

PRECISION CAST BODY, PLUG AND COVER

FluoroSeal[®] Lined Plug Valves use high precision investment casting method for all major pressure holding components.

CORROSION PROTECTION

FluoroSeal[®] standard base model offers Carbon Steel body, plug and cover (ASTM A216 Gr. WCB).

- All cast parts have an epoxy based coating prior to lining for added protection from corrosion attack due to permeation
- Low porosity PFA (Perfluoroalkoxy) as standard liner

LOCKED-IN LINER

FluoroSeal[®] Lined Plug Valves feature an unpigmented virgin PFA lining applied by Transfer Molding and locked into castings by machined dovetail-shaped grooves, and cast dovetail-shaped recesses in body castings and cast holes.

- Prevents liner collapse in vacuum conditions
- Prevents blow out in high temperature and pressure combined conditions
- Transfer Molding insures equal distribution and consistency of liner throughout the entire surface of the lined components as per ASTM F1545
- No weak sections in the valve liner
- All liner defects are directly visible

CAVITY-FREE DESIGN

By design, Lined Plug Valves are cavity-free both in open and closed positions.

- No particle accumulation
- Ideal for corrosive slurry applications

SUPERIOR SEALING CAPABILITIES

The interface between the tapered outer plug and the tapered inner body liner provides a 360° primary sealing area. Additional sealing levels are achieved by a delta ring and PTFE diaphragm, both protected by a metal diaphragm. The metal diaphragm assists in encapsulation, acts as an antistatic device, and is a metal seal to atmosphere, in case of PTFE failure.

- Tight shutoff
- Compression seal (upstream and downstream)
- Bi-directional valve
- Sealed at both plug and stem

IN-LINE ADJUSTMENT

FluoroSeal[®] Lined Plug Valves feature the state-of-the-art EZ-SEAL^{®*} adjustment mechanism, available on sizes up to 6" (DN 150).

- Single point frontal adjustment — no special tooling needed
- 360° simultaneous and even compression of top seal and plug
- Plug adjustment is linear, impossible to side load
- Integrated Min/Max gauge offers a visual diagnostic of remaining service life and allows for easy maintenance planning



Fig. 1 Lined Plug Cutaway



Fig. 2 Lined Valve Section View

LINED-ANSI-DIN-R001-2007-S

LINED PLUG VALVES

ADDITIONAL FEATURES

- EZ-SEAL^{®*} design significantly reduces recordable leakage
- EZ-SEAL^{®*} Bracket and Lock with multiple ISO mounting capabilities and five locking positions are offered in 304 SS as standard
- ISO mount, explosion proof stem design
- Standard body material is WCB (1.0619) with a PFA lining
- Wrench operated, actuators optional on all sizes

Lined Valve Exploded View (Fig. 3)

- | | |
|--|---|
| 1. EZ-SEAL ^{®*} Adjustment Bolt | 2. EZ-SEAL ^{®*} Cover with Gauge |
| 3. Cam Component | 4. EZ-SEAL ^{®*} Bracket |
| 5. Metal Diaphragm | 6. PTFE Diaphragm with Delta Ring |
| 7. EZ-SEAL ^{®*} Lock | 8. PFA Liner |
| 9. Name Plate | |

* Patent pending

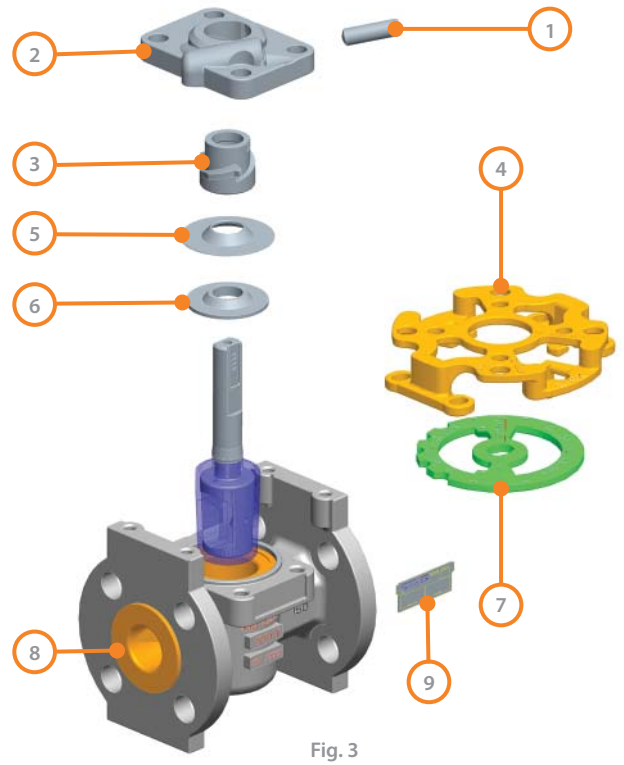
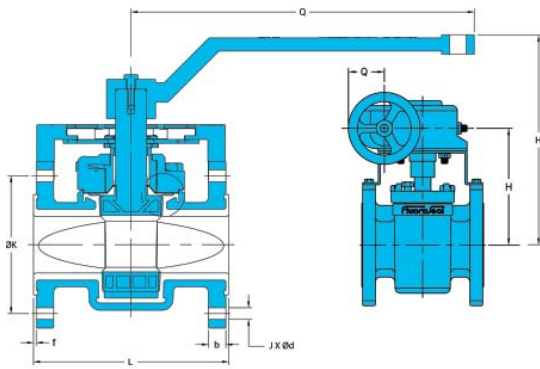


Fig. 3

LINED ANSI/ASME CLASS 150 LBS Flanged Ends

Dimensions to ANSI B16.5 & B16.10

EG = Enclosed gear operated N = Number of holes ¹ Available upon request
Two (2) top holes in flanges are tapped with UNC threads. See Hole-UNC column

SIZE & PRODUCT DESCRIPTION	L		H		D		K		g		b		f		d		Q		E		N	Hole-UNC
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	#	
1" LR152F/W-WCB/PFA	5.00	127.00	5.57	141.48	4.25	108.00	3.13	79.50	2.00	50.80	0.49	12.45	0.06	1.60	0.63	16.00	8.27	210.00	5.21	132.30	4	-
1 1/2" LR152F/W-WCB/PFA	6.50	165.10	6.80	172.72	5.00	127.00	3.88	98.60	2.88	73.20	0.59	14.99	0.06	1.60	0.63	16.00	10.33	262.40	6.41	162.80	4	-
2" LR152F/W-WCB/PFA	7.00	177.80	7.54	191.52	6.00	152.40	4.75	120.70	3.63	92.00	0.63	16.00	0.06	1.60	0.75	19.00	12.40	315.00	7.50	190.50	4	-
3" LR152F/W-WCB/PFA	8.00	203.20	8.10	205.74	7.50	190.50	6.00	152.40	5.00	127.00	0.79	20.07	0.06	1.60	0.75	19.00	12.40	315.00	8.60	218.40	4	-
4" LR152F/W-WCB/PFA	9.00	228.60	9.56	242.82	9.00	228.60	7.50	190.50	6.19	157.20	0.94	23.90	0.06	1.60	0.75	19.00	24.30	617.20	10.66	270.80	8	-
4" LR152F/EG-WCB/PFA	9.00	228.60	11.80	299.72	9.00	228.60	7.50	190.50	6.19	157.20	0.94	23.90	0.06	1.60	0.75	19.00	7.25	184.00	10.66	270.80	8	-
6" LR152F/EG-WCB/PFA	10.50	266.70	14.00	355.60	11.00	279.40	9.50	241.30	8.50	215.90	1.00	25.40	0.06	1.60	0.88	22.40	7.25	184.00	13.55	344.20	8	-
8" LR152F/EG-WCB/PFA ¹	11.50	292.10	13.00	330.20	13.50	342.90	11.75	298.50	10.63	269.80	1.13	28.70	0.06	1.60	0.88	22.40	9.75	248.00	-	-	8	3/4"-10
10" LR152F/EG-WCB/PFA ¹	13.00	330.20	14.94	379.48	16.00	406.40	14.25	362.00	12.75	323.90	1.19	30.20	0.06	1.60	1.00	25.40	9.75	248.00	-	-	12	7/8"-9
12" LR152F/EG-WCB/PFA ¹	14.00	355.60	15.69	398.53	19.00	482.60	17.00	431.80	15.00	381.00	1.25	31.80	0.06	1.60	1.00	25.40	13.75	349.25	-	-	12	7/8"-9
14" LR152F/EG-WCB/PFA ¹	15.00	381.00	-	-	21.00	533.40	18.75	476.30	16.25	412.80	1.38	35.10	0.06	1.60	1.12	28.40	-	-	-	-	12	1"-8

LINED DIN PN 16 Flanged Ends

Dimensions to DIN EN 1092-1 & DIN EN 558-1 Enclosed gear optional on DN 100, and standard on DN 125 and DN 150

E = Clearance for resleeving measured from center line N = Number of holes
Two (2) top holes in flanges are tapped with metric threads. See Bolt Size column

SIZE	PN	L	H	D	K	g	b	f	d	Q	Weight	E	N	Bolt Size
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	mm	#	
DN 25	16	160.00	145.00	115.00	85.00	68.00	18.00	2.00	14.00	210.00	-	131.00	4	M12
DN 32	16	180.00	176.00	140.00	100.00	78.00	18.00	2.00	18.00	262.50	-	161.00	4	M16
DN 40	16	200.00	176.00	150.00	110.00	88.00	18.00	2.00	18.00	262.50	-	161.00	4	M16
DN 50	16	230.00	195.00	165.00	125.00	102.00	18.00	2.00	18.00	419.10	-	189.00	4	M16
DN 65	16	290.00	173.00	185.00	145.00	122.00	18.00	2.00	18.00	419.10	-	217.00	8*	M16
DN 80	16	310.00	173.00	200.00	160.00	138.00	20.00	2.00	18.00	419.10	-	217.00	8	M16
DN 100	16	350.00	200.00	220.00	180.00	158.00	20.00	2.00	18.00	618.00	-	270.00	8	M16
DN 125	16	325.00	303.00	250.00	210.00	188.00	22.00	2.00	18.00	184.20	-	370.00	8	M16
DN 150	16	350.00	290.00	285.00	240.00	212.00	22.00	2.00	22.00	184.20	-	370.00	8	M20