



# RASAI

## LINED PLUG VALVES

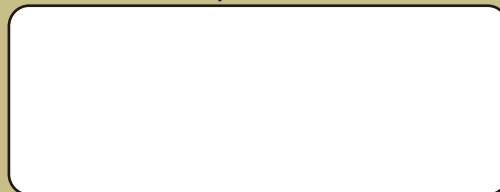
### About Ourselves

**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 PLUG VALVES

UNIQUE AND MATCHLESS IN QUALITY

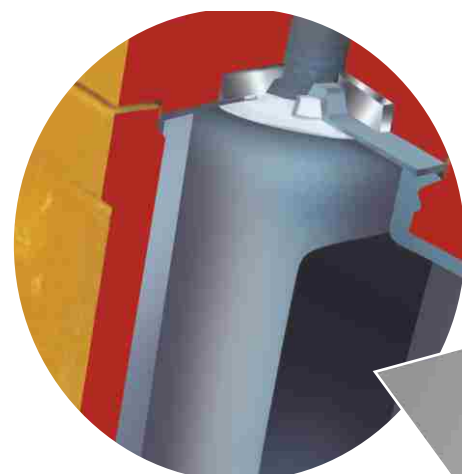


**EFFECTIVE IN HIGH VACUUM AND PRESSURE APPLICATIONS**

Manufactured by :

**M/s. RASAI FLOW LINES PVT LTD,**  
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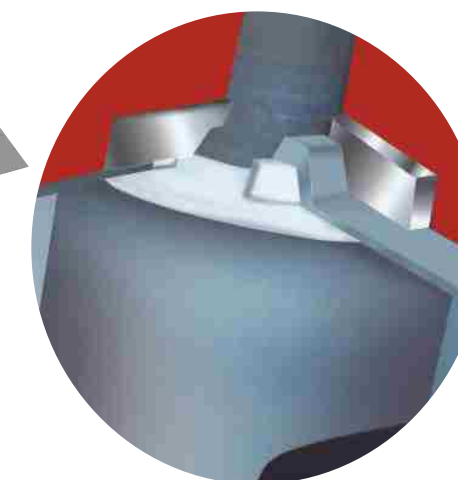
# COMPONENTS AND DESIGN FEATURES



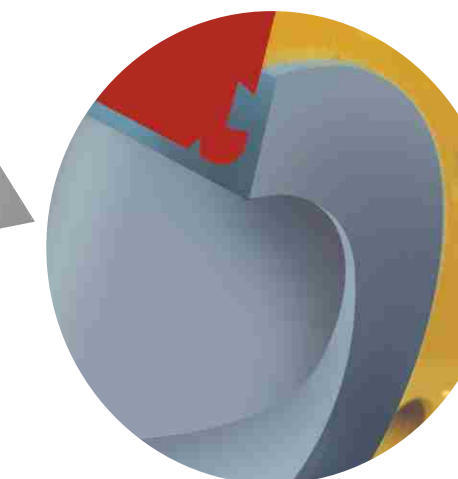
**Diaphragm and wedge ring  
Sub assembly view**



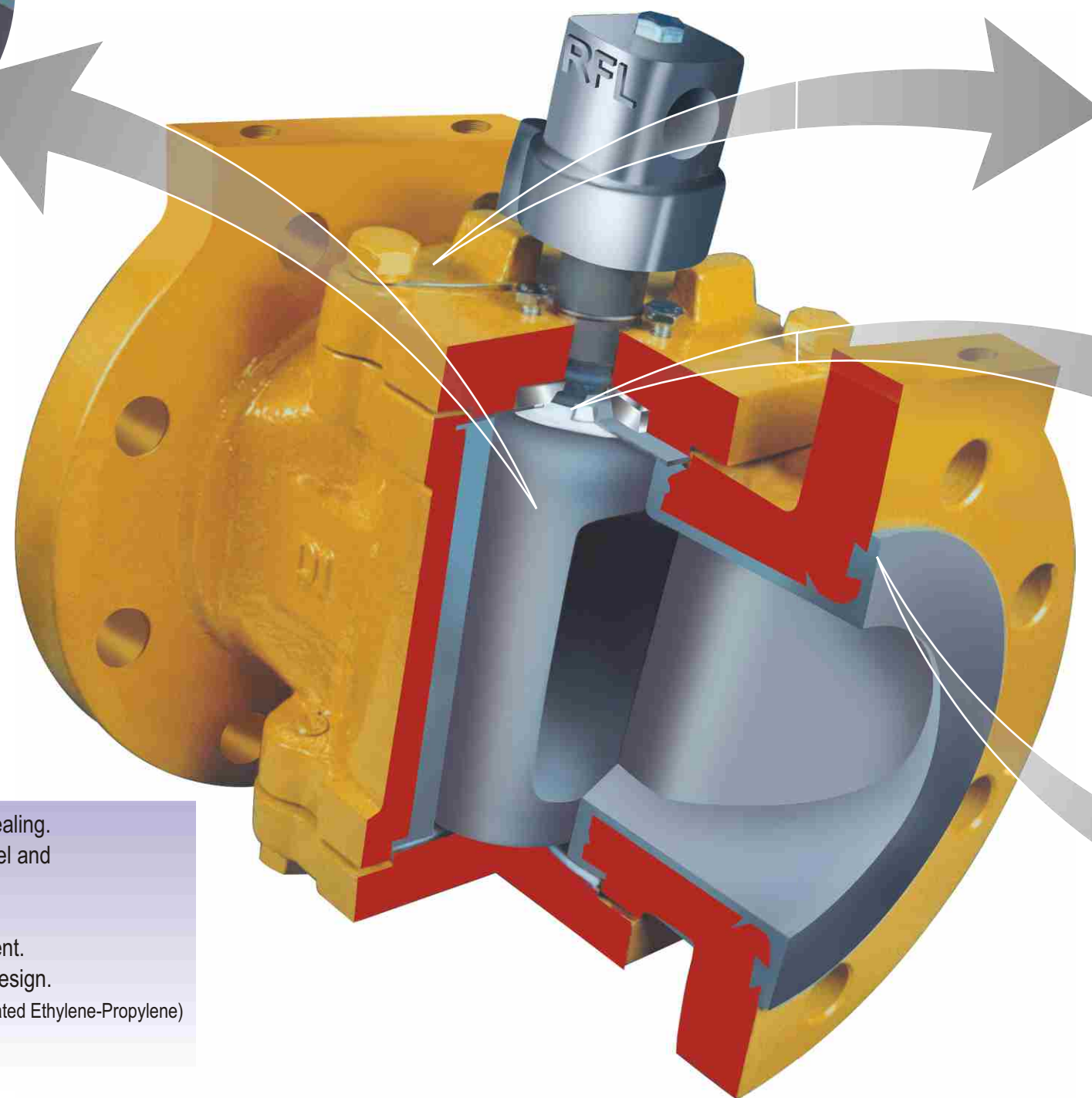
**Anti-static eliminator assembly**



**Exposed view of top side  
sealing arrangement**



**Lining with tongue and groove**



## Design features

- More flexible, reliable, and tighter sealing.
- Better corrosion resistance than steel and special alloys.
- Better permeation resistance.
- Positive shut off with inline adjustment.
- Positive stem seal with reverse lip design.
- PFA (Perfluoro alkoxy)/ FEP (Fluorinated Ethylene-Propylene) Encapsulated Plug.
- Zero leakage (Bubble tight shut-off).

# Valve Application Chart

This ready to use reference table provides a brief over view of the varied applications for which RASAI Valves are well suited.

For detailed information and applications please refer our product wise catalogue or call your nearest RASAI Dealers / Distributors.

## Color Legend :

The color in each block indicates a particular Valve's level of appropriateness for a specific function, media or application requirement.

<b>G</b>	Good
<b>B</b>	Better Performance
<b>C</b>	Conditional Usage
<b>N</b>	Not Recommended / Not Applicable

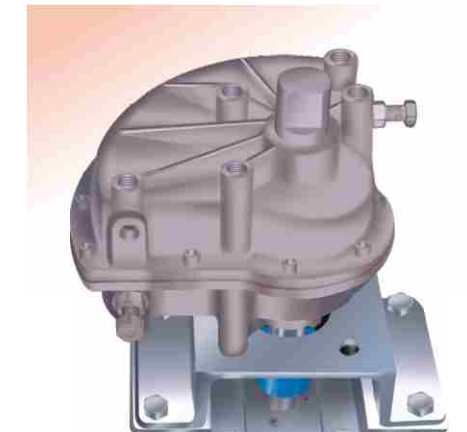
		SLEEVED PLUG VALVE	LINED PLUG VALVE	LINED BALL VALVE	LINED CHECK VALVE
FUNCTION	On / Off	G	G	G	N
	Throttling	B	C	C	N
	Diversion	G	G	N	N
MEDIA	Clean Liquid	G	G	G	G
	Clean Gases	G	G	G	N
	Dirty Liquid	G	C	C	G
	Dirty Gases	G	C	C	N
	Corrosive Liquid	G	G	G	G
	Corrosive Gases	G	G	G	N
	Hazardous Liquid	G	G	G	G
	Hazardous Gases	G	G	G	N
	Viscos Liquid	G	G	G	G
	Scaling Liquids and Slurries	G	B	B	G
	Abrasive Slurries	G	C	C	G
	Fibrous Slurries	G	G	C	G
	High Pressure Steam (>150 Lbs.)	N	N	N	N
	Low Pressure Steam (<150 Lbs.)	C	C	N	N
APPLICATION REQUIREMENTS	Dry Materials	G	G	G	G
	Food/Pharmaceutical	G	G	G	G
	Vacuum Application	G	G	G	N
	High Flow Application	G	G	G	G
	Low Torque	G	G	G	N
	Fugitive Emissions Control	G	G	G	G
	Maintenance Free	G	G	G	G
	Longer Life	G	G	G	G
	SIZES (Inches)	½" – 12"	½" – 8"	½" – 6"	1" – 4"
	Pressure Rating (ANSI Classes)	150#, 300#, 600#	150#, 300#	150#, 300#	150#
	High Temperature	450° F	400° F	400° F	400° F
	Low Temperature	-40° F	-20° F	-20° F	--
	DESIGN FEATURE AND OPERATIONAL BENEFITS.	Low torque, long lasting, Maintenance free, Cavity free, Self-sealing.	Absolutely free from corrosion. Long lasting and Maintenance free.	Innovative elastomer super seat® for long lasting and low torque. The Best seat design and integrated Ball and Stem gives longer life to the valve.	Matchless for Horizontal and Vertical applications. Perfect sealing forever. Effective in severe fluid and slurry applications.



Rotary Type Single acting actuator



Old actuator fitted on valve



Vane Type actuator



Gear with locking provision



4 Inch Lined Plug Valve with gear on special request.

## DETAILED DESCRIPTION OF LINED PLUG VALVE

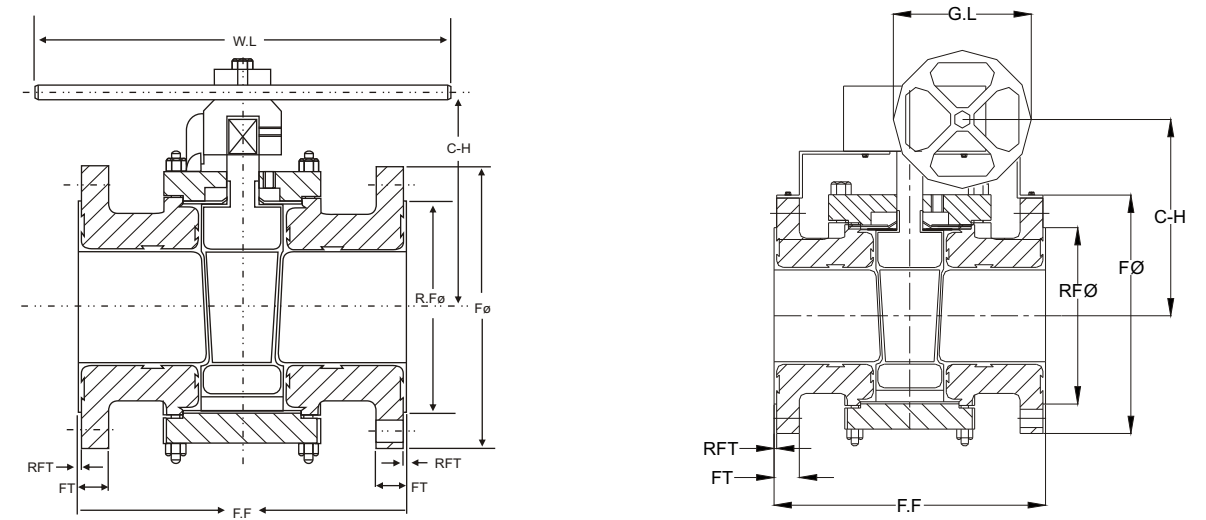


RASAI lined plug valves 6" and above are offered with Gear operation. The more flexible, reliable and easy to operate valves with less torque is our speciality. The lining, locked by grooves allows the valves to be used on high vacuum and pressure applications without lining collapse, shrinkage and blow out.

RASAI lined plug valves are virtually unaffected by changes in processing temperature or chemical concentration. Valves can be used in all corrosive fluids.

External body of the valve is coated with corrosion-resistant coating.

## Drawings and Dimensions



### For Class 150#

Size		Break - Away Torque inch Lbs (Nm)	Flow Rate (Value)	
Inch	mm		Cv	Kv
1/2	15	240 (27)	8	9.5
3/4	20	240 (27)	10.5	12.5
1	25	308 (43.5)	40	47
1.5	40	575 (85)	93	109
2	50	785 (89)	186	219
3	80	1175 (133)	320	376
4	100	1765 (199)	680	800
6	150	4650 (525)	1090	1282
8	200	7750 (878)	1585	1865

### Torque

**Start - Break - Away Torque**

**Running - 60% of B.A.T**

**Close - 80% of B.A.T**

**To obtain - Kv Value multiply Cv Value by 0.85**

Components / Parts	Material Specifications
Body, Cover & plug	Ductile iron, cast steel, SS 316
Lining	PFA / FEP
Diaphragm & wedge ring	PTFE (Poly-tetra Fluoro Ethylene)
Thrust collar	SS 316
Studs & Nuts	B7, 2H & SS 316

## HOW TO ORDER YOUR LINED PLUG VALVE ?

SPECIFY THE FOLLOWING WITH PART NUMBERS:

Lined Plug Valve, Class, Body, Plug, Lining, Operation, End Connection, Size.

\*EXAMPLE:

LPV10202BWF0100

Lined Plug Valve, Class 150#, Body – Ductile Iron ASTM A395, Plug – Ductile Iron ASTM A395, Lining-FEP (Fluorinated Ethylene-Propylene), Wrench Operation, End Connection – Flanged End, Size – 1".

### 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#
1/2	4.25	5.50	3.50	3.75	.48	.56	1.38	.12	2.38	2.63	4	4	.63	.63	2.92	2.92
3/4	4.63	6.00	3.88	4.63	.48	.63	1.69	.12	2.75	3.25	4	4	.63	.75	2.92	2.92
1	5.00	6.50	4.25	4.88	.48	.69	2.00	.12	3.13	3.50	4	4	.63	.75	3.25	3.25
1 1/2	6.50	7.50	5.00	6.13	.60	.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	.67	.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	.79	1.13	5.00	.12	6.00	6.63	4	8	.75	.88	5.00	5.00
4	9.00	12.00	9.00	10.00	.98	1.25	6.19	.12	7.50	7.88	8	8	.75	.88	6.10	6.10
6	10.50	15.88	11.00	12.50	1.04	1.44	8.50	.12	9.50	10.63	8	12	.88	.88	7.75	7.75
8	11.50	16.50	13.50	15.00	1.17	1.63	10.63	.12	11.75	13.00	8	12	.88	1.00	9.50	9.50

### 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			
	150#	300#	150#	300#	150#	300#			150#	300#	150#	300#	150#	300#	150#	300#
15	108	139	89	95	12	14	35	3	60	67	4	4	16	16	74	74
20	117	152	98	117	12	16	48	3	70	82	4	4	16	19	74	74
25	127	165	108	124	12	17.5	51	3	79	89	4	4	16	19	82	82
40	165	190	127	155	15	20.5	73	3	98	114	4	4	16	22	95	95
50	178	215	152	165	17	22.3	92	3	120	127	4	8	19	19	114	114
80	203	282	190	209	20	28.7	127	3	152	168	4	8	19	22	127	127
100	228	305	229	254	25	31.7	157	3	190	200	8	8	19	22	155	155
150	266	403	279	317	26	37	216	3	241	270	8	12	22	22	197	197
200	292	419	343	381	30	41	270	3	298	330	8	12	22	25	241	241

### LEGEND

F-F	FACE TO FACE	NOH	NUMBER OF HOLES
FØ	FLANGE DIAMETRE	SOH	SIZE OF HOLE
F-T	FLANGE THICKNESS	W.L	WRENCH LENGTH
RFØ	RAISED FACE DIAMETRE	G.L	GEAR LENGTH
RFT	RAISED FACE THICKNESS	C-H	CENTRE OF FLANGE TO HEIGHT OF BODY
P.C.D	PITCH CIRCLE DIAMETRE		