



# RASAI

## LINED CHECK VALVES

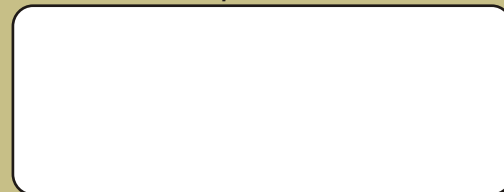
### About Ourselves

**RASAI** is an International Company. Founded in 1981, Rasaii Flow Lines has been engaged in design, Manufacture and Distribution of High Tech Valves.

Over the last 20 years, **RASAI** has been providing its Valves for various end - uses and applications in refineries, petrochemicals, fertilizers, sugar, paper, steel, cement, chemical and pharmaceutical industries as well as in power plants around the world.

**RASAI**'s design and engineering are novel and unique and conform to international standards and specifications. Our products are tested for various standards and ratings and are superior in quality.

**Our Distributor / Representative :**



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# RASAI

## LINED CHECK VALVES

MATCHLESS IN QUALITY AND VALUE

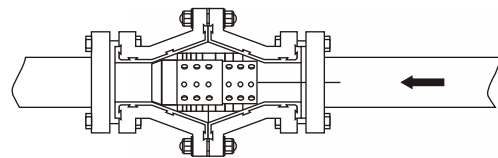
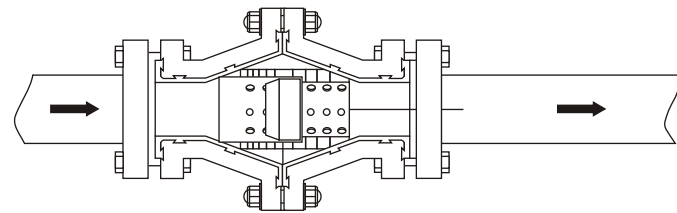


**Innovative, Vertical and Horizontal type Check Valves for Slurry, Solvent, Pure Chemicals, Highly Corrosive Acids etc.**

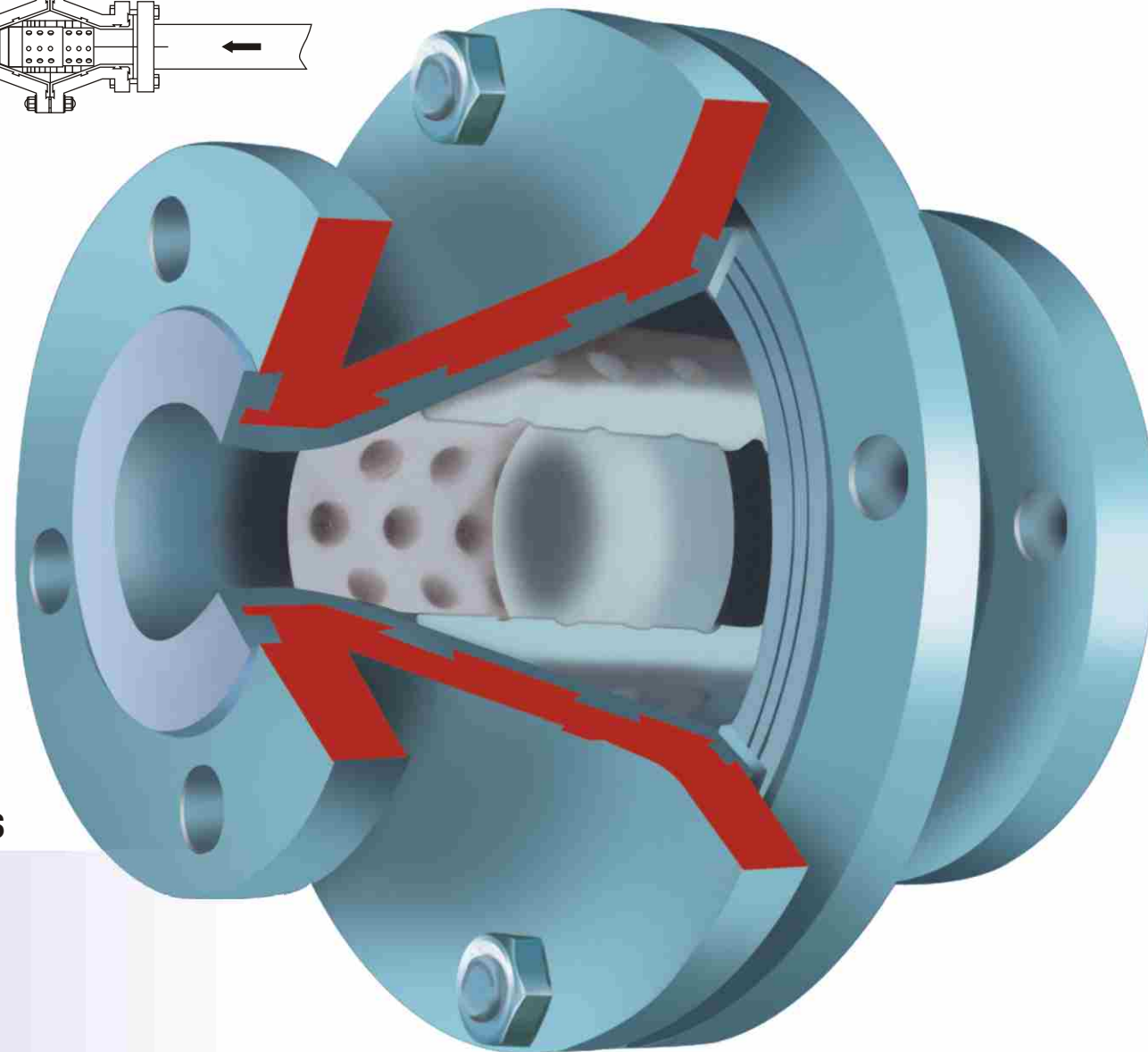
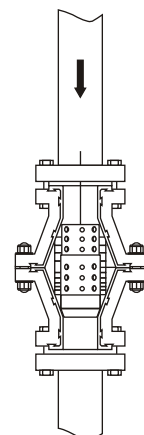
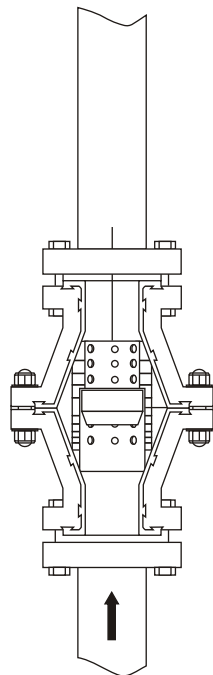
Manufactured by :  
**RASAI FLOW LINES**  
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# LINED CHECK VALVE TYPE 'A'

HORIZONTAL FLOW



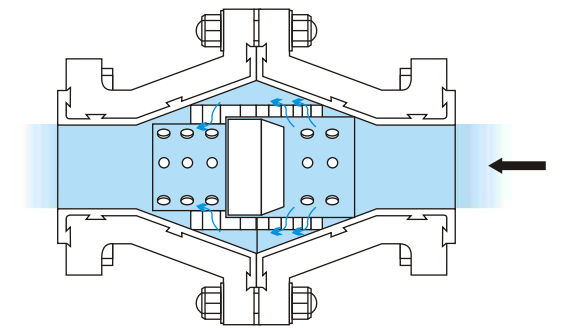
VERTICAL FLOW



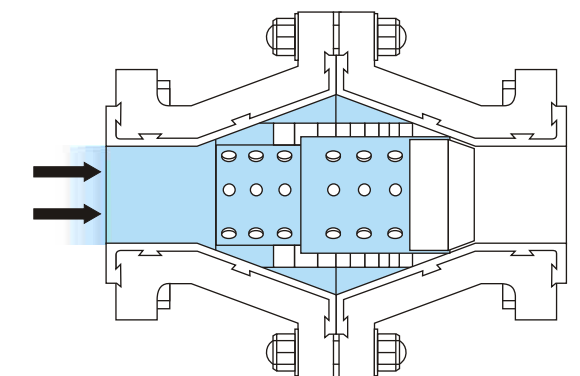
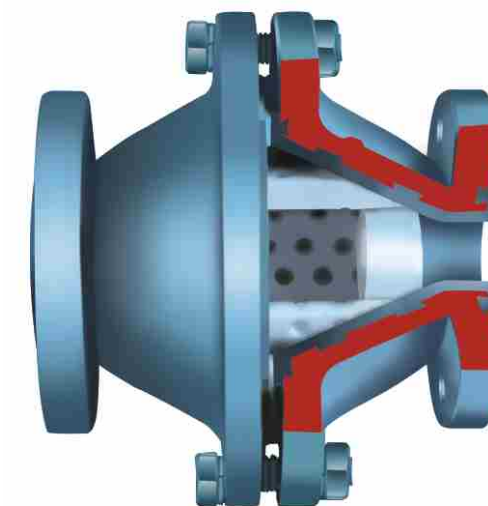
## Design features

- Full port.
- Uni-directional flow.
- Less pressure drop.
- Dual function.
- Innovative filter cum valve (Puppet design).
- Hazardous chemical flow regulator.
- Valves often out perform expensive exotic alloy valves, economical handling of corrosive or high-purity flow media.
- External body of the valve is coated with corrosion-resistant.
- Designed in accordance with international standards and specifications

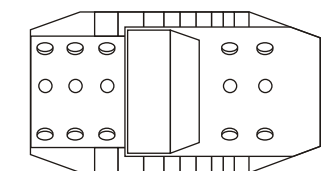
Design	BS 1863	Parts	Ductile iron	Cast steel
Face to Face	BS: 2080 / ANSI B 16.10	Body	ASTM A395 (DI)	ASTM A216 Gr. WCB
Drilling Standard	ANSI B 16.5	Puppet	PTFE	
Inspection and Testing	BS: 6755 PART 1 / API 598	Lining	FEP / PFA	
		Studs	H.T. Steel	ASTM A 193 Gr. B7
		Nuts	Steel	ASTM A 194 Gr. 2H



When in operation



How the back pressure works?



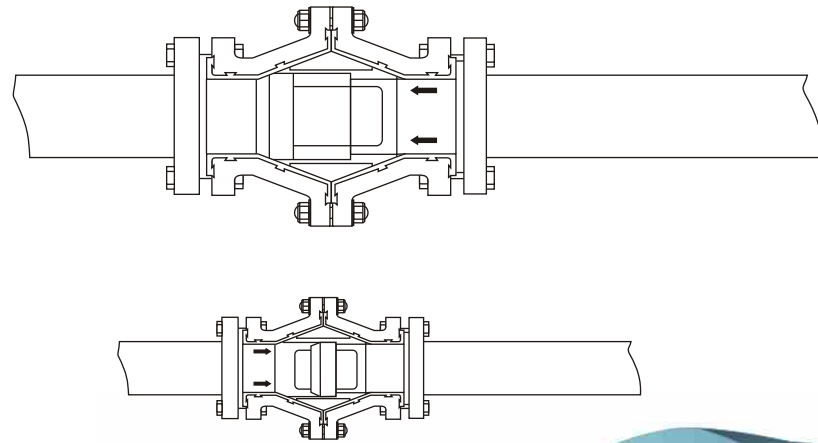
## Innovative puppet cum filter design

Check valve with dual function, filter cum valve®  
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V.Ravichandran  
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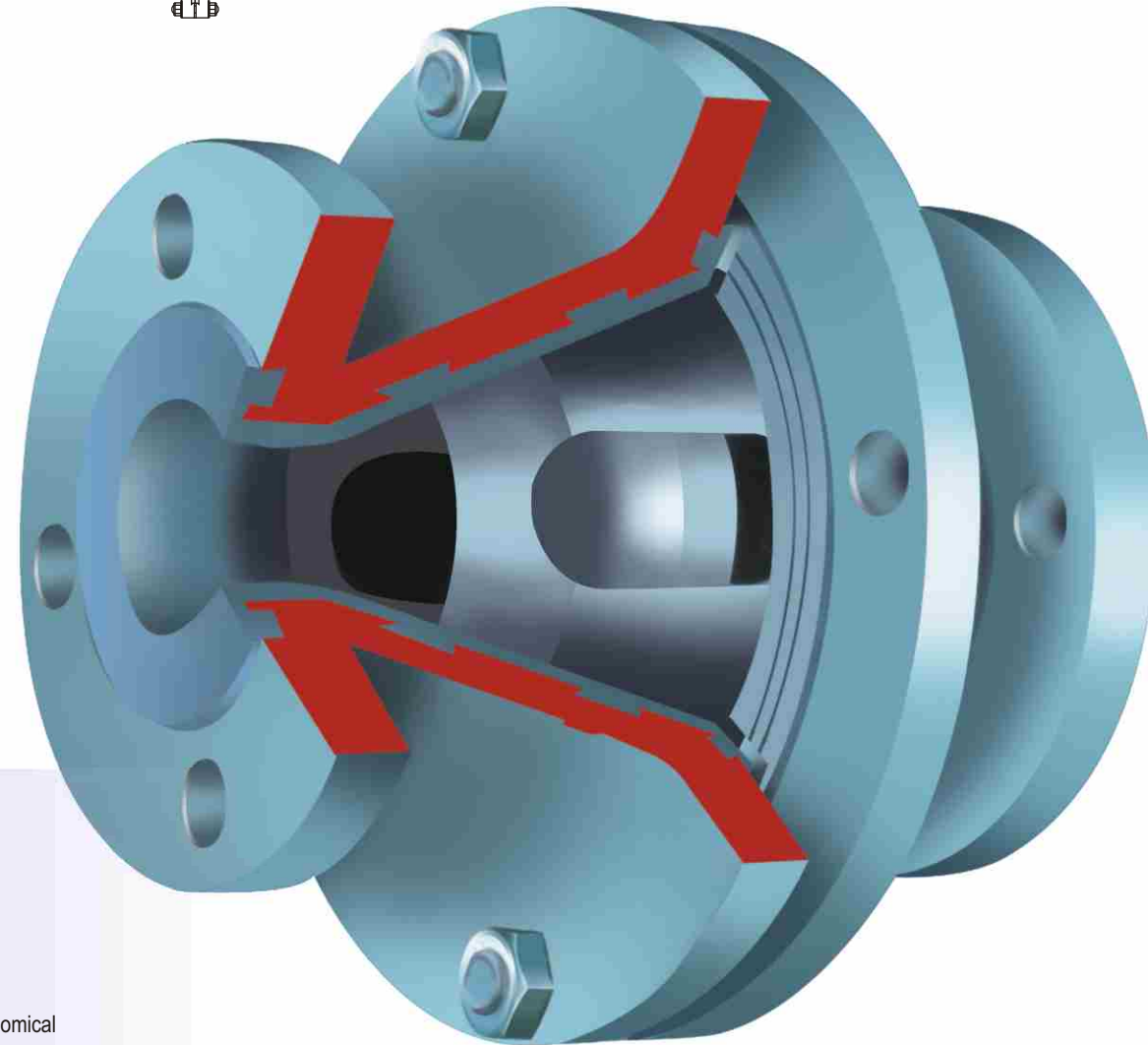
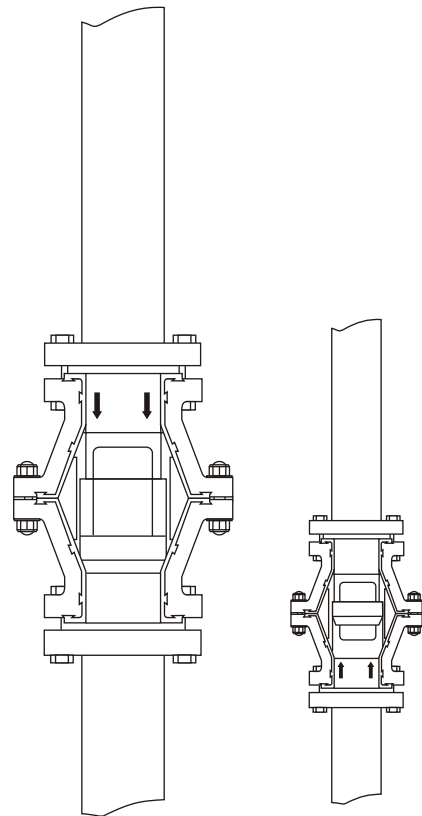
This Valve is specially designed for vertical as well horizontal flow media. The puppet taper will never change even after million operations. Whereas in the ball type, ball lasts it's shape after a few operations. Many more users have two different Valves, one for vertical another for horizontal lines. Wherein, the puppet type is applicable for both functions. We offer this Valve design with filter and puppet. Total area of the perforated holes provided in the filter is more than the pipe area, this minimize the pressure loss across the Valve.

# LINED CHECK VALVE TYPE 'B'

HORIZONTAL FLOW



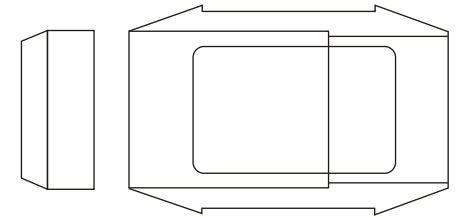
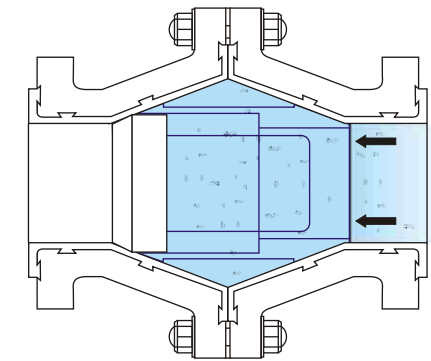
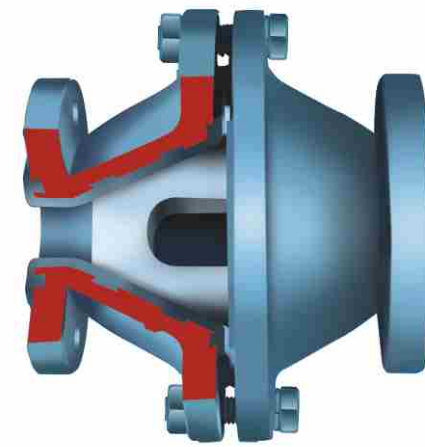
VERTICAL FLOW



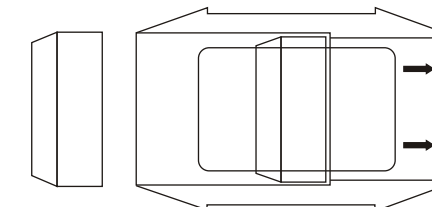
## Design features

- Full port.
- Uni-directional flow.
- Less pressure drop.
- Dual function.
- Innovative puppet design.
- Hazardous chemical flow regulator.
- Valves often out perform expensive exotic alloy valves, economical handling of corrosive or high-purity flow media.
- External body of the valve is coated with corrosion-resistant.
- Designed in accordance with international standards and specifications

This Valve is specially designed for vertical as well horizontal flow media. The puppet taper will never change even after million operations. Whereas in the ball type, ball loses its shape after a few operations. Many more users have two different Valves, one for vertical another for horizontal lines. Wherein, the puppet type is applicable for both functions. We offer this Valve design with puppet. The Valve is very effective in slurry and sludge operations. The flow level of media is well maintained economically.



PUPPET DESIGN



The puppet design is suitable for slurry and sludge applications

## HOW TO ORDER YOUR LINED CHECK VALVE ?

### VALVE TYPE

LCV	LINED CHECK VALVE
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### PRESSURE CLASS

1	150#
3	300#

### BODY

02	DI
03	WCB
04	SS 316 (CF8M)

### LINING

A	PFA
B	FEP

### PUPPET

N	PTFE (TEFLON)
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### END CONNECTION

FE	FLANGED END
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### Sizes

SIZES	INCHES	MM
0100	1"	25
0150	1½"	40
0200	2"	50
0300	3"	80
0400	4"	100

### Example\*

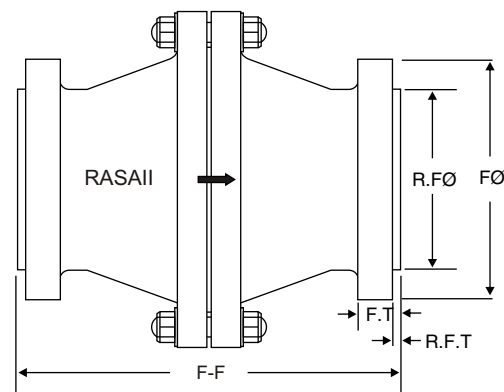
Lined Check Valve	LCV
Pressure class	1
Body	02
FEP lining	B
Puppet	N
Flanged End	FE
Size 2"	0200

SPECIFY THE FOLLOWING WITH PART NUMBERS:  
Lined Check Valve, Class, Body, Lining, Puppet, End Connection, Size.

\*EXAMPLE:  
**LCV102BNFE0200**

Lined Check Valve, Class 150#, Body - Ductile Iron, Lining-FEP (Fluorinated Ethylene Propylene), Puppet-PTFE., End Connection - Flanged End, Size - 2".

# LINED CHECK VALVE WITH DIMENSIONS



**British Unit**

all dimensions in Inches

Size	F-F		FØ		F.T		RFØ	RFT	P.C.D		NOH		SOH		C-H	
	CLASS		CLASS		CLASS				CLASS		CLASS		CLASS		CLASS	
	150#	300#	150#	300#	150#	300#			150#	300#	150#	300#	150#	300#	150#	300#
1	5.00	6.50	4.25	4.88	.63	.69	2.00	.12	3.13	3.50	4	4	.63	.75	3.25	3.25
1½	6.50	7.50	5.00	6.13	.75	.81	2.88	.12	3.88	4.50	4	4	.63	.88	3.75	3.75
2	7.00	8.50	6.00	6.50	.82	.88	3.63	.12	4.75	5.00	4	8	.75	.75	4.50	4.50
3	8.00	11.13	7.50	8.25	.97	1.13	4.75	.12	6.00	6.63	4	8	.75	.88	5.00	5.00
4	9.00	12.00	9.00	10.00	1.16	1.25	6.19	.12	7.50	7.88	8	8	.75	.88	6.10	6.10

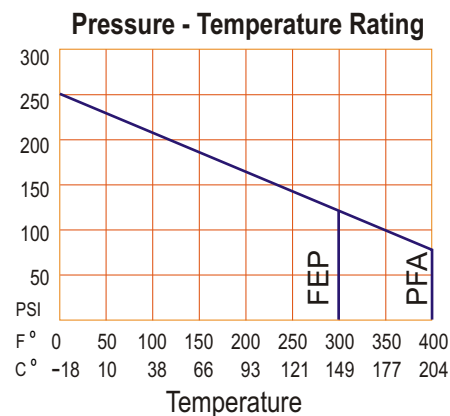
**Metric Unit**

all dimensions in Millimetre

Size	F-F		FØ		F.T		RFØ	RFT	P.C.D		NOH		SOH		C-H	
	CLASS		CLASS		CLASS				CLASS		CLASS		CLASS		CLASS	
	150#	300#	150#	300#	150#	300#			150#	300#	150#	300#	150#	300#	150#	300#
25	127	165	108	124	16	17.5	51	3	79	89	4	4	16	19	82	82
40	165	190	127	155	19	20.5	73	3	98	114	4	4	16	22	95	95
50	178	215	152	165	21	22.3	92	3	120	127	4	8	19	19	114	114
80	203	282	190	209	24	28.7	120	3	152	168	4	8	19	22	127	127
100	228	305	229	254	29	31.7	157	3	190	200	8	8	19	22	155	155

### LEGEND

F-F	FACE TO FACE	RFT	RAISED FACE THICKNESS
FØ	FLANGE DIAMETRE	P.C.D	PITCH CIRCLE DIAMETRE
F-T	FLANGE THICKNESS	NOH	NUMBER OF HOLES
RFØ	RAISED FACE DIAMETRE	SOH	SIZE OF HOLE



Size	Allowable leakage rate @60 psi	Approximate pressure (psi) to seat (p)	
		Horiz. Pipe	Vert. Pipe
1"	30 bubbles / min	0	Less than 1 psi
1½"	30 bubbles / min	0	
2"	60 bubbles / min	0	
3"	60 bubbles / min	0	
4"	60 bubbles / min	0	

### Cv Factors

Size	1"	1½"	2"	3"	4"
	26	55	88	220	510

# LINED SIGHT GLASS

Sizes 1" - 6"

ANSI 150# & 300#

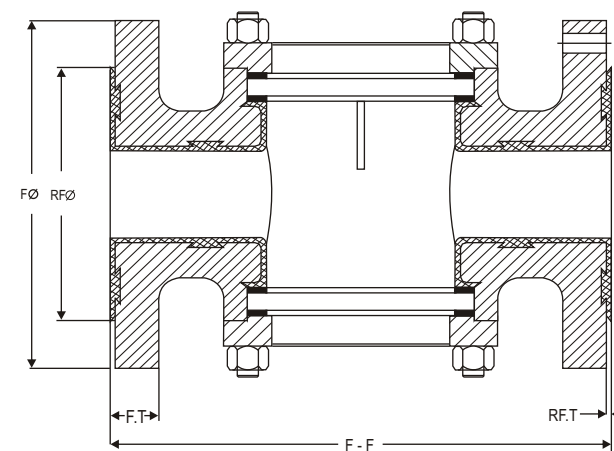


Safe and shatterproof, each window consists of two toughened glasses. Fluid flow can be viewed side ways. The integrated Drip lip provides visual flow indication even at low velocity.



### HIGHLY CORROSION RESISTANT LINERS

Molded Fluoro Carbon Liners like PFA or FEP, depending upon application, offer both long service life and high corrosion resistance due to the thick, uniform blowhole free liner. The inherent properties of the liner itself provides non-stick and ideal for highly viscous and high purity applications.



### MATERIALS OF CONSTRUCTION

Body	Ductile iron
Top and bottom covers	Ductile Iron
Top and bottom Glass Cushions	PTFE
Cover Bolts and Nuts	Stainless Steel
Indicator rod support	PTFE
Indicator rod	PTFE
Top and bottom Lens assembly	Toughened Glass
LINING	PFA / FEP

### Cv Factors

Size	1"	1½"	2"	3"	4"	6"
	39	80	155	265	493	967

### Dimensions (In Inches)

Size	F-F	FØ	F.T	RFØ	RF.T	NOBH	DOBH	PCD	Wt. (lbs)
1	5.00	4.25	.57	2.00	.13	4	.63	3.13	8
1½	6.50	5.00	.69	2.88	.13	4	.63	3.88	13
2	7.00	6.00	.78	3.63	.15	4	.75	4.75	20
3	8.00	7.50	.90	4.75	.15	4	.75	6.00	30
4	9.00	9.00	1.09	6.19	.15	8	.75	7.50	50
6	11.00	11.00	1.15	8.13	.15	8	.88	9.50	84

### LEGEND

F-F	FACE TO FACE	RFT	RAISED FACE THICKNESS
FØ	FLANGE DIAMETRE	NOBH	NUMBER OF BOLT HOLES
F-T	FLANGE THICKNESS	DOBH	DIAMETRE OF BOLT HOLES
RFØ	RAISED FACE DIAMETRE	PCD	PITCH CIRCLE DIAMETRE

