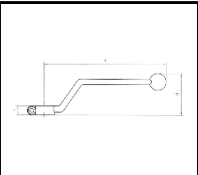
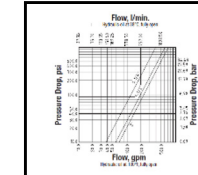
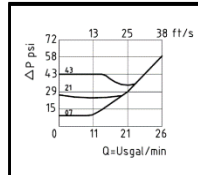
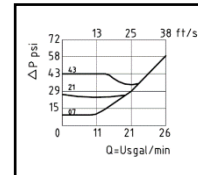


Valves, Ball and Check Reference Guide

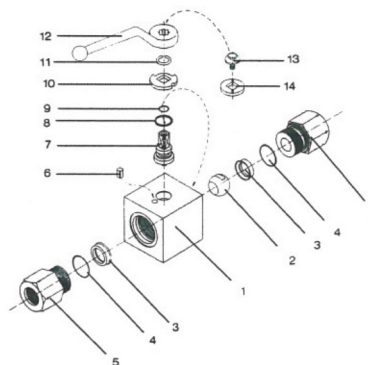
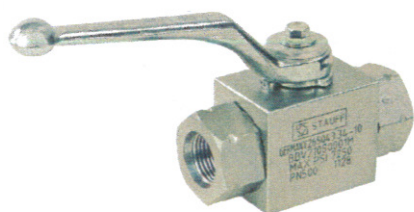
					
Female NPT, SAE, BSP and ORFS Block Body BBV-2 Pages M1, M2, M3	Female NPT, SAE, BPS and ORFS Forged Body FBV-2 Pages M4, M5, M6	Split Flange SAE Code 61 (3000 PSI) Code 62 (6000 PSI) Block Body BBV-2-F Pages M7, M8	Split Flange SAE Code 61 (3000 PSI) Code 62 (6000 PSI) Forged Body BBV-2-F Pages M9, M10	Dual Pattern SAE Code 61 (3000 PSI) Code 62 (6000 PSI) BV-2-C36 Pages M11, M12	Flat Face ISO 6164 250/400/350 bar BV-2-ISO Pages M13, M14
					
Ball Valve Levers/Handles SW Page M15	Ball Valve Locking Devices LD Pages M16, M17, M18	Ball Valve Actuators and Limit Switches Page M19	Female NPT and SAE Low Pressure Ball Valve 2BVL Page M20	Check Valve Inline Female Thread 6C/3C Page M21	Check Valve Pressure Drop Charts Page M22
					
Check Valve Body Only, Retain Ring Style CV Page M23	Check Valve Assembly, Retain Ring Flange Style A/CV Page M24	Check Valve Retain Ring Style Performance Curves PSI - gal/min Page M25	Check Valve Retain Ring Style Performance Curves PSI - litre/min Page M26		

Notes:

Please consult factory for the following:

1. Stainless Steel Ball Valves and Check Valves are available.
2. Other Styles and Sizes of Ball Valves are available such as 3-way, Multi-way and Manifold Mount.
3. Other Pneumatic or Electric Actuators, Limit Switches and Proximity Switches are available.

High-Pressure Block Body Ball Valve - Type BBV-2



List of Components

No .	Qty.	Description
1	1	Housing
2	1	Ball
3*	2	Seal
4*	2	Connector O-Ring
5	2	Connector
6	1	Stop Pin
7	1	Stem
8*	1	Thrust Ring
9*	1	Stem O-Ring
10	1	Cam Plate
11	1	Snap Ring
12	1	Lever
13	1	Stem Screw
14	1	Flow Indicator

Characteristics

Two-way high-pressure block body ball valves designed for use as on/off devices for hydraulic applications

Standard Construction

- Block body design for in-line assembly
- Supplied with off-set lever

Standard Materials

- Body: Carbon Steel, zinc/iron plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (Sizes 02 to 08)
Aluminium (Size 10)
Carbon Steel (Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 2208)>G 1-1/2 BSP
- Female NPT thread (ANSI B1.20.1)>1-1/2-11-1/2 NPT
- Female UN/UNF thread (SAE J 514)>1-7/8-12 UN (1-1/2" SAE)
- Male ORFS Connection (ISO 8434-3)>1-11/16-12UN

Pressure Range

- Pressure range: up to 500 bar / 7250 PSI (depending on size and material combination of the ball valve)

Temperature Range

- Operating temperature range: -20°C...+100°C / -4°F... +212°F

Options / Accessories

- Alternative lever designs / materials
- Locking devices
- Actuator packages
- Limit switches
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Order Codes

BBV	-	2	-	G	02	-	0	0	0	1	-	0	0	1
①		②		③	④		⑤	⑥	⑦	⑧		⑨	⑩	⑪

① Type

High-Pressure Block Body Ball Valve **BBV**

② Number of Ports

Two Ports (Two-Way Ball Valve) **2**

③ Connection Style

Female BSP Thread (DIN ISO 22B) **G**
Female NPT Thread (ANSI B1.20.1) **N**
Female UN/UNF Thread (SAE J 514) **U**
Male ORFS Connection (ISO 8434-3) **ORFS**

④ Connection Size

Size (according to dimension table) for connection styles G, N, U and ORFS:
02 04 06 08 10 12 16 20R 24R

Tube Size (according to dimension table)

⑤ Body Material / Surface Finishing

Carbon Steel, zinc/iron plated **0**
Carbon Steel, zinc/nickel plated **8**
Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
Stem: Carbon Steel

Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Ball: Brass, hard chrome-plated **2**
Stem: Carbon Steel

Alternative materials / surface finishings are available upon request.

⑦ Ball Seat Material

Delrin® **0**

Alternative materials are available upon request.

⑧ O-Ring Material

NBR (Buna-N®) **0**

FKM (Viton®) **1**

EPDM **3**

Alternative materials are available upon request.

⑨ Manufacturing Code

Manufacturing code for all connection Style **M**

Manufacturing code for high-pressure version of connection styles G, N and U. **H**

⑩ Lever Options

Supplied with standard lever (according to table) **-**

Supplied without lever **0**

Alternative levers can be ordered separately.

⑪ Accessories / Options

Supplied without accessories **-**

Supplied with Locking Device LD1 **LD1**

Supplied with Locking Device LD2 **LD2**

Supplied with Locking Device LD3 **LD3**

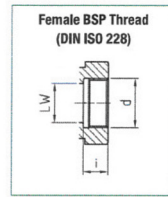
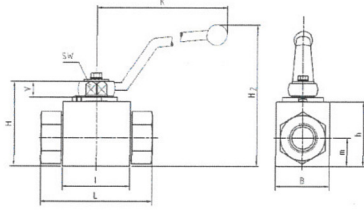
Supplied with Locking Device LD4 **LD4**

3D step models available upon request

3D step models available upon request

High-Pressure Block Body Ball Valve - Type BBV-2

Female BSP Thread (DIN ISO 228)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

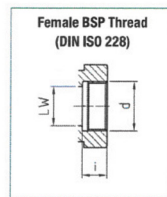
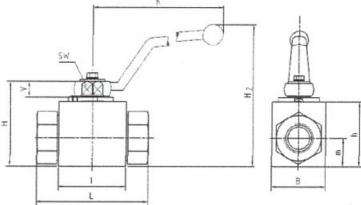
- Body, ball and stem: Carbon Steel
- Lever: Zinc (Sizes 02 to 08)
Aluminium (Size 10)
Carbon Steel (Sizes 12 to 24R)
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	I	H2			
02	G 1/8 BSP	4	5	69	40	26	47	33	13,5	11	9	115	10	82	500	0,41	BBV-2-G02-8001-M
			.20	2.70	1.57	1.02	1.84	1.29	5.3	.43	.35	4.50	.39	3.23	7250	.90	
04	G 1/4 BSP	6	6	69	40	26	47	33	13,5	11	9	115	14	82	500	0,40	BBV-2-G04-8001-M
			.23	2.70	1.57	1.02	1.84	1.29	5.3	.43	.35	4.50	.55	3.23	7250	.88	
06	G 3/8 BSP	10	10	72	43	32	52	38	17,5	11	9	115	14	87	500	0,54	BBV-2-G06-8001-M
			.39	2.82	1.68	1.25	2.04	1.49	.69	.43	.35	4.50	.55	3.43	7250	1.19	
08	G 1/2 BSP	13	13	83	48	35	54	40	19	11	9	115	16,3	89	500	0,65	BBV-2-G08-8001-M
			.51	3.25	1.88	1.37	2.11	1.57	.74	.43	.35	4.50	64	3.50	7250	1.43	
10	G 5/8 BSP	16	15	83	48	38	63	46	19	13	12	160	16	106	420	0,70	BBV-2-G10-8001-M
			.59	3.25	1.88	1.49	2.47	1.80	.74	.51	.47	6.26	.63	4.17	6000	1.54	
12	G 3/4 BSP	20	20	95	62	49	75	57	24,5	14	14	170	18	126	420	1,50	BBV-2-G12-8001-M
			.78	3.72	2.43	1.92	2.94	2.23	.96	.55	.55	6.69	.70	4.96	6000	3.31	
16	G 1 BSP	25	25	113	66	58	83	65	29,5	14	14	170	20	134	350	2,20	BBV-2-G16-8001-M
			.98	4.42	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.78	5.28	5076	4.85	
16	G 1 BSP	25	25	113	74	70	88	70	34,5	14	14	170	20	139	500	3,10	BBV-2-G16-8001-H
			.98	4.42	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	.78	5.47	7250	6.83	
20R	G 1-1/4 BSP	25/32	25	120	66	58	83	65	29,5	14	14	170	22	134	315	2,30	BBV-2-G20R-8001-M
			.98	4.70	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.86	5.28	4500	5.07	
24R	G 1-1/2 BSP	25/40	25	130	66	58	83	65	29,5	14	14	170	24	134	250	2,60	BBV-2-G24R-8001-M
			.98	5.09	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.94	5.28	3600	5.73	

Please note the pressure ratings of the tube connections.

High-Pressure Block Body Ball Valve - Type BBV-2

Female NPT Thread (ANSI B1.20.1)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

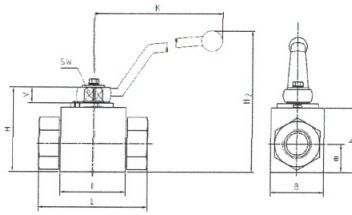
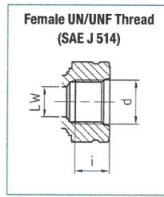
- Body, ball and stem: Carbon Steel
- Lever: Zinc (Sizes 02 to 08)
Carbon Steel (Sizes 12 to 24R)
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	I	H2			
02	1/8-27 NPT	4	5 .20	69 2.70	40 1.57	26 1.02	47 1.84	33 1.29	13,5 5.3	11 .43	9 .35	115 4.50	10,5 .41	82 3.23	500 7250	0,33 .66	BBV-2-N02-8001-M
04	1/4-18 NPT	6	6 .23	69 2.70	40 1.57	26 1.02	47 1.84	33 1.29	13,5 5.3	11 .43	9 .35	115 4.50	13,7 .54	82 3.23	500 7250	0,40 .88	
06	3/8-18 NPT	10	10 .39	72 2.82	43 1.68	32 1.25	52 2.04	38 1.49	17,5 .69	11 .43	9 .35	115 4.50	13,5 .53	87 3.43	500 7250	0,50 1.10	BBV-2-N06-8001-M
08	1/2-14 NPT	13	13 .51	83 3.25	48 1.88	35 1.37	54 2.11	40 1.57	19 .74	11 .43	9 .35	115 4.50	17 .67	89 3.50	500 7250	0,75 1.65	
12	3/4-14 NPT	20	20 .78	95 3.72	62 2.43	49 1.92	75 2.94	57 2.23	24,5 .96	14 .55	14 .55	170 6.69	18,3 .72	126 4.96	420 6000	1,63 3.57	BBV-2-N12-8001-M
16	1-11-1/2 NPT	25	25 .98	113 4.42	66 2.58	58 2.27	83 3.25	65 2.55	29,5 1.16	14 .55	14 .55	170 6.69	21,6 .85	134 5.28	350 5076	2,30 5.06	
16	1-11-1/2 NPT	25	25 .98	113 4.42	74 2.91	70 2.76	88 3.46	70 2.76	34,5 1.36	14 .55	14 .55	170 6.69	20 .78	139 5.47	500 7250	3,16 6.97	BBV-2-N16-8001-H
20R	1-1/4-11-1/2 NPT	25/32	25 .98	120 4.70	66 2.58	58 2.27	83 3.25	65 2.55	29,5 1.16	14 .55	14 .55	170 6.69	22,1 .87	134 5.28	315 4500	2,51 5.52	
24R	1-1/2-11-1/2 NPT	25/40	25 .98	130 5.09	66 2.58	58 2.27	83 3.25	65 2.55	29,5 1.16	14 .55	14 .55	170 6.69	22,1 .87	134 5.28	250 3600	2,70 5.94	BBV-2-N24R-8001-M

3D step models available upon request

High-Pressure Block Body Ball Valve - Type BBV-2

Female UN/UNF Thread (SAE J 514)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

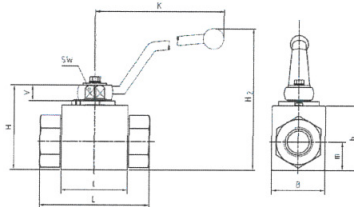
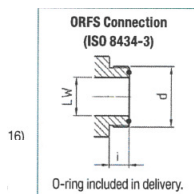
- Body, ball and stem: Carbon Steel
- Lever: Zinc (Sizes 04 to 08)
Carbon Steel (Sizes 12 to 24R)
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	I	H2			
04	7/16-20 UNF (1/4" SAE)	6	6	69	40	26	47	33	13,5	11	9	115	14	82	500	0,40	BBV-2-U04-8001-M
			.23	2.70	1.57	1.02	1.84	1.29	5.3	.43	.35	4.50	.55	3.23	7250	.88	
06	9/16-18 UNF (3/8" SAE)	10	10	72	43	32	52	38	17,5	11	9	115	14	87	500	0,50	BBV-2-U06-8001-M
			.39	2.82	1.68	1.25	2.04	1.49	.69	.43	.35	4.50	.55	3.43	7250	1.10	
08	3/4-16 UNF (1/2" SAE)	13	13	83	48	35	54	40	19	11	9	115	16,3	89	500	0,70	BBV-2-U08-8001-M
			.51	3.25	1.88	1.37	2.11	1.57	.74	.43	.35	4.50	.64	3.50	7250	1.54	
12	1-1/16-12 UN (3/4" SAE)	20	20	95	62	49	75	57	24,5	14	14	170	18	126	420	1,50	BBV-2-U12-8001-M
			.78	3.72	2.43	1.92	2.94	2.23	.96	.55	.55	6.69	.70	4.96	6000	3.31	
16	1-5/16-12 UN (1" SAE)	25	25	113	66	58	83	65	29,5	14	14	170	20	134	350	2,20	BBV-2-U16-8001-M
			.98	4.42	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.78	5.28	5076	4.85	
16	1-5/16-12 UN (1" SAE)	25	25	113	74	70	88	70	34,5	14	14	170	20	139	500	2,20	BBV-2-U16-8001-H
			.98	4.42	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	.78	5.47	7250	4.85	
20R	1-5/8-12 UN (1-1/4" SAE)	25/32	25	120	66	58	83	65	29,5	14	14	170	22	134	315	2,50	BBV-2-U20R-8001-M
			.98	4.70	2.60	2.28	3.27	2.56	1.16	.55	.55	6.69	.86	5.28	4500	5.50	
24R	1-7/8-12 UN (1-1/2" SAE)	25/40	25	130	66	58	83	65	29,5	14	14	170	24	134	315	2,61	BBV-2-U24R-8001-M
			.98	5.09	2.60	2.28	3.27	2.56	1.16	.55	.55	6.69	.94	5.28	4500	5.74	

Please note the pressure ratings of the tube connections.

High-Pressure Block Body Ball Valve - Type BBV-2

O-Ring Face Seal Connection - Male Thread (ISO 8434-3)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

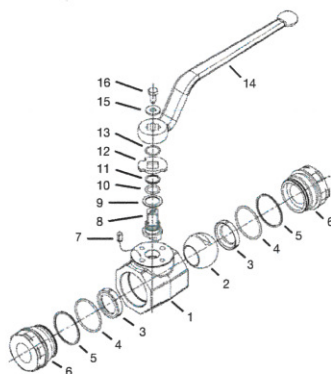
- Body, ball and stem: Carbon Steel
- Lever: Zinc (Sizes 04 to 08)
Aluminium (Size 10)
Carbon Steel (Sizes 12 and 16)
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Size	Thread Size d	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
		LW	L	I	B	H	h	m	V	SW	K	I	H2	O-ring			
04	9/16-18 UNF	4,5	73	40	26	47	33	13,5	11	9	115	10	82	7,65x1,78	500	0,37	BBV-2-ORFS04-8001-M
		.18	2.87	1.57	1.02	1.84	1.29	5.3	.43	.35	4.50	.39	3.23		7250	.81	
06	11/16-16 UN	6,5	73	40	26	47	33	13,5	11	9	115	11	82	9,25x1,78	500	0,38	BBV-2-ORFS06-8001-M
		.26	2.87	1.57	1.02	1.84	1.29	5.3	.43	.35	4.50	.43	3.23		7250	.83	
08	13/1-16 UN	9,5	78	43	32	52	38	17,5	11	9	115	13	87	12,42x1,78	500	0,50	BBV-2-ORFS08-8001-M
		.37	3.07	1.68	1.25	2.04	1.49	.69	.43	.35	4.50	.51	3.43		7250	1.10	
10	1-14 UNS	12,5	90	48	35	54	40	19	14	9	115	15,5	89	15,60x1,78	420	0,61	BBV-2-ORFS10-8001-M
		.49	3.54	1.88	1.37	2.11	1.57	.74	.55	.35	4.50	.61	3.50		6000	1.34	
12	1-3/16-12 UN	15,5	98	48	35	63	40	19	14	12	160	17	106	18,77x1,78	420	0,80	BBV-2-ORFS12-8001-M
		.61	3.86	1.88	1.37	2.47	1.57	.74	.55	.47	6.26	.67	4.17		6000	1.76	
16	1-7/16-12 UN	20,5	111	62	49	88	57	24,5	14	14	170	17,5	126	23,52x1,78	315	1,55	BBV-2-ORFS16-8001-M
		.81	4.37	2.43	1.92	3.46	2.23	.96	.55	.55	6.69	.69	4.96		4500	3.41	
20	1-11/16-12 UN	26	120	66	58	83	65	29,5	14	14	170	17,5	134	29,87x1,78	315	2,10	BBV-2-ORFS20-8001-M
		1.02	4.72	2.58	2.27	3.27	2.55	1.16	.55	.55	6.69	.69	5.28		4500	4.63	

Please note the pressure ratings of the tube connections.

3D step models available upon request

High-Pressure Forged Body Ball Valve - Type FBV-2



List of Components

No .	Qty.	Description
1	1	Body
2	1	Ball
3*	2	Seal
4*	2	Connector O-Ring
5	2	Connector Back-Up Ring
6	2	Connector
7	1	Stop Pin
8*	1	Stem
9*	1	Thrust Ring
10	1	Stem O-Ring
11	1	Stem Back-Up Ring
12	1	Cam Plate
13	1	Snap Ring
14	1	Handle
15	1	Washer
16	1	Stem Bolt

Characteristics

Two-Way high-pressure forged body ball valves designed for use as on/off devices for hydraulic applications

Standard Construction

- Forged body design for in-line assembly
- Supplied with off-set lever

Standard Materials

- Body: Carbon Steel, zinc/iron plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228)>G 2 BSP
- Female NPT thread (ANSI B1.20.1)>2-11-1/2 NPT
- Female UN/UNF thread (SAE J 514)>2-1/2-12 UN (1-1/2" SAE)
- Male ORFS Connection (ISO 8434-3)>2-12UN
- 24° Cone Connection (DIN 2353 / ISO 8434-1)>42L
- 24° Cone Connection (DIN 2353 / ISO 8434-1)>38S

Pressure Range

- Pressure range: up to 420 bar / 6000 PSI (depending on size and material combination of the ball valve)

Temperature Range

- Operating temperature range: -20°C...+100°C / -4°F... +212°F

Options / Accessories

- Alternative lever designs / materials
- Locking devices
- Actuator packages
- Limit switches
- Additional assembling threads/holes
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Order Codes

FBV	-	2	-	G	20	-	0	0	0	1	-	M	-	-
①		②		③	④		⑤	⑥	⑦	⑧		⑨	⑩	⑪

① Type

High-Pressure Forged Body Ball Valve **FBV**

② Number of Ports

Two Ports (Two-Way Ball Valve) **2**

③ Connection Style

Female BSP Thread (DIN ISO 22B) **G**
 Female NPT Thread (ANSI B1.20.1) **N**
 Female UN/UNF Thread (SAE J 514) **U**
 Male ORFS Connection (ISO 8434-3) **ORFS**

④ Connection Size

Size (according to dimension table) for connection styles G, N, U and B:
20 24 32
 Tube Size (according to dimension table) for 24° Cone Connection (Light Series): **35L**
 Tube Size (according to dimension table) for 24° Cone Connection (Light Series): **42L**
 Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series): **38S**

⑤ Body Material / Surface Finishing

Carbon Steel, zinc/iron plated **0**
 Stainless Steel V4A (AISI 316Ti) **1**
 Alternative materials / surface finishings are available upon request.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
 Stem: Carbon Steel
 Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**
 Ball: Brass, hard chrome-plated **2**
 Stem: Carbon Steel
 Alternative materials / surface finishings are available upon request.

⑦ Ball Seat Material

Delrin® **0**
 Alternative materials are available upon request.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM (Viton®) **1**
 Alternative materials are available upon request.

⑨ Manufacturing Code

Manufacturing code for all connection Style **M**

⑩ Lever Options

Supplied with standard lever (according to table) **-**
 Supplied without lever **0**
 Alternative levers can be ordered separately. Please see page 114 for further information.

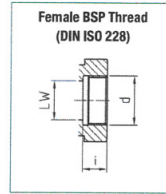
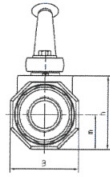
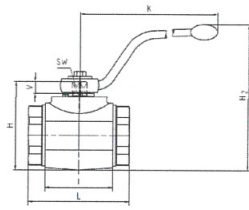
⑪ Accessories / Options

Supplied without accessories **-**
 Supplied with Locking Device LD1 **LD1**
 Supplied with Locking Device LD2 **LD2**
 Supplied with Locking Device LD3 **LD3**
 Supplied with Locking Device LD4 **LD4**
 Supplied with Locking Device LD6 (US version) **LD6**

3D step models available upon request

High-Pressure Forged Body Ball Valve - Type FBV-2

Female BSP Thread (DIN ISO 228)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

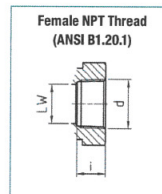
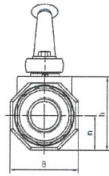
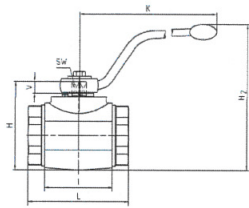
Dimensions of stainless steel ball valves may vary!

Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	I	H2			
20	G 1-1/4 BSP	32	32	111	80	81	107	86	40,5	16,5	17	306	22	171	420	3,47	FBV-2-G20-0001-M
			1.26	4.37	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	.87	6.73	6000	7.63	
24	G 1-1/2 BSP	40	38	130	85	100	124	103	50	16,5	17	306	24	188	420	5,67	FBV-2-G24-0001-M
			1.50	5.12	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	.94	7.40	6000	12.47	
32	G 2 BSP	50	48	140	100	118	138	117	59	16,5	17	306	26	202	420	8,14	FBV-2-G32-0001-M
			1.89	5.51	3.94	4.65	2.43	4.61	2.32	.65	.67	12.05	1.02	7.96	6000	17.91	

Please note the pressure ratings of the tube connections.

High-Pressure Forged Body Ball Valve - Type FBV-2

Female NPT Thread (ANSI B1.20.1)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

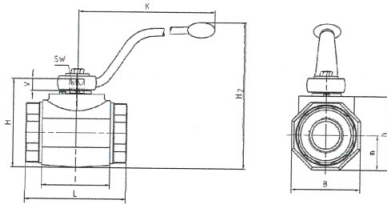
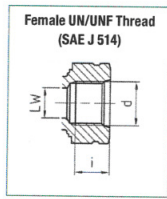
Dimensions of stainless steel ball valves may vary!

Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	I	H2			
20	G 1-1/4 BSP	32	32	111	80	81	107	86	40,5	16,5	17	306	22	171	420	3,47	FBV-2-N20-0001-M
			1.26	4.37	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	.87	6.73	6000	7.63	
24	G 1-1/2 BSP	40	38	130	85	100	124	103	50	16,5	17	306	24	188	420	5,67	FBV-2-N24-0001-M
			1.50	5.12	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	.94	7.40	6000	12.47	
32	G 2 BSP	50	48	140	100	118	138	117	59	16,5	17	306	26	202	420	8,14	FBV-2-N32-0001-M
			1.89	5.51	3.94	4.65	2.43	4.61	2.32	.65	.67	12.05	1.02	7.96	6000	17.91	

Please note the pressure ratings of the tube connections.

High-Pressure Forged Body Ball Valve - Type FBV-2

Female UN/UNF Thread (SAE J 514)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

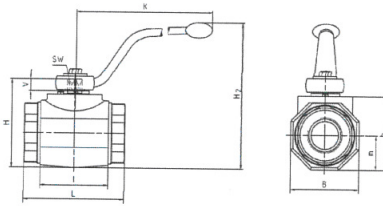
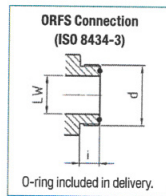
Dimensions of stainless steel ball valves may vary!

Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	I	H2			
20	1-5/8-12 UN (1-1/4" SAE)	32	30	111	80	81	107	86	40,5	16,5	17	306	20	171	420	3,52	FBV-2-U20-0001-M
			1.18	4.37	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	.79	6.73	6000	7.75	
24	1-7/8-12 UN (1-1/2" SAE)	40	38	130	85	100	124	103	50	16,5	17	306	20	188	420	5,69	FBV-2-U24-0001-M
			1.50	5.12	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	.79	7.40	6000	12.52	
32	2-1/2-12 UN (2" SAE)	50	45	140	100	118	138	117	59	16,5	17	306	20	202	420	8,14	FBV-2-U32-0001-M
			1.79	5.51	3.94	4.65	2.43	4.61	2.32	.65	.67	12.05	.79	7.96	6000	17.91	

Please note the pressure ratings of the tube connections.

High-Pressure Forged Body Ball Valve - Type FBV-2

O-Ring Face Seal Connection - Male Thread (ISO 8434-3)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

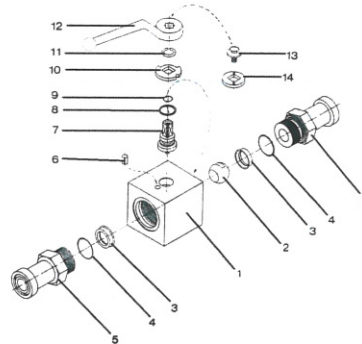
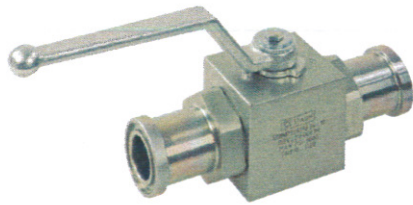
- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Dimensions of stainless steel ball valves may vary!

Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	I	H2			
20	2-12 UN	32	32	139	80	81	107	86	40,5	16,5	17	306	17,5	171	320 4600	3.52	FBV-2-ORFS20-0001-M
			1.26	5.47	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	.69	6.73		7.75	

Please note the pressure ratings of the tube connections.

High-Pressure Block Body Ball Valve - Type BBV-2-F



List of Components

No .	Qty.	Description
1	1	Housing
2	1	Ball
3*	2	Seal
4*	2	Connector O-Ring
5	2	Connector
6	1	Stop Pin
7	1	Stem
8*	1	Thrust Ring
9*	1	Stem O-Ring
10	1	Cam Plate
11	1	Snap Ring
12	1	Handle
13	1	Stem Screw
14	1	Flow Indicator

Characteristics

Two-way high-pressure block body ball valves designed for use as on/off devices for hydraulic applications

Standard Construction

- Block body design for in-line assembly
- Supplied with lever

Standard Materials

- Body: Carbon Steel, zinc/iron plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Size 8)
Steel (STAUFF Size 12-16)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Standard Connections Styles / Sizes

- 3000 PSI (code 61) SAE split flange connectors
- 6000 PSI (code 62) SAE split flange connectors

Standard and extended adapter lengths

Pressure Range

- Pressure range: up to 420 bar / 6000 PSI
(depending on size and material combination of the ball valve)

Please note: The final maximum working pressure is determined by the flange and pipe/tubing rating.

Temperature Range

- Operating temperature range:
-20°C...+100°C / -4°F... +212°F

Options / Accessories

- Flanges and flange kits
- Alternative lever designs / materials
- Locking devices
- Actuator packages
- Limit switches
- Additional assembling threads
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Order Codes

BBV	-	2	-	F3	16	-	0	0	0	1	-	M	-	-
①		②		③	④		⑤	⑥	⑦	⑧		⑨	⑩	⑪

① Type

High-Pressure Block Body Ball Valve **BBV**

② Number of Ports

Two Ports (Two-Way Ball Valve) **2**

③ Connection Style

3000 PSI (Code 61) SAE Split Flange Connectors (Standard Adapter Length) **F3**

3000 PSI (Code 61) SAE Split Flange Connectors (Extended Adapter Length) **F3X**

6000 PSI (Code 62) SAE Split Flange Connectors (Standard Adapter Length) **F6**

6000 PSI (Code 62) SAE Split Flange Connectors (Extended Adapter Length) **F6X**

④ Connection Size

Size (according to dimension table)

08	12	16
-----------	-----------	-----------

⑤ Body Material / Surface Finishing

Carbon Steel, zinc/iron plated **0**

Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials are available upon request.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
Stem: Carbon Steel

Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request.

⑦ Ball Seat Material

Delrin® **0**

Alternative materials are available upon request.

⑧ O-Ring Material

NBR (Buna-N®) **0**

FKM (Viton®) **1**

Alternative materials are available upon request.

⑨ Manufacturing Code

Manufacturing code for all connection Style **M**

Manufacturing code for high-pressure version of connection styles G, N and U. **H**

⑩ Lever Options

Supplied with standard lever (according to table) **-**

Supplied without lever **0**

Alternative levers can be ordered separately.

⑪ Accessories / Options

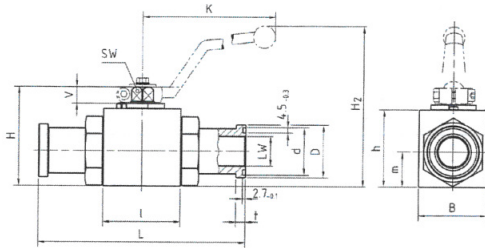
Supplied without accessories **-**

Supplied with Locking Device LD1 **LD1**

Supplied with Locking Device LD2 **LD2**

High-Pressure Block Body Ball Valve - Type BBV-2-F3

3000 PSI SAE Split Flange Connection (ISO 6162-1)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Zinc (Size 8)
Steel (Size 12-16)
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

3000 PSI Series (Code 61) - Standard Adaptor Length

Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³	H2			
08	1/2	13	13	151	48	35	54	40	19	11	9	115	25,5	30,2	6,8	89	350	0,85	BBV-2-F308-0001-M
			.51	5.94	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.00	1.19	.27	3.50	5000	1.87	
12	3/4	20	19	162	62	49	75	57	24,5	14	14	171	31,9	38,1	6,8	127	350	1,87	BBV-2-F312-0001-M
			.75	6.38	2.44	1.93	2.95	2.24	.96	.55	.55	6.73	1.26	1.50	.27	5	5000	4.11	
16	1	25	25	178	66	58	83	65	29,5	14	14	171	39,8	44,4	8,1	135	350	2,70	BBV-2-F316-0001-M
			.98	7.01	2.60	2.28	3.27	2.56	1.16	.55	.55	6.73	1.57	1.75	.32	5.31	5000	5.94	

3000 PSI Series (Code 61) - Extended Adaptor Length

Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³	H2			
08	1/2	13	13	170	48	35	54	40	19	11	9	115	25,5	30,2	6,8	89	350	0,85	BBV-2-F3X08-0001-M
			.51	6.69	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.00	1.19	.27	3.50	5000	1.87	
12	3/4	20	19	200	62	49	75	57	24,5	14	14	171	31,9	38,1	6,8	127	350	1,87	BBV-2-F3X12-0001-M
			.75	7.87	2.44	1.93	2.95	2.24	.96	.55	.55	6.73	1.26	1.50	.27	5	5000	4.11	
16	1	25	25	215	66	58	83	65	29,5	14	14	171	39,8	44,4	8,1	135	350	2,70	BBV-2-F3X16-0001-M
			.98	8.46	2.60	2.28	3.27	2.56	1.16	.55	.55	6.73	1.57	1.75	.32	5.31	5000	5.94	

Please note: the final maximum working pressure is determined by flange and pipe/tubing rating.

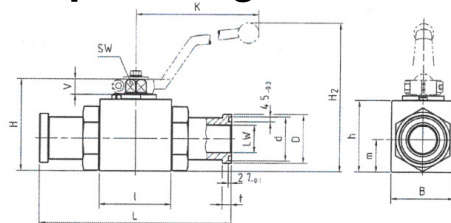
¹Dimension d: ±0,1mm/.004 in

²Dimension D: -0,2 mm/.008 in

³Dimension t: -0,2 mm/.008 in

High-Pressure Block Body Ball Valve - Type BBV-2-F6

6000 PSI SAE Split Flange Connection (ISO 6162-2)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Zinc
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

6000 PSI Series (Code 62) - Standard Adaptor Length

Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³	H2			
08	1/2	13	13	151	48	35	54	40	19	11	9	115	25,5	31,8	7,9	89	420	0,90	BBV-2-F608-0001-M
			.51	5.94	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.00	1.25	.31	3.50	6000	1.98	
12	3/4	20	19	174	62	49	75	57	24,5	14	14	171	31,9	41,3	8,9	127	420	1,95	BBV-2-F612-0001-M
			.75	6.85	2.44	1.93	2.95	2.24	.96	.55	.55	6.73	1.26	1.63	.35	5	6000	4.29	
16	1	25	25	198	66	58	83	65	29,5	14	14	171	39,8	47,6	9,6	135	320	3,00	BBV-2-F616-0001-M
			.98	7.80	2.60	2.28	3.27	2.56	1.16	.55	.55	6.73	1.57	1.87	.38	5.31	4600	6.60	
16	1	25	25	206	74	70	88	70	34,5	14	14	171	39,8	47,6	9,6	140	420	3,00	BBV-2-F616-0001-M
			.98	8.11	2.91	2.76	3.46	2.76	1.36	.55	.55	6.73	1.70	1.87	.38	5.51	6000	6.60	

6000 PSI Series (Code 62) - Standard Adaptor Length

Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³	H2			
08	1/2	13	13	180	48	35	54	40	19	11	9	115	25,5	31,8	7,9	89	420	1,00	BBV-2-F6X08-0001-M
			.51	7.09	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.00	1.25	.31	3.50	6000	2.20	
12	3/4	20	19	200	62	49	75	57	24,5	14	14	171	31,9	41,3	8,9	127	420	2,10	BBV-2-F6X12-0001-M
			.75	7.87	2.44	1.93	2.95	2.24	.96	.55	.55	6.73	1.26	1.63	.35	5	6000	4.62	
16	1	25	25	250	66	58	83	65	29,5	14	14	171	39,8	47,6	9,6	135	320	3,15	BBV-2-F6X16-0001-M
			.98	9.84	2.60	2.28	3.27	2.56	1.16	.55	.55	6.73	1.57	1.87	.38	5.31	4600	6.93	
16	1	25	25	250	74	70	88	70	34,5	14	14	171	39,8	47,6	9,6	140	420	3,15	BBV-2-F6X16-0001-M
			.98	9.84	2.91	2.76	3.46	2.76	1.36	.55	.55	6.73	1.70	1.87	.38	5.51	6000	6.93	

Please note: the final maximum working pressure is determined by flange and pipe/tubing rating.

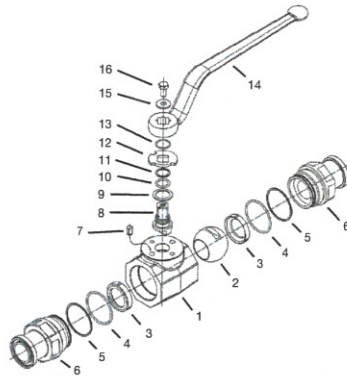
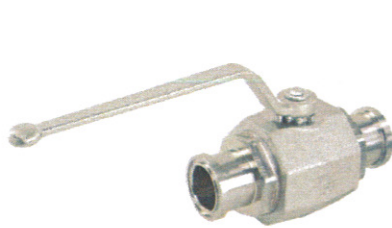
¹Dimension d: ±0,1mm/.004 in

²Dimension D: -0,2 mm/.008 in

³Dimension t: -0,2 mm/.008 in

3D step models available upon request

High-Pressure Forged Body Ball Valve - Type FBV-2-F



List of Components

No .	Qty.	Description
1	1	Body
2	1	Ball
3*	2	Seal
4*	2	Connector O-Ring
5*	2	Connector Back-Up Ring
6	2	Connector
7	1	Stop Pin
8	1	Stem
9*	1	Thrust Ring
10*	1	Stem O-Ring
11*	1	Stem Back-Up Ring
12	1	Cam Plate
13	1	Snap Ring
14	1	Handle
15	1	Washer
16	1	Stem Bolt

Characteristics

Two-Way high-pressure forged body ball valves designed for use as on/off devices for hydraulic applications

Standard Construction

- Forged body design for in-line assembly
- Supplied with off-set lever

Standard Materials

- Body: Carbon Steel, zinc/iron plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Standard Connections Styles / Sizes

- 3000 PSI (code 61) SAE split flange connectors
- 6000 PSI (code 62) SAE split flange connectors
- Standard and extended adapter lengths

Pressure Range

- Pressure range: up to 420 bar / 6000 PSI (depending on size and material combination of the ball valve)

Please note: The final maximum working pressure is determined by the flange and pipe/tubing rating.

Temperature Range

- Operating temperature range: -20°C...+100°C / -4°F... +212°F

Options / Accessories

- Flanges and flange kits
- Alternative lever designs / materials
- Locking devices
- Actuator packages
- Limit switches
- Additional assembling threads
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

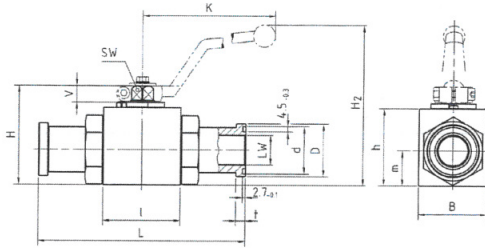
Order Codes

FBV - 2 - F3 20 - 0 0 0 1 - M - -																					
①	Type	②	Number of Ports	③	Connection Style	④	Connection Size	⑤	Body Material / Surface Finishing	⑥	Ball / Stem Material	⑦	Ball Seat Material	⑧	O-Ring Material	⑨	Manufacturing Code	⑩	Lever Options	⑪	Accessories / Options
	High-Pressure Forged Body Ball Valve		Two Ports (Two-Way Ball Valve)		3000 PSI (Code 61) SAE Split Flange Connectors (Standard Adapter Length)		Size (according to dimension table)		Carbon Steel, zinc/iron plated		Ball: Carbon Steel, hard chrome-plated Stem: Carbon Steel		Delrin®		NBR (Buna-N®)		Manufacturing code for all connection Style		Supplied with standard lever (according to table)		Supplied without accessories
	FBV		2		F3		20		0		Ball / Stem: Stainless Steel V4A (AISI 316Ti)		0		0		M		-		-
					F3X		24		1		Alternative materials / surface finishings are available upon request.		1		1				Supplied without lever		Supplied with Locking Device LD1
					F6		32		Alternative materials are available upon request.				0						Alternative levers can be ordered separately.		Supplied with Locking Device LD2
					F6X								1								Supplied with Locking Device LD6 (US version)

3D step models available upon request

High-Pressure Forged Body Ball Valve - Type FBV-2-F3

3000 PSI SAE Split Flange Connection (ISO 6162-1)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Dimensions of stainless steel ball valves may vary!

3000 PSI Series (Code 61) - Standard Adaptor Length

Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³			
20	1-1/4	32	30	191	80	81	107	86	40,5	16,5	17	306	44,6	50,8	8,1	280	4,22	FBV-2-F320-0001-M
			1.18	7.52	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	1.76	2.00	.32	4000	9.28	
24	1-1/2	40	38	231	85	100	124	103	50	16,5	17	306	54,1	60,3	8,1	210	6,54	FBV-2-F324-0001-M
			1.50	9.09	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	2.13	2.37	.32	5000	14.39	
32	2	50	48	232	100	118	138	117	59	16,5	17	306	63,6	71,4	9,6	210	9,29	FBV-2-F332-0001-M
			1.89	9.09	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	2.50	2.81	.38	5000	20.44	

3000 PSI Series (Code 61) - Extended Adaptor Length

Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³			
20	1-1/4	32	30	275	80	81	107	86	40,5	16,5	17	306	44,6	50,8	8,1	280	5,15	FBV-2-F3X20-0001-M
			1.18	10.83	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	1.76	2.00	.32	4000	11.33	
24	1-1/2	40	38	320	85	100	124	103	50	16,5	17	306	54,1	60,3	8,1	210	7,20	FBV-2-F3X24-0001-M
			1.50	12.60	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	2.13	2.37	.32	5000	15.84	
32	2	50	48	323	100	118	138	117	59	16,5	17	306	63,6	71,4	9,6	210	11,50	FBV-2-F33X2-0001-M
			1.89	12.72	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	2.50	2.81	.38	5000	25.30	

Please note: the final maximum working pressure is determined by flange and pipe/tubing rating.

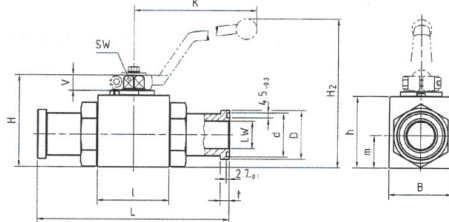
¹Dimension d: ±0,1mm/.004 in

²Dimension D: -0,2 mm/.008 in

³Dimension t: -0,2 mm/.008 in

High-Pressure Block Body Ball Valve - Type FBV-2-F6

6000 PSI SAE Split Flange Connection (ISO 6162-2)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Zinc
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Dimensions of stainless steel ball valves may vary!

6000 PSI Series (Code 62) - Standard Adaptor Length

Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³			
20	1-1/4	32	30	223	80	81	107	86	40,5	16,5	17	306	44,6	54	10,4	420	4,72	FBV-2-F620-0001-M
			1.18	8.78	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	1.76	2.13	.41	6000	10.38	
24	1-1/2	40	38	281	85	100	124	103	50	16,5	17	306	54,1	63,5	12,7	420	7,49	FBV-2-F624-0001-M
			1.50	11.06	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	2.13	2.50	.50	6000	16.48	
32	2	50	48	316	100	118	138	117	59	16,5	17	306	63,6	79,4	12,7	420	11,39	FBV-2-F632-0001-M
			1.89	12.44	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	2.50	3.13	.50	6000	25.06	

6000 PSI Series (Code 62) - Standard Adaptor Length

Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³			
20	1-1/4	32	30	322	80	81	107	86	40,5	16,5	17	306	44,6	54	10,4	420	5,55	FBV-2-F6X20-0001-M
			1.18	12.68	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	1.76	2.13	.41	6000	12.21	
24	1-1/2	40	38	380	85	100	124	103	50	16,5	17	306	54,1	63,5	12,7	420	7,65	FBV-2-F6X24-0001-M
			1.50	14.96	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	2.13	2.50	.50	6000	16.83	
32	2	50	48	385	100	118	138	117	59	16,5	17	306	63,6	79,4	12,7	420	12,00	FBV-2-F6X32-0001-M
			1.89	15.16	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	2.50	3.13	.50	6000	26.40	

Please note: the final maximum working pressure is determined by flange and pipe/tubing rating.

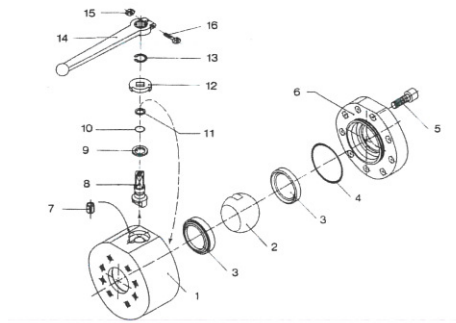
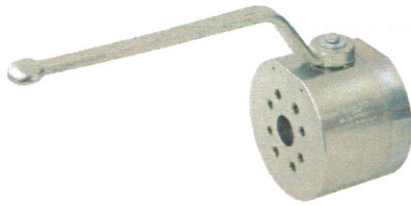
¹Dimension d: ±0,1mm/.004 in

²Dimension D: -0,2 mm/.008 in

³Dimension t: -0,2 mm/.008 in

3D step models available upon request

High-Pressure Round Body Ball Valve - Type BV-2-C36



List of Components

No .	Qty.	Description
1	1	Housing
2	1	Ball
3*	2	Seat
4*	1	Cover O-Ring
5	7-9**	Cover Screws
6	1	Cover
7	1	Stop Pin
8	1	Stem
9*	1	Thrust Ring
10*	1	Stem O-Ring
11*	1	Back-Up Ring
12	1	Cam Plate
13	1	Snap Ring
14	1	Handle
15	1	Nut
16	1	Screw

** Depending on valve size

Characteristics

Two-Way high-pressure round body ball valves designed for use as on/off devices for hydraulic applications

Standard Construction

- Round body design for in-line assembly
- Designed for direct mount to reduce threads in fluid flow
- Supplied with off-set lever

Standard Materials

- Body: Carbon Steel, zinc/iron plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Size 08)
Carbon Steel (STAUFF Sizes 12 and 32)
Carbon Steel (STAUFF Sizes 40 and 48)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Standard Connections Styles / Sizes

- 3000 PSI (code 61) direct SAE flange connection
- 6000 PSI (code 62) direct SAE flange connection
- Dual pattern: 3000 PSI (code 61) and 6000 PSI (code 62)
- Metric ISO and unified coarse (UNC) threads

Pressure Range

- Pressure range: up to 420 bar / 6000 PSI (depending on size and material combination of the ball valve)

Please note: The final maximum working pressure is determined by the flange and pipe/tubing rating.

Temperature Range

- Operating temperature range:
-20°C...+100°C / -4°F... +212°F

Options / Accessories

- Flanges and flange kits
- Alternative lever designs / materials
- Locking devices
- Actuator packages
- Limit switches
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Order Codes

BV	-	2	-	C36	32	M	-	0	0	0	1	-	M	-	-
①		②		③	④	⑤		⑥	⑦	⑧	⑨		⑩	⑪	⑫

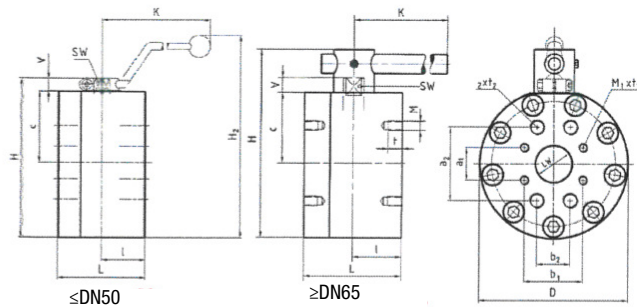
① Type	High-Pressure Round Body Valve	BV	⑥ Body Material / Surface Finishing	Carbon Steel, zinc/iron plated	0	⑩ Manufacturing Code	Manufacturing code for all connection styles	M
② Number of Ports	Two Ports (Two-Way Ball Valve)	2	Alternative materials are available upon request.			⑪ Lever Options	Supplied with standard lever (according to table)	-
③ Connection Style	3000/6000 PSI (Code 61/62) SAE Direct Flange Connection	C36	⑦ Ball / Stem Material	Ball: Carbon Steel, hard chrome-plated Stem: Carbon Steel / Duplex (for Stauff Size 48)	0		Supplied without lever	0
④ Connection Size	STAUFF Size (according to dimension table) 08 12 16 20 24 32 40 48		Alternative materials / surface finishings are available upon request.			⑫ Accessories / Options	Supplied without accessories	-
⑤ Thread Type	Flange Connection with metric ISO Threads	M	⑧ Ball Seat Material	Delrin® (POM)	0		Supplied with Locking Device up to DN50	LD2
	Flange Connection with Unified Coarse (UNC) Threads	U	Alternative materials are available upon request.				Supplied with Locking Device up to DN50	LD4
			⑨ O-Ring Material	NBR (Buna-N®)	0		Supplied with Locking Device from DN65	LD5
				FKM (Viton®)	1		Supplied with Locking Device LD7 (US version)	LD7
			Alternative materials are available upon request.					

3D step models available upon request

High-Pressure Round Body Ball Valve -

Type BV-2-C36

3000 /6000 PSI Flange Connection (ISO 6162-1/2)



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (Size 08)
Carbon Steel (Sizes 12 and 32)
Carbon Steel (Sizes 40 and 48)
Delrin® (POM)
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Dual Pattern - 3000/6000 PSI Series (Code 61/62) - Metric ISO Threads

Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)																Nom. Pressure (bar/PSI)	Weight (kg/ lbs)	Ordering Codes (Standard Option)		
			LW	L	I	D	H	c	V	K	SW	a1	b1	M1	t1	a2	b2	M2				t2	H2
08	1/2	15	15	75	35	88	88	31	13	160	12	17.5	38.1	M8	18	40.5	18.2	M8	18	132	420	2.96	BV-2-C3608M-0001-M
			.59	2.95	1.38	3.46	3.46	1.22	.51	6.30	.47	.69	1.50		.71	1.59	.72		.71	5.20	6000	6.51	
12	3/4	20	20	80	35	98	100	36.5	14	171	14	22.2	47.6	M10	18	50.8	23.8	M10	18	151	420	4.20	BV-2-C3612M-0001-M
			.79	3.15	1.38	3.86	3.94	1.44	.55	6.73	.55	.87	1.87		.71	2.00	.94		.71	5.94	6000	9.24	
16	1	25	25	88	38	118	113	39.5	14	171	14	27.8	57.2	M12	20	52.4	26.2	M10	20	164	420	6.00	BV-2-C3616M-0001-M
			.98	3.46	1.50	4.65	4.45	1.56	.55	6.73	.55	1.09	2.25		.79	2.06	1.03		.79	6.46	6000	13.20	
20	1-1/4	32	32	100	50	145	158	68	17	306	17	30.2	58.7	M10	20	66.6	31.8	M12	22	229	420	11.71	BV-2-C3620M-0001-M
			1.26	3.94	1.97	5.71	6.22	2.68	.67	12.05	.67	1.19	2.31		.79	2.62	1.25		.87	9.02	6000	25.76	
24	1-1/2	40	38	110	55	165	178	78	17	306	17	35.7	69.8	M12	20	79.4	36.5	M16	27	249	420	17.10	BV-2-C3624M-0001-M
			1.50	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	1.41	2.75		.79	3.13	1.44		1.06	9.80	6000	37.62	
32	2	50	48	116	58	198	210	94	17	306	17	42.9	77.8	M12	20	96.8	44.5	M20	28	281	420	24.60	BV-2-C3632M-0001-M
			1.89	4.57	2.28	7.80	8.27	3.70	.67	12.05	.67	1.69	3.06		.79	3.81	1.75		1.10	11.06	6000	54.12	
40	2-1/2	65	63	170	75	218	275	100	20	600	16	58.7	123.8	M24	41	88.9	50.8	M12	19		420	44.50	BV-2-C3640M-0001-M
			2.48	6.69	2.95	8.58	10.83	3.94	.79	23.62	.63	2.31	4.78		1.61	3.50	2.00		.75		6000	97.90	
48	3	80	76	170	79	258	315	114.5	26	600	19	71.4	152.4	M30	47	106.4	61.9	M16	24		420	60.40	BV-2-C3648M-0001-M
			2.99	6.69	3.11	10.16	12.40	4.51	1.02	23.62	.75	2.81	6.00		1.85	4.19	2.44		.95		6000	132.88	

Dual Pattern - 3000/6000 PSI Series (Code 61/62) - Unified Coarse (UNC) Threads

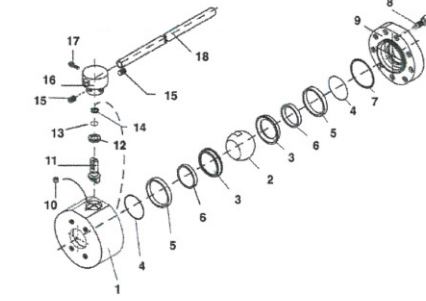
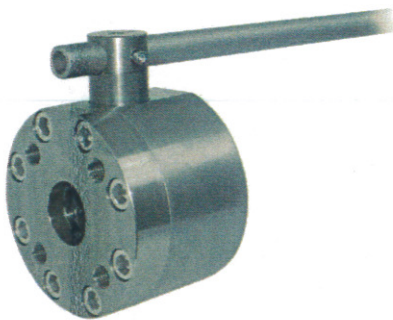
Size	SAE Flange Size	Nom. Size DN	Dimensions (mm/in)																		Nom. Pressure (bar/PSI)	Weight (kg/ lbs)	Ordering Codes (Standard Option)
			LW	L	I	D	H	c	V	K	SW	a1	b1	M1	t1	a2	b2	M2	t2	H2			
08	1/2	15	15	75	35	88	88	31	13	160	12	17.5	38.1	5/16-18	18	40.5	18.2	5/16-18	18	132	420	2.96	BV-2-C3608U-0001-M
			.59	2.95	1.38	3.46	3.46	1.22	.51	6.30	.47	.69	1.50	UNC	.71	1.59	.72	UNC	.71	5.20	6000	6.51	
12	3/4	20	20	80	35	98	100	36.5	14	171	14	22.2	47.6	3/8-16	18	50.8	23.8	3/8-16	18	151	420	4.20	BV-2-C3612U-0001-M
			.79	3.15	1.38	3.86	3.94	1.44	.55	6.73	.55	.87	1.87	UNC	.71	2.00	.94	UNC	.71	5.94	6000	9.24	
16	1	25	25	88	38	118	113	39.5	14	171	14	27.8	57.2	7/16-14	20	52.4	26.2	3/8-16	20	164	420	6.00	BV-2-C3616U-0001-M
			.98	3.46	1.50	4.65	4.45	1.56	.55	6.73	.55	1.09	2.25	UNC	.79	2.06	1.03	UNC	.79	6.46	6000	13.20	
20	1-1/4	32	32	100	50	145	158	68	17	306	17	30.2	58.7	7/16-14	20	66.6	31.8	1/2-13	22	229	420	11.71	BV-2-C3620U-0001-M
			1.26	3.94	1.97	5.71	6.22	2.68	.67	12.05	.67	1.19	2.31	UNC	.79	2.62	1.25	UNC	.87	9.02	6000	25.76	
24	1-1/2	40	38	110	55	165	178	78	17	306	17	35.7	69.8	1/2-13	20	79.4	36.5	5/8-11	27	249	420	17.10	BV-2-C3624U-0001-M
			1.50	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	1.41	2.75	UNC	.79	3.13	1.44	UNC	1.06	9.80	6000	37.62	
32	2	50	48	116	58	198	210	94	17	306	17	42.9	77.8	1/2-13	20	96.8	44.5	3/4-10	28	281	420	24.60	BV-2-C3632U-0001-M
			1.89	4.57	2.28	7.80	8.27	3.70	.67	12.05	.67	1.69	3.06	UNC	.79	3.81	1.75	UNC	1.10	11.06	6000	54.12	

Please note: the final maximum working pressure is determined by flange and pipe/tubing rating.

Lever must be fixed in central position during operation. In case of vibration, the lever may otherwise operate the valve by itself.

3D step models available upon request

High-Pressure Round Body Ball Valve - Type BV-2-ISO



List of Components

No .	Qty.	Description
1	1	Housing
2	1	Ball
3*	2	Seat
4*	2	O-Ring
5	2	Outer S/S Support Ring
6	2	Inner S/S Support Ring
7*	1	Cover O-Ring
8	9	Cover Bolts
9	1	Cover
10	1	Stop Screw
11	1	Stem
12*	1	Thrust Ring
13*	1	Stem O-Ring
14*	1	Back-up Ring
15	2	Set Screws
16	1	Stem/Handle Adaptor
17	1	Screw
18	1	Steel Handle

Characteristics

Two-Way high-pressure round body ball valves designed for use as on/off devices for hydraulic applications

Standard Construction

- Round body design for in-line assembly
- Machined parts for reduced torque operation
- Designed for direct mount to reduce threads in fluid flow
- Supplied with off-set lever

Standard Materials

- Body: Carbon Steel, zinc/iron plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (Nominal Size DN13)
Carbon Steel (Nominal Sizes DN19 and DN56)
Carbon Steel (Nominal Sizes DN63 and DN200)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Standard Connections Styles / Sizes

- 250 bar / 3600 PSI series ISO 6164 flange connection
- 400 bar / 5800 PSI series ISO 6164 flange connection
- 350 bar / 5000 PSI series ISO 6164 flange connection
- Metric ISO and unified coarse (UNC) threads

Pressure Range

- Pressure range: up to 420 bar / 6000 PSI (depending on size and material combination of the ball valve)

Please note: The final maximum working pressure is determined by the flange and pipe/tubing rating.

Temperature Range

- Operating temperature range: -20°C...+100°C / -4°F... +212°F

Options / Accessories

- Alternative lever designs / materials
- Locking devices
- Actuator packages
- Limit switches
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Order Codes

BV	-	2	-	ISO3	DN19	-	0	0	0	1	-	M	-	-
①		②		③	④		⑤	⑥	⑦	⑧		⑨	⑩	⑪

① Type

High-Pressure Round Body Ball Valve **BV**

② Number of Ports

Two Ports (Two-Way Ball Valve) **2**

③ Connection Style

250 bar / 3600 PSI Series ISO 6164 Flange Connection with Metric ISO Threads	ISO2
400 bar / 5800 PSI Series ISO 6164 Flange Connection with Metric ISO Threads	ISO4
350 bar / 5000 PSI Series ISO 6164 Flange Connection with Metric ISO Threads	ISO3

④ Connection Size

Nominal Size DN					
DN13	DN19	DN25	DN32	DN38	DN51
DN56	DN63	DN80	DN100	DN125	DN150
DN200					

⑤ Body Material / Surface Finishing

Carbon Steel, zinc/iron plated	0
Stainless Steel V4A (AISI 316Ti)	1
Alternative materials are available upon request.	

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated Stem: Carbon Steel (from DN63 on)	0
Ball / Stem: Stainless Steel V4A (AISI 316Ti)	1
Alternative materials / surface finishings are available upon request.	

⑦ Ball Seat Material

Delrin®	0
Alternative materials are available upon request.	

⑧ O-Ring Material

NBR (Buna-N®)	0
FKM (Viton®)	1
Alternative materials are available upon request.	

⑨ Manufacturing Code

Manufacturing code for all connection Style **M**

⑩ Lever Options

Supplied with standard lever (according to table)	-
Supplied without lever	0
Alternative levers can be ordered separately.	

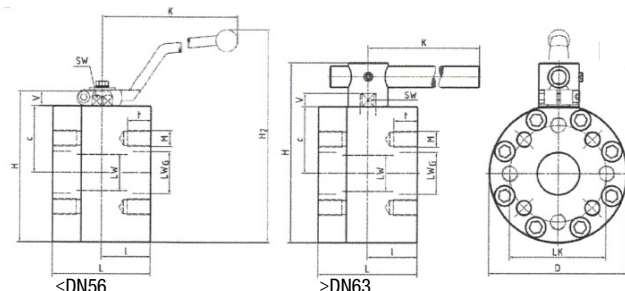
⑪ Accessories / Options

Supplied without accessories	-
Supplied with Locking Device up to DN50	LD2
Supplied with Locking Device up to DN50	LD4
Supplied with Locking Device up to DN65	LD5
Supplied with Locking Device LD7 (US Version)	LD7

3D step models available upon request

High-Pressure Round Body Ball Valve - Type BV-2-ISO

ISO 6164 PSI Flange Connection



When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (Nominal Size DN 13)
Carbon Steel (Nominal Sizes DN12 and DN32)
Carbon Steel (Nominal Sizes DN63 to DN200)
Delrin® (POM)
- Ball Seat: Delrin® (POM)
- O-rings: FKM (Viton®)

250 bar / 3600 PSI Series (ISO 6164) - Metric ISO Threads

Size	Nom. Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
		LW	LWG	L	I	D	H	c	V	K	SW	LK	M	t	H2			
08	13	15	15	85	45	78	83	31	13	160	12	42 ¹	4xM8	16	127	350	2.90	BV-2-ISO2DN13-0001-M
		.59	.59	3.35	1.77	3.07	3.27	1.22	.51	6.30	.47	1.65 ¹		.63	5.00	5000	4.84	
12	19	20	20	88	38	119	110	36.5	14	171	14	50	4xM8	15	161	350	6.80	BV-2-ISO2DN19-0001-M
		.79	.79	3.46	1.50	4.69	4.33	1.44	.55	6.73	.55	1.97		.59	6.34	5000	14.96	
16	25	25	25	88	38	126	117	39.5	14	171	14	62	4xM10	20	168	315	7.20	BV-2-ISO2DN25-0001-M
		.98	.98	3.46	1.50	4.96	4.61	1.56	.55	6.73	.55	2.44		.79	6.61	4568	15.84	
20	32	32	32	105	50	145	158	68	17	306	17	73	4xM12	21	229	250	12.50	BV-2-ISO2DN32-0001-M
		1.26	1.26	4.13	1.97	5.71	6.22	2.68	.67	12.05	.67	2.87		.83	9.02	3600	27.50	
24	38	38	38	110	55	165	178	78	17	306	17	85	4xM16	24.5	249	250	16.60	BV-2-ISO2DN38-0001-M
		1.50	1.50	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	3.35		.96	9.80	3600	36.52	
32	51	48	47	116	58	198	210	94	17	306	17	98	4xM16	25.5	281	250	24.90	BV-2-ISO2DN51-0001-M
		1.89	1.85	4.57	2.28	7.80	8.27	3.70	.67	12.05	.67	3.86		1.00	11.06	3600	54.78	
-	56	48	58	123	58	198	210	94	17	306	17	118	4xM20	33	281	250	26.60	BV-2-ISO2DN56-0001-M
		1.89	2.28	4.84	2.28	7.80	8.27	3.70	.67	12.05	.67	4.65		1.30	11.06	3600	58.52	
40	63	63	70	150	75	208	270	100	20	600	16	145	4xM20	33		250	36.90	BV-2-ISO2DN63-0001-M
		2.48	2.76	5.9	2.9	8.19	10.6	3.94	.79	23.6	.63	5.71		1.3		3600	81.18	

400 bar / 5800 PSI Series (ISO 6164) - Metric ISO Threads

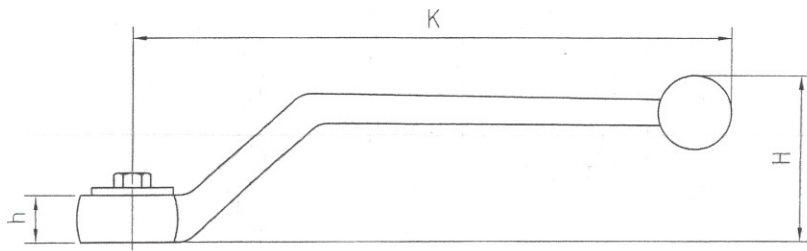
Size	Nom. Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)
		LW	LWG	L	I	D	H	c	V	K	SW	LK	M	t	H2			
08	13	15	14	85	45	78	83	31	13	160	12	42	4xM8	16	127	400	2.90	BV-2-ISO4DN13-0001-M
		.59	.55	3.35	1.77	3.07	3.27	1.22	.51	6.30	.47	1.65		.63	5.00	5800	6.38	
12	19	20	18	88	38	119	110	36.5	14	171	14	50	4xM8	15	161	400	6.80	BV-2-ISO4DN19-0001-M
		.79	.71	3.46	1.50	4.69	4.33	1.44	.55	6.73	.55	1.97		.59	6.34	5800	14.96	
16	25	25	22	88	38	126	117	39.5	14	171	14	62	4xM10	20	168	400	7.20	BV-2-ISO4DN25-0001-M
		.98	.87	3.46	1.50	4.96	4.61	1.56	.55	6.73	.55	2.44		.79	6.61	5800	15.84	
20	32	32	29	105	50	145	158	68	17	306	17	73	4xM12	21	229	400	12.50	BV-2-ISO4DN32-0001-M
		1.26	1.14	4.13	1.97	5.71	6.22	2.68	.67	12.05	.67	2.87		.83	9.02	5800	27.50	
24	38	38	35	110	55	165	178	78	17	306	17	85	4xM16	24.5	249	400	16.60	BV-2-ISO4DN38-0001-M
		1.50	1.38	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	3.35		.96	9.80	5800	36.52	
32	51	48	43	123	58	198	210	94	17	306	17	98	4xM16	25.5	281	400	24.90	BV-2-ISO4DN51-0001-M
		1.89	1.69	4.84	2.28	7.80	8.27	3.70	.67	12.05	.67	3.86		1.00	11.06	5800	54.78	
-	56	48	53	123	58	198	210	94	17	306	17	118	4xM20	31	281	400	26.60	BV-2-ISO4DN56-0001-M
		1.89	2.09	4.84	2.28	7.80	8.27	3.70	.67	12.05	.67	4.65		1.22	11.06	5800	58.52	
40	63	65	58	150	75	224	286	108	20	600	16	145	4xM24	37.5	1.48	400	42.53	BV-2-ISO4DN63-0001-M
		2.56	2.28	5.91	2.95	8.82	11.26	4.25	.79	23.62	.63	5.71		1.48		5800	93.57	
-	70	65	63	150	75	224	286	108	20	600	16	160	4xM24	37.5	1.48	315	43.00	BV-2-ISO4DN70-0001-M
		2.56	2.48	5.91	2.95	8.82	11.26	4.25	.79	23.62	.63	6.30		1.48		4568	94.60	
48	80	76	76	170	78	258	315	114.5	26	600	19	175	4xM30	35	1.38	400	63.00	BV-2-ISO4DN80-0001-M
		2.99	2.99	6.69	3.07	10.16	12.40	4.51	1.02	23.62	.75	6.89		1.38		5800	138.60	

350 bar / 5000 PSI Series (ISO 6164) - Metric ISO Threads

Size	Nom. Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Ordering Codes (Standard Option)	
		LW	LWG	L	I	D	H	c	V	K	SW	LK	M	t	H2				
12	19	20	20	88	38	119	110	36.5	14	171	14	64	4xM12	22	161	350	6.80	BV-2-ISO3DN19-0001-M	
		.79	.79	3.46	1.50	4.69	4.33	1.44	.55	6.73	.55	2.52		.87	6.34	5000	14.96		
16	25	25	25	88	38	126	117	39.5	14	171	14	72	4xM12	20	168	350	7.20	BV-2-ISO3DN25-0001-M	
		.98	.98	3.46	1.50	4.96	4.61	1.56	.55	6.73	.55	2.83		.79	6.61	5000	15.84		
20	32	32	32	105	50	145	158	68	17	306	17	80	4xM16	24	229	350	12.50	BV-2-ISO3DN32-0001-M	
		1.26	1.26	4.13	1.97	5.71	6.22	2.68	.67	12.05	.67	3.15		.95	9.02	5000	27.50		
24	38	38	38	110	55	165	178	78	17	306	17	98	4xM16	25	249	350	16.60	BV-2-ISO3DN38-0001-M	
		1.50	1.50	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	3.86		.98	9.80	5000	36.52		
32	51	48	48	122	58	198	210	94	17	306	17	118	4xM20	28	281	350	24.90	BV-2-ISO3DN51-0001-M	
		1.89	1.89	4.85	2.28	7.80	8.27	3.70	.67	12.05	.67	4.65		1.10	11.06	5000	54.78		
40	63	65	63	150	75	208	270	100	20	600	16	145	4xM24	36	229	350	36.00	BV-2-ISO3DN63-0001-M	
		2.56	2.48	5.91	2.95	8.19	1.63	3.94	.79	23.62	.63	5.71		1.42	11.06	5000	79.36		
48	80	Use BV-2-ISO4DN80-0001-M from the 400 bar / 5800 PSI Series (ISO 6164)																	BV-2-ISO3DN80-0001-M
64	100	100	100	200	100	260	327	122	26	900	24	200	8xM24	36	229	350	70.00	BV-2-ISO3DN100-0001-M	
		3.94	3.94	7.87	3.94	1.24	12.87	4.80	1.02	35.43	.94	7.87		1.42	11.06	5000	154.32		
80	125	118	118	230	110	390	470	185	32	900	36	245	8xM3-	45	229	350	209.00	BV-2-ISO3DN125-0001-M	
		4.65	4.65	9.06	4.33	15.35	18.50	7.28	1.26	35.43	1.42	9.65		1.77	11.06	5000	460.77		
96	150	150	150	285	130	390	475	190	32	900	36	245	8xM30	46	229	350	225.00	BV-2-ISO3DN150-0001-M	
		5.91	5.91	11.22	5.12	15.35	18.70	7.48	1.26	35.43	1.42	9.65		1.81	11.06	5000	496.04		
128	200	192	200	378	150	456	598	223	61	940	46	315	8xM36	55	229	350	395.00	BV-2-ISO3DN200-0001-M	
		7.56	7.87	14.88	5.91	17.95	23.54	8.78	2.40	37.01	1.81	12.40		2.17	11.06	5000	868.62		

Spare Parts / Accessories / Options

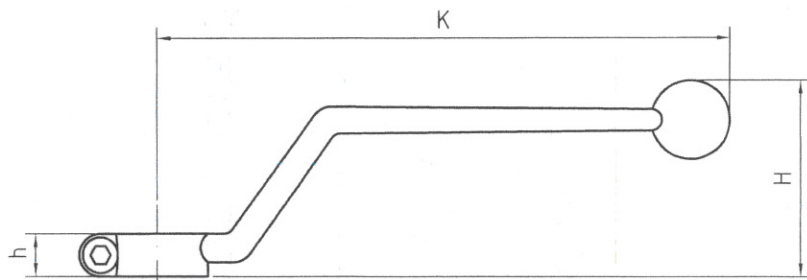
Levers



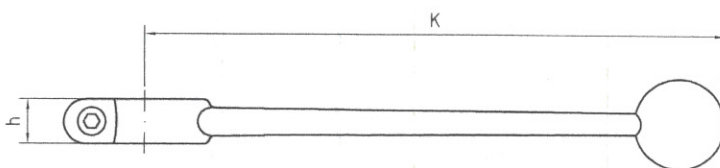
Zinc - Off-Set Design					
SW	Dimensions (mm/in)			Weight (kg/lbs)	Order Codes
	K	h	H		
7	80	6,5	30	0,03	Lever-SW7-ZNO
	3.15	.26	1.18	.07	
9	115	8,7	45	0,09	Lever-SW9-ZNO
	4.52	.34	1.77	.20	

Carbon Steel - Off-Set Design					
SW	Dimensions (mm/in)			Weight (kg/lbs)	Order Codes
	K	h	H		
7	80	6,5	30	0,05	Lever-SW7-CSO
	3.15	.26	1.18	.11	
9	115	9	47	0,09	Lever-SW9-CSO
	4.52	.35	1.85	.20	
14	170	12	64	0,23	Lever-SW14-CSO
	6.73	.47	2.52	.51	
17	306	17	80	0,66	Lever-SW17-CSO
	12.04	.69	3.15	1.45	

Stainless Steel V4A - Off-Set Design					
SW	Dimensions (mm/in)			Weight (kg/lbs)	Order Codes
	K	h	H		
7	60	6,5	22	0,04	Lever-SW7-W50
	2.36	.26	.87	.09	
9	115	9	47	0,10	Lever-SW9-W50
	4.52	.35	1.85	.22	
14	173	12	64	0,23	Lever-SW14-W50
	6.80	.47	2.52	.51	
17	227,5	15	90	0,66	SW17-W50
	8.96	.59	3.54	1.45	



Aluminium - Off-Set Design					
SW	Dimensions (mm/in)			Weight (kg/lbs)	Order Codes
	K	h	H		
12	160	12	55	0,07	Lever-SW12-ALO
	6.30	.47	2.17	.16	



Zinc - Straight Design				
SW	Dimensions (mm/in)		Weight (kg/lbs)	Order Codes
	K	h		
9	155	10	0.09	Lever-SW9-ZNS
	6.10	.29	.20	
14	200	14	0.22	Lever-SW14-ZNS
	7.87	.55	.48	

Aluminium - Straight Design				
SW	Dimensions (mm/in)		Weight (kg/lbs)	Order Codes
	K	h		
9	150	11	0,06	Lever-SW9-ALS
	5.91	.43	.13	
14	200	12	0,11	Lever-SW14-ALS
	7.87	.47	.24	
17	320	16	0,27	Lever-SW17-ALS
	12.60	.63	.59	

3D step models available upon request

Spare Parts / Accessories / Options

Locking Device - Type LD1

Dimensions / Order Codes

Nom. Size DN	SW	Dimensions (mm/in)		Order Codes	180° Operation
		B	L1		
4-13	9	9 .35	25 .98	LD1-SW09	LD1S-SW09
16	12	12 .47	40 1.57	LD1-SW12	LD1S-SW12
20-25	14	14 .55	40 1.57	LD1-SW14	LD1S-SW14
32-50	17	17 .67	50 1.97	LD1-SW17	LD1S-SW17

Characteristics

Locking kit consisting of shackle, sliding sleeve, link with screw and Steel lever.

Features

- Universal field-installed locking device
- High security: Cannot be dismounted when locked

Ordering Example: BBV-2-G10-0001-M-LD01

Suitability

Type	Description	Type	Description	Type	Description
BBV	Block Body Valve with Threaded Connections (SW 9-14)	FBV-2-F	Forged Body Valve with SAE Split Flange Connections (SW 17)	MCBVL-3	Block Body Valve (Two-Way Selector) for Manifold Mounting (SW 9-17)
FBV	Forged Body Valve with Threaded Connections (SW 17)	BBV	Block Body Valve with SAE Flange Connections (SW 9-14)	MCBVS-3	Block Body Valve (Three-Way Selector) for Manifold Mounting (SW 9-17)
HBV	High Pressure Body Block Valve with Threaded Connections (SW 9-14)	FBV	Forged Body Valve with SAE Flange Connections (SW 17)	CBV	Block Body Valve (Three-Way Selector) with Threaded Connections (SW 9-17)
BBV-2-F	Block Body Valve with SAE Split Flange Connections (SW 9-14)	MBBV-2	High Pressure Body Block Valve with Threaded Connections (SW 9-14)	CBVS	Block Body Valve (Three-Way Selector) with Threaded Connections (SW 9-17)

Locking Device - Type LD2

Dimensions / Order Codes

Nom. Size DN	SW	Dimensions (mm/in)				Order Codes Individual Part
		H	B1	B2	B3	
4-8	9	3,5 .14	61 2.41	24 .94	10 .39	LD2-SW09-DN4-8
10-13	9	3,5 .14	61 2.41	24 .94	10 .39	LD2-SW09-DN10-13
16	12	4,5 .18	64 2.52	25,5 1.00	12 .47	LD2-SW12
20-25	14	4,5 .18	84 3.31	35,5 1.40	14 .55	LD2-SW14
32-50	17	4,5 .18	136 5.35	61,5 2.42	15 .59	LD2-SW17

Characteristics

Locking kit consisting of locking plate, stopping disk and ring.

Features

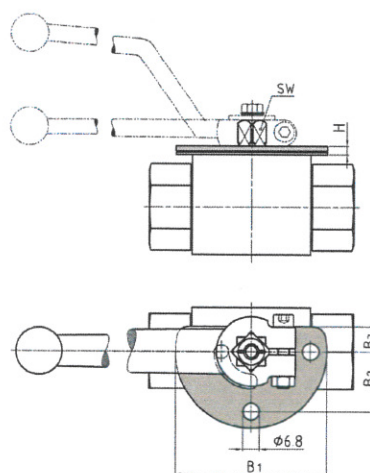
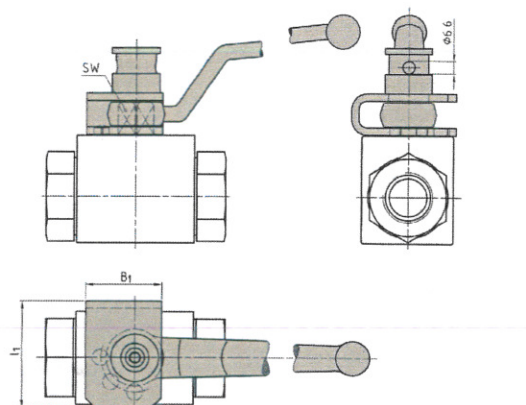
- Field-installed locking device
- Can be dismounted after disassembly of lever

Ordering Example: BBV-2-G10-0001-M-LD02

Suitability

Type	Description	Type	Description	Type	Description
BBV	Block Body Valve with Threaded Connections (SW 9-14)	BBV-2-F	Block Body Valve with SAE Split Flange Connections (SW 9-14)	CBV (≤DN25)	Block Body Valve (Three-Way Selector) with Threaded Connections
FBV	Forged Body Valve with Threaded Connections (SW 17)	FBV-2-F	Forged Body Valve with SAE Split Flange Connections (SW 17)	BV-2	Round Body Valve with Direct Flange Connections up to DN 50 (acc. to SAE, ISO, CETOP)

3D step models available upon request



Spare Parts / Accessories / Options

Locking Device - Type LD3

Dimensions / Order Codes

Nom. Size DN	SW	Dimensions (mm/in)	
		H	R
4-13	9	4	37
		.16	1.47
16	12	4,3	40
		.17	1.57
20-25	14	5,5	43,5
		.22	1.71
32-50	17	6	69,5
		.24	2.74

Characteristics

Only available in combination with suitable ball valve.

Features

- Factory-installed locking device
- High security: Cannot be dismantled when locked

Ordering Example: FBV-2-G20-0001-M-LD03

Suitability

Type	Description	Type	Description	Type	Description
BBV	Block Body Valve with Threaded Connections	FBV	Forged Body Valve with Threaded Connections	CBV (≤DN25)	Block Body Valve (Three-Way Selector) with Threaded Connections

Locking Device - Type LD3

Dimensions / Order Codes

SW	Dimensions (mm/in)	Order Codes 90° Operation	180° Operation
	H		
7	24	LD4-SW07-SS	LD4S-SW07-SS
	.94		
9*	28	LD4-SW09-SS	LD4S-SW09-SS
	1.10		
14*	34,5	LD4-SW14-SS	LD4S-SW14-SS
	1.36		
17	44	LD4-SW17-SS	LD4S-SW17-SS
	1.73		

Characteristics

Locking kit consisting of locking plate, stopping disk and ring.

Features

- Field-installed locking device
- Can be dismantled after disassembly of lever

Ordering Example: BBV-2-G10-0001-M-LD04

Suitability

Type	Description	Type	Description
BBV	Block Body Valve with Threaded Connections	MBBV-2	Block Body Valve (Two-Way Selector) for Manifold Mounting
FBV	Forged Body Valve with Threaded Connections	MCBVL-3	Block Body Valve (Three-Way Selector) for Manifold Mounting
HBV	High-Pressure Body Valve with Threaded Connections	MCBVSL-3	Block Body Valve (Three-Way Selector) for Manifold Mounting
BV-2-C	Round Body Valve with Direct SAE Flange Connections up to DN50	CBV	Block Body Valve (Three-Way Selector) with Threaded Connections
BV-2-ISO	Round Body Valve with ISO Flange Connections up to DN50	CBV	Block Body Valve (Three-Way Selector) with SAE Flange Connections
BV-2-CET	Round Body Valve with CETOP Flange Connections up to DN50	CBVS	Block Body Valve (Three-Way Selector) with Threaded Connections
		LBV	Block Body Valve (Three-Way Selector) with Threaded Connections
		TBV	Block Body Valve (Three-Way Selector) with Threaded Connections
		TBV	Block Body Valve (Four-Way Selector) with Threaded Connections
		XBV	Block Body Valve (Four-Way Selector) with Threaded Connections

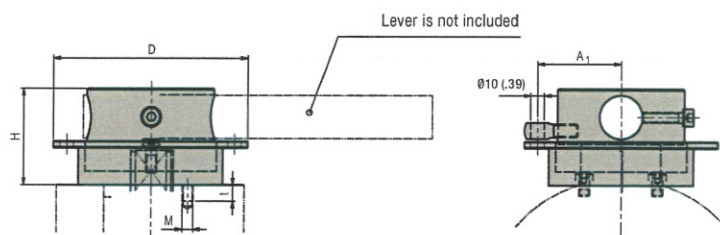
3D step models available upon request

Spare Parts / Accessories / Options

Locking Device - Type LD5

Dimensions

STAUFF Size	Dimensions (mm/in)				
	A1	D	H	M	t
40	62,5	145	71,5	M6	10
	2.46	5.71	2.81		.39
48	62,5	145	71,5	M8	12
	2.46	5.71	2.81		.47
64	67,5	155	74,5	M8	12
	2.66	6.10	2.93		.47
80	72,5	165	104,5	M8	12
	2.85	6.50	4.11		.47



Characteristics

Only available in combination with suitable ball valve.

Locking device requires modification in valve body.

Ordering Example: BV-2-C340U-0001-M-LD5

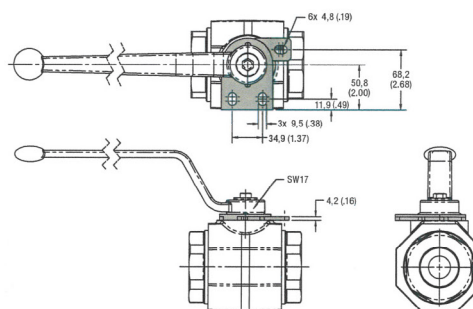
Suitability

Type	Description	Type	Description	Type	Description
BV-2-C	Round Body Valve with Direct SAE Flange Connections	BV-2-CET	Round Body Valve with Direct ISO 6164 Flange Connection	BV-2-ISO	Round Body Valve with Direct CETOP Flange Connection

Locking Device - Type LD6 US Version

Suitability

Type	Description
FBV	Forged Body Valve with Threaded Connections
FBV-2-F	Forged Body Valve with SAE Split Connections
FBV	Forged Body Valve with SAE Flange Connections



Characteristics

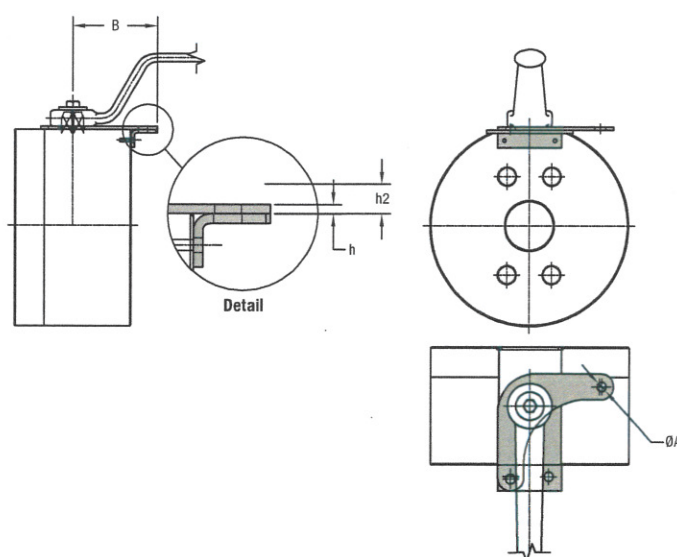
Only available in combination with suitable ball valve.

Ordering Example: FBV-2-G20-0001-M-LD6

Locking Device - Type LD7 US Version

Dimensions

STAUFF Size	SW	ØA	B	h	h2
08	12	8,5	59	2	
		.33	2.32	.08	
12-16	14	8,5	64	2	
		.33	2.52	.08	
20-32	17	9,5	83	2	
		.37	3.27	.08	
40	16	9,5	102	3	
		.37	4.01	.12	
48	19	9,5	93		27
		.37	3.66		1.06
64	24	9,5	113	3	
		.37	4.45	.12	
80	36	9,5	134	3	
		.37	5.28	.12	



Suitability

Type	Description
BV-2-C	Round Body Valve with Direct SAE Flange Connections

Characteristics

Only available in combination with suitable ball valve.

Locking device requires modification in valve body.

Ordering Example: BV-2-C3632U-0001-M-LD7

3D step models available upon request

Spare Parts / Accessories / Options

Double-Acting Pneumatic Actuators - Type AD

Single-Acting Pneumatic Actuators - Type AS

Electric Actuators - Type AE

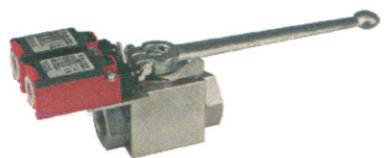


Most ball valves can be factory-mounted to compact and efficient pneumatic or electric actuators for both high-pressure and low-pressure applications.

The actuators feature simple, robust constructions and are suitable for applications with high cycle requirements.

Please note: The minimum air supply for pneumatic actuators is usually 5,5 bar / 80 PSI. They are designed for 90° open / close applications only and should not be used for valve throttling.

Limit / Proximity Switches



Limit Switches

Options / configurations available:

- S0 open
- SC closed
- SOC open/closed

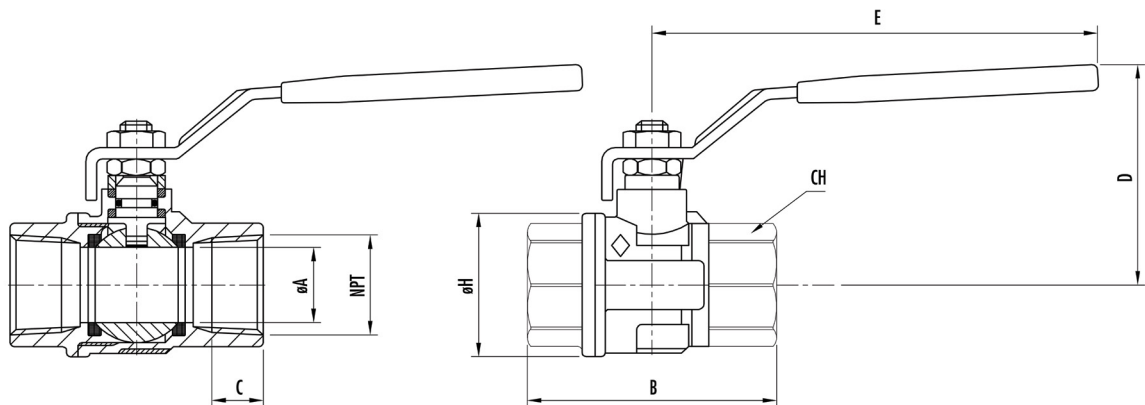
Proximity Switches

Options / configurations available:

- PO open
- PC closed
- POC open/closed

Ball Valves

Low Pressure



2BVL Female Thread Ball Valve - Low Pressure

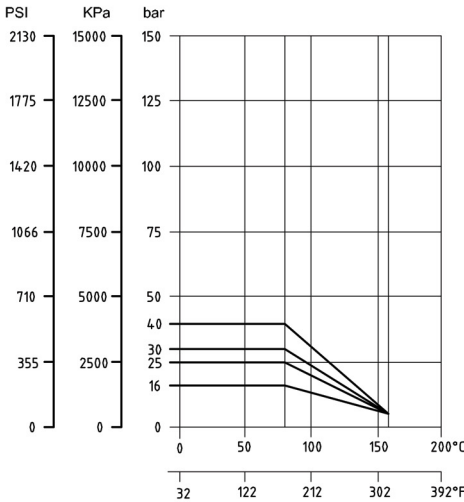
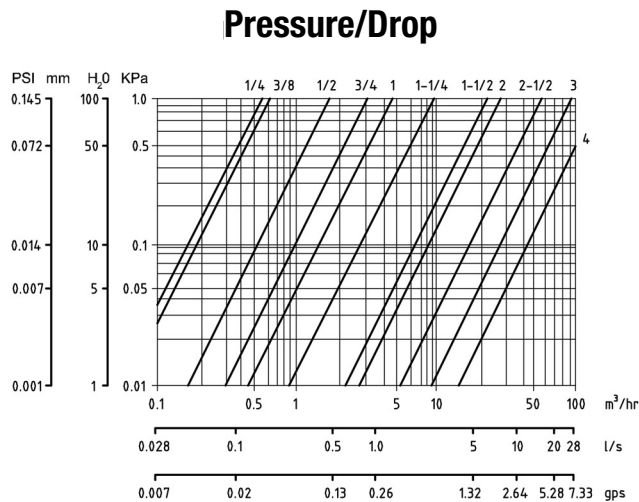
Size	NPT Ball Valve Part Number	SAE Ball Valve Part Number	Dimensions (in)						Cv	WT lbs/pc	Working Pressure PSI (bar)
			A	B	C	D	E	H			
1/4"	2BVL20-04-B*	2BVL21-04-B*	0.39	2.02	0.39	1.75	3.85	0.90	6.29	0.30	600 (40)
3/8"	2BVL20-06-B*	2BVL21-06-B*	0.39	2.02	0.40	1.75	3.85	0.90	6.99	0.28	600 (40)
1/2"	2BVL20-08-B*	2BVL21-08-B*	0.59	2.44	0.53	1.88	3.85	1.25	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	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	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	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	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	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	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	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	1622.00	22.04	600 (40)

* Insert 'L' to indicate optional assembled locking device

Valves are full port

Buna seals (standard)

Pressure/Temperature Ratings

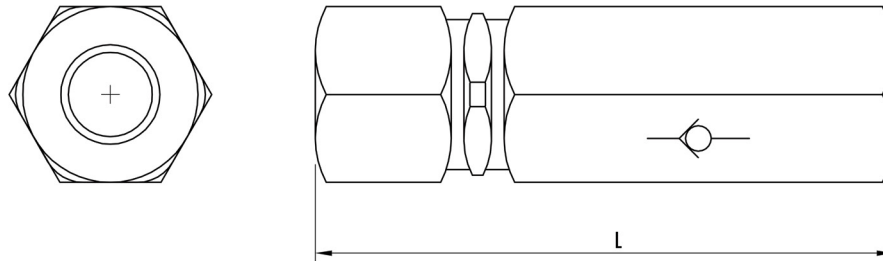


3D step models available upon request



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

* 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)

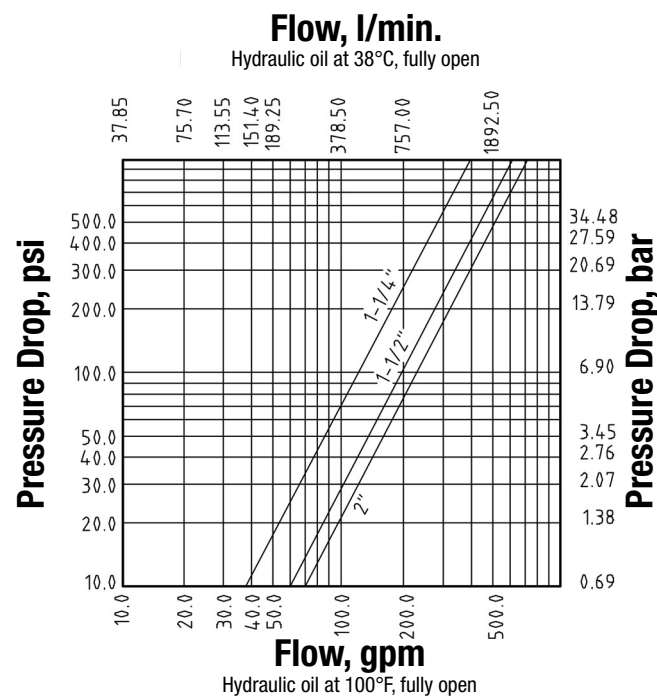
Note:

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
3D step models available upon request

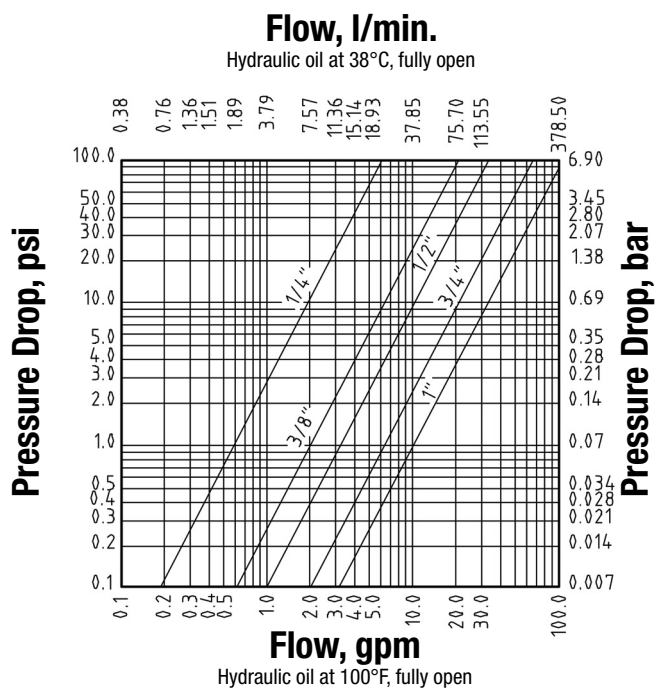
Check Valves

Pressure Drop Charts

3C 3000 PSI

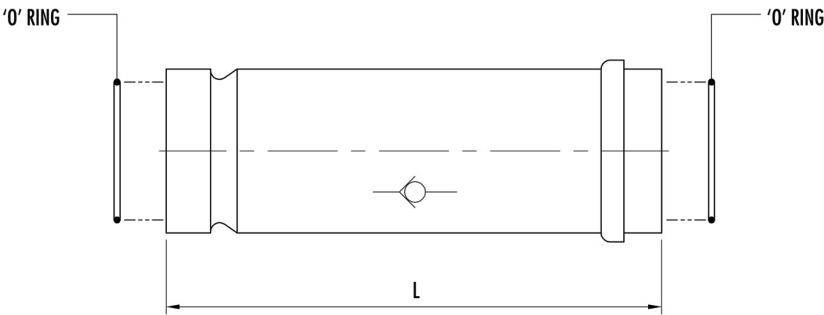


6C 6000 PSI



Check Valves

Retain Ring Flange Style - Body Only



CV - Check Valve Body - Poppet Style Complete with Buna 'O' Rings (Standard)					
Size	Check Valve Part Number	*Dimensions (in)	"O" Ring (Buna) Part Number	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)

* Insert 'V' to indicate optional viton 'O' rings
To order a complete check valve assembly reference page L14

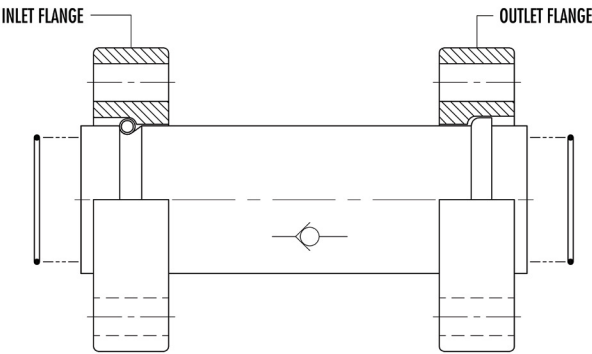
Material:
Carbon Steel, Yellow Zinc Dichromate Plated, (Stainless Steel Available)

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

Check Valve Assembly

Complete Assembly Part Number

Typical A/CV Assembly



- Complete Assembly Consists of:
- One (1) Check Valve Body - Poppet Style
 - Two (2) Retain Ring Flanges
 - One (1) Retain Ring
 - Buna 'O' Rings (Standard)

		Code	A	CV	Valve Size	Inlet Flange	Outlet Flange	Opening Pressure	Options
Assembly		A							
Valve Body	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	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/TappedHoles	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							

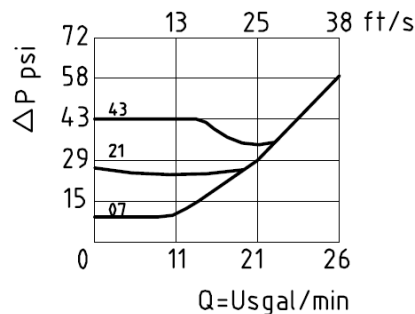
Opening Pressure		
	PSI	(bar)
Standard	7	(0.5)
Optional	21	(1.5)
Optional	43	(3.0)

* FTM34 and FTM64 for Metric Threads
 For connection to hose use connector plate OCP (to be ordered seperately)
 Part no. (Example): A/CV - 075 - FC64 - FT64 - 07
 Assembly working pressure ratings are subject to the lesser of the flange or the valve check ratings
 See reference page indicated above for pressure ratings
 Other materials are available

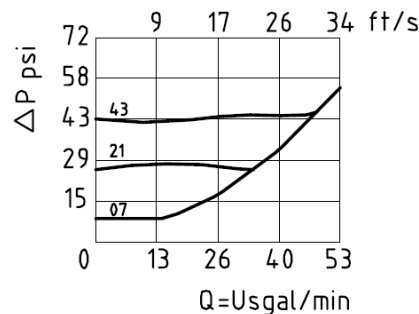
Check Valve Retain Ring Flange Style

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

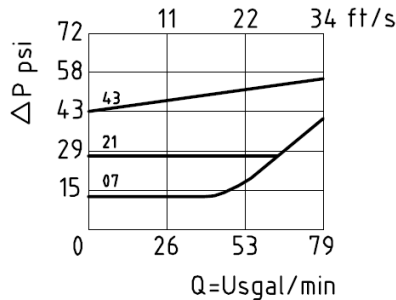
3/4"



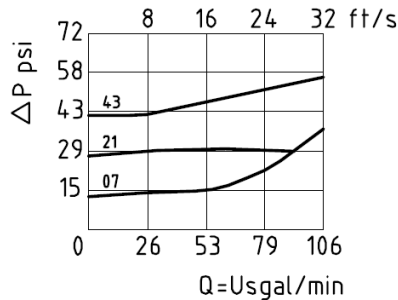
1"



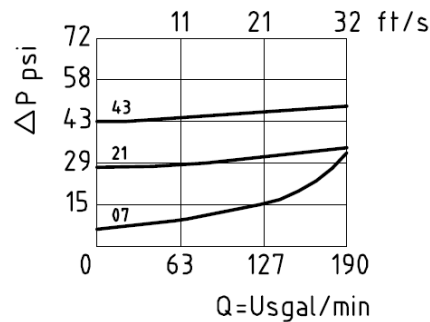
1-1/4"



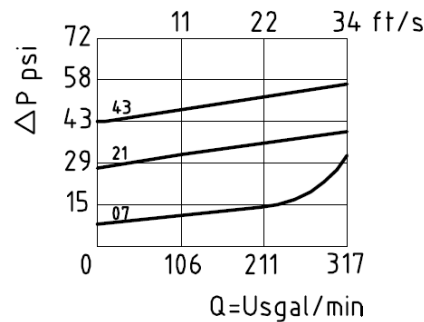
1-1/2"



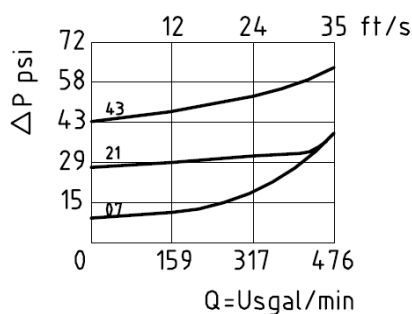
2"



2-1/2"



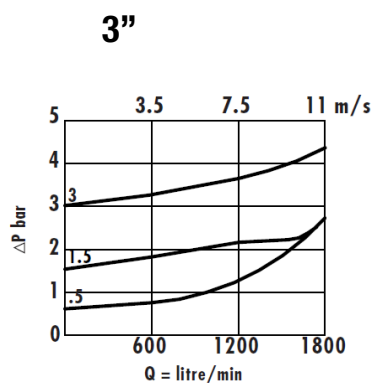
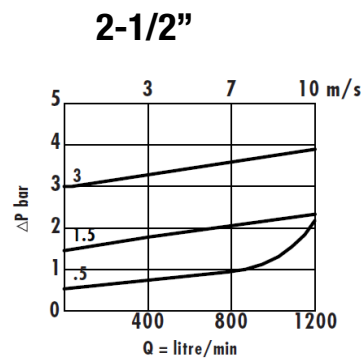
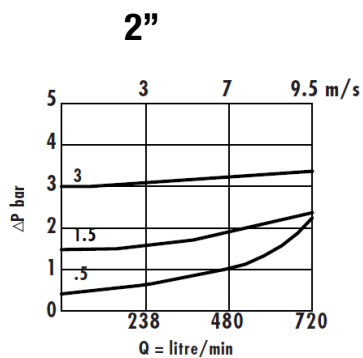
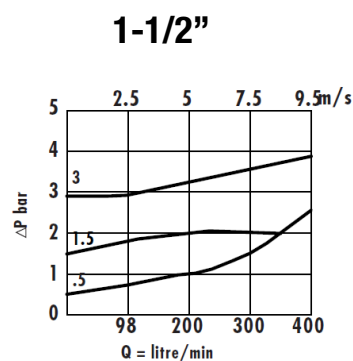
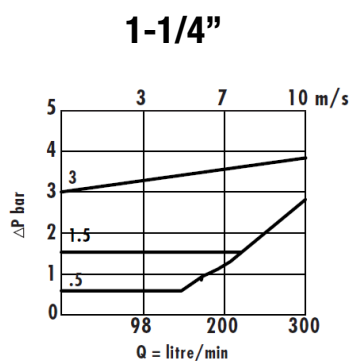
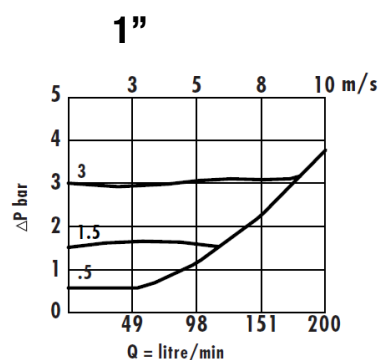
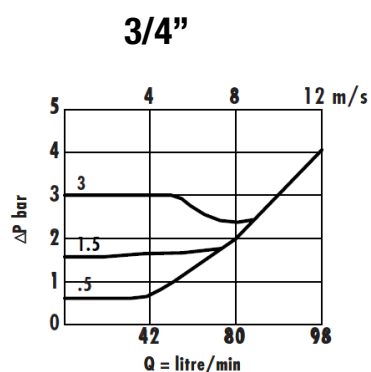
3"



3D step models available upon request

Check Valve Retain Ring Flange Style

Performance Curves: Measured using oil at 190SUS and 50° C



3D step models available upon request

Notes

Technical
Data

Pipe Selection Guide

16 bar,
90° Flare

ANSI 150#,
300# Flare

SAE 1000,
70 bar

SAE 3000,
210 bar

SAE 6000,
420 bar

SAE 10000,
690 bar

ISO 6164,
400 bar

ISO 6164,
400 bar
F10° Flare

Clamp Supports - Heavy Series

Valves, Ball and Check