [Tee \(Equal / Unequal\)](#)
- [Sight Glass](#)
- [Reducer \(Concentric / Eccentric\)](#)
- [Instrument Tee](#)
- [Reducing Flange](#)
- [Cross \(Equal / Unequal\)](#)
- [Bend 90 Deg. / 45 Deg.](#)
- [Blind Flange](#)
- [Spacers](#)

## Profile

Our company is well known organization in manufacturing Borosilicate Glass. We are in the market since 1997.

We have now specialized in PTFE (Polytetrafluoroethylene) lined Pipes, Dip Pipes & Spargers, Ranging from 15mm to 200mm size, PP (Poly Propylene) Ball valves and Ball valves in FEP (Fluorinatedethylene Propylene) / PFA (Perfluoroalkoxy) lining, FEP/PFA lined Pipe Fittings, etc. for Chemical, Pharmaceuticals, Petrochemicals, Fertilizers, Refineries and other applications.

## Welcome Note

Corrosion has always been a challenge to chemical process industry. This is inevitable multifaceted problem, covering chemical corrosion of reaction vessels, pumps, pipes & fittings, valves and other equipment used for measurements and process control. Our aim is to provide our customers the most comprehensive and reliable services.

We are manufacturer of Fluoropolymer lined fluid handling systems for Highly Corrosion Resistant piping in FEP, PTFE, PP, PFA and HDPE.

Our products are made from the quality materials using advanced technology, while every stage of the manufacturing process is conducted and monitored under our strict supervision of professionals. Combined with thorough testing and complete customer support, the company supplies it's customer with products of maximum efficiency and minimum long term costs at a competitive price.

## Selection of Material

In the manufacturing process of Lining, the quality of lining materials and the method of lining are of critical considerations. Metallic parts should never get in contact with corrosive media. Plastics have the unique property by which they do not get dissolved in any known industrial solvent either organic or inorganic. The Fluoropolymer Plastics like PTFE, PFA, FEP, ETFE, PVDF etc. have superior corrosion resistance to practically all the chemicals & solvents and that too at a higher temperatures ranging up to 250 degrees Celsius.

The following virgin plastic resins are suitable for respective maximum temperature ratings.

FEP	: -50 to 170 deg.C	PTFE	: -50 to 200 deg.C
PP	: 0 to 90 deg C	PFA	: -50 to 200 deg

## Process

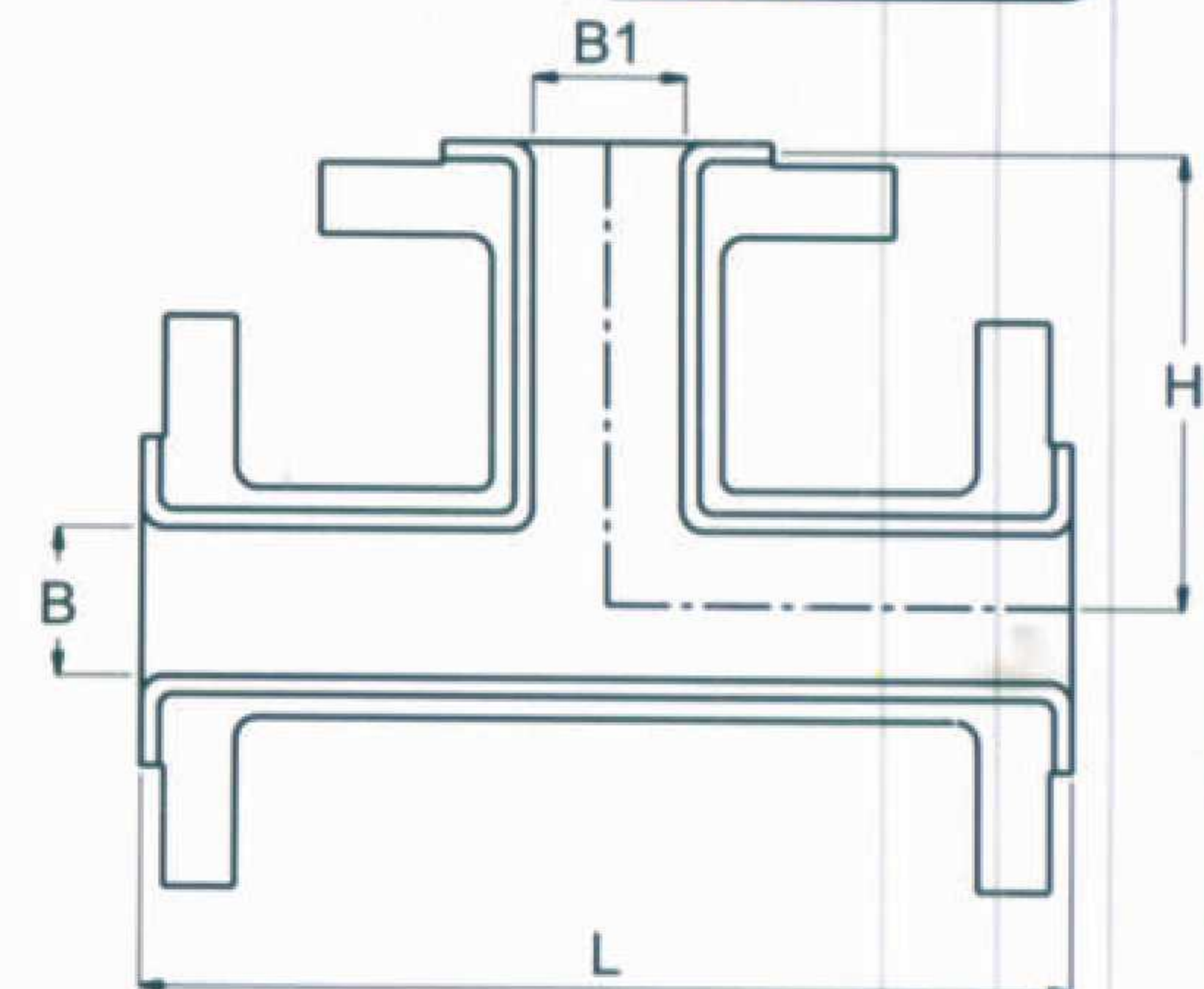
Our products are designed to quality as per the standards. Our products are used for applications which may be very hazardous and we provide the best manufacturing systems to provide safest quality products to our customers. Our products are tested as per the specification / standard. Our products which gives total confidence to customers for assured performance, reliability and safety.

## Services

We shall always be assistance to select, recommend the appropriate lining material and to design the individual piping and equipment components to replace an existing line or for a new installation. On basis of layout drawings, details of piping arrangement and individual parts and sub assemblies drawings shall be submitted showing all the dimensions and construction arrangements for approval.

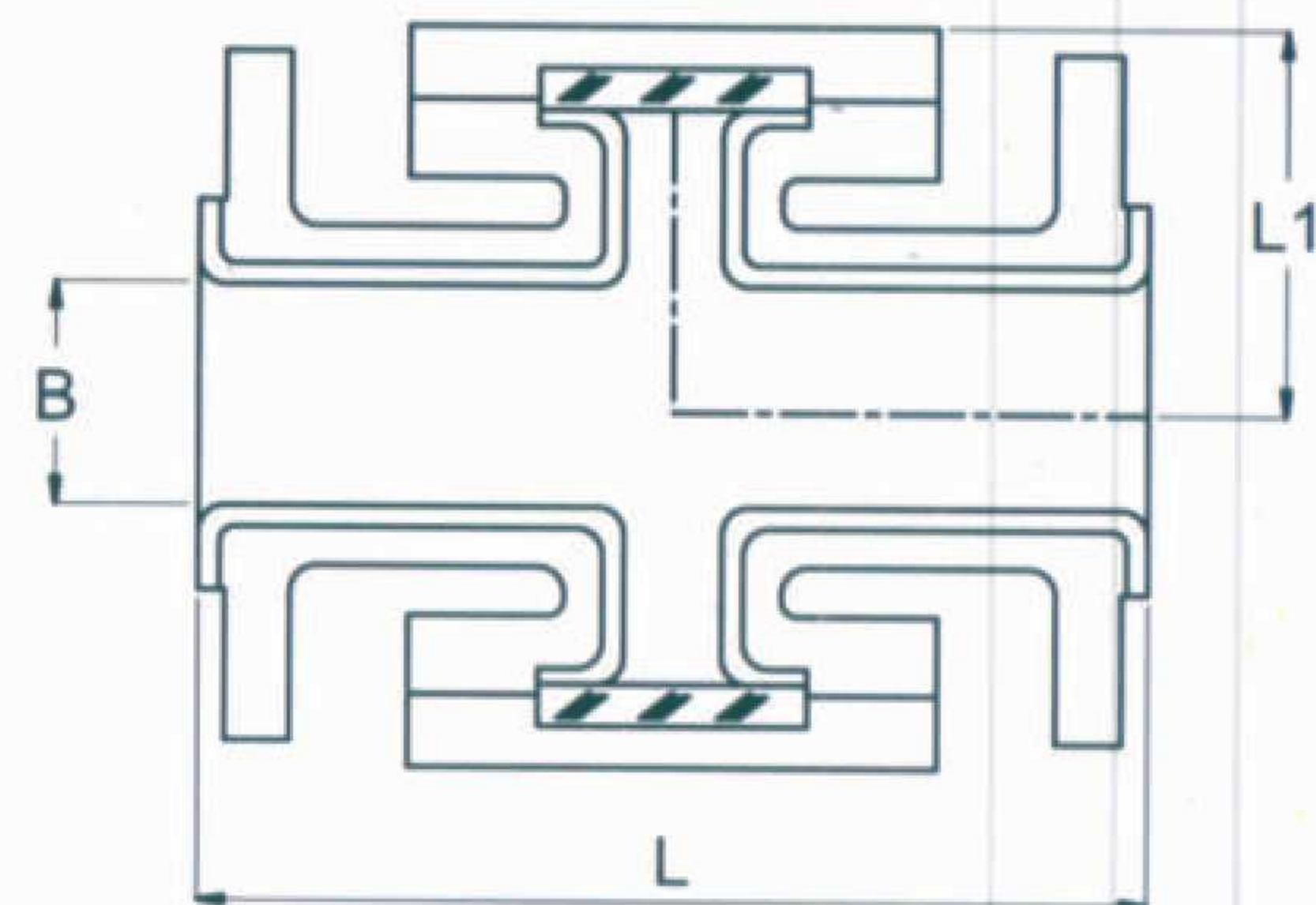
## TEE (Equal & Unequal)

B	B1	L	H	B	B1	L	H
25	15	178	89	80	65	280	140
25	25	178	89	80	80	280	140
40	15	204	102	100	25	330	165
40	25	204	102	100	40	330	165
40	40	204	102	100	50	330	165
50	15	228	114	100	65	330	165
50	25	228	114	100	80	330	165
50	40	228	114	100	100	330	165
50	50	228	114	150	25	406	203
65	25	254	127	150	40	406	203
65	40	254	127	150	50	406	203
65	50	254	127	150	65	406	203
65	65	254	127	150	80	406	203
80	25	280	140	150	100	406	203
80	40	280	140	150	150	406	203
80	50	280	140				



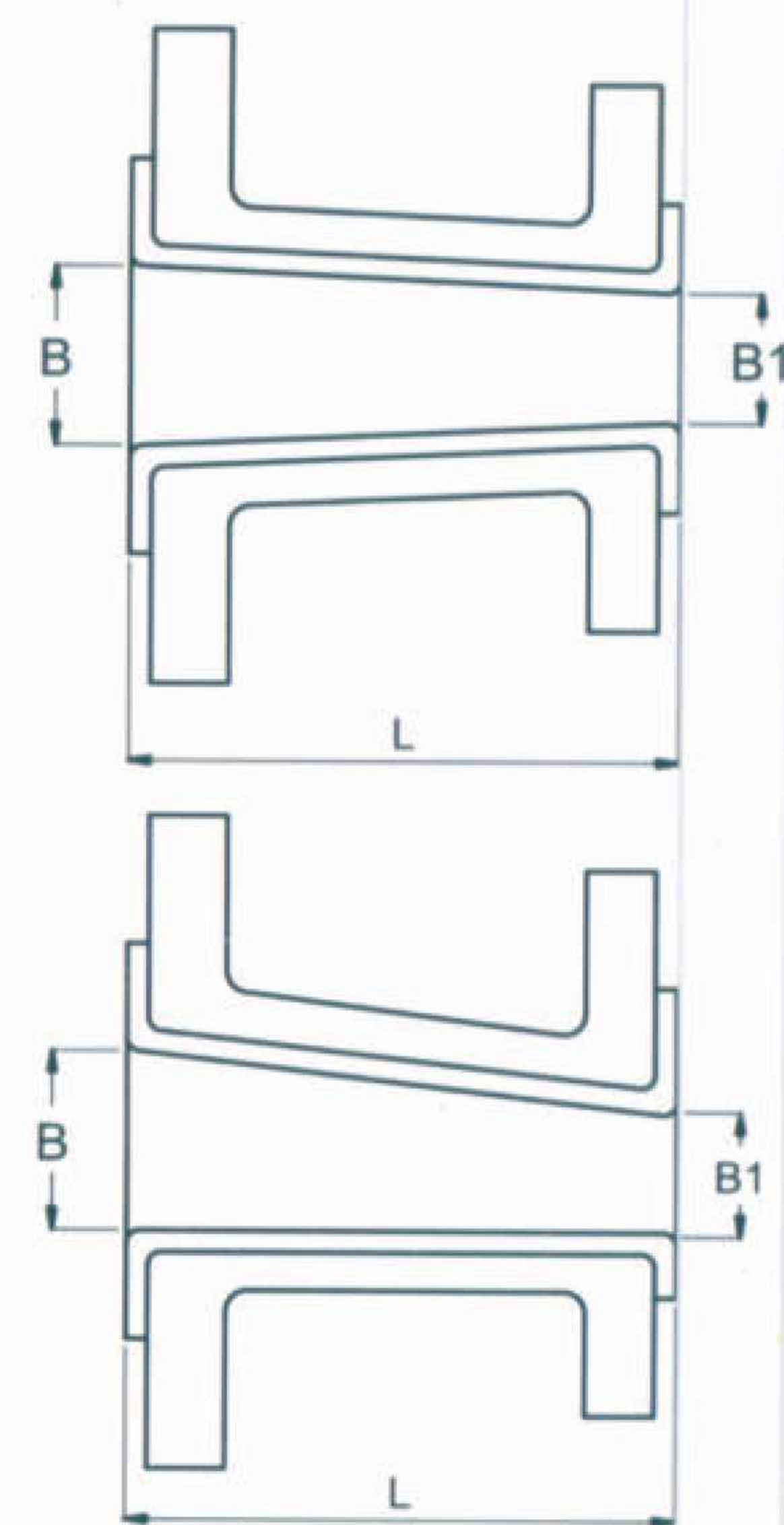
## Sight Glass

B	L	L1
25	178	65
40	204	75
50	228	85
65	254	100
80	280	110
100	330	130
150	406	170
200	458	200



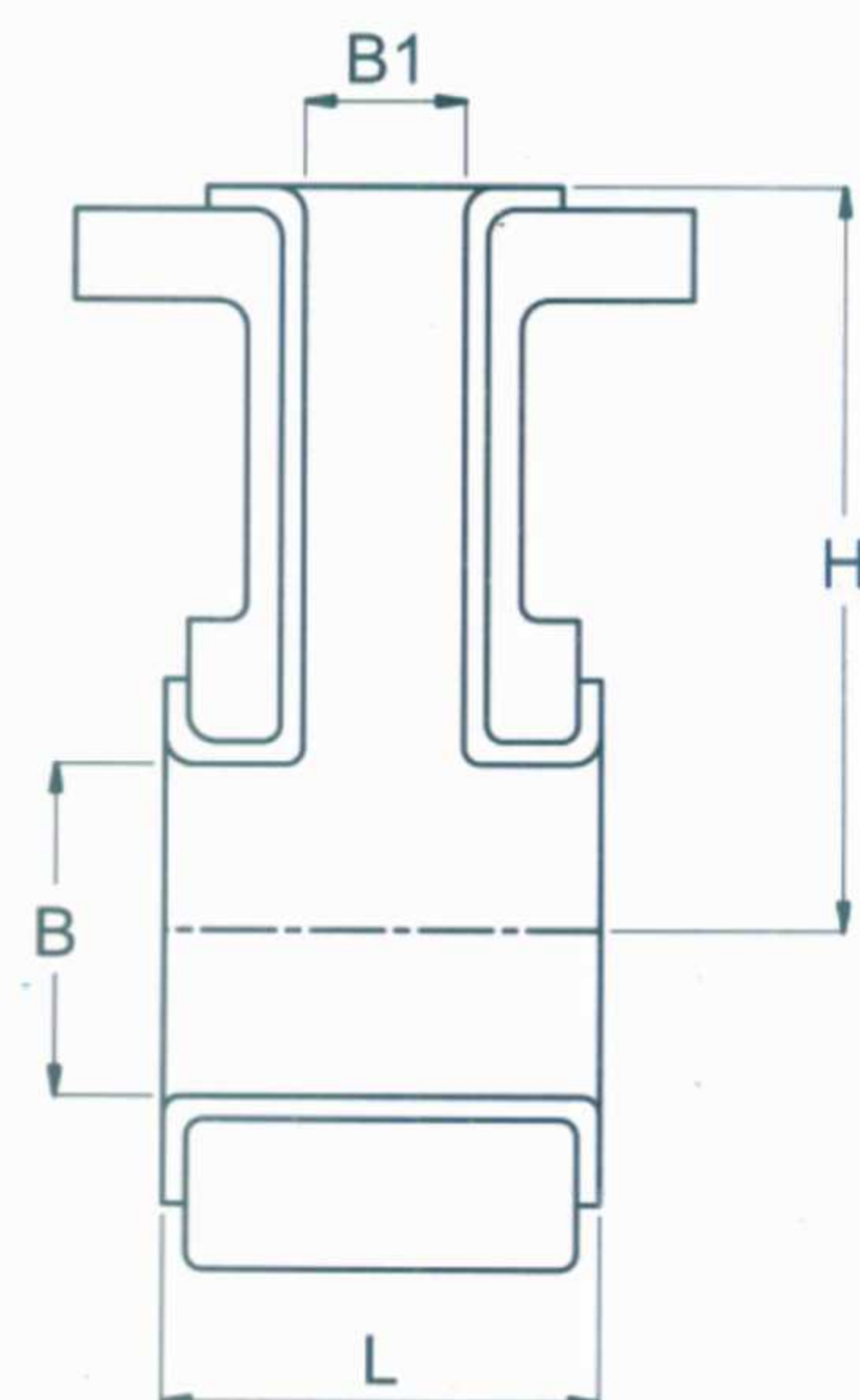
## Reducer (Concentric & Eccentric)

B	B1	L	B	B1	L
25	15	114	100	40	178
40	15	114	100	50	178
40	25	114	100	65	178
50	15	127	100	80	178
50	25	127	150	25	229
50	40	127	150	40	229
65	15	127	150	50	229
65	25	127	150	65	229
65	40	127	150	80	229
65	50	127	150	100	229
80	15	152	200	40	279
80	25	152	200	50	279
80	40	152	200	65	279
80	50	152	200	80	279
80	65	152	200	100	279
100	25	178	200	150	279



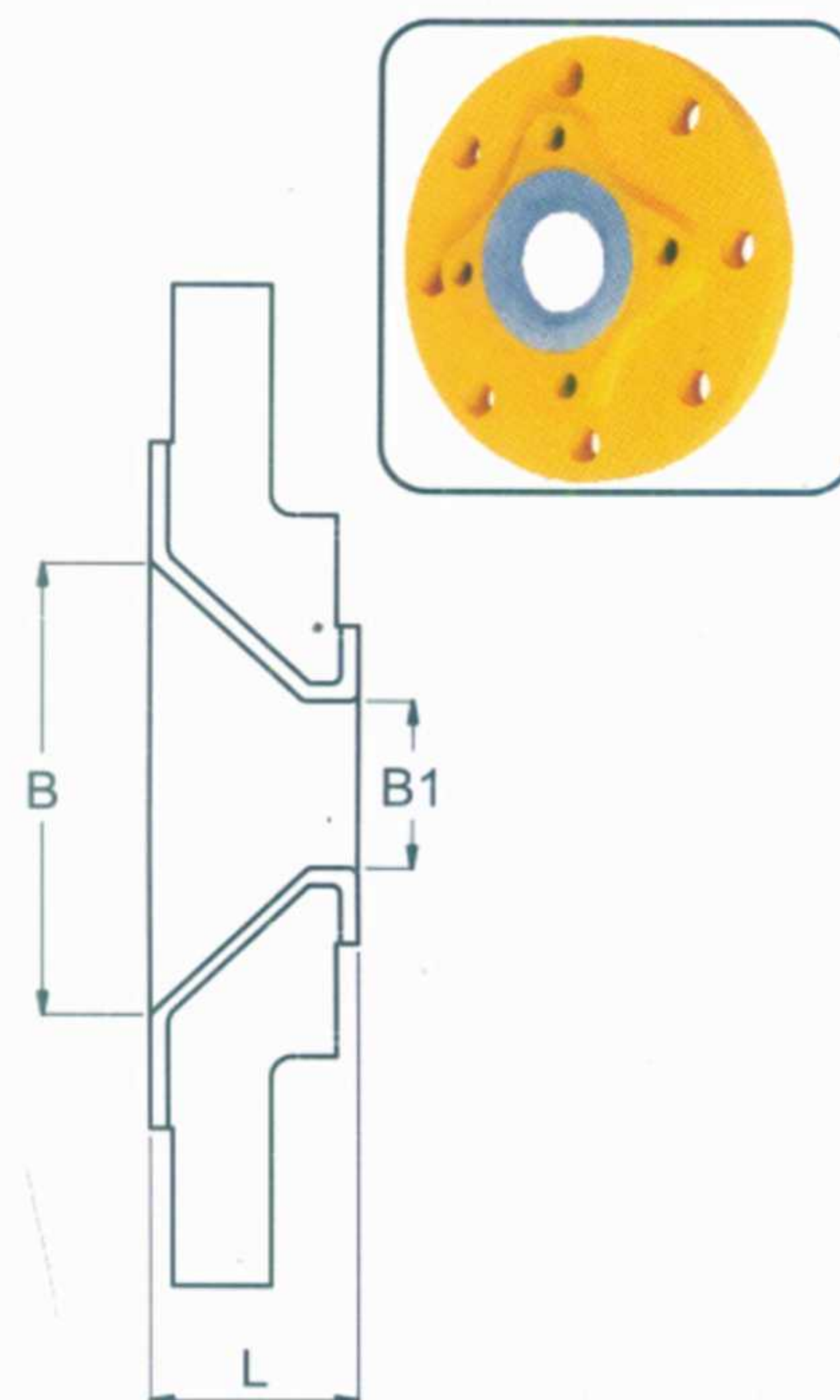
## Instrument Tee

B	B1	L	H
25	15	50	120
25	25	50	120
40	25	50	135
40	40	75	135
50	25	50	150
50	40	75	150
65	25	50	165
65	40	75	165
80	25	50	180
80	40	75	180
100	25	50	200
100	40	75	200
150	25	50	250
150	40	75	250



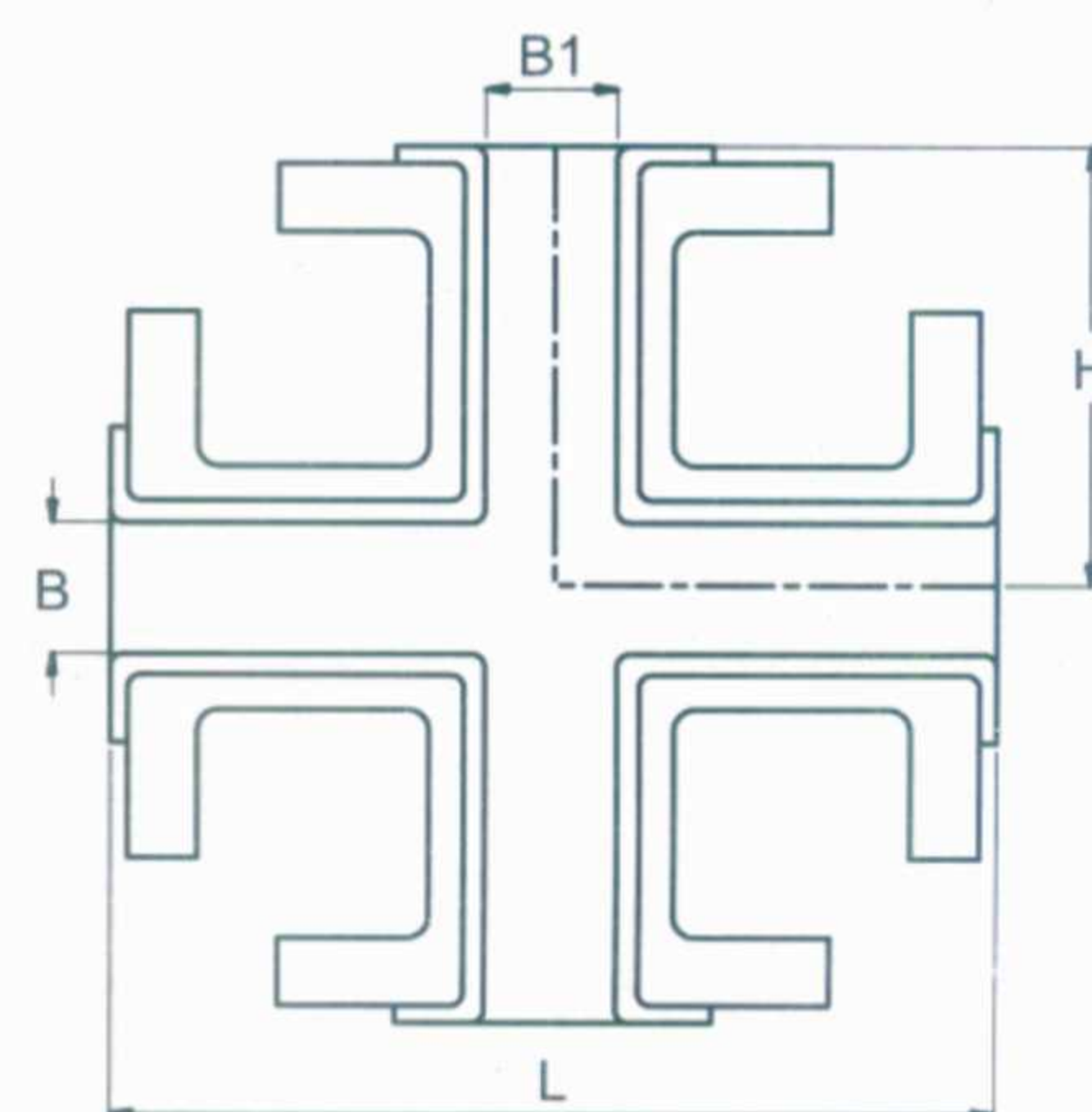
## Reducing Flange

B	B1	L	B	B1	L	B	B1	L
25	15	35	100	40	45	200	100	54
40	15	35	100	50	45	200	150	54
40	25	35	100	65	45	250	50	54
50	15	35	100	80	45	250	80	54
50	25	35	150	25	54	250	100	54
50	40	35	150	40	54	250	150	54
65	25	35	150	50	54	250	200	54
65	40	35	150	65	54	300	100	54
65	50	35	150	80	54	300	150	54
80	25	45	150	100	54	300	200	54
80	40	45	200	40	54	300	250	54
80	50	45	200	50	54	350	200	60
80	65	45	200	65	54	350	250	60
100	25	45	200	80	54	350	300	60



## Cross

B	B1	L	H	B	B1	L	H
25	15	178	89	80	50	280	140
25	25	178	89	80	65	280	140
40	15	204	102	80	80	280	140
40	25	204	102	100	25	330	165
40	40	204	102	100	40	330	165
50	15	228	114	100	50	330	165
50	25	228	114	100	65	330	165
50	40	228	114	100	80	330	165
50	50	228	114	100	100	330	165
65	25	254	127	150	50	406	203
65	40	254	127	150	65	406	203
65	50	254	127	150	80	406	203
65	65	254	127	150	100	406	203
80	25	280	140	150	150	406	203
80	40	280	140				



## FEP Lined Ball Valves

Size	L	H	H1
15	108	125	190
25	127	125	190
40	165	140	250
50	178	170	250
65	190	170	300
80	203	220	320
100	229	230	350
150	267	315	400

## Material of Construction

Sr. No.	Description	Material of Construction
1.	Body/Ball	Cast Iron/SG Iron/WCB/CF8/CF8M
2	Lining	PFA / FEP / HDPE
3	Seat	PTFE
4	Hardware	SS / MS / High Tensile

## Testing

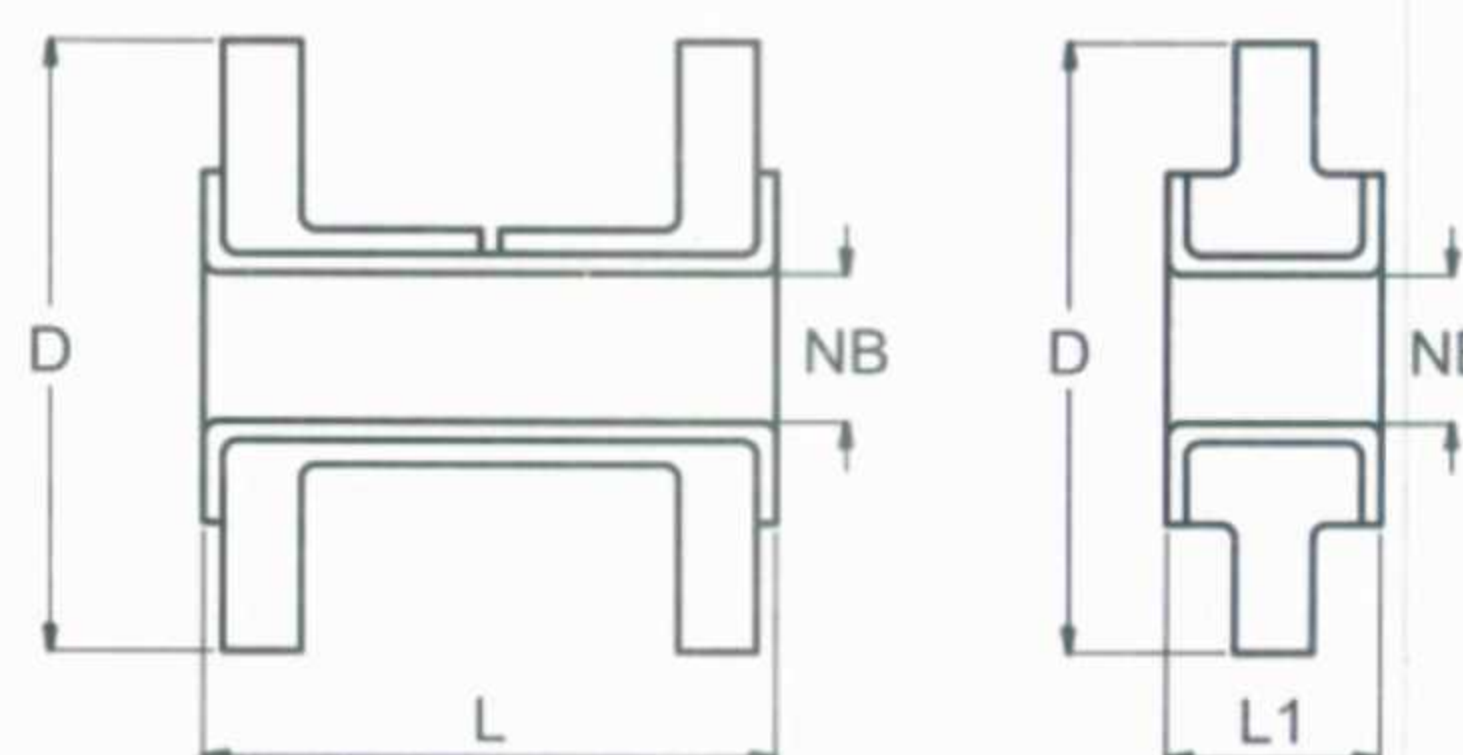
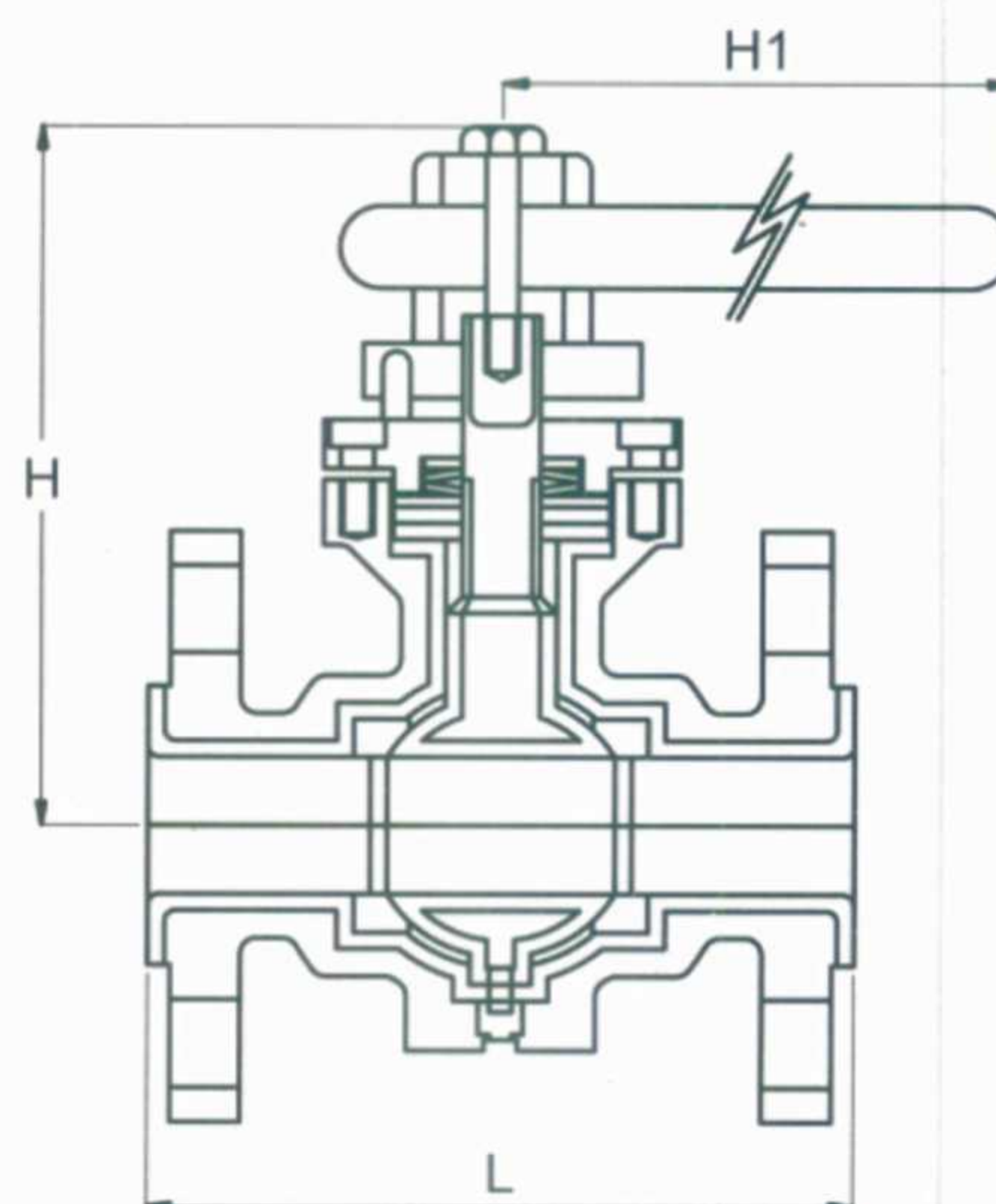
Hydraulic	Body	15 Kg/Cm <sup>2</sup>
	Seat	10 Kg/Cm <sup>2</sup>
Pneumatic	Body & Seat	6 Kg/Cm <sup>2</sup>
Vaccum Test		Full Vaccum
Electrostatic Test		25 KV

### Notes :

End Connection shall be as per ANSI B 16.5 Cl. 150 or as specified.  
 Operation facilities are available as Manually, Pneumatically or Motorized.  
 3.0 to 6.0 mm lining thickness on over all wetted parts.

## Spacer

Size	L	L1	D
25	Up to 100 mm	Up to 50 mm	108
40	Up to 100 mm	Up to 50 mm	127
50	Up to 100 mm	Up to 50 mm	152.4
80	Up to 100 mm	Up to 50 mm	190.5
100	Up to 100 mm	Up to 50 mm	228.6



## PTFE Lined Pipes

Size	L	R	D
25	100 to 3000	50.8	108
40	100 to 3000	73	127
50	100 to 3000	92	152.4
65	100 to 3000	104.8	177.8
80	100 to 3000	127	190.5
100	100 to 3000	157.2	228.6
150	100 to 3000	216	279.4
200	100 to 3000	270	342.9
250	100 to 3000	324	406.4
300	100 to 3000	381	482.6

## Material of Construction

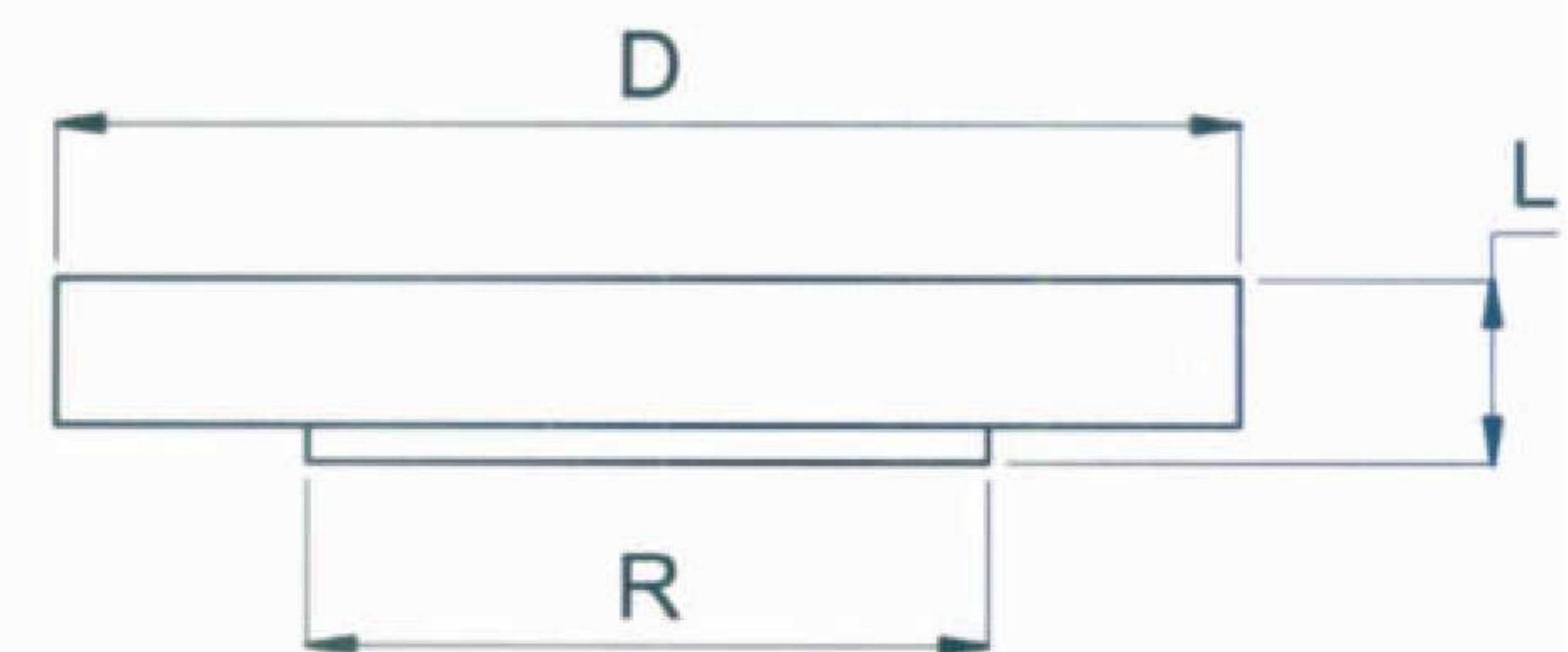
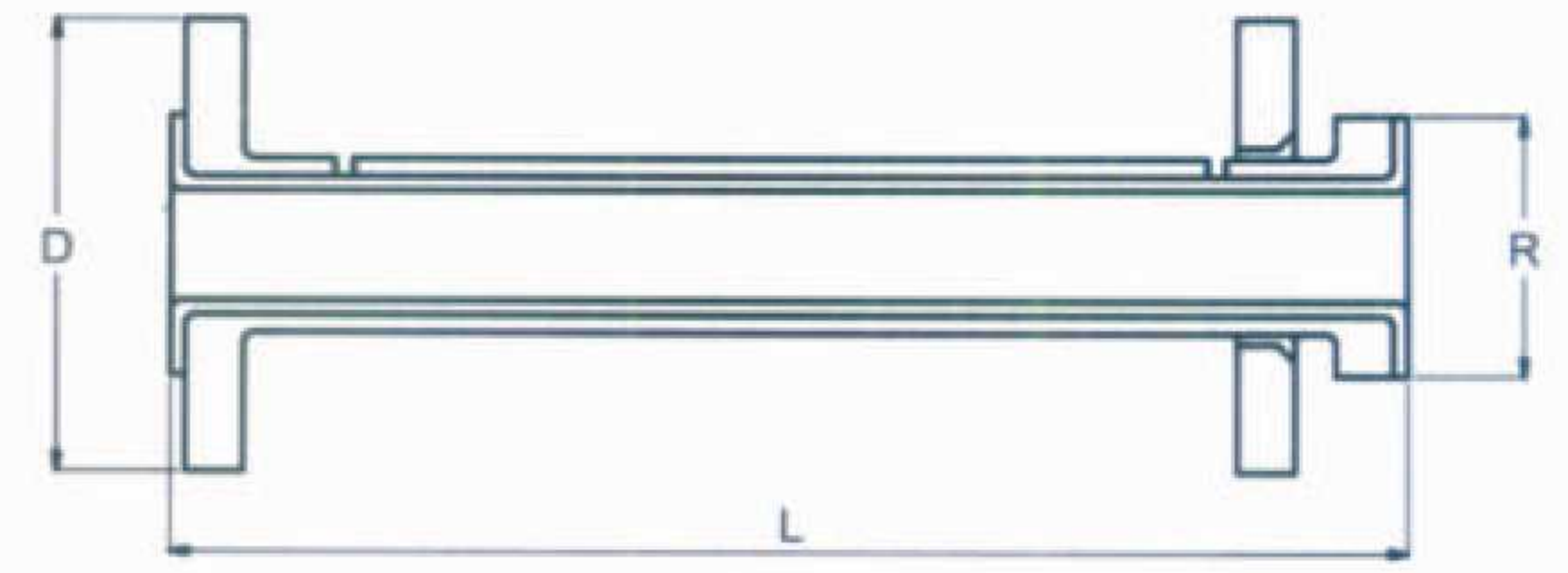
Sr. No.	Description	Material of Construction
1	Pipe	ASTM A 106 Gr. B. Sch.40 Seamless Pipe
2	Flanges	IS 2062 Flanges with Drilling dimension as per ANSI B 16.5 Cl. 150 or otherwise specified.
3	Liner	ASTM D 4895, PTFE ASTM D 1457

### Notes :

- 1 Pipes are normally supplied with one Fixed and one rotating Loose Flange to accommodate any bolt hole misalignment.
- 2 Fix/Loose/Split flanges on one/both sides can also be supplied on request.
- 3 Pipes can be supplied as per the length specified by the Customer.
- 4 Pipes with Jacketed arrangement can also be supplied.
- 5 Standard thicknesses of PTFE ranging from a minimum of 3 mm to a maximum of 7 mm are being used.

## Blind Flange

Size	D	R	L
25	108	50.8	17
40	127	73	21
50	152.4	92	23
65	177.8	104.8	26
80	190.5	127	27
100	228.6	157.2	27
150	279.4	216	29
200	343	270	33



## Dip Pipe/Sparger

Dip pipes are used to deliver or withdraw liquids or gases to and from Reactor Vessels, Columns and Storage tanks.

Following are the sketches of Dip pipe types which we can be offered.

SIZE	NB	D	D1	F	L
25 / 40	25	108	127	150	Upto 3000 mm
25 / 50	25	108	152.4	150	Upto 3000 mm
40 / 50	40	127	152.4	150	Upto 3000 mm
40 / 65	40	127	177.8	150	Upto 3000 mm
40 / 80	40	127	190.5	150	Upto 3000 mm
50 / 65	50	152.4	177.8	150	Upto 3000 mm
50 / 80	50	152.4	190.5	150	Upto 3000 mm
50 / 100	50	152.4	228.6	150	Upto 3000 mm
80 / 100	80	190.5	228.6	150	Upto 3000 mm
80 / 150	80	190.5	279.4	150	Upto 3000 mm
100 / 150	100	228.6	279.4	150	Upto 3000 mm

## Material of Construction

Sr. No.	Description	Material of Construction
1.	Pipe	ASTM A 106 Gr. B. Sch.40 Seamless Pipe
2	Flanges	IS 2062 Flanges with Drilling dimension as per ANSI B 16.5 Cl. 150 or otherwise specified.
3	Liner	ASTM D 4895, PTFE ASTM D 1457

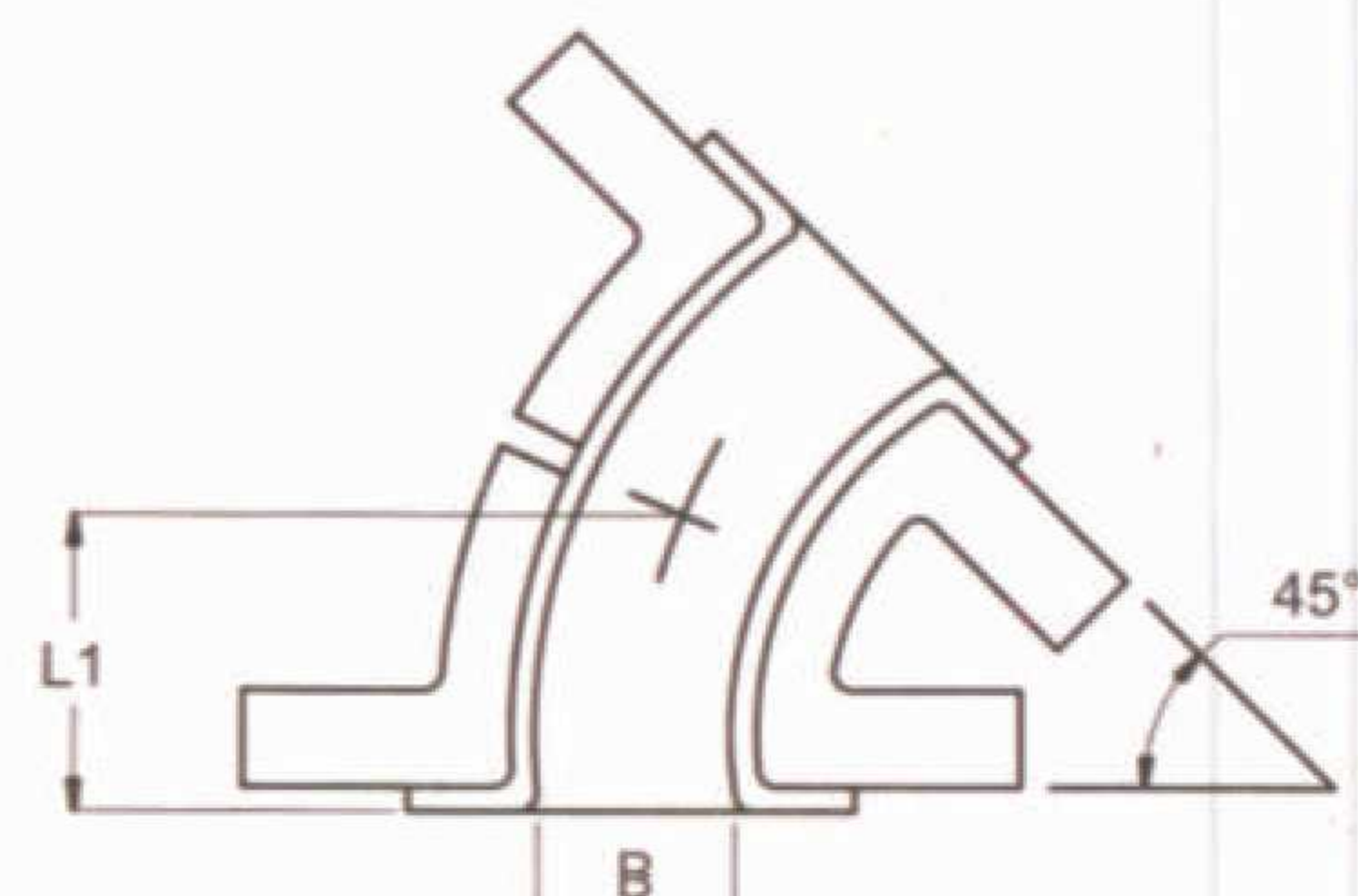
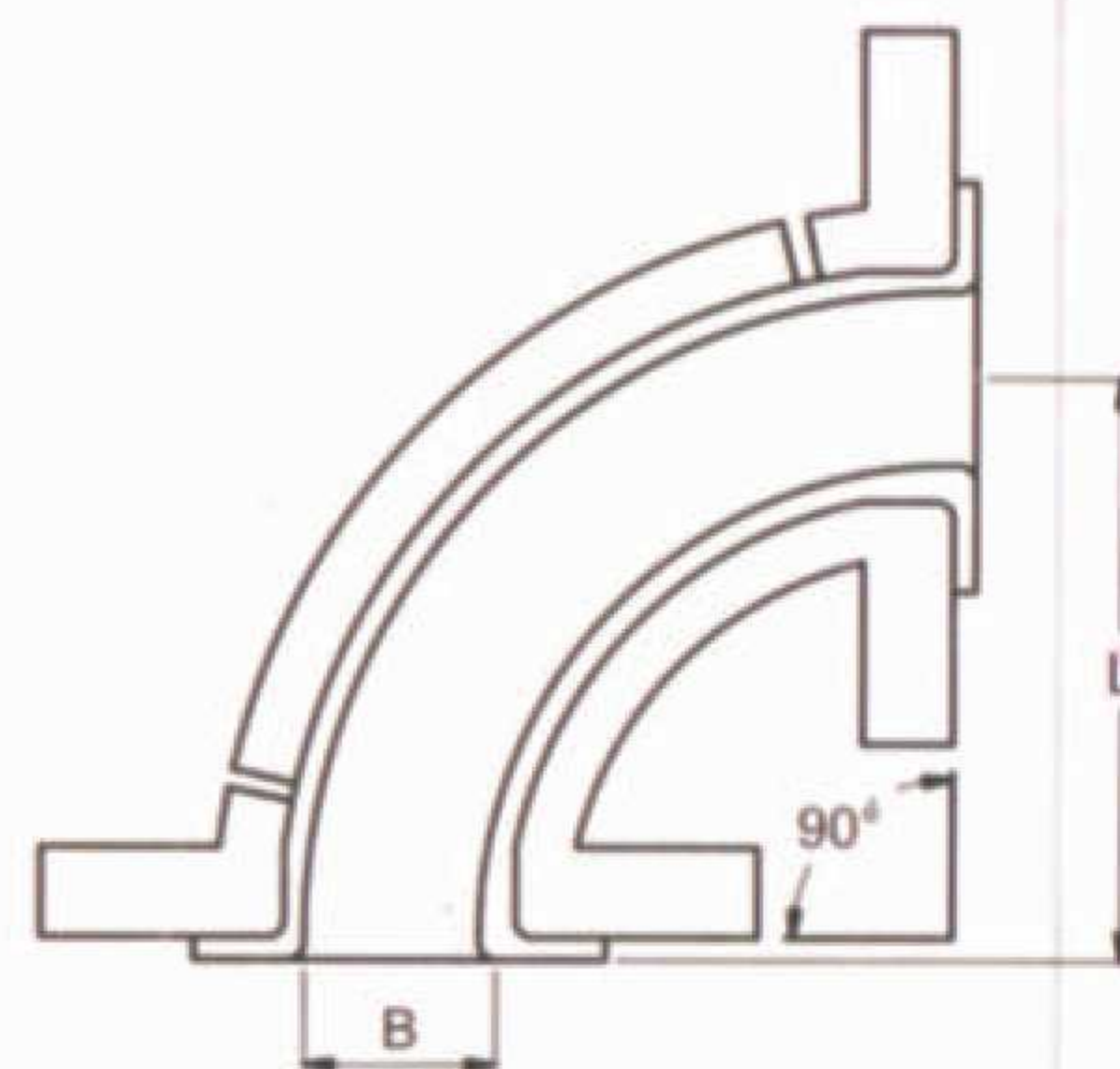
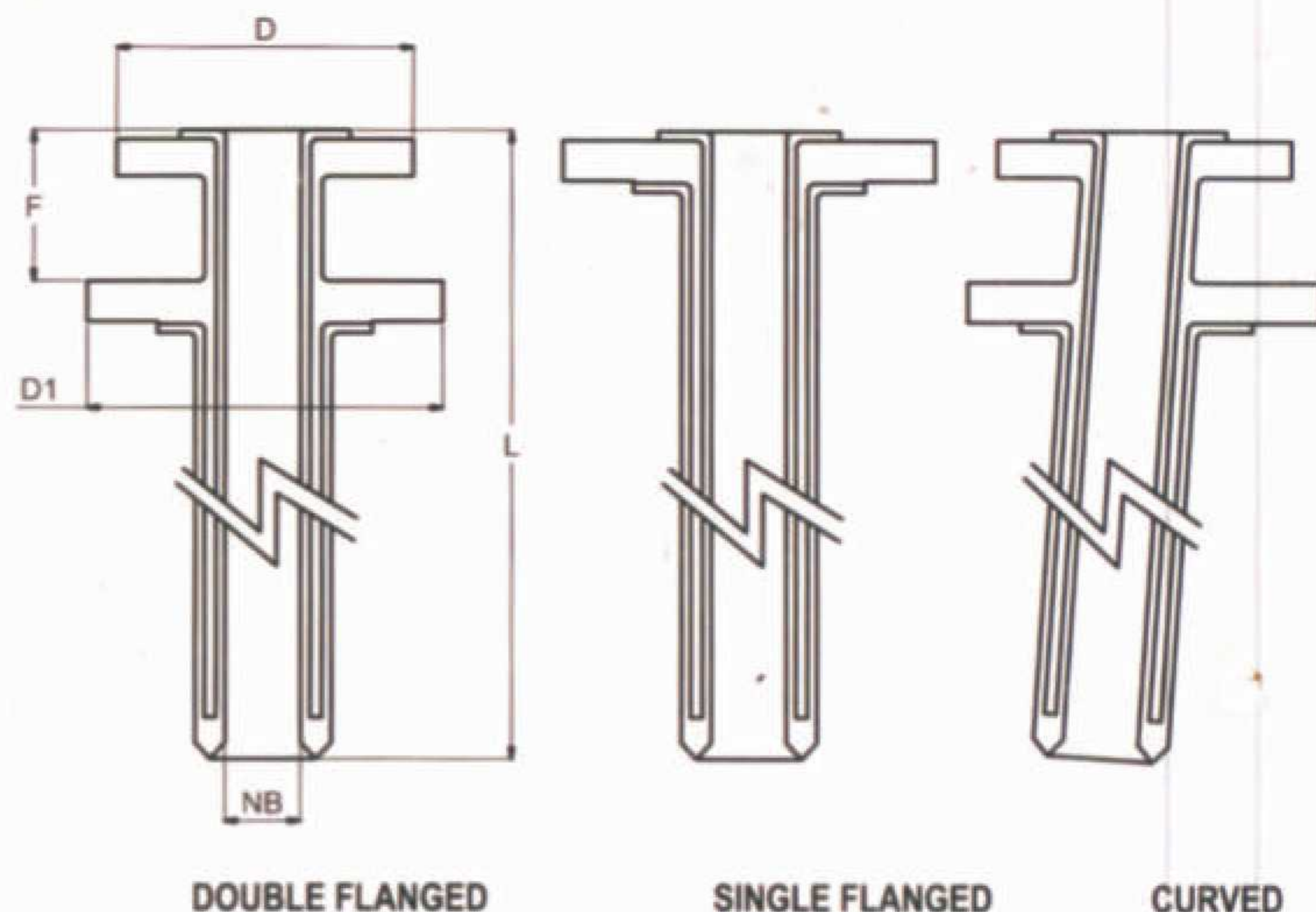
- Dip Pipes with nominal bore of 25 mm to 100 mm with lengths upto 3000 mm and flanges as per customers requirements shall be supplied.
- Dip pipes can be supplied in curved units and in single & double flanged units.
- Dip Pipes can be supplied as per the length specified by the Customer.
- Sparger is made out of solid PTFE extensions.

## Bend / Elbow (90 Deg)

B	L
25	89
40	102
50	114
65	127
80	140
100	165

## Bend / Elbow (45 Deg.)

B	L1
25	44
40	57
50	63
65	76
80	76
100	102





## Our Product Range

Ball Valve  
Tee (Equal /Unequal)  
Cross (Equal / Unequal)  
Instrument Tee  
Sight Glass  
Blind Flange

Reducing Flange  
Reducer (Ecc.& Concentric)  
Pipe Section  
Bend (45 & 90 deg.)  
Dip Pipe  
Spacers



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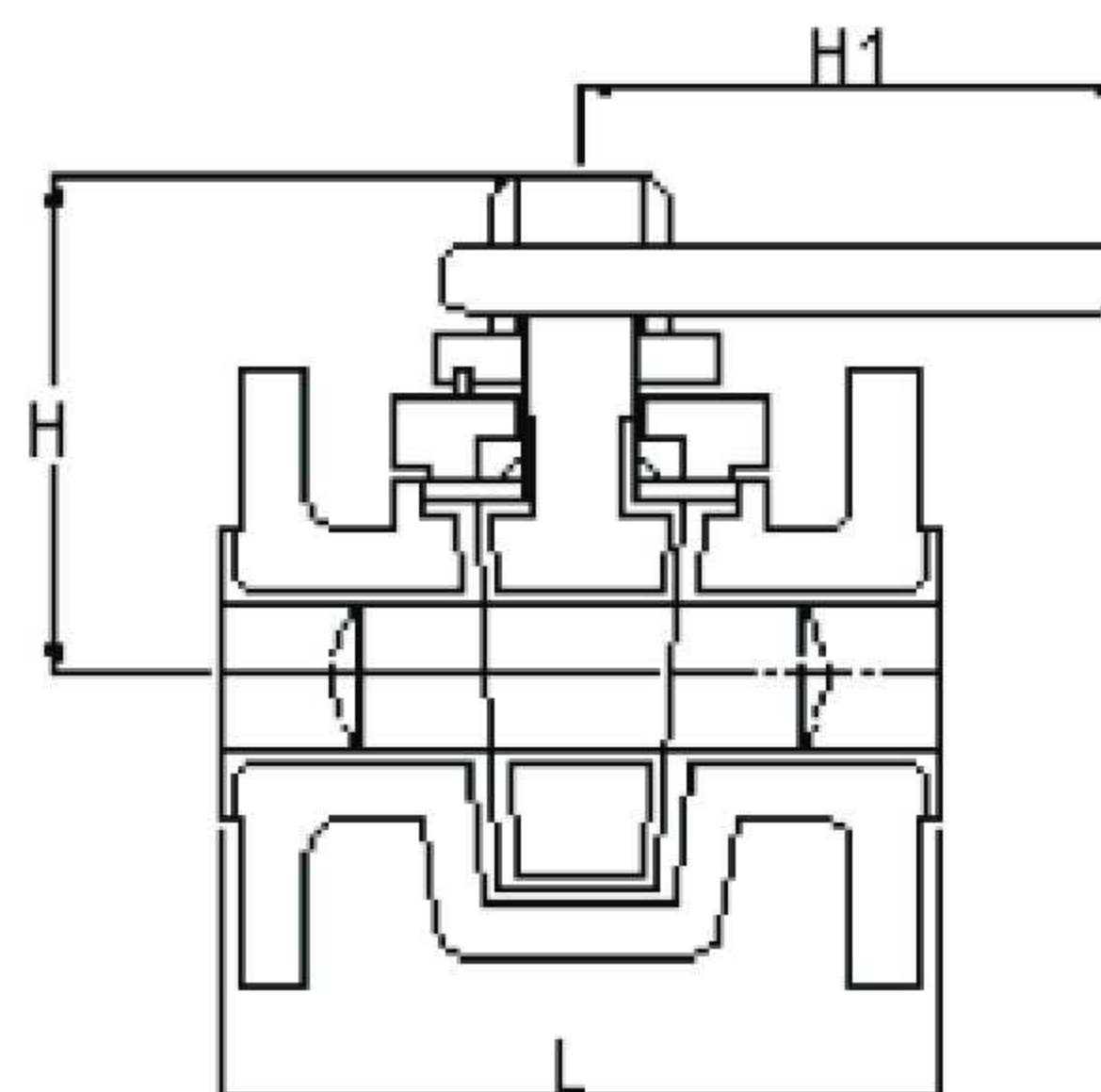
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+91 (265) 2563472, 2510093  
rakesh@singlascientific.com





## Plug Valves

Size	L	H	H1
15	108	100	205
25	127	100	205
40	165	125	230
50	178	140	315
65	190	175	315
80	203	175	355
100	229	230	465
150	267	300	500

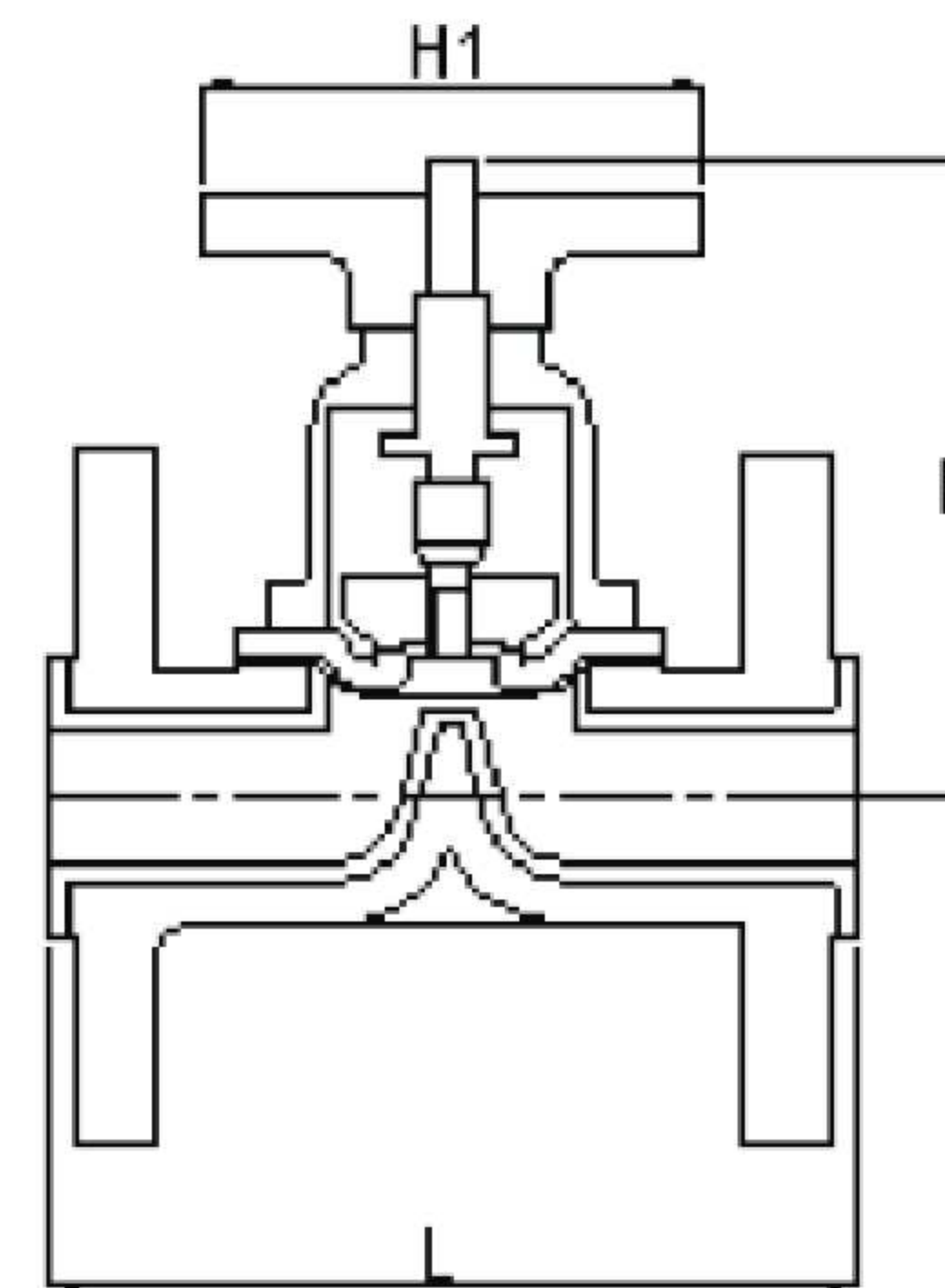


## Material of Construction

Sr. No.	Description	Material of Construction
1	Body/Plug	Cast Iron/SG Iron/WCB/CF8/CF8M
2	Lining	PFA / FEP / HDPE
3	Hardware	SS / MS / High Tensile

## Diaphragm Valves

Size	L	H	H1
25	133	120	100
40	166	150	120
50	196	180	140
80	262	250	200
100	314	300	240
150	418	400	300



## Material of Construction

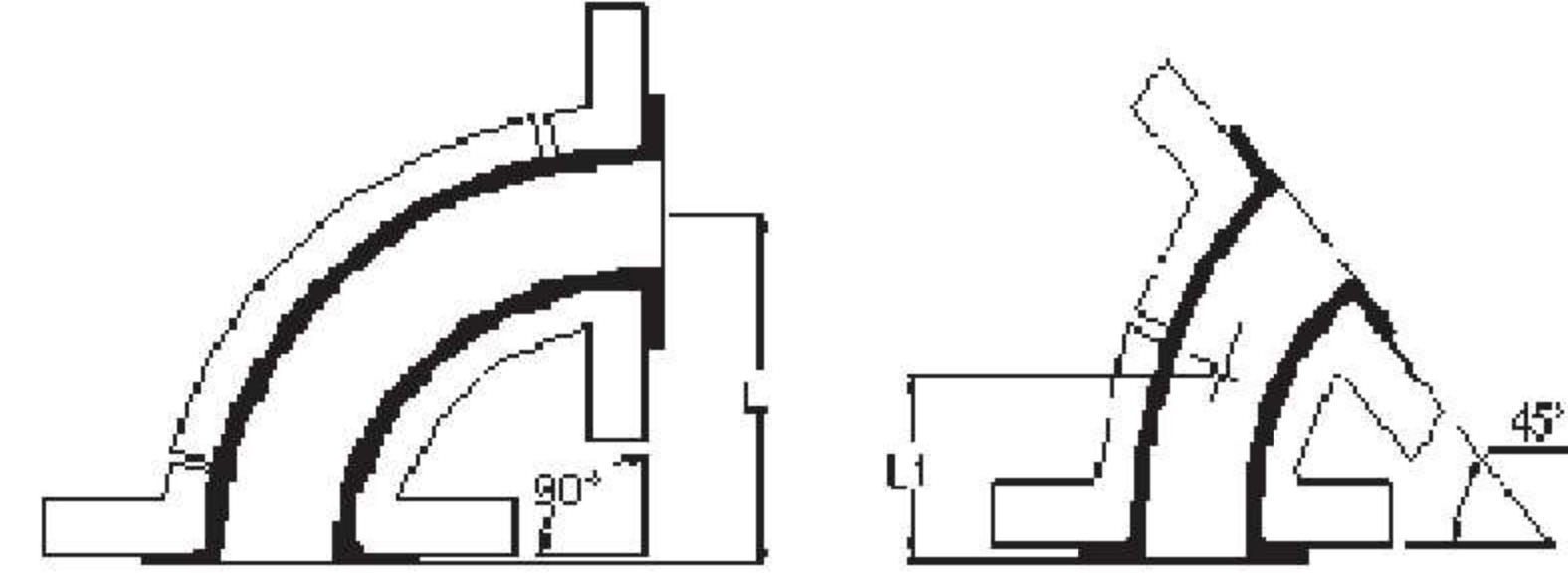
Sr. No.	Description	Material of Construction
1	Body/Cover	Cast Iron/SG Iron/WCB/CF8/CF8M
2	Hand Wheel	Cast iron
2	Lining	PFA / FEP / HDPE
3	Hardware	SS / MS / High Tensile

### Notes :

End Connection shall be as per ANSI B 16.5 Cl. 150 or as specified.  
3.0 to 6.0 mm lining thickness on over all wetted parts.

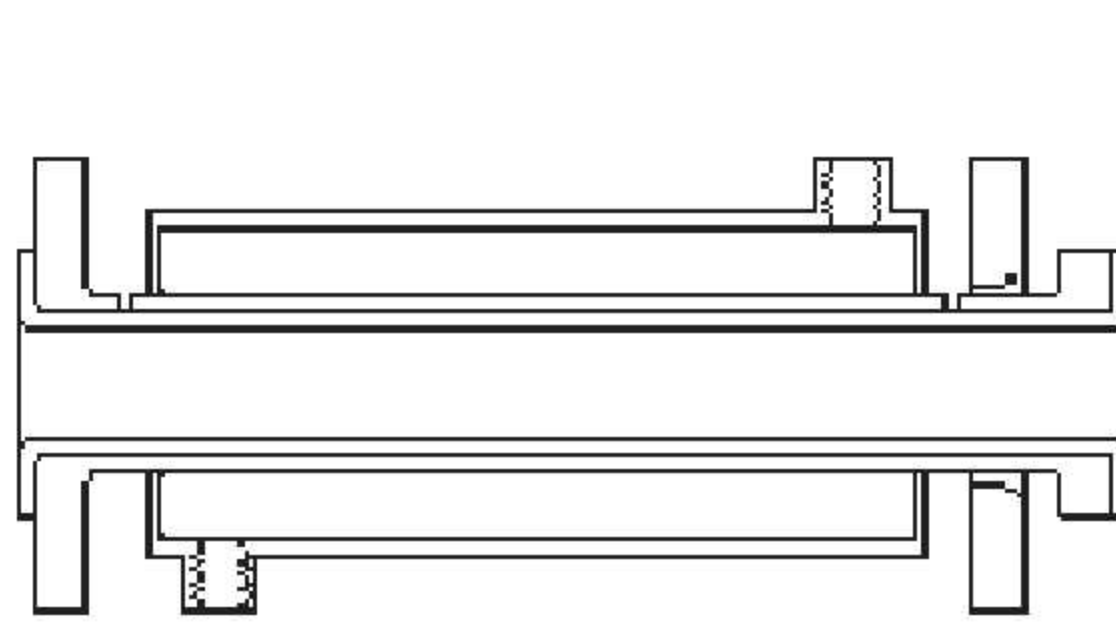
## Bend / Elbow (90 Deg./45 Deg.)

Size	L	L1
150	203	127
200	229	140

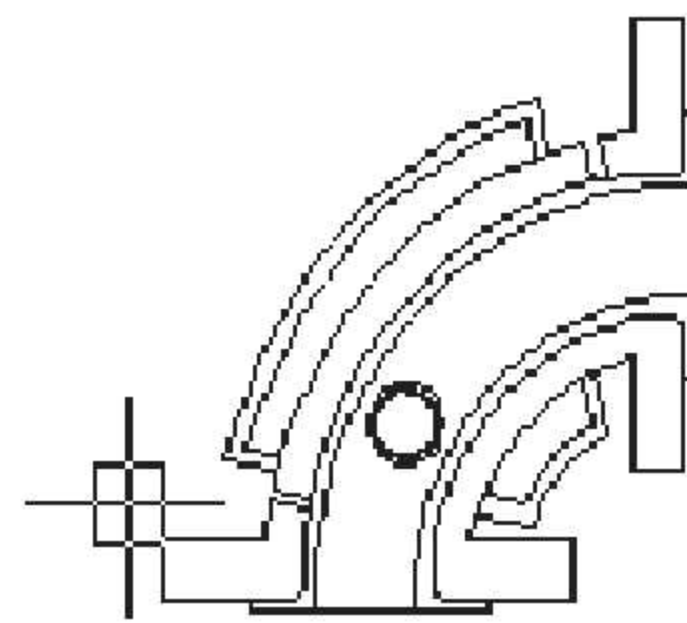


## Jacketed Fittings

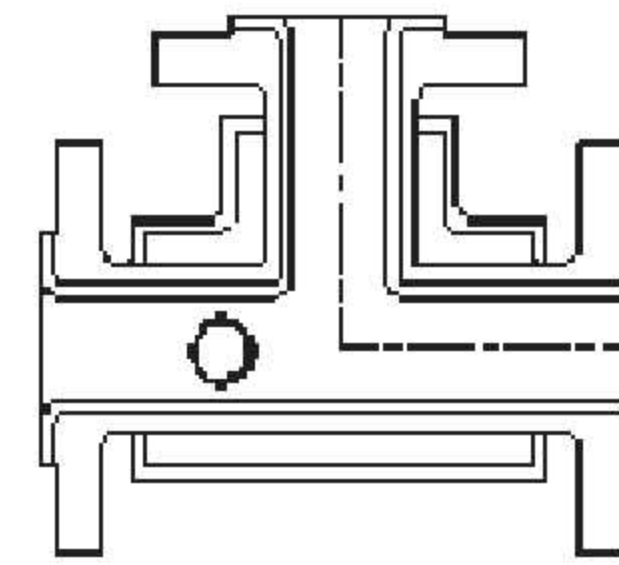
Pipes & Pipe Fittings can be supplied with Jacketed arrangements. Following are some sketches of items which we can offer.



Pipe



Bend



Tee

### Notes :

End Connection shall be as per ANSI B 16.5 Cl. 150 or as specified.  
3.0 to 6.0 mm lining thickness on over all wetted parts.

## Our Product Range

Ball Valve  
Plug Valve  
Diaphragm Valve  
Tee (Equal / Unequal)  
Cross (Equal / Unequal)  
Instrument Tee  
Sight Glass

Blind Flange  
Reducing Flange  
Reducer ( Ecc. Concentric )  
Pipe Section  
Bend (45 & 90 Deg.)  
Dip Pipe  
Spacers

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