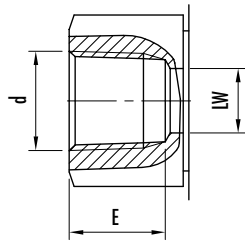




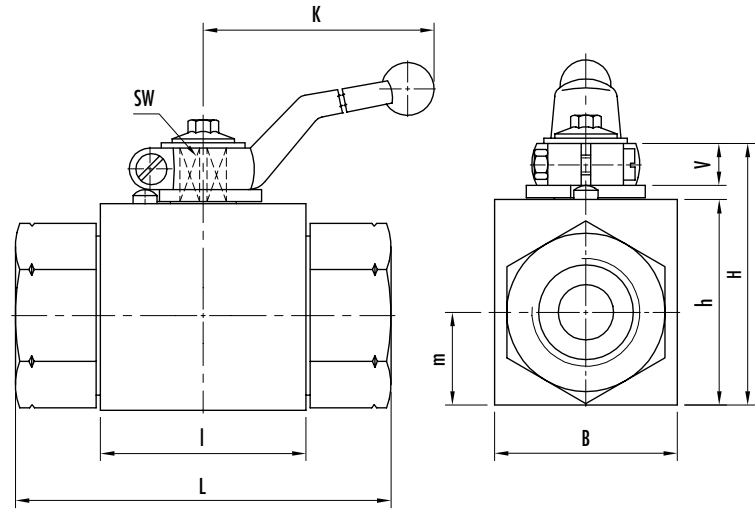
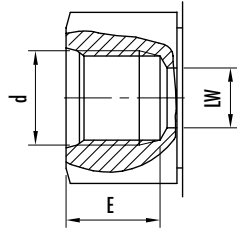
Ball Valves

Threaded Port Style - Block Body 1/4"-1"

NPT
BBV20



SAE
BBV21



BBV20 NPT Female Thread Ball Valve - Two Way Inline Valve

Size	Ball Valve Part No.	Dimensions (in)											WT. lbs/pc	Working Pressure PSI (bar)	
		d	E	L	I	B	H	h	m	V	SW	K			LW
1/4"	BBV20040001M-*	1/4"-18	0.67	2.72	1.57	1.02	1.85	1.30	0.53	0.43	0.35	4.53	0.24	0.66	7250 (500)
3/8"	BBV20060001M-*	3/8"-18	0.69	3.07	1.69	1.26	2.05	1.50	0.69	0.43	0.35	4.53	0.39	1.10	7250 (500)
1/2"	BBV20080001M-*	1/2"-14	0.93	4.09	1.89	1.38	2.13	1.57	0.75	0.55	0.35	4.53	0.51	1.65	7250 (500)
3/4"	BBV20120001M-*	3/4"-14	0.91	4.02	2.44	1.93	2.95	2.24	0.90	0.55	0.55	6.30	0.79	3.65	4500 (310)
1"	BBV20160001M-*	1"-11 1/2	1.09	4.69	2.60	2.28	3.27	2.56	1.15	0.55	0.55	6.30	0.98	5.06	4500 (310)

BBV21 SAE Female Thread Ball Valve - Two Way Inline Valve

Size	Ball Valve Part No.	Dimensions (in)											WT. lbs/pc	Working Pressure PSI (bar)	
		d	E	L	I	B	H	h	m	V	SW	K			LW
1/4"	BBV21040001M-*	7/16"-20	0.55	2.72	1.57	1.02	1.85	1.30	0.53	0.43	0.35	4.53	0.20	0.66	7250 (500)
3/8"	BBV21060001M-*	9/16"-18	0.61	2.83	1.69	1.02	2.05	1.50	0.69	0.43	0.35	4.53	0.39	1.10	7250 (500)
1/2"	BBV21080001M-*	3/4"-16	0.69	3.27	1.89	1.38	2.13	1.57	0.75	0.55	0.35	4.53	0.51	1.65	7250 (500)
3/4"	BBV21120001M-*	1 1/16"-12	0.91	3.74	2.44	1.93	2.95	2.24	0.90	0.55	0.55	6.81	0.79	3.65	4500 (310)
1"	BBV21160001M-*	1 5/16"-12	0.91	4.45	2.60	2.28	3.27	2.56	1.15	0.55	0.55	6.81	0.98	5.06	4500 (310)

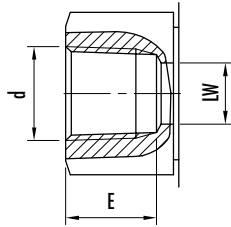
- * INSERT ' LOK ' TO INDICATE OPTIONAL ASSEMBLED LOCKING DEVICE
 - VITON SEALS (STANDARD)
 - TO ORDER A COMPLETE FLANGED BALL VALVE ASSEMBLY REF. PAGE P5
- MATERIAL:** CARBON STEEL BODY, (STAINLESS STEEL AVAILABLE)



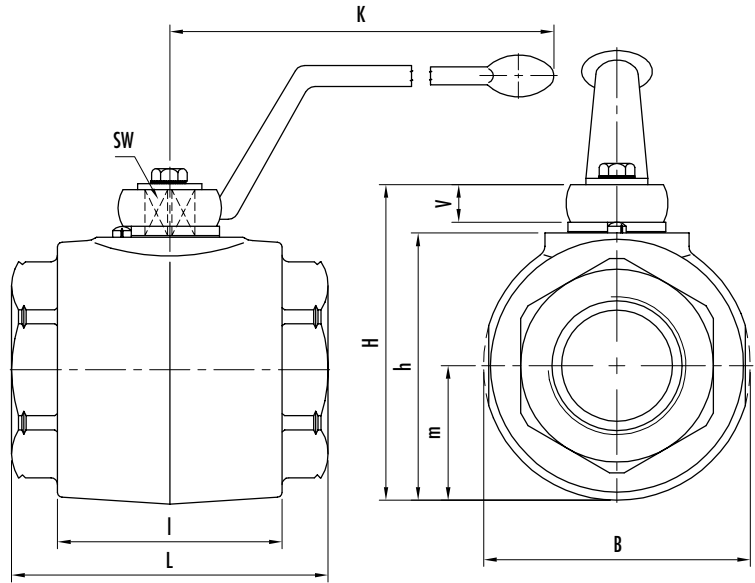
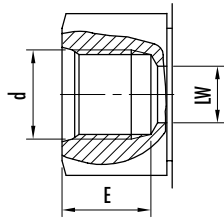
Ball Valves

Threaded Port Style - Forged Body 1 1/4"-2"

NPT
FBV20



SAE
FBV21



FBV20 NPT Female Thread Ball Valve - Two Way Inline Valve

Size	Ball Valve Part No.	Dimensions (in)											WT. lbs/pc	Working Pressure PSI (bar)	
		d	E	L	I	B	H	h	m	V	SW	K			LW
1 1/4"	FBV20200001M-*	1 1/4"-11 1/2"	0.87	4.33	3.15	2.99	4.09	3.29	1.50	0.59	0.67	12.00	1.25	8.04	5000 (350)
1 1/2"	FBV20240001M-*	1 1/2"-11 1/2"	0.94	5.22	3.35	3.62	4.69	3.90	1.81	0.59	0.67	12.00	1.50	13.00	5000 (350)
2"	FBV20320001M-*	2"-11 1/2"	0.94	5.51	3.94	4.17	5.16	4.37	2.09	0.59	0.67	12.00	1.77	19.00	5000 (350)

FBV21 SAE Female Thread Ball Valve - Two Way Inline Valve

Size	Ball Valve Part No.	Dimensions (in)											WT. lbs/pc	Working Pressure PSI (bar)	
		d	E	L	I	B	H	h	m	V	SW	K			LW
1 1/4"	FBV21200001M-*	1 5/8"-12"	0.91	4.36	3.15	2.99	4.09	3.29	1.50	0.59	0.67	12.00	1.25	8.04	5000 (350)
1 1/2"	FBV21240001M-*	1 7/8"-12"	0.91	5.12	3.35	3.62	4.69	3.90	1.81	0.59	0.67	12.00	1.50	13.00	5000 (350)
2"	FBV21320001M-*	2 1/2"-12"	0.91	5.51	3.94	4.17	5.16	4.37	2.09	0.59	0.67	12.00	1.77	19.00	5000 (350)

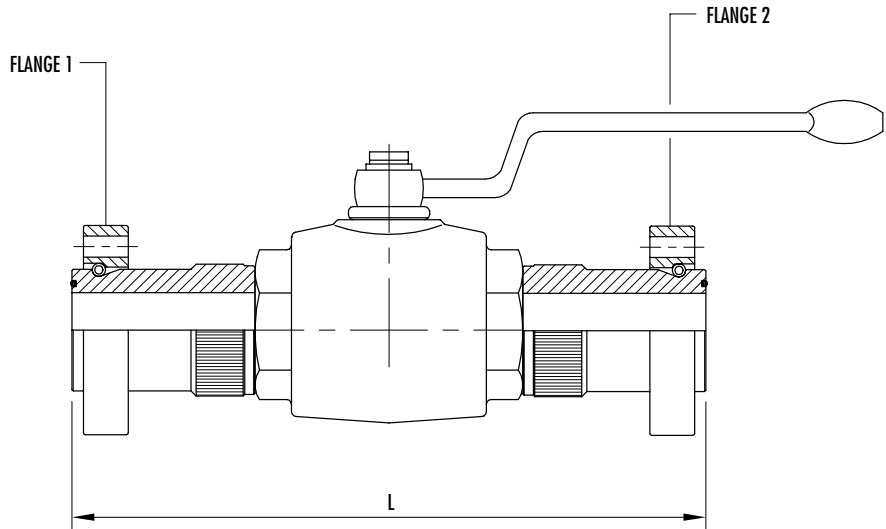
- * INSERT ' LOK ' TO INDICATE OPTIONAL ASSEMBLED LOCKING DEVICE
 - VITON SEALS (STANDARD)
 - TO ORDER A COMPLETE FLANGED BALL VALVE ASSEMBLY REF. PAGE P5
- MATERIAL:** CARBON STEEL BODY, (STAINLESS STEEL AVAILABLE)



Retain Ring Flanged Ball Valve Assembly

Complete Assembly Part Number

Typical A/BV Assembly



COMPLETE ASSEMBLY CONSISTS OF:

- ONE (1) FEMALE SAE THREADED BALL VALVE BODY (REF. PAGES P3-P4)
- TWO (2) MALE SAE THREAD ADAPTERS (REF. PAGE F2)
- TWO (2) RETAIN RING FLANGES (REF. PAGES C8-C9)
- TWO (2) RETAIN RINGS
- BUNA 'O' RINGS (FLANGE ENDS)

		Code	A	/	BV	-	Ball Valve Size	-	Flange 1	-	Flange 2	-	Options
Assembly		A											
Ball Valve		BV											
Ball Valve Size	1/2"	050											
	3/4"	075											
	1"	100											
	1 1/4"	125											
	1 1/2"	150											
	2"	200											
Flange Type <small>Carbon Steel Yellow Zinc Dicromate Plated Ref. pages (C8-C9)</small>	RFC34 SAE Code 61 W/Clearance Holes	FC34											
	*RFT34 SAE Code 61 W/Tapped Holes	FT34											
	RFC64 SAE Code 62 W/Clearance Holes	FC64											
	*RFT64 SAE Code 62 W/Tapped Holes	FT64											
Options	LOK-Locking Device	LOK											
	Viton	V											

Size	Dimensions (in)
	L
1/2"	8.53
3/4"	9.24
1"	10.45
1 1/4"	10.86
1 1/2"	13.62
2"	14.01

* NORMALLY USED FOR CONNECTION TO SPLIT FLANGE TYPE ENDS

• FOR CONNECTION TO HOSE USE CONNECTOR PLATE **OCP** (TO BE ORDERED SEPARATELY) REFERENCE PAGE C17

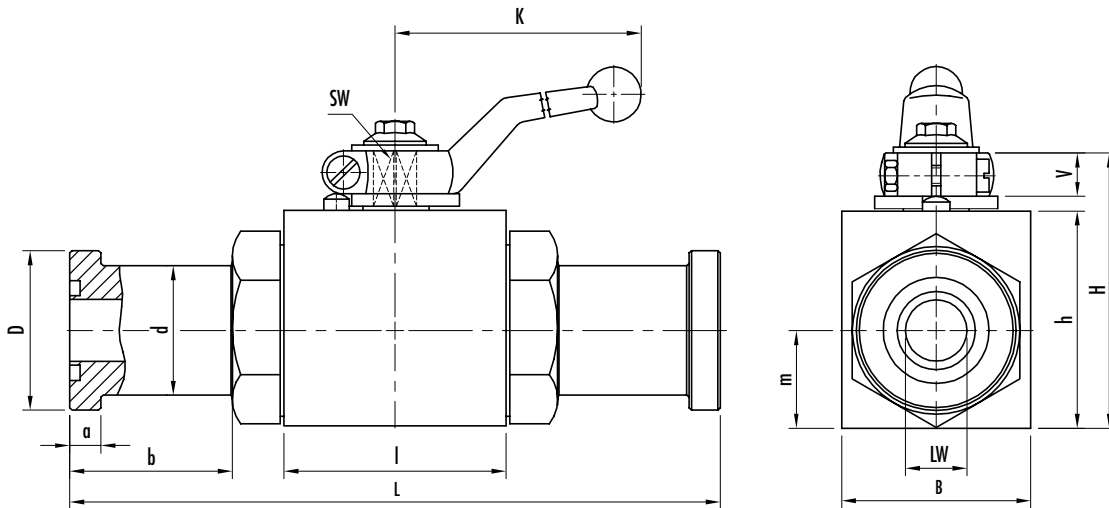
PART NO. (EXAMPLE): A/BV - 050 - FC34 - FT34

- ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR BALL VALVE RATINGS
- SEE REFERENCE PAGE INDICATED ABOVE FOR PRESSURE RATINGS
- OTHER MATERIALS ARE AVAILABLE
- FOR BOLT KITS - REFERENCE SECTION R



Ball Valves

SAE Split Flange Style - Block Body 1/2"-1"



BBV22 SAE Code 61 Split Flange Style Ball Valve - Two Way Inline Valve

Size	Ball Valve Part No.	Dimensions (in)														WT. lbs/pc	Working Pressure PSI (bar)
		LW	L	I	B	H	h	m	V	SW	K	D	d	a	b		
1/2"	BBV22080001M-*	0.51	5.94	1.89	2.38	2.13	1.57	0.75	0.43	0.35	4.53	1.19	0.94	0.27	1.73	2.00	5000 (350)
3/4"	BBV22120001M-*	0.75	6.38	2.44	1.93	2.95	2.24	0.96	0.55	0.55	6.81	1.40	1.25	0.27	1.79	3.50	5000 (350)
1"	BBV22160001M-*	0.98	7.01	2.62	2.28	3.27	2.56	1.16	0.55	0.55	6.81	1.75	1.50	0.32	1.57	5.00	5000 (350)

BBV23 SAE Code 62 Split Flange Style Ball Valve - Two Way Inline Valve

Size	Ball Valve Part No.	Dimensions (in)														WT. lbs/pc	Working Pressure PSI (bar)
		LW	L	I	B	H	h	m	V	SW	K	D	d	a	b		
1/2"	BBV23080001M-*	0.51	5.94	1.89	1.38	2.13	1.57	0.75	0.43	0.35	4.53	1.25	0.94	0.31	1.57	2.00	6000 (420)
3/4"	BBV23120001M-*	0.75	6.38	2.44	1.93	2.95	2.24	0.96	0.55	0.55	6.81	1.63	1.25	0.35	1.85	3.50	5000 (350)
1"	BBV23160001M-*	0.98	7.80	2.62	2.28	3.27	2.56	1.16	0.55	0.55	6.81	1.87	1.50	0.38	1.97	5.00	5000 (350)

* INSERT ' LOK ' TO INDICATE OPTIONAL ASSEMBLED LOCKING DEVICE

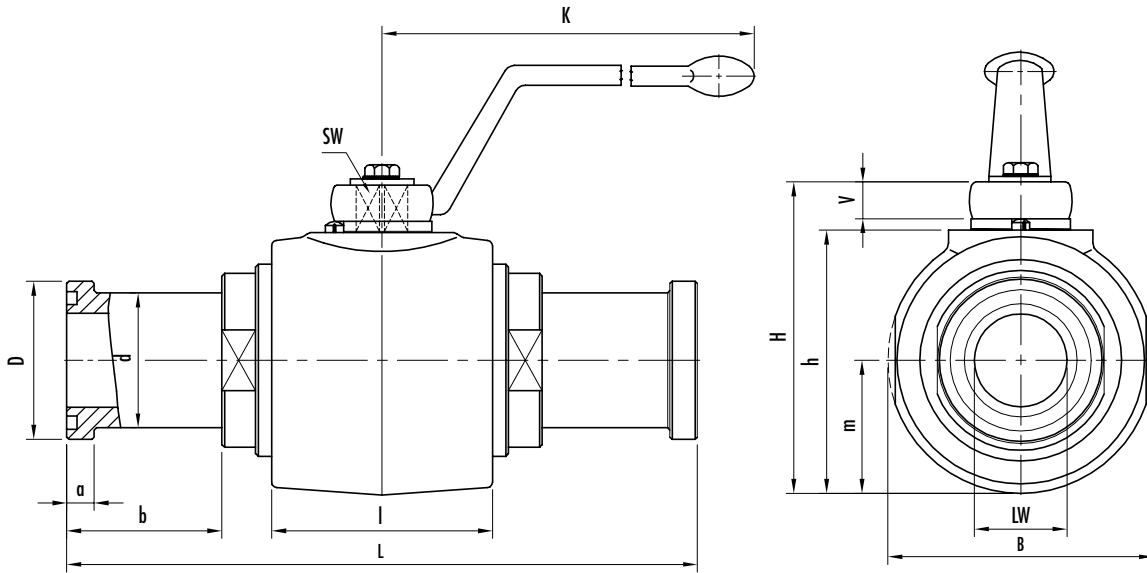
- VITON SEALS (STANDARD)
- FOR SPLIT FLANGES REFERENCE PAGE N20

MATERIAL: CARBON STEEL BODY, (STAINLESS STEEL AVAILABLE)



Ball Valves

SAE Split Flange Style - Forged Body 1 1/4"-2"



FBV22 SAE Code 61 Split Flange Style Ball Valve - Two Way Inline Valve

Size	Ball Valve Part No.	Dimensions (in)														WT. lbs/pc	Working Pressure PSI (bar)
		LW	L	I	B	H	h	m	V	SW	K	D	d	a	b		
1 1/4"	FBV22200001M-*	1.18	7.52	3.15	3.19	4.21	3.39	1.59	0.65	0.67	11.81	2.00	1.70	0.36	1.38	8.00	4000 (275)
1 1/2"	FBV22240001M-*	1.50	9.09	3.35	3.94	4.88	4.06	1.97	0.65	0.67	11.81	2.37	1.98	0.32	2.09	14.00	3000 (210)
2"	FBV22320001M-*	1.89	9.13	3.94	4.65	5.43	4.61	2.32	0.65	0.67	11.81	2.81	2.45	0.38	1.81	20.00	3000 (210)

FBV23 SAE Code 62 Split Flange Style Ball Valve - Two Way Inline Valve

Size	Ball Valve Part No.	Dimensions (in)														WT. lbs/pc	Working Pressure PSI (bar)
		LW	L	I	B	H	h	m	V	SW	K	D	d	a	b		
1 1/4"	FBV23200001M-*	1.06	8.78	3.15	3.19	4.21	3.39	1.59	0.65	0.67	11.81	2.13	1.73	0.41	3.07	8.50	6000 (420)
1 1/2"	FBV23240001M-*	1.26	11.06	3.35	3.94	4.88	4.06	1.97	0.65	0.67	11.81	2.50	2.01	0.50	3.07	15.00	6000 (420)
2"	FBV23320001M-*	1.77	12.44	3.94	4.65	5.43	4.61	2.32	0.65	0.67	11.81	3.13	2.64	0.50	3.46	21.00	6000 (420)

* INSERT ' LOK ' TO INDICATE OPTIONAL ASSEMBLED LOCKING DEVICE

- VITON SEALS (STANDARD)
- FOR SPLIT FLANGES REFERENCE PAGE N20

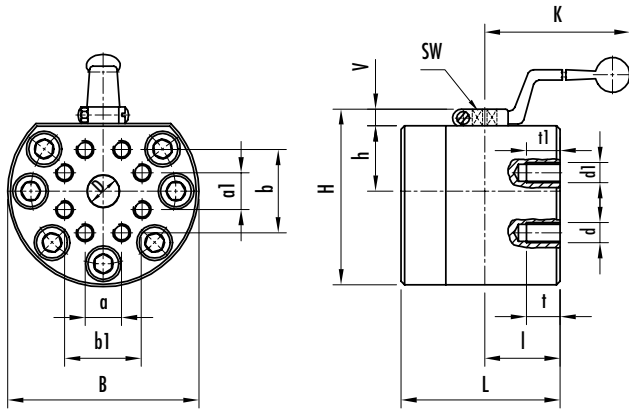
MATERIAL: CARBON STEEL BODY, (STAINLESS STEEL AVAILABLE)



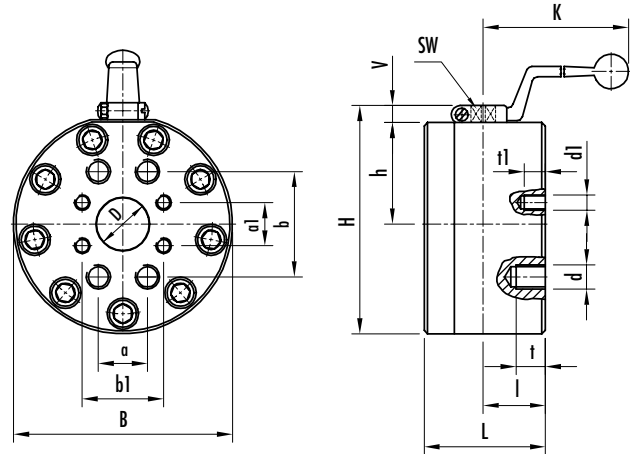
Ball Valves

SAE Code 61/Code 62 Dual Pattern - Flat Face Style 1/2"-2"

1/2"-1"



1 1/4"-2"



BBV29 SAE Code 61/Code 62 Dual Pattern - Two Way Inline Flat Face Ball Valve

Size	Ball Valve Part No.	Dimensions (in)												
		D	L	I	B	H	h	V	SW	K	SAE CODE 62		SAE CODE 61	
											a	b	a1	b1
1/2"	BBV29080001M-*	0.59	2.95	1.38	3.46	3.46	1.22	0.47	0.47	6.30	0.72	1.59	0.69	1.50
3/4"	BBV29120001M-*	0.79	3.15	1.38	3.86	3.95	1.43	0.49	0.55	6.30	0.94	2.00	0.87	1.87
1"	BBV29160001M-*	0.98	3.46	1.50	4.65	4.45	1.55	0.53	0.55	6.30	1.03	2.06	1.09	2.25
1 1/4"	BBV29200001M-*	1.26	3.94	1.97	5.71	6.22	2.68	0.67	0.67	11.81	1.25	2.63	1.19	2.31
1 1/2"	BBV29240001M-*	1.50	4.33	2.17	6.50	7.01	3.07	0.67	0.67	11.81	1.44	3.13	1.40	2.75
2"	BBV29320001M-*	1.89	4.57	2.28	7.80	8.26	3.70	0.67	0.67	11.81	1.75	3.81	1.69	3.06

Size	UNC Thread d	UNC Thread d1	Dimensions (in)		WT. lbs/pc	Working Pressure Code 61 PSI (bar)	Working Pressure Code 62 PSI (bar)
			t	t1			
1/2"	5/16"	5/16"	0.71	0.71	5.50	5000 (350)	6000 (420)
3/4"	3/8"	3/8"	0.71	0.71	8.58	5000 (350)	6000 (420)
1"	7/16"	3/8"	0.79	0.79	13.20	5000 (350)	6000 (420)
1 1/4"	1/2"	7/16"	0.87	0.87	25.52	4000 (275)	6000 (420)
1 1/2"	5/8"	1/2"	0.94	0.75	35.64	3000 (210)	6000 (420)
2"	3/4"	1/2"	1.10	0.75	54.78	3000 (210)	6000 (420)

* INSERT ' LOK ' TO INDICATE OPTIONAL ASSEMBLED LOCKING DEVICE

• VITON SEALS (STANDARD)

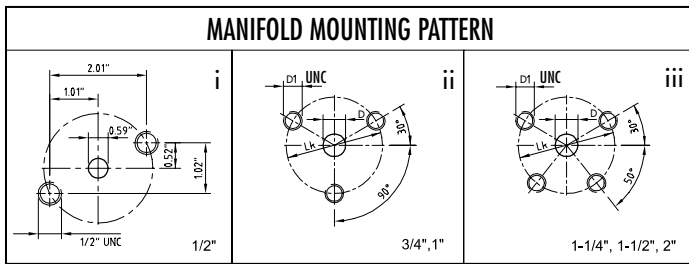
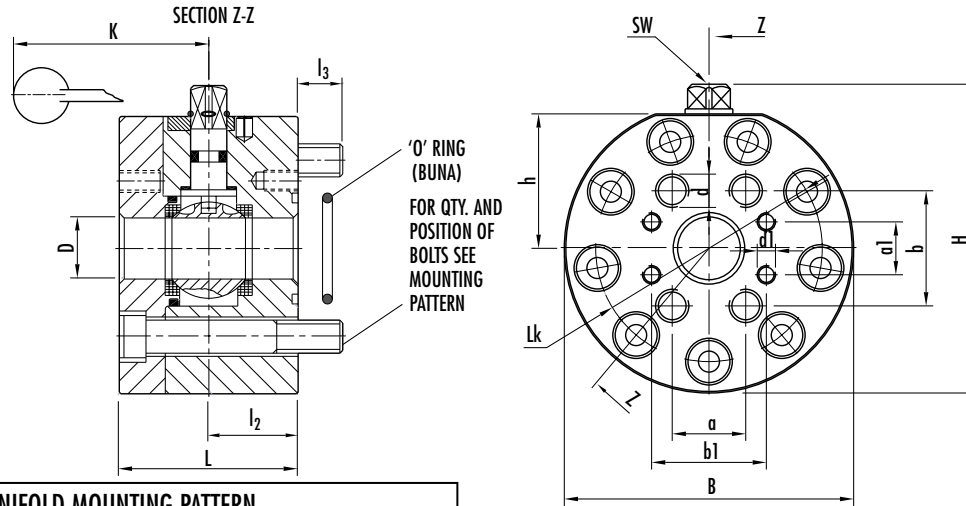
NOTE: Code 62, 2" size - use lock washers for Split Flange Connection

MATERIAL: CARBON STEEL BODY, (STAINLESS STEEL AVAILABLE)



Ball Valves

SAE Code 61/ Code 62 Dual Pattern - Manifold Mount Style 1/2"-2"



Pattern	Size	D	D1	Lk
i	1/2"	see left		
ii	3/4"	0.79	1/2"	3.03
	1"	0.98	1/2"	3.54
iii	1 1/4"	1.26	1/2"	4.56
	1 1/2"	1.50	5/8"	5.31
	2"	1.89	3/4"	6.49

BBVD29 SAE Code 61/Code 62 Dual Pattern - Two Way Flat Face Ball Valve

Size	Ball Valve Part No.	Dimensions (in)												
		D	L	l ₂	B	H	h	l ₃	SW	K	SAE CODE 62		SAE CODE 61	
											a	b	a1	b1
1/2"	BBVD29080001M-*	0.59	2.95	1.38	3.46	3.46	1.22	0.61	0.47	6.30	0.72	1.59	0.69	1.50
3/4"	BBVD29120001M-*	0.79	3.15	1.38	3.86	3.95	1.43	0.90	0.55	6.30	0.94	2.00	0.87	1.87
1"	BBVD29160001M-*	0.98	3.46	1.50	4.65	4.45	1.55	0.66	0.55	6.30	1.03	2.06	1.09	2.25
1 1/4"	BBVD29200001M-*	1.26	3.94	1.97	5.71	6.22	2.68	0.86	0.67	11.81	1.25	2.63	1.19	2.31
1 1/2"	BBVD29240001M-*	1.50	4.33	2.17	6.50	7.01	3.07	0.86	0.67	11.81	1.44	3.13	1.40	2.75
2"	BBVD29320001M-*	1.89	4.57	2.28	7.80	8.26	3.70	0.74	0.67	11.81	1.75	3.81	1.69	3.06

Size	UNC Thread d	UNC Thread d1	Thread Depth (in)		Mounting Bolt	'O' Ring (Buna) Part No.	WT. lbs/pc	Working Pressure Code 61 PSI (bar)	Working Pressure Code 62 PSI (bar)
			SAE Code 62	SAE Code 61					
1/2"	5/16"	5/16"	0.71	0.71	1/2" x 3"	OR*-2-210	5.50	5000 (350)	6000 (420)
3/4"	3/8"	3/8"	0.71	0.71	1/2" x 3 1/2"	OR*-2-214	8.58	5000 (350)	6000 (420)
1"	7/16"	3/8"	0.79	0.79	1/2" x 3 1/2"	OR*-2-219	13.20	5000 (350)	6000 (420)
1 1/4"	1/2"	7/16"	0.87	0.87	1/2" x 4 1/4"	OR*-2-222	25.52	4000 (275)	6000 (420)
1 1/2"	5/8"	1/2"	0.94	0.75	5/8" x 4 1/2"	OR*-2-225	35.64	3000 (210)	6000 (420)
2"	3/4"	1/2"	1.10	0.75	3/4" x 4 1/2"	OR*-2-228	54.78	3000 (210)	6000 (420)

* INSERT "V" TO INDICATE OPTIONAL VITON 'O' RING
 INSERT ' LOK ' TO INDICATE OPTIONAL ASSEMBLED LOCKING DEVICE

• INTERNAL SEALS - VITON (STANDARD)

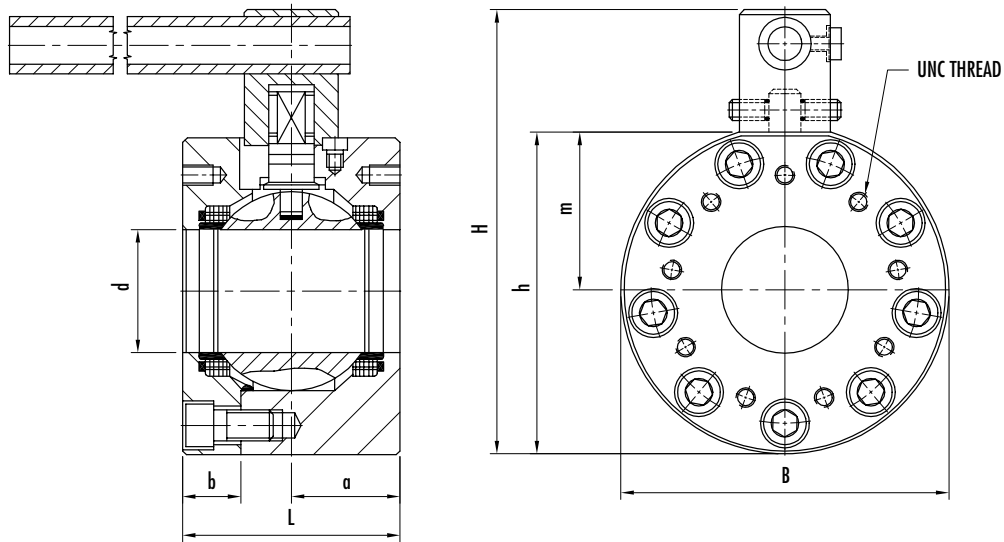
NOTE: Code 62, 2" size - use lock washers for Split Flange Connection

MATERIAL: CARBON STEEL BODY



Ball Valves

9-Bolt Pattern Direct Mount Flat Face Style 2 1/2"-5"



BBVG27 9-Bolt Pattern - Direct Mount Two Way Inline Flat Face Ball Valve

Size	Ball Valve Part No.	Dimensions (in)								UNC Thread	WT. lbs/pc	Working Pressure PSI (bar)
		d	a	b	L	H	h	m	B			
2 1/2"	BBVG27400001M-*	2.48	2.95	1.69	5.90	10.15	7.59	3.70	7.79	1/2"	84.00	4200 (290)
3"	BBVG27480001M-*	2.99	2.79	1.37	5.51	10.82	8.07	3.93	8.26	5/8"	94.00	4100 (285)
4"	BBVG27640001M-*	3.93	3.34	1.77	6.69	12.83	9.88	4.80	10.51	5/8"	155.00	4000 (275)
5"	BBVG27800001M-*	4.64	4.13	1.88	8.26	15.00	11.31	5.51	11.61	3/4"	257.00	3860 (266)

- * INSERT ' LOK ' TO INDICATE OPTIONAL ASSEMBLED LOCKING DEVICE
- REFERENCE PAGE P11 FOR BUTT WELD RETAIN RING FLANGE ADAPTER ASSEMBLIES
- VITON SEALS (STANDARD)

MATERIAL: CARBON STEEL BODY, (STAINLESS STEEL AVAILABLE)

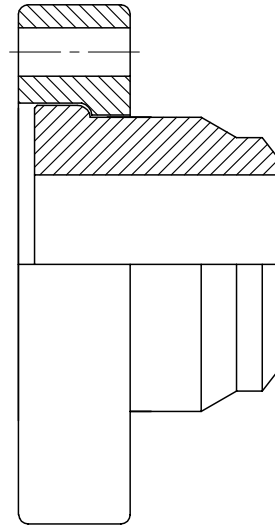


Ball Valve Butt Weld Adapter Assemblies

TMI® 9-Bolt Retain Ring Flange to ANSI Pipe

Typical A/BWA Assembly:

To be used with 'O' Ring Seal Retainer Ref. page M12



COMPLETE ASSEMBLY CONSISTS OF:

- ONE (1) BUTT WELD ADAPTER BODY (REF. PAGE M5 - M7)
- ONE (1) TMI® 9-BOLT RETAIN RING FLANGE (REF. PAGE C12)

TO BE ORDERED SEPARATELY:

- ONE (1) 'O' RING SEAL RETAINER (REF. PAGE M12)

A/BWA Butt Weld Adapter Assembly - Retain Ring Flange Style

Only for use with 9-Bolt Ball Valve BBVG27 (reference page P10)

Schedule 80

Nominal Size	Complete Assembly Part No.	WT. lbs/pc	Working Pressure PSI (bar)
2 1/2"	A/BWA-SCH80-250-FC49	6.25	4200 (290)
3"	A/BWA-SCH80-300-FC49	11.78	4100 (280)
4"	A/BWA-SCH80-400-FC49	17.33	4000 (275)
5"	A/BWAA-SCH80-500-FAC49	33.90	3860 (265)

Schedule 160

Nominal Size	Complete Assembly Part No.	WT. lbs/pc	Working Pressure PSI (bar)
2 1/2"	A/BWA-SCH160-250-FC49	6.55	4200 (290)
3"	A/BWA-SCH160-300-FC49	12.38	4100 (280)
4"	A/BWA-SCH160-400-FC49	18.23	4000 (275)
5"	A/BWAA-SCH160-500-FAC49	37.10	3860 (265)

Schedule XXS

Nominal Size	Complete Assembly Part No.	WT. lbs/pc	Working Pressure PSI (bar)
2 1/2"	A/BWA-SCHXXS-250-FC49	6.95	4200 (290)
3"	A/BWA-SCHXXS-300-FC49	12.98	4100 (280)
4"	A/BWA-SCHXXS-400-FC49	19.53	4000 (275)
5"	A/BWAA-SCHXXS-500-FAC49	38.30	3860 (265)

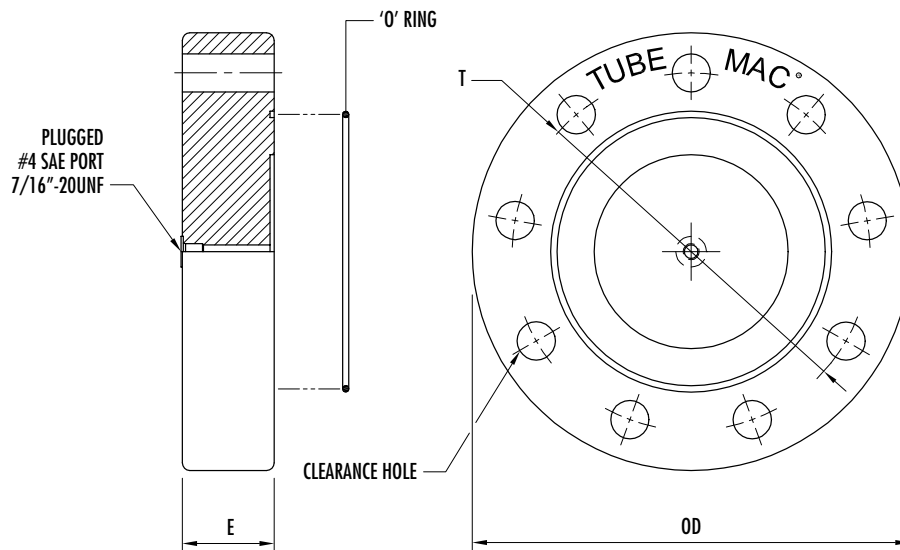
- FOR BOLT KITS - REFERENCE SECTION R

MATERIAL: CARBON STEEL, (STAINLESS STEEL STANDARD-316 AVAILABLE) OTHER MATERIALS ARE AVAILABLE



Blanking Flange

TMI® 9-Bolt - 'O' Ring Face



BF049 Blanking Flange - TMI® 9-Bolt 'O' Ring Face with Clearance Holes

Only for use with 9-Bolt Ball Valve BBVG27 (reference page P10)
 Complete with Buna 'O' Ring (Standard) and #4 SAE Port (Plugged)

Size	Blanking Flange Part No.	Dimensions (in)			Bolt Minimum Grade 5	'O' Ring (Buna) Part No.	WT. lbs/pc	Working Pressure PSI (bar)	Bolt Torque ft.lbs.
		T	OD	E					
2 1/2"	BF049-250-*	4.03	4.95	1.48	1/2" UNC	OR*-2-232	4.55	4200 (290)	80-90
3"	BF049-300-*	5.49	6.50	1.73	5/8" UNC	OR*-2-237	8.78	4100 (280)	110-120
4"	BF049-400-*	6.14	7.38	1.98	5/8" UNC	OR*-2-243	11.53	4000 (275)	110-120
5"	BF049-500-*	7.56	9.00	2.00	3/4" UNC	OR*-2-353	18.90	3860 (265)	120-130

* INSERT 'V' TO INDICATE OPTIONAL VITON 'O' RING

• FOR BOLT KITS - REFERENCE SECTION R

MATERIAL: CARBON STEEL, YELLOW ZINC DICHROMATE PLATED, (STAINLESS STEEL AVAILABLE)

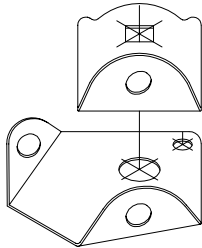


Ball Valve

Locking Devices

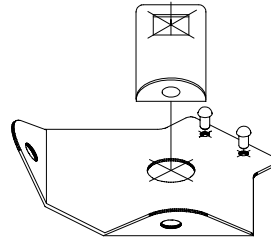
LOK - Ball Valve Lockout Kit

1/4"-2"

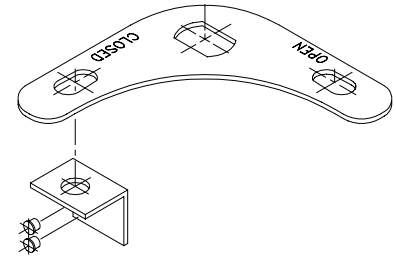


LOK-FF - Flat Face Ball Valve Lockout Kit

1/2"-2"



2 1/2"-5"



LOK Ball Valve Lockout Kit

Size	Lockout Part No.	WT. lbs/pc
1/4"	LOK-025	0.12
3/8"	LOK-038	0.12
1/2"	LOK-050	0.12
3/4"	LOK-075	0.21
1"	LOK-100	0.21
1 1/4"	LOK-125	0.30
1 1/2"	LOK-150	0.30
2"	LOK-200	0.38

LOK-FF Flat Face Ball Valve Lockout Kit

Size	Lockout Part No.	WT. lbs/pc
1/2"	LOK-FF-050	0.23
3/4"	LOK-FF-075	0.29
1"	LOK-FF-100	0.29
1 1/4"	LOK-FF-125	0.35
1 1/2"	LOK-FF-150	0.35
2"	LOK-FF-200	0.35
2 1/2"	LOK-FF-250	0.49
3"	LOK-FF-300	0.57
4"	LOK-FF-400	0.69
5"	LOK-FF-500	0.76

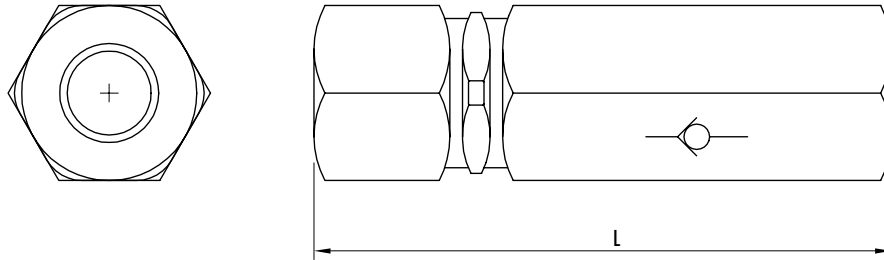
- LOK IS USED WITH BBV20, BBV21, BBV22, BBV23, FBV20, FBV21, FBV22 & FBV23 BALL VALVES
- LOK-FF IS USED WITH BBV29, BBVD27, BBVD28 & BBVG27 BALL VALVES
- INSTALLATION INSTRUCTIONS ARE AVAILABLE UPON REQUEST

MATERIAL: STAINLESS STEEL



Check Valves

Inline Female Thread - Poppet Style 3000-6000 PSI



6C/3C Inline Check Valve - Female Threaded Port Style

Poppet Style Soft Seat - 3000-6000 PSI (210-420 bar)

Size	*Dimensions (in)		Cv	WT. lbs/pc	Flow gpm	Working Pressure PSI (bar)
	L	HEX				
1/4"	2.82	0.75	0.45	0.29	3.00	6000 (420)
3/8"	3.38	1.12	1.80	0.81	8.00	6000 (420)
1/2"	3.73	1.25	3.40	1.20	12.00	6000 (420)
3/4"	4.91	1.62	7.40	2.05	20.00	6000 (420)
1"	6.07	1.88	9.50	3.40	30.00	6000 (420)
1 1/4"	5.76	2.00	12.30	3.75	90.00	3000 (210)
1 1/2"	6.51	2.50	16.15	7.80	125.00	3000 (210)
2"	7.28	3.25	21.80	13.00	175.00	3000 (210)

* Dimensions shown are for NPTF ported valves; for other end-fitting configurations - consult factory.

Complete Part Number

	Code	Valve Body	Port Size	Inlet	Outlet	Spring Pressure	Option
Valve Body	6C	6000 PSI 1/4" - 1"					
	3C	3000 PSI 1 1/4" - 2"					
Port Size	4	1/4"					
	6	3/8"					
	8	1/2"					
	12	3/4"					
	16	1"					
	20	*1 1/4"					
	24	*1 1/2"					
	32	*2"					
Thread Type	EF	Female SAE					
	F	Female NPTF					
	RP	Female British Parallel BS 2779					
Spring Pressure	05	5 PSI (.35 bar)					
	25	25 PSI (1.75 bar)					
	65	65 PSI (4.5 bar)					
Option	A	Buna					

- * ONLY AVAILABLE IN 3000 PSI
- VITON 'O' RINGS (STANDARD)
- FOR PRESSURE/DROP CHARTS
REFERENCE PAGE P15

PART NO. (EXAMPLE):
6C - 4 - F - F - 05

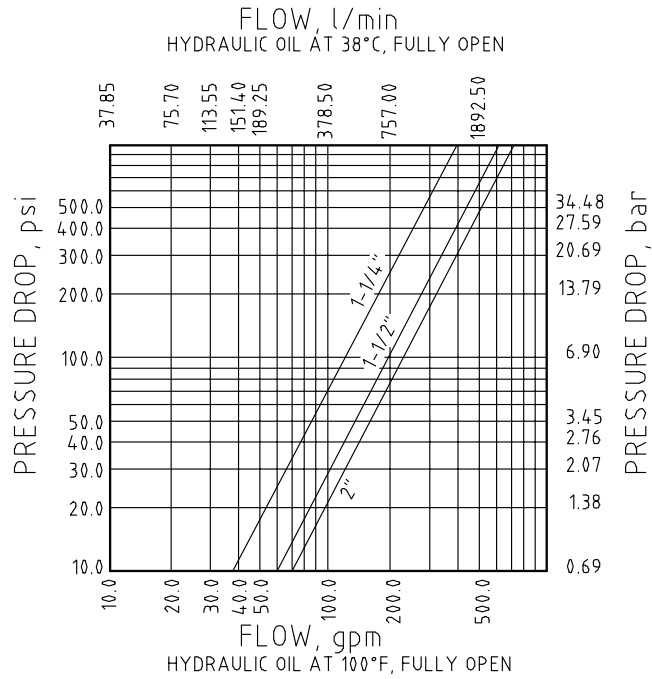
MATERIAL: CARBON STEEL, CLEAR ZINC DICHROMATE PLATED, (316 STAINLESS STEEL AVAILABLE)

Note: To order 316 stainless steel check valve insert S into the beginning of the assembly part number
PART NO. (EXAMPLE): S 6C - 4 - F - F - 05

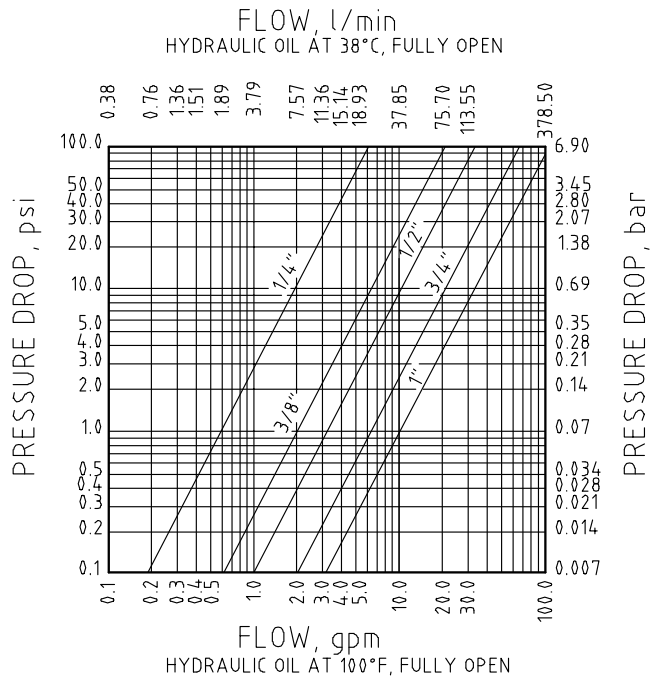
Check Valves

Pressure Drop Charts

3C 3000 PSI

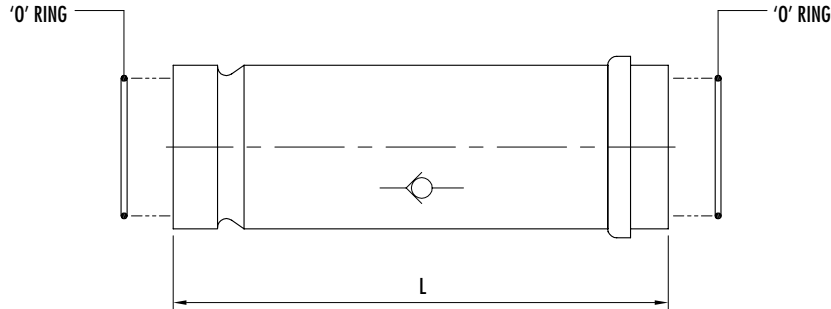


6C 6000 PSI



Check Valve

Retain Ring Flange Style - Body Only



CV Check Valve Body - Poppet Style

Complete with Buna 'O' Rings (Standard)

Size	Check Valve Part No.	Dimensions (in)	'O' Ring (Buna) Part No.	WT. lbs/pc	Working Pressure (Body Only) PSI (bar)
		L			
3/4"	CV-075-07-*	3.60	OR*-3-913	1.30	5000 (350)
1"	CV-100-07-*	4.40	OR*-3-916	1.67	5000 (350)
1 1/4"	CV-125-07-*	5.18	OR*-3-918	2.50	5000 (350)
1 1/2"	CV-150-07-*	5.76	OR*-3-924	4.25	5000 (350)
2"	CV-200-07-*	6.74	OR*-3-928	5.62	5000 (350)
2 1/2"	CV-250-07-*	7.14	OR*-2-232	8.99	5000 (350)
3"	CV-300-07-*	7.53	OR*-2-237	13.66	5000 (350)

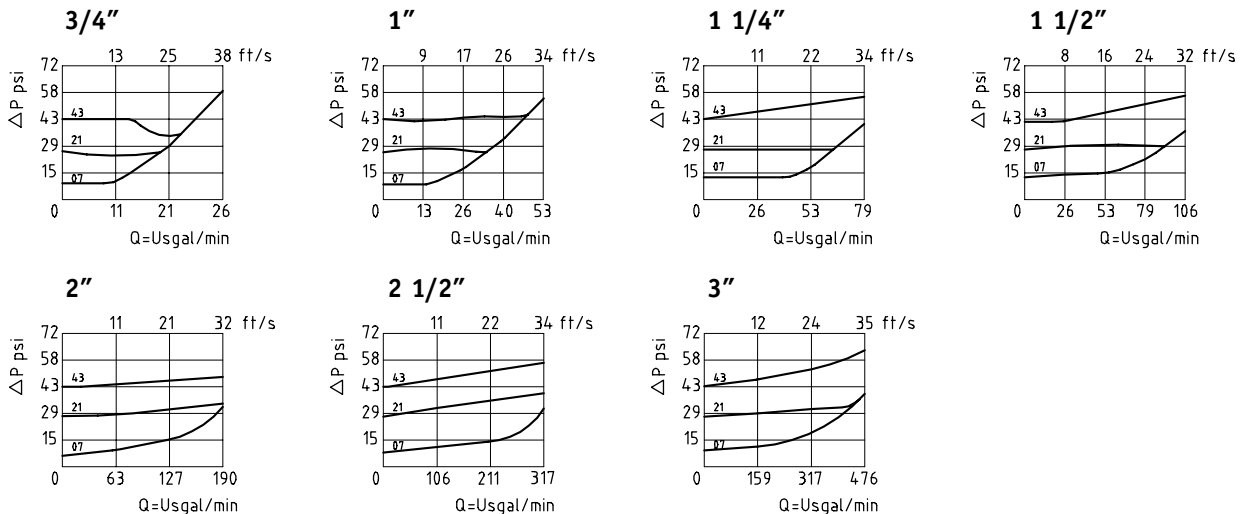
Opening Pressure		
	PSI	(bar)
Standard	7	(0.5)
Optional	21	(1.5)
Optional	43	(3.0)

* INSERT 'V' TO INDICATE OPTIONAL VITON 'O' RINGS

• TO ORDER A COMPLETE CHECK VALVE ASSEMBLY REFERENCE PAGE P17

MATERIAL: CARBON STEEL, YELLOW ZINC DICHROMATE PLATED, (STAINLESS STEEL AVAILABLE)

Performance Curves: Measured using oil at 190SUS and 122°F

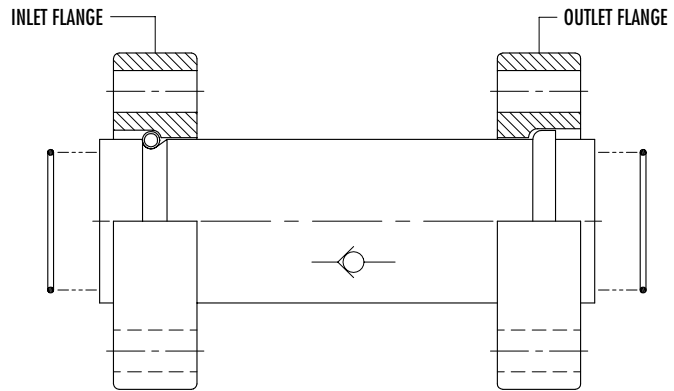




Check Valve Assembly

Complete Assembly Part Number

Typical A/CV Assembly



COMPLETE ASSEMBLY CONSISTS OF:

- ONE (1) CHECK VALVE BODY - POPPET STYLE (REF. PAGE P16)
- TWO (2) RETAIN RING FLANGES (REF. PAGES C8-C10)
- ONE (1) RETAIN RING
- BUNA 'O' RINGS (STANDARD)

Assembly		Code	A / CV	Valve Size	Inlet Flange	Outlet Flange	Opening Pressure	Options
Assembly		A						
Valve Body Ref. page (P16)	Check Valve	CV						
Valve Size	3/4"	075						
	1"	100						
	1 1/4"	125						
	1 1/2"	150						
	2"	200						
	2 1/2"	250						
	3"	300						
Flange Type Carbon Steel Yellow Zinc Dicromate Plated Ref. pages (C8-C10)	RFC34 SAE Code 61 W/Clearance Holes	FC34						
	*RFT34 SAE Code 61 W/Tapped Holes	FT34						
	RFC64 SAE Code 62 W/Clearance Holes	FC64						
	*RFT64 SAE Code 62 W/Tapped Holes	FT64						
	RFC74 ISO 6164 W/Clearance Holes	FC74						
Opening Pressure	7 PSI - Standard	07						
	21 PSI - Optional	21						
	43 PSI - Optional	43						
Options	Viton	V						

Opening Pressure		
	PSI	(bar)
Standard	7	(0.5)
Optional	21	(1.5)
Optional	43	(3.0)

* NORMALLY USED FOR CONNECTION TO SPLIT FLANGE TYPE ENDS

• FOR CONNECTION TO HOSE USE CONNECTOR PLATE **OCP** (TO BE ORDERED SEPARATELY) REFERENCE PAGE C17

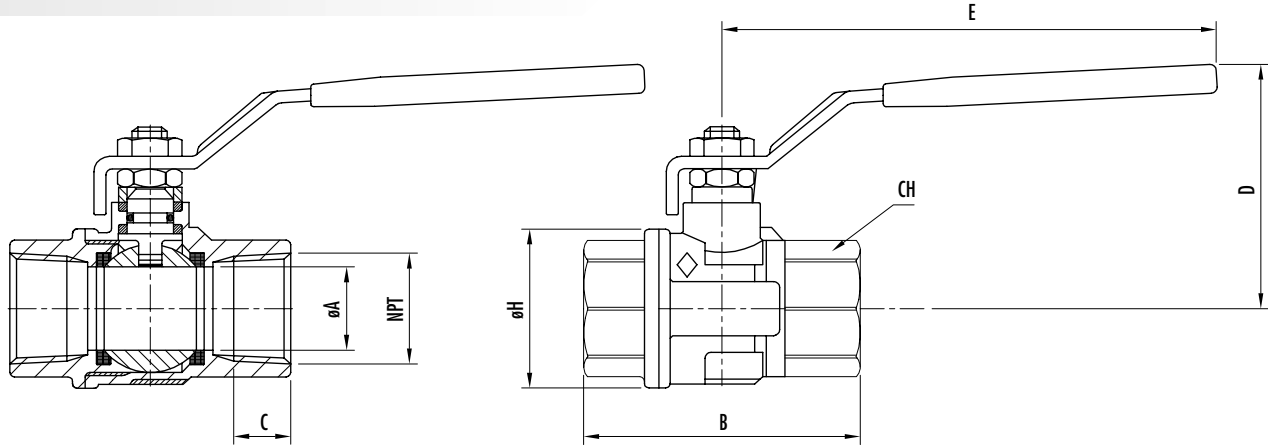
PART NO. (EXAMPLE): A/CV - 075 - FC64 - FT64 - 07

- ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR THE CHECK VALVE RATINGS
- SEE REFERENCE PAGE INDICATED ABOVE FOR PRESSURE RATINGS
- OTHER MATERIALS ARE AVAILABLE
- FOR BOLT KITS - REFERENCE SECTION R



Ball Valves

Low Pressure



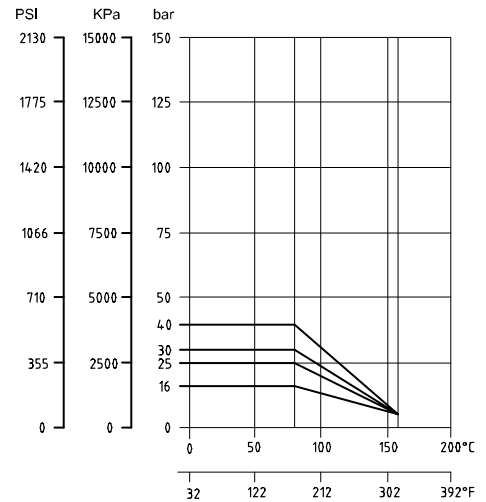
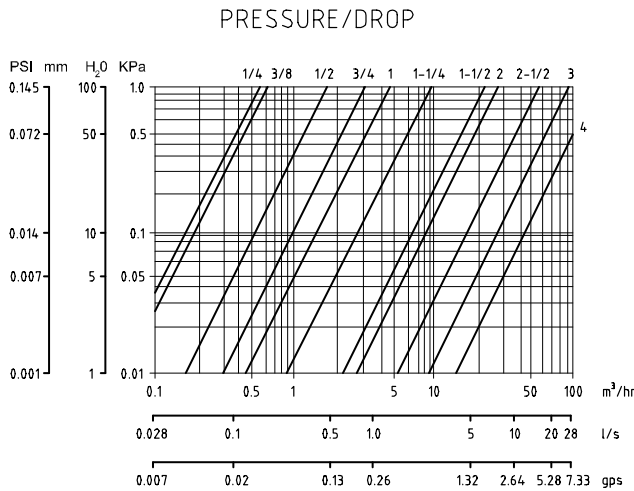
2BVL Female Thread Ball Valve - Low Pressure

Size	NPT Ball Valve Part No.	SAE Ball Valve Part No.	Dimensions (in)							Cv	WT. lbs/pc	Working Pressure PSI (bar)
			A	B	C	D	E	H	ch			
1/4"	2BVL20-04-B*	2BVL21-04-B*	0.39	2.02	0.39	1.75	3.85	0.90	0.78	6.29	0.30	600 (40)
3/8"	2BVL20-06-B*	2BVL21-06-B*	0.39	2.02	0.40	1.75	3.85	0.90	0.78	6.99	0.28	600 (40)
1/2"	2BVL20-08-B*	2BVL21-08-B*	0.59	2.44	0.53	1.88	3.85	1.25	0.98	19.00	0.41	600 (40)
3/4"	2BVL20-12-B*	2BVL21-12-B*	0.78	2.71	0.55	2.28	4.80	1.53	1.22	34.42	0.67	600 (40)
1"	2BVL20-16-B*	2BVL21-16-B*	0.98	3.07	0.66	2.44	4.80	1.92	1.49	50.18	1.09	600 (40)
1 1/4"	2BVL20-20-B*	2BVL21-20-B*	1.25	3.42	0.68	3.07	6.02	2.32	1.88	103.70	2.01	600 (40)
1 1/2"	2BVL20-24-B*	2BVL21-24-B*	1.57	3.89	0.68	3.34	6.02	2.87	2.12	268.41	3.08	600 (40)
2"	2BVL20-32-B*	2BVL21-32-B*	1.96	4.33	0.69	3.79	6.37	3.38	2.63	309.20	4.18	600 (40)
2 1/2"	2BVL20-40-B*	2BVL21-40-B*	2.56	5.59	1.19	5.02	8.07	4.37	3.54	629.00	8.00	600 (40)
3"	2BVL20-48-B*	2BVL21-48-B*	3.15	6.45	1.31	5.45	8.07	5.35	4.13	1018.17	12.90	600 (40)
4"	2BVL20-64-B*	2BVL21-64-B*	3.94	7.60	1.55	6.34	10.23	6.35	5.12	1622.00	22.04	600 (40)

* INSERT ' L ' TO INDICATE OPTIONAL ASSEMBLED LOCKING DEVICE

- VALVES ARE FULL PORT
- BUNA SEALS (STANDARD)

PRESSURE/TEMPERATURE RATINGS



Notes



Lined area for writing notes.



