

Primary Isolation Valves

Integrally forged, one piece double block and bleed Keyblok assemblies for primary isolation of pressure take-offs, where the valve is mounted directly to the vessel or process pipe

General Application

Suitable for double block and bleed applications including pressure, level and flow measurement, sampling, chemical seal isolation and injection services. Instruments may be mounted directly to the valve outlet or remotely with gauge lines/impulse pipe work.

TECHNICAL DATA

Materials

CS, 316 SS, Duplex and other exotic materials

Seats:

Metal and soft

Connections

Inlet:

ANSI flanged 1/2" to 2"
API flanged to 2^{1/16}"

Outlet:

ANSI flanged 1/2" to 2"
API flanged to 2^{1/16}"

Pressure (max):

10000 psig (690 barg)

Temperature (max):

400°F (204°C)

F68



F69



Features

- One-piece forged body combines a compact design with strength and reduced potential leak paths compared to conventional designs.
- Flanged inlet and outlet connections available in a choice of sizes and ratings to suit each application.
- Primary isolation and venting ball valves are precision machined and super finished for high performance pressure and temperature ratings. Designed to be fire safe and anti-static.
- Heavy duty needle type globe valve ensures bubble-tight shut-off on venting service.
- Firesafe design to meet API 607, BS6755 Part 2 (optional).

F68/F69 SERIES

Primary Isolation Valves

Product Overview

Keyblok F68

The F68 features two independently operable 3/8" (10 mm) bore ball valves for isolation service with intermediate 3/8" (10 mm) bore ball valve for venting service.

Keyblok F69

The F69 features two independently operable 3/8" (10 mm) bore ball valves for isolation service with an intermediate 0.2 inch (5 mm) bore 'HD' globe style needle valve for venting service.

General notes

Standard pressure testing to BS EN 12266-1.

Standard material traceability to EN 10204 3.1 (body only).

Material thickness to ANSI B16.34.

Valve Body - Material Codes

Description	C	L	S	D
Valve body	A105N	A350 LF2	A182 F316	A182 F51

NOTE:

1. Carbon steel valve bodies are zinc plated and passivated as standard.

F68 and F69 Series Flanged x Flanged

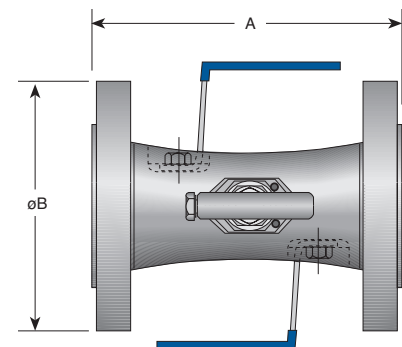
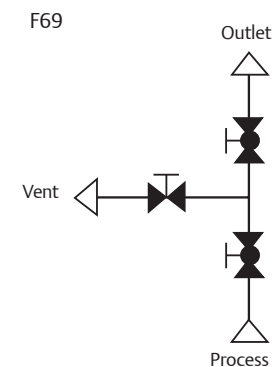
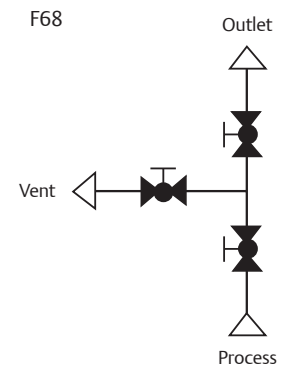
Size in	Rating lb	Dimensions, inches (mm)					Weight	
		A - RF		A - RTJ		B	lb	(kg)
1/2	150	8.2 (208)	-	-	3.5 (89)	9.5	(4.3)	
1/2	300	8.2 (208)	8.7 (221)	3.8 (96)	11.0	(5.0)		
1/2	600	8.2 (208)	8.7 (221)	3.8 (96)	11.5	(5.2)		
1/2	900/1500	9.6 (243)	10.0 (256)	4.8 (121)	17.4	(7.9)		
1/2	2500	9.6 (243)	10.0 (256)	5.3 (134)	23.8	(10.8)		
3/4	150	8.2 (208)	-	-	3.9 (99)	10.8	(4.9)	
3/4	300	8.2 (208)	8.7 (221)	4.6 (118)	13.9	(6.3)		
3/4	600	8.2 (208)	8.7 (221)	4.6 (118)	14.4	(6.5)		
3/4	900/1500	9.6 (243)	10.0 (256)	5.1 (130)	20.9	(9.5)		
3/4	2500	9.6 (243)	10.0 (256)	5.5 (140)	26.5	(12.0)		
1	150	7.1 (180)	7.4 (189)	4.3 (108)	10.9	(5.0)		
1	300	7.3 (186)	7.7 (196)	4.9 (124)	13.8	(6.3)		
1	600	7.8 (199)	7.8 (199)	4.9 (124)	14.4	(6.5)		
1	900/1500	8.7 (221)	8.7 (221)	5.9 (150)	24.7	(11.2)		
1	2500	9.2 (234)	9.2 (234)	6.3 (159)	31.6	(14.3)		
1 1/2	150	7.3 (186)	7.7 (196)	5.0 (127)	14.2	(6.4)		
1 1/2	300	7.6 (192)	8.0 (202)	6.1 (156)	20.1	(9.1)		
1 1/2	600	8.2 (208)	8.2 (208)	6.1 (156)	22.3	(10.1)		
1 1/2	900/1500	8.9 (227)	8.9 (227)	7.0 (178)	35.2	(16.0)		
1 1/2	2500	10.0 (253)	10.0 (256)	8.0 (203)	61.3	(27.8)		
2	150	7.4 (189)	7.8 (199)	6.0 (153)	21.8	(9.9)		
2	300	7.7 (196)	8.2 (208)	6.5 (165)	26.2	(11.9)		
2	600	8.5 (215)	8.6 (218)	6.5 (165)	29.6	(13.4)		
2	900/1500	9.4 (240)	9.6 (243)	8.5 (216)	60.0	(27.2)		
2	2500	10.4 (265)	10.6 (268)	9.3 (235)	88.2	(40.0)		

NOTE

1. Metric calculations:

mm = in x 25.4

kg = lb x 0.4536

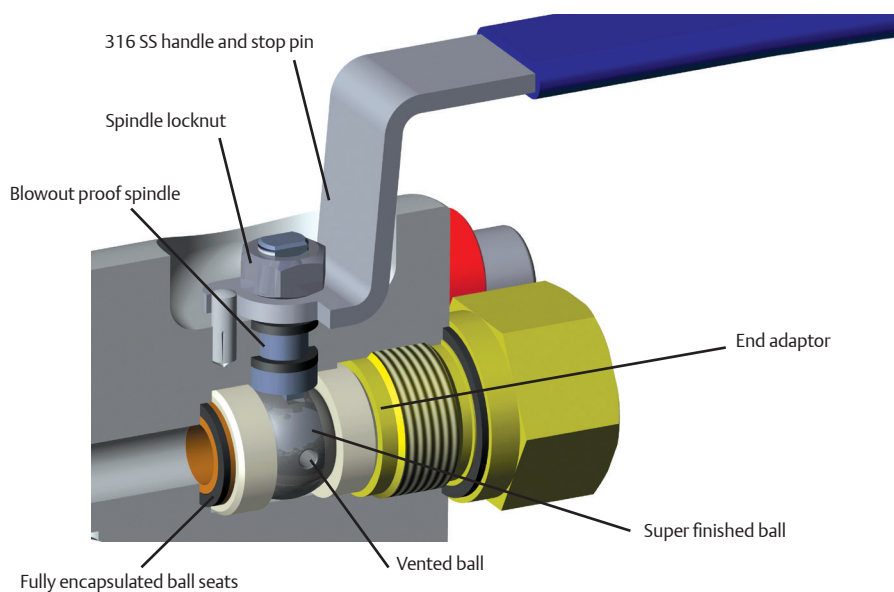


Primary Isolation Valves

Quarter Turn Ball Valves

Unidirectional quarter-turn ball valves have a straight through, roddable 3/8" (10 mm) bore. Their super-finished ball provides low operating torque and long life and is vented to provide upstream cavity relief. They offer a choice of filled PTFE, Devlon V® or PEEK ball seats which are fully-supported to minimize seal extrusion and allow high working pressures, with end adaptor threads being fully isolated from the process by primary and secondary static seals. Each valve features a blowout-proof one piece stem with a vibration-resistant locking nut and a strong, corrosion-resistant stainless steel handle and stop pin as standard.

- Pressure rating: up to 10000 psig (680 barg).
- Temperature rating: -70.6°F to 400°F (-57°C to 204°C).



NOTE

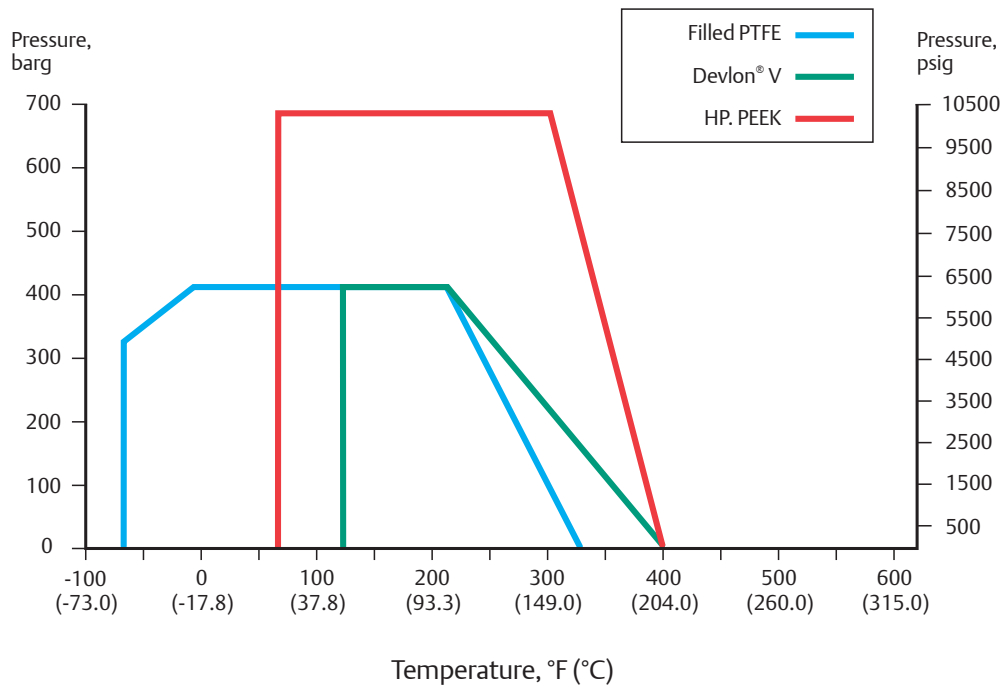
1. Devlon V® is a registered trademark of Devol Engineering Ltd.

F68/F69 SERIES

Primary Isolation Valves

Pressure and Temperature Ratings

Keyblok



NOTE

1. Devlon V® is a registered trademark of Devol Engineering Ltd.

Ball Valve Components - Trim Codes

Item	Description	S	D
1	Handle/stop pin	316 SS	316 SS
2	Stem seal (2 off)	Graphite	Graphite
3	Ball seat	PTFE, Devlon® or PEEK	PTFE, Devlon® or PEEK
4	Housing static seal	Graphite	Graphite
5	Seat housing	A276-316	A276-31803
6	Ball	A479-316	A479-31803
7	Primary static seal	Graphite	Graphite
8	Secondary static seal	Graphite	Graphite
9	Locknut	316 SS	316 SS
10	Spindle	A479-316	A479-31803

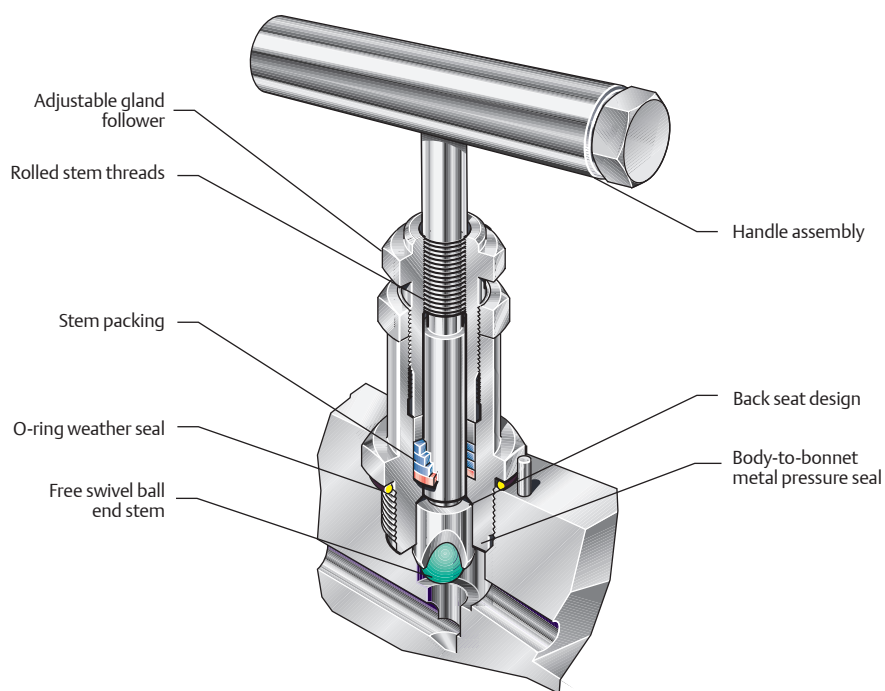
Standard Trim Combinations

Body	Trim
C	S
L	S
S	S
D	D

Primary Isolation Valves

‘HD’ Needle-Type Globe Valve

The HD needle-type globe valve has a rotating stem with a free-swivel ball-end seat for repetitive bubble-tight shut-off and rolled threads for low operating torque, located above the spindle packing and isolated from the process. The stem is sealed with either graphite or PTFE rings and a backseat design provides secondary stem sealing and prevents stem blowout. A body-to-bonnet metal pressure seal below the threads prevents corrosion and ensures the bonnet threads are in loaded compression for additional strength and an O-ring weather seal protects bonnet retention threads from harsh environments. An adjustable gland follower allows easy access to adjust the packing gland and the valve features a T-bar handle with locking bolt to secure it firmly on the stem.



‘HD’ Needle Type Globe Valve Components - Trim Codes

Item	Description	S	D
1	Gland follower	Austenitic SS	A276-31803
2	Stem	A479-316	A479-31803
3	Locknut	Austenitic SS	Austenitic SS
4	Stem packing	PTFE or graphite	PTFE or graphite
5	O-ring weather seal	Buna-N Nitrile	Buna-N Nitrile
6	Ball (stem tip)	316 SS	Ceramic
7	Bonnet locking pin	Austenitic SS	Austenitic SS
8	Handle assembly	Austenitic SS	Austenitic SS

F68/F69 SERIES

Primary Isolation Valves

Selection Guide

F68		V	S	S	061L					
BASIC SERIES		BALL VALVE SEAT MATERIAL	BODY MATERIAL	TRIM MATERIAL	INLET CONNECTION					
Ball valve type										
F68	Flanged x threaded double block and bleed	V Filled PTFE	C A105N	S 316 SS	04	1/2"	1	RF	A	150 lb (ANSI B16.5)
F69	Flanged x threaded double block and bleed	N Devlon V®	L A350 LF2	D Duplex stainless steel UNS S31803	06	3/4"	3	RTJ	J	300 lb (ANSI B16.5)
					08	1"	4	BX	K	600 lb (ANSI B16.5)
					12	1 1/2"	5	RX	T	900 lb (ANSI B16.5)
					16	2"	6	R	L	1500 lb (ANSI B16.5)
17	1 13/16"	8	Hub	M	2500 lb (ANSI B16.5)					
18	2 1/16"			N	5000 lb (API 6A)					
24	3"			P	10000 lb (API 6A)					
				V	3000 lb (API 6A)					

Standard trim combinations
C, L and S Body = S Trim,
D body = D Trim

061L

QV

OUTLET CONNECTION					OPTIONS				
04	1/2"	1	RF	A 150 lb (ANSI B16.5)	ICV	Integral check valve (injection)	LAT	Lockable tamper-proof bonnet	
06	3/4"	3	RTJ	J 300 lb (ANSI B16.5)	IQ(---)	Integral quill (required length)	PD	Padlock for - LAT	
08	1"	4	BX	K 600 lb (ANSI B16.5)	PV	Plugged vent	QV	1/4" NPT (f) vent	
12	1 1/2"	5	RX	T 900 lb (ANSI B16.5)	BVL	Lockable ball valve handles (specify number required)	SS	Full 316 SS trim	
16	2"	6	R	L 1500 lb (ANSI B16.5)	AT	Anti-tamper vent (needle valve only)	VO	Vent option (please specify compression fittings, if required)	
17	1 13/16"	8	Hub	M 2500 lb (ANSI B16.5)	SG	NACE MR0175 latest revision	CB	Ceramic ball tip (needle valve only)	
18	2 1/16"			N 5000 lb (API 6A)	PT	PTFE Packed needle valve (F69 only)	ST	Stellite ball tip (needle valve only)	
24	3"			P 10000 lb (API 6A)					
				V 3000 lb (API 6A)					