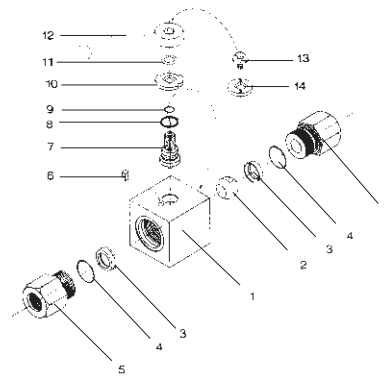


High-Pressure Block Body Ball Valve - Type BBV-2

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List of Components

No.	Qty.	Description
1	1	Housing
2	1	Ball
3*	2	Seat
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 (gradual changeover of this series to Steel, zinc/nickel-plated)
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08) Aluminium (STAUFF Size 10) Carbon Steel (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >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) >1-11/16-12 UN
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >42L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure Range

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

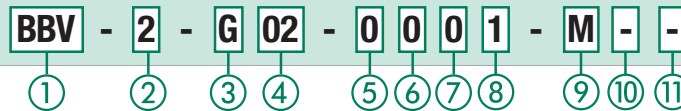
Temperature Range

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

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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



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 228) **G**
 Female NPT Thread (ANSI B1.20.1) **N**
 Female UN/UNF Thread (SAE J 514) **U**
 Male ORFS Connection (ISO 8434-3) **ORFS**
 24° Cone Connection (Light / Heavy Series) **—**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF 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) for 24° Cone Connection (Light Series):
06L 08L 10L 12L 15L 18L 22L 28L 35L 42L
 Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):
06S 08S 10S 12S 14S 16S 20S 25S 30S 38S

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

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. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM/FPM (Viton®) **1**
 EPDM **3**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection style **M**
 Manufacturing code for high-pressure version of connection styles G, N and U (STAUFF Size 16) **H**

⑩ Lever Options

Supplied with standard lever (according to table) **—**
 Supplied without lever **O**

Alternative levers can be ordered separately. Please see page 114 for further information.

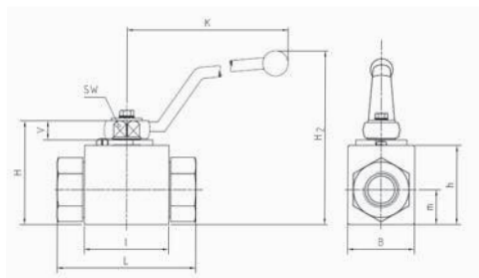
⑪ Accessories / Options

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**

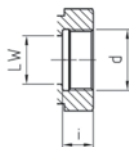
Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type BBV-2 Female BSP Thread (DIN ISO 228)

A


Female BSP Thread (DIN ISO 228)



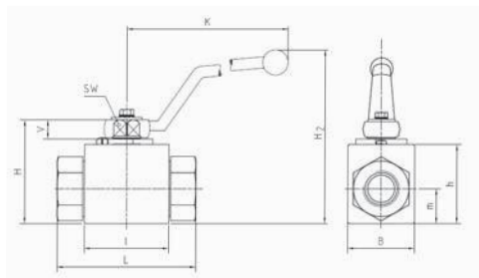
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

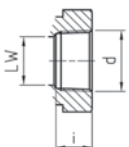
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	i	H2				
02	G 1/8 BSP	4	5	69	40	26	47	33	13,5	11	9	115	10	82	500	0,41	BBV-2-G02-0001-M	
			.20	2.70	1.57	1.02	1.84	1.29	.53	.43	.35	4.50	.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-G04-0001-M	
			.23	2.70	1.57	1.02	1.84	1.29	.53	.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-G06-0001-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-G08-0001-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-G10-0001-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-G12-0001-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	315	2,20	BBV-2-G16-0001-M	
			.98	4.42	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.78	5.28	4500	4.85		
16	G 1 BSP	25	25	113	74	70	88	70	34,5	14	14	170	20	139	420	3,10	BBV-2-G16-0001-H	
			.98	4.42	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	.78	5.47	6000	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-0001-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-0001-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)



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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	i	H2				
02	1/8-27 NPT	4	5	69	40	26	47	33	13,5	11	9	115	10,5	82	500	0,30	BBV-2-N02-0001-M	
			.20	2.70	1.57	1.02	1.84	1.29	.53	.43	.35	4.50	.41	3.23	7250	.66		
04	1/4-18 NPT	6	6	69	40	26	47	33	13,5	11	9	115	13,7	82	500	0,40	BBV-2-N04-0001-M	
			.23	2.70	1.57	1.02	1.84	1.29	.53	.43	.35	4.50	.54	3.23	7250	.88		
06	3/8-18 NPT	10	10	72	43	32	52	38	17,5	11	9	115	13,5	87	500	0,50	BBV-2-N06-0001-M	
			.39	2.82	1.68	1.25	2.04	1.49	.69	.43	.35	4.50	.53	3.43	7250	1.10		
08	1/2-14 NPT	13	13	83	48	35	54	40	19	11	9	115	17	89	500	0,75	BBV-2-N08-0001-M	
			.51	3.25	1.88	1.37	2.11	1.57	.74	.43	.35	4.50	.67	3.50	7250	1.65		
12	3/4-14 NPT	20	20	95	62	49	75	57	24,5	14	14	170	18,3	126	420	1,63	BBV-2-N12-0001-M	
			.78	3.72	2.43	1.92	2.94	2.23	.96	.55	.55	6.69	.72	4.96	6000	3.57		
16	1-11/2 NPT	25	25	113	66	58	83	65	29,5	14	14	170	21,6	134	315	2,30	BBV-2-N16-0001-M	
			.98	4.42	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.85	5.28	4500	5.06		
16	1-11/2 NPT	25	25	113	74	70	88	70	34,5	14	14	170	20	139	420	3,16	BBV-2-N16-0001-H	
			.98	4.42	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	.78	5.47	6000	6.97		
20R	1-1/4-11-1/2 NPT	25/32	25	120	66	58	83	65	29,5	14	14	170	22,1	134	315	2,51	BBV-2-N20R-0001-M	
			.98	4.70	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.87	5.28	4500	5.52		
24R	1-1/2-11-1/2 NPT	25/40	25	130	66	58	83	65	29,5	14	14	170	22,1	134	250	2,70	BBV-2-N24R-0001-M	
			.98	5.09	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.87	5.28	3600	5.94		



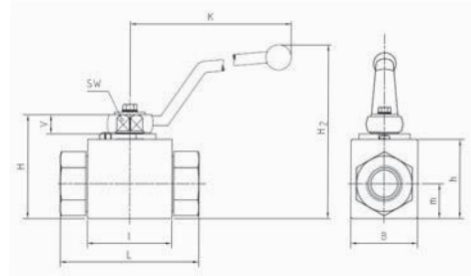
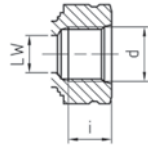
High-Pressure Block Body Ball Valve - Type BBV-2 Female UN/UNF Thread (SAE J 514)

A

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 (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Female UN/UNF Thread
(SAE J 514)



STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)											Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order 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-U04-0001-M
			.23	2.70	1.57	1.02	1.84	1.29	.53	.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-U06-0001-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-U08-0001-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-U12-0001-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	315	2,20	BBV-2-U16-0001-M
			.98	4.42	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.78	5.28	4500	4.85	
16	1-5/16-12 UN (1" SAE)	25	25	121	74	70	88	70	34,5	14	14	170	20	139	420	2,20	BBV-2-U16-0001-H
			.98	4.76	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	.78	5.47	6000	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	20	134	315	2,50	BBV-2-U20R-0001-M
			.98	4.70	2.60	2.28	3.27	2.56	1.16	.55	.55	6.69	.78	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	20	134	315	2,61	BBV-2-U24R-0001-M
			.98	5.09	2.60	2.28	3.27	2.56	1.16	.55	.55	6.69	.78	5.28	4500	5.74	

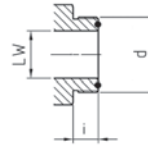
Please note the pressure ratings of the tube connections.

High-Pressure Block Body Ball Valve - Type BBV-2 O-Ring Face Seal Connection - Male Thread (ISO 8434-3)

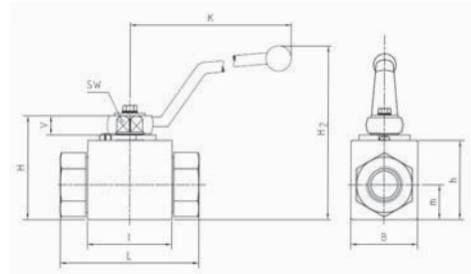
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

ORFS Connection
(ISO 8434-3)



O-ring included in delivery.



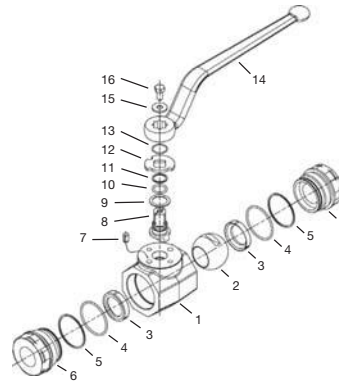
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)											O-ring	Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	I	B	H	h	m	V	SW	K	i					H2
04	9/16-18 UNF	6	4,5	73	40	26	47	33	13,5	11	9	115	10	82	7,65 x 1,78	500	0,37	BBV-2-ORFS04-0001-M
			.18	2.87	1.57	1.02	1.84	1.29	.53	.43	.35	4.50	.39	3.23	7250	.81		
05	11/16-16 UN	8	6,5	73	40	26	47	33	13,5	11	9	115	11	82	9,25 x 1,78	500	0,38	BBV-2-ORFS05-0001-M
			.26	2.87	1.57	1.02	1.84	1.29	.53	.43	.35	4.50	.43	3.23	7250	.83		
06	13/16-16 UN	10	9,5	78	43	32	52	38	17,5	11	9	115	13	87	12,42 x 1,78	500	0,50	BBV-2-ORFS06-0001-M
			.37	3.07	1.68	1.25	2.04	1.49	.69	.43	.35	4.50	.51	3.43	7250	1.10		
08	1-14 UNS	13	12,5	90	48	35	54	40	19	11	9	115	15,5	89	15,60 x 1,78	420	0,61	BBV-2-ORFS08-0001-M
			.49	3.54	1.88	1.37	2.11	1.57	.74	.43	.35	4.50	.61	3.50	6000	1.34		
10	1-3/16-12 UN	16	15,5	98	48	35	63	40	19	13	12	160	17	106	18,77 x 1,78	420	0,80	BBV-2-ORFS10-0001-M
			.61	3.86	1.88	1.37	2.47	1.57	.74	.51	.47	6.26	.67	4.17	6000	1.76		
12	1-7/16-12 UN	20	20,5	111	62	49	75	57	24,5	14	14	170	17,5	126	23,52 x 1,78	315	1,55	BBV-2-ORFS12-0001-M
			.81	4.37	2.43	1.92	2.94	2.23	.96	.55	.55	6.69	.69	4.96	4500	3.41		
16	1-11/16-12 UN	25	26	120	66	58	83	65	29,5	14	14	170	17,5	134	29,87 x 1,78	315	2,10	BBV-2-ORFS16-0001-M
			1.02	4.72	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.69	5.28	4500	4.63		

Please note the pressure ratings of the tube connections.



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

A



List of Components

No.	Qty.	Description
1	1	Body
2	1	Ball
3*	2	Seat
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/FPM (Viton®)

Standard Connections Styles / Sizes

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

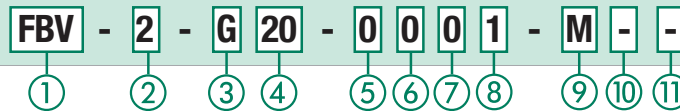
Temperature Range

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

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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



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 228) **G**
 Female NPT Thread (ANSI B1.20.1) **N**
 Female UN/UNF Thread (SAE J 514) **U**
 Male ORFS Connection (ISO 8434-3) **ORFS**
 24° Cone Connection (Light / Heavy Series) **—**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF 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):
 Tube Size (according to dimension table) **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**

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

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. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

Supplied with standard lever (according to table) **—**
 Supplied without lever **O**

Alternative levers can be ordered separately. Please see page 114 for further information.

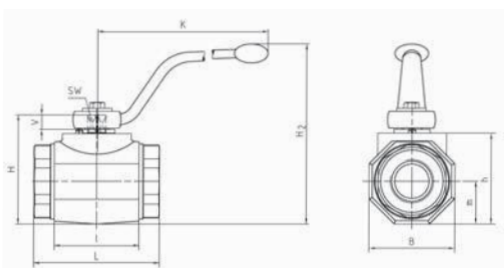
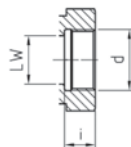
⑪ Accessories / Options

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**

Please see page 115-119 for further information and options.



High-Pressure Forged Body Ball Valve - Type FBV-2 Female BSP Thread (DIN ISO 228)

A

**Female BSP Thread
(DIN ISO 228)**


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

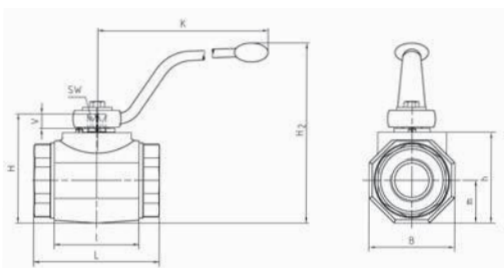
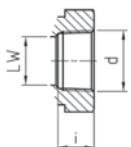
- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order 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)


**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/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	i	H2			
20	1-1/4-11-1/2 NPT	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	1-1/2-11-1/2 NPT	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	2-11-1/2 NPT	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)

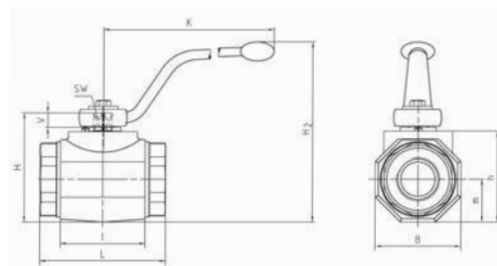
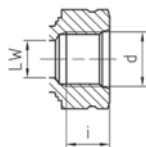
A

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/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

Female UN/UNF Thread
(SAE J 514)



STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order 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.

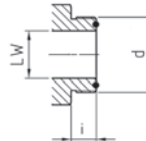
High-Pressure Forged Body Ball Valve - Type FBV-2 O-Ring Face Seal Connection - Male Thread (ISO 8434-3)

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

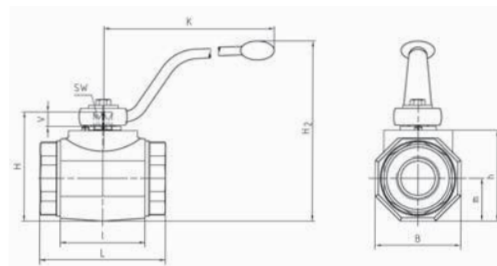
- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

ORFS Connection
(ISO 8434-3)



O-ring included in delivery.



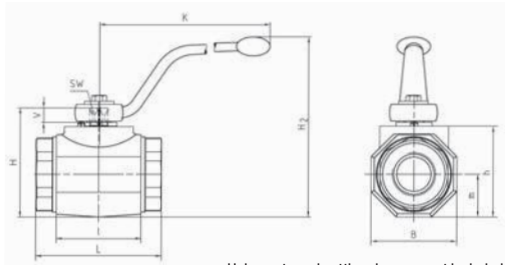
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)												Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	I	B	H	h	m	V	SW	K	i	H2	O-ring			
20	2-12 UN	32	32	139	80	81	107	86	40,5	16,5	17	306	17,5	171	37,82 x 1,78	320	3,52	FBV-2-ORFS20-0001-M
			1.26	5.47	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	.69	6.73		4600	7.75	

Please note the pressure ratings of the tube connections.



High-Pressure Forged Body Ball Valve - Type FBV-2 24° Cone Connection - Light Series (DIN 2353 / ISO 8434-1)

A



Union nuts and cutting rings are not included in delivery.

24° Cone Connection (DIN 2353 / ISO 8434-1)

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

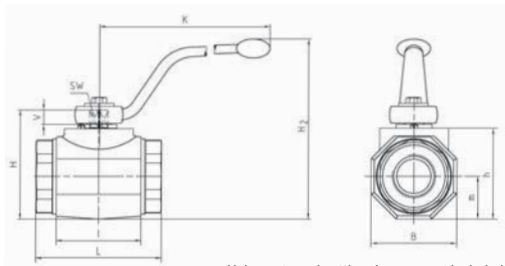
- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			RA	LW	L	I	B	H	h	m	V	SW	K	i	H2			
20	35L / M45 x 2	32	35	32	136	80	81	107	86	40,5	16,5	17	306	16	171	420	3,58	FBV-2-35L-0001-M
			1.38	1.26	5.35	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	.63	6.73	6000	7.88	
24	42L / M52 x 2	40	42	38	147	85	100	124	103	50	16,5	17	306	16	188	420	5,54	FBV-2-42L-0001-M
			1.65	1.50	5.79	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	.63	7.40	6000	12.19	

Please note the pressure ratings of the tube connections.

High-Pressure Forged Body Ball Valve - Type FBV-2 24° Cone Connection - Heavy Series (DIN 2353 / ISO 8434-1)



Union nuts and cutting rings are not included in delivery.

24° Cone Connection (DIN 2353 / ISO 8434-1)

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/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

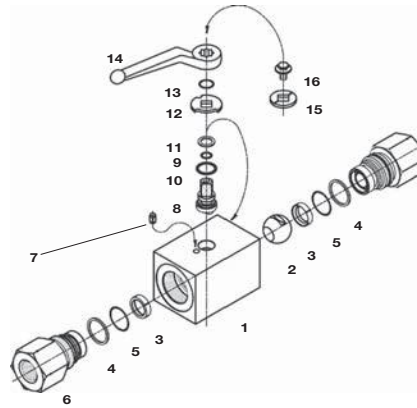
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			RA	LW	L	I	B	H	h	m	V	SW	K	i	H2			
20	38S / M52 x 2	32	38	32	148	80	81	107	86	40,5	16,5	17	306	22	171	420	3,77	FBV-2-38S-0001-M
			1.50	1.26	5.83	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	.87	6.73	6000	8,29	

Please note the pressure ratings of the tube connections.



High-Pressure 800 bar / 12000 PSI Block Body Ball Valve - Type HBV-2

A



List of Components

No.	Qty.	Description
1	1	Body
2	1	Ball
3*	2	Seat
4*	2	Connector O-Ring
5*	2	Pipe Back-up Ring
6	2	Connector
7	1	Stop Pin
8	1	Stem
9*	1	Thrust Ring
10*	1	Stem O-Ring
11*	1	Pipe Back-up
12	1	Cam Plate
13	1	Snap Ring
14	1	Handle
15	1	Flow Indicator
16	1	Stem Screw

Characteristics

Two-way high-pressure block body ball valves designed for use as on/off devices for hydraulic applications (for pressures up to 800 bar / 12000 PSI)

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: Carbon Steel
- Ball seat: POM, encased
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female NPT thread (ANSI B1.20.1) >1-11-1/2 NPT
- 24° Cone Connection (DIN 2353 / ISO 8434-1); >30S

Pressure Range

- Pressure range: up to 800 bar / 12000 PSI (depending on size and material combination of the ball valve)

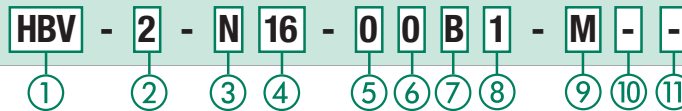
Temperature Range

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

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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



① Type

High-Pressure Block Body Ball Valve	HBV
-------------------------------------	------------

② Number of Ports

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

③ Connection Style

Female NPT Thread (ANSI B1.20.1)	N
24° Cone Connection (Heavy Series)	—

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table) for connection style N:

04	06	08	12	16
----	----	----	----	----

Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):

08S	10S	12S	14S	16S	20S	25S	30S
-----	-----	-----	-----	-----	-----	-----	-----

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated	0
Stem: Carbon Steel	0
Ball / Stem: Stainless Steel V4A (AISI 316Ti)	1

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball Seat Material

POM, encased	B
--------------	----------

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®)	0
FKM/FPM (Viton®)	1

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles	M
--	----------

⑩ Lever Options

Supplied with standard lever (according to table)	—
Supplied without lever	O

Alternative levers can be ordered separately. Please see page 114 for further information.

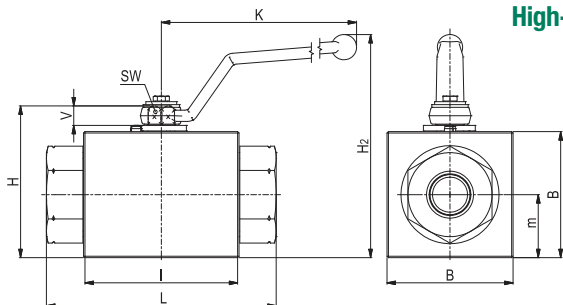
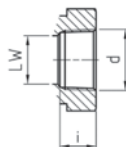
⑪ Accessories / Options

Supplied without accessories	—
Supplied with Locking Device LD1	LD1
Supplied with Locking Device LD4	LD4

Please see page 115-119 for further information and options.



High-Pressure 800 bar / 12000 PSI Block Body Ball Valve - Type HBV-2 Female NPT Thread (ANSI B1.20.1)


**Female NPT Thread
(ANSI B1.20.1)**


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

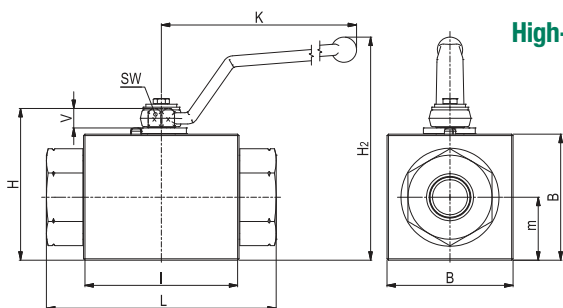
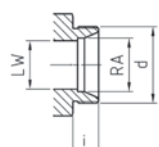
- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball seat: POM, encased
- O-rings: FKM/FPM (Viton®)

A

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)											Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	m	V	SW	K	i	H2			
04	1/4-18 NPT	6	6	130	76	50	64	25	11	9	115	13,7	101	800	1,92	HBV-2-N04-00B1-M
			.39	8.44	4.94	3.25	4.16	1.62	.71	.58	4.53	.89	3.98	12000	4.22	
06	3/8-18 NPT	10	13	130	76	50	64	25	11	9	115	13,5	101	800	1,85	HBV-2-N06-00B1-M
			.84	8.44	4.94	3.25	4.16	1.62	.71	.58	4.53	.88	3.98	12000	4.07	
08	1/2-14 NPT	13	13	130	76	50	64	25	11	9	115	17	101	800	1,79	HBV-2-N08-00B1-M
			.84	8.44	4.94	3.25	4.16	1.62	.71	.58	4.53	1.10	3.98	12000	3.93	
12	3/4-14 NPT	20	20	161	111	90	108	45	14	14	171	18,3	159	800	7,83	HBV-2-N12-00B1-M
			1.30	10.45	7.21	5.84	7.01	2.92	.91	.91	6.73	1.19	6.26	12000	17.23	
16	1-11-1/2 NPT	25	25	164	111	90	108	45	14	14	171	21,6	159	800	7,68	HBV-2-N16-00B1-M
			1.62	10.65	7.21	5.84	7.01	2.92	.91	.91	6.73	1.40	6.26	12000	16.90	

Please note the pressure ratings of the tube connections.

High-Pressure 800 bar / 12000 PSI Block Body Ball Valve - Type HBV-2 24° Cone Connection - Heavy Series (DIN 2353 / ISO 8434-1)


**24° Cone Connection
(DIN 2353 / ISO 8434-1)**


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
- Ball seat: POM, encased
- O-rings: FKM/FPM (Viton®)

Union nuts and cutting rings are not included in delivery.

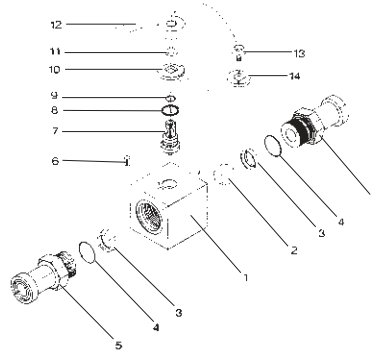
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)											Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	I	B	H	m	V	SW	K	i	H2			
02	08S / M16 x 1,5	4	8	5	110	76	50	64	25	11	9	115	12	101	800	1,60	HBV-2-08S-00B1-M
			.31	.20	4.33	2.99	1.97	2.52	.98	.43	.35	4.53	.47	3.98	12000	3.52	
04	10S / M18 x 1,5	6	10	6	114	76	50	64	25	11	9	115	12	101	800	1,60	HBV-2-10S-00B1-M
			.39	.24	4.49	2.99	1.97	2.52	.98	.43	.35	4.53	.47	3.98	12000	3.52	
05	12S / M20 x 1,5	8	12	8	114	76	50	64	25	11	9	115	12	101	800	1,64	HBV-2-12S-00B1-M
			.47	.31	4.49	2.99	1.97	2.52	.98	.43	.35	4.53	.47	3.98	12000	3.61	
06	14S / M22 x 1,5	10	14	13	114	76	50	64	25	11	9	115	14	101	800	1,56	HBV-2-14S-00B1-M
			.55	.51	4.49	2.99	1.97	2.52	.98	.43	.35	4.53	.55	3.98	12000	3.43	
08	16S / M24 x 1,5	13	16	13	114	76	50	64	25	11	9	115	14	101	800	1,58	HBV-2-16S-00B1-M
			.63	.51	4.49	2.99	1.97	2.52	.98	.43	.35	4.53	.55	3.98	12000	3.48	
08	20S / M30 x 2	13	20	13	118	76	50	64	25	11	9	115	16	101	800	1,63	HBV-2-20SDN13-00B1-M
			.79	.51	4.65	2.99	1.97	2.52	.98	.43	.35	4.53	.63	3.98	12000	3.59	
12	25S / M36 x 2	20	25	20	162	111	90	108	45	14	14	171	18	159	800	7,31	HBV-2-25S-00B1-M
			.98	.79	6.38	4.37	3.54	4.25	1.77	.55	.55	6.73	.71	6.26	12000	16.08	
16	30S / M42 x 2	25	30	25	166	111	90	108	45	14	14	171	20	159	800	7,40	HBV-2-30S-00B1-M
			1.18	.98	6.54	4.37	3.54	4.25	1.77	.55	.55	6.73	.79	6.26	12000	16.28	

Please note the pressure ratings of the tube connections.



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

A



List of Components

No.	Qty.	Description
1	1	Housing
2	1	Ball
3*	2	Seat
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
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (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 / 6000PSI (depending on size and material combination of the ball valve)

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

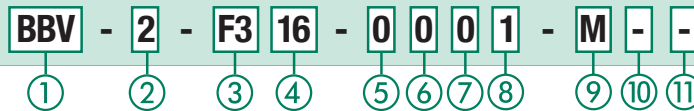
Temperature Range

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

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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



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 Adaptor Length) **F3**
 3000 PSI (Code 61) SAE Split Flange Connectors (Extended Adaptor Length) **F3X**
 6000 PSI (code 62) SAE Split Flange Connectors (Standard Adaptor Length) **F6**
 6000 PSI (code 62) SAE Split Flange Connectors (Extended Adaptor Length) **F6X**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table)

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

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
 Stem: Carbon Steel **0**
 Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**
 Manufacturing code for high-pressure version of 6000 PSI Series (STAUFF Size 16) **H**

⑩ Lever Options

Supplied with standard lever (according to table) **—**
 Supplied without lever **O**

Alternative levers can be ordered separately. Please see page 114 for further information.

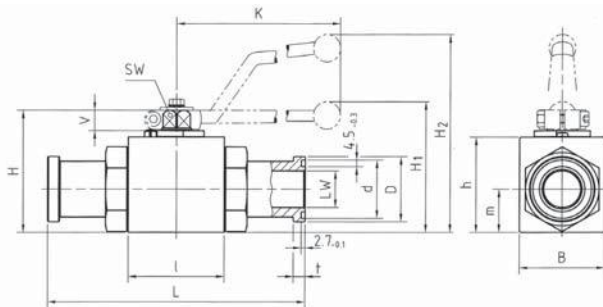
⑪ Accessories / Options

Supplied without accessories **—**
 Supplied with Locking Device LD1 **LD1**
 Supplied with Locking Device LD2 **LD2**

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type BBV-2-F3 3000 PSI SAE Split Flange Connection (ISO 6162-1)

A


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/FPM (Viton®)

3000 PSI Series (Code 61) - Standard Adaptor Length

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³	H1			
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		5000	1.87	
12	3/4	20	19	162	62	49	75	57	24,5	14	14	200	31,9	38,1	6,8	79	350	1,87	BBV-2-F312-0001-M
			.75	6.38	2.44	1.93	2.95	2.24	.96	.55	.55	7.87	1.26	1.50	.27	3.11	5000	4.11	
16	1	25	25	178	66	58	83	65	29,5	14	14	200	39,8	44,4	8,1	87	320	2,70	BBV-2-F316-0001-M
			.98	7.01	2.60	2.28	3.27	2.56	1.16	.55	.55	7.87	1.57	1.75	.32	3.43	4600	5.94	

3000 PSI Series (Code 61) - Extended Adaptor Length

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³	H1			
08	1/2	13	13	170	48	35	54	40	19	11	9	115	25,5	30,2	6,8	89	350	0,89	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		5000	1.96	
12	3/4	20	19	200	62	49	75	57	24,5	14	14	200	31,9	38,1	6,8	79	350	2,00	BBV-2-F3X12-0001-M
			.75	7.87	2.44	1.93	2.95	2.24	.96	.55	.55	7.87	1.26	1.50	.27	3.11	5000	4.40	
16	1	25	25	215	66	58	83	65	29,5	14	14	200	39,8	44,4	8,1	87	320	2,85	BBV-2-F3X16-0001-M
			.98	8.46	2.60	2.28	3.27	2.56	1.16	.55	.55	7.87	1.57	1.75	.32	3.43	4600	6.27	

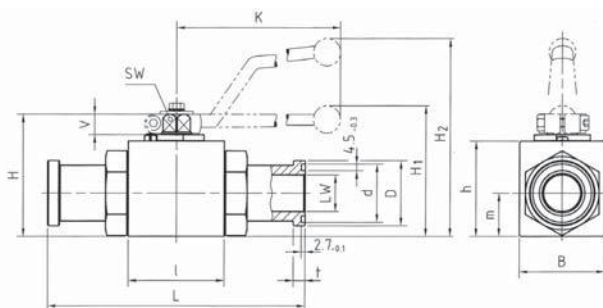
Please note: The final maximum working pressure is determined by flange and pipe/tubing rating.

¹ Dimension d: ±0,1 mm / .004 in

² Dimension D: -0,2 mm / .008 in

³ Dimension 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/FPM (Viton®)

6000 PSI Series (Code 62) - Standard Adaptor Length

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³	H1			
08	1/2	13	13	180	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		6000	1.98	
12	3/4	20	19	174	62	49	75	57	24,5	14	14	200	31,9	41,3	8,9	79	420	1,95	BBV-2-F612-0001-M
			.75	6.85	2.44	1.93	2.95	2.24	.96	.55	.55	7.87	1.26	1.63	.35	3.11	6000	4.29	
16	1	25	25	198	66	58	83	65	29,5	14	14	200	39,8	47,6	9,6	87	320	3,00	BBV-2-F616-0001-M
			.98	7.80	2.60	2.28	3.27	2.56	1.16	.55	.55	7.87	1.70	1.87	.38	3.43	4600	6.60	
16	1	25	25	206	74	70	88	70	34,5	14	14	200	39,8	47,6	9,6	92	420	3,00	BBV-2-F616-0001-H
			.98	8.11	2.91	2.76	3.46	2.76	1.36	.55	.55	7.87	1.70	1.87	.38	3.62	6000	6.60	

6000 PSI Series (Code 62) - Extended Adaptor Length

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³	H1			
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		6000	2.20	
12	3/4	20	19	200	62	49	75	57	24,5	14	14	200	31,9	41,3	8,9	79	420	2,10	BBV-2-F6X12-0001-M
			.75	7.87	2.44	1.93	2.95	2.24	.96	.55	.55	7.87	1.26	1.63	.35	3.11	6000	4.62	
16	1	25	25	250	66	58	83	65	29,5	14	14	200	39,8	47,6	9,6	87	320	3,15	BBV-2-F6X16-0001-M
			.98	9.84	2.60	2.28	3.27	2.56	1.16	.55	.55	7.87	1.70	1.87	.38	3.43	4600	6.93	
16	1	25	25	250	74	70	88	70	34,5	14	14	200	39,8	47,6	9,6	92	420	3,15	BBV-2-F6X16-0001-H
			.98	9.84	2.91	2.76	3.46	2.76	1.36	.55	.55	7.87	1.70	1.87	.38	3.62	6000	6.93	

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

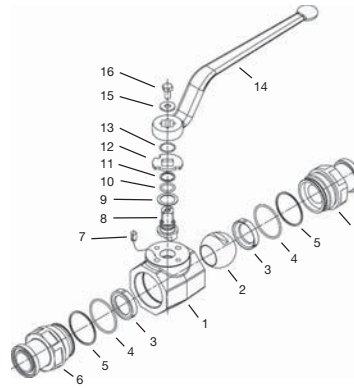
¹ Dimension d: ±0,1 mm / .004 in

² Dimension D: -0,2 mm / .008 in

³ Dimension t: -0,2 mm / .008 in


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

A



List of Components

No.	Qty.	Description
1	1	Body
2	1	Ball
3*	2	Seat
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/FPM (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 / 6000PSI (depending on size and material combination of the ball valve)

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

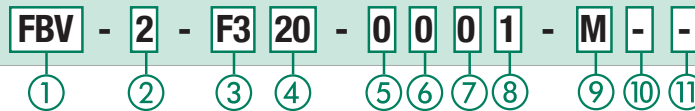
Temperature Range

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

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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



① Type

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

② Number of Ports

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

③ Connection Style

3000 PSI (Code 61) SAE Split Flange Connectors (Standard Adaptor Length) **F3**
 3000 PSI (Code 61) SAE Split Flange Connectors (Extended Adaptor Length) **F3X**
 6000 PSI (code 62) SAE Split Flange Connectors (Standard Adaptor Length) **F6**
 6000 PSI (code 62) SAE Split Flange Connectors (Extended Adaptor Length) **F6X**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table)

20	24	32
----	----	----

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
 Stem: Carbon Steel **0**
 Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

Supplied with standard lever (according to table) **—**
 Supplied without lever **O**

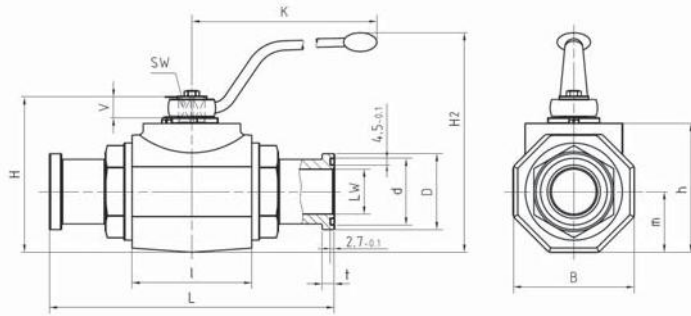
Alternative levers can be ordered separately. Please see page 114 for further information.

⑪ Accessories / Options

Supplied without accessories **—**
 Supplied with Locking Device LD1 **LD1**
 Supplied with Locking Device LD2 **LD2**
 Supplied with Locking Device LD6 (US version) **LD6**

Please see page 115-119 for further information and options.





High-Pressure Forged Body Ball Valve - Type FBV-2-F3 3000 PSI SAE Split Flange Connection (ISO 6162-1)

A

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/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

3000 PSI Series (Code 61) - Standard Adaptor Length

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order 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	3000	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	9.13	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	2.50	2.81	.38	3000	20.44	

3000 PSI Series (Code 61) - Extended Adaptor Length

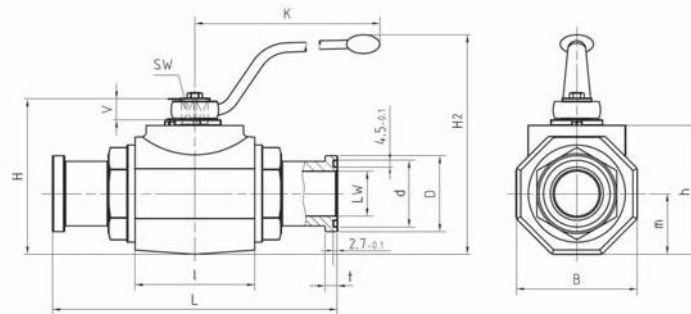
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d ¹	D ²	t ³			
20	1-1/4	32	30	275	80	81	107	86	40,5	16,5	17	306	44,6	50,8	8,1	280	5,15	FBV-2-F3X20-0001-M
			1.18	10.83	3.15	3.19	4.21	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	3000	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-F3X32-0001-M
			1.89	12.72	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	2.50	2.81	.38	3000	25.30	

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

¹ Dimension d: ±0,1 mm / .004 in

² Dimension D: -0,2 mm / .008 in

³ Dimension t: -0,2 mm / .008 in



High-Pressure Forged 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: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

6000 PSI Series (Code 62) - Standard Adaptor Length

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order 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) - Extended Adaptor Length

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order 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.

¹ Dimension d: ±0,1 mm / .004 in

² Dimension D: -0,2 mm / .008 in

³ Dimension t: -0,2 mm / .008 in



High-Pressure Block Body Ball Valve ▪ Typ BBV-2-F/C

A



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
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- 3000 PSI (code 61) SAE split / mating flange connectors
- 6000 PSI (code 62) SAE split / mating flange connectors
- Metric ISO and unified coarse (UNC) threads

Pressure Range

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

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

Temperature Range

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

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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

Order Codes

BBV - 2 - F/C3 16 M - 0 0 0 1 - M - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① Type

High-Pressure Body Ball Valve **BBV**

② Number of Ports

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

③ Connection Style

3000 PSI (code 61) SAE Split /
Mating Flange Connectors **F/C3**

6000 PSI (code 62) SAE Split /
Mating Flange Connectors **F/C6**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table)

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

Please contact STAUFF for alternative connection sizes.

⑤ Thread Type

Flange Connection **M**

with Metric ISO Threads

Flange Connection **U**

with Unified Coarse (UNC) Threads

⑥ Body Material / Surface Finishing

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

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

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ 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. Contact STAUFF for further information.

⑧ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ O-Ring Material

NBR (Buna-N®) **0**

FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑩ Manufacturing Code

Manufacturing code for all connection styles **M**

Manufacturing code for high-pressure version
of 6000 PSI Series (STAUFF Size 16) **H**

⑪ Lever Options

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

Supplied without lever **O**

Alternative levers can be ordered separately. Please see page 114 for further information.

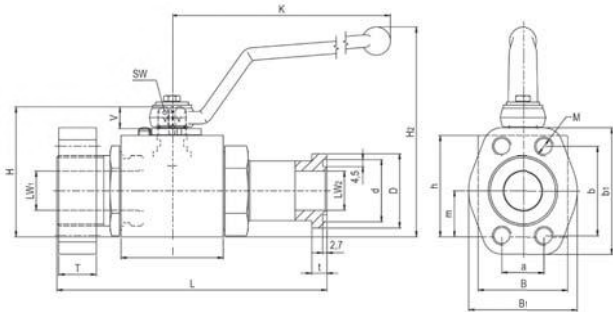
⑫ Accessories / Options

Supplied without accessories **—**

Supplied with Locking Device LD1 **LD1**

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type BBV-2-F/C3
3000 PSI SAE Split / Mating Flange Connection (ISO 6162-1)
A


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/FPM (Viton®)

3000 PSI Series (Code 61) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																				Nom. Pressure		Weight	Order Codes (Standard Option)
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d ¹	D ²	t ³	T	a	b	b1	M	H2	(PSI)	(bar)	
08	1/2	13	13	13	136	48	35	48	54	40	19	11	9	115	25,5	30,2	6,8	13	17,5	38,1	56	M8	89	350	1,20	BBV-2-F/C308M-0001-M
			.51	.51	5.35	1.89	1.38	1.89	2.13	1.57	.75	.43	.35	4.53	1.00	1.19	.27	.51	.69	1.50	2.20		3.50	5000	2.60	
12	3/4	20	20	19	149	62	49	50	75	57	24,5	14	14	170	31,9	38,1	6,8	14	22,3	47,6	65	M10	127	350	2,50	BBV-2-F/C312M-0001-M
			.79	.75	5.87	2.44	1.93	1.97	2.95	2.24	.96	.55	.55	6.69	1.26	1.50	.27	.55	.88	1.87	2.56		5.00	5000	5.50	
16	1	25	25	25	163	66	58	60	83	65	29,5	14	14	170	39,8	44,4	8,1	16	26,2	52,4	70	M10	135	320	3,50	BBV-2-F/C316M-0001-M
			.98	.98	6.42	2.60	2.28	2.36	3.27	2.56	1.16	.55	.55	6.69	1.57	1.75	.32	.63	1.03	2.06	2.76		5.31	4600	7.70	

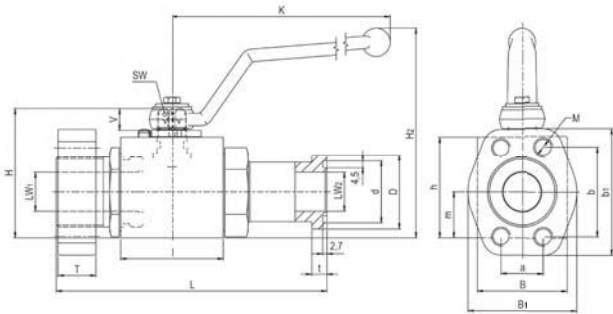
3000 PSI Series (Code 61) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																				Nom. Pressure		Weight	Order Codes (Standard Option)
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d ¹	D ²	t ³	T	a	b	b1	M	H2	(PSI)	(bar)	
08	1/2	13	13	13	136	48	35	48	54	40	19	11	9	115	25,5	30,2	6,8	13	17,5	38,1	56	5/16-18 UNC	89	350	1,20	BBV-2-F/C308U-0001-M
			.51	.51	5.35	1.89	1.38	1.89	2.13	1.57	.75	.43	.35	4.53	1.00	1.19	.27	.51	.69	1.50	2.20		3.50	5000	2.60	
12	3/4	20	20	19	149	62	49	50	75	57	24,5	14	14	170	31,9	38,1	6,8	14	22,3	47,6	65	3/8-16 UNC	127	350	2,50	BBV-2-F/C312U-0001-M
			.79	.75	5.87	2.44	1.93	1.97	2.95	2.24	.96	.55	.55	6.69	1.26	1.50	.27	.55	.88	1.87	2.56		5.00	5000	5.50	
16	1	25	25	25	163	66	58	60	83	65	29,5	14	14	170	39,8	44,4	8,1	16	26,2	52,4	70	3/8-16 UNC	135	320	3,50	BBV-2-F/C316U-0001-M
			.98	.98	6.42	2.60	2.28	2.36	3.27	2.56	1.16	.55	.55	6.69	1.57	1.75	.32	.63	1.03	2.06	2.76		5.31	4600	7.70	

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

¹ Dimension d: ±0,1mm / .004in

² Dimension D: -0,2mm / .008in

³ Dimension t: -0,2mm / .008in

High-Pressure Block Body Ball Valve - Type BBV-2-F/C6
6000 PSI SAE Split / Mating 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/FPM (Viton®)

6000 PSI Series (Code 62) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																				Nom. Pressure		Weight	Order Codes (Standard Option)
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d ¹	D ²	t ³	T	a	b	b1	M	H2	(PSI)	(bar)	
08	1/2	13	13	13	136	48	35	48	54	40	19	11	9	115	25,5	31,8	7,9	16	18,2	40,8	56	M8	89	420	1,20	BBV-2-F/C608M-0001-M
			.51	.51	5.35	1.89	1.38	1.89	2.13	1.57	.75	.43	.35	4.53	1.00	1.25	.31	.63	.72	1.61	2.20		3.50	6000	2.64	
12	3/4	20	20	19	155	62	49	60	75	57	24,5	14	14	170	31,9	41,3	8,9	19	23,8	50,8	71	M10	127	420	2,26	BBV-2-F/C612M-0001-M
			.79	.75	6.10	2.44	1.93	2.36	2.95	2.24	.96	.55	.55	6.69	1.26	1.63	.35	.75	.94	2.00	2.80		5.00	6000	4.98	
16	1	25	25	25	173	66	58	70	83	65	29,5	14	14	170	39,8	47,6	9,6	24	27,8	57,2	71	M12	135	320	3,75	BBV-2-F/C616M-0001-M
			.98	.98	6.81	2.60	2.28	2.76	3.27	2.56	1.16	.55	.55	6.69	1.57	1.87	.38	.94	1.09	2.25	2.80		5.31	4600	8.26	
16	1	25	25	25	181	74	70	70	88	70	34,5	14	14	170	39,8	47,6	9,6	24	27,8	57,2	81	M12	140	420	4,10	BBV-2-F/C616M-0001-H
			.98	.98	7.13	2.91	2.76	2.76	3.46	2.76	1.36	.55	.55	6.69	1.57	1.87	.38	.94	1.09	2.25	3.19		5.51	6000	9.04	

6000 PSI Series (Code 62) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																				Nom. Pressure		Weight	Order Codes (Standard Option)
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d ¹	D ²	t ³	T	a	b	b1	M	H2	(PSI)	(bar)	
08	1/2	13	13	13	136	48	35	48	54	40	19	11	9	115	25,5	31,8	7,9	16	18,2	40,8	56	5/16-18 UNC	89	420	1,20	BBV-2-F/C608U-0001-M
			.51	.51	5.35	1.89	1.38	1.89	2.13	1.57	.75	.43	.35	4.53	1.00	1.25	.31	.63	.72	1.61	2.20		3.50	6000	2.64	
12	3/4	20	20	19	155	62	49	60	75	57	24,5	14	14	170	31,9	41,3	8,9	19	23,8	50,8	71	3/8-16 UNC	127	420	2,26	BBV-2-F/C612U-0001-M
			.79	.75	6.10	2.44	1.93	2.36	2.95	2.24	.96	.55	.55	6.69	1.26	1.63	.35	.75	.94	2.00	2.80		5.00	6000	4.98	
16	1	25	25	25	173	66	58	70	83	65	29,5	14	14	170	39,8	47,6	9,6	24	27,8	57,2	71	7/16-14 UNC	135	320	3,75	BBV-2-F/C616U-0001-M
			.98	.98	6.81	2.60	2.28	2.76	3.27	2.56	1.16	.55	.55	6.69	1.57	1.87	.38	.94	1.09	2.25	2.80		5.31	4600	8.26	
16	1	25	25	25	181	74	70	70	88	70	34,5	14	14	170	39,8	47,6	9,6	24	27,8	57,2	81	7/16-14 UNC	140	420	4,10	BBV-2-F/C616U-0001-H
			.98	.98	7.13	2.91	2.76	2.76	3.46	2.76	1.36	.55	.55	6.69	1.57	1.87	.38	.94	1.09	2.25	3.19		5.51	6000	9.04	

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

¹ Dimension d: ±0,1mm / .004in

² Dimension D: -0,2mm / .008in

³ Dimension t: -0,2mm / .008in


High-Pressure Forged Body Ball Valve ▪ Typ FBV-2-F/C

A



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/FPM (Viton®)

Standard Connections Styles / Sizes

- 3000 PSI (code 61) SAE split / mating flange connectors
- 6000 PSI (code 62) SAE split / mating flange connectors
- Metric ISO and unified coarse (UNC) threads

Pressure Range

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

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

Temperature Range

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

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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

Order Codes

FBV - 2 - F/C3 24 M - 0 0 0 1 - M - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① Type

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

② Number of Ports

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

③ Connection Style

3000 PSI (code 61) SAE Split / Mating Flange Connectors **F/C3**
6000 PSI (code 62) SAE Split / Mating Flange Connectors **F/C6**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table)
20 24 32

Please contact STAUFF for alternative connection sizes.

⑤ Thread Type

Flange Connection with Metric ISO Threads **M**
Flange Connection with Unified Coarse (UNC) Threads **U**

⑥ Body Material / Surface Finishing

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

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
Stem: Carbon Steel **0**
Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑧ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑩ Manufacturing Code

Manufacturing code for all connection styles **M**

⑪ Lever Options

Supplied with standard lever (according to table) **—**
Supplied without lever **O**

Alternative levers can be ordered separately. Please see page 114 for further information.

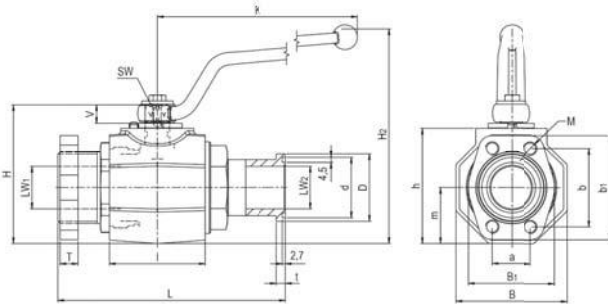
⑫ Accessories / Options

Supplied without accessories **—**
Supplied with Locking Device LD1 **LD1**

Please see page 115-119 for further information and options.



High-Pressure Forged Body Ball Valve - Type FBV-2-F/C3 3000 PSI SAE Split / Mating Flange Connection (ISO 6162-1)

A


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/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

3000 PSI Series (Code 61) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																			Nom. Pressure		Weight (kg/lbs)	Order Codes (Standard Option)	
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d ¹	D ²	t ³	T	a	b	b1	M	H2			(°F/PSI)
20	1-1/4	32	32	30	181	80	81	68	107	86	40,5	16,5	17	306	44,6	50,8	8,1	16	30,2	58,7	79	M10	171	280	5,87	FBV-2-F/C320M-0001-M
			1,26	1,18	7,13	3,15	3,19	2,68	4,21	3,39	1,59	,65	,67	12,06	1,76	2,00	,32	,63	1,19	2,31	3,11		6,73	4000	12,94	
24	1-1/2	40	38	38	204	85	100	78	124	103	50	16,5	17	306	54,1	60,3	8,1	16	35,7	69,9	93	M12	188	210	8,82	FBV-2-F/C324M-0001-M
			1,50	1,50	8,03	3,35	3,94	3,07	4,88	4,06	1,97	,65	,67	12,06	2,13	2,37	,32	,63	1,41	2,75	3,66		7,40	3000	19,45	
32	2	50	48	48	214	100	118	90	138	117	59	16,5	17	306	63,6	71,4	9,6	16	42,9	77,8	102	M12	202	210	14,29	FBV-2-F/C332M-0001-M
			1,89	1,89	8,43	3,94	4,65	3,54	5,43	4,61	2,32	,65	,67	12,06	2,50	2,81	,38	,63	1,69	3,06	4,02		7,95	3000	31,50	

3000 PSI Series (Code 61) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																			Nom. Pressure		Weight (kg/lbs)	Order Codes (Standard Option)	
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d ¹	D ²	t ³	T	a	b	b1	M	H2			(°F/PSI)
20	1-1/4	32	32	30	181	80	81	68	107	86	40,5	16,5	17	306	44,6	50,8	8,1	16	30,2	58,7	79	7/16-14	171	280	5,87	FBV-2-F/C320U-0001-M
			1,26	1,18	7,13	3,15	3,19	2,68	4,21	3,39	1,59	,65	,67	12,06	1,76	2,00	,32	,63	1,19	2,31	3,11	UNC	6,73	4000	12,94	
24	1-1/2	40	38	38	204	85	100	78	124	103	50	16,5	17	306	54,1	60,3	8,1	16	35,7	69,9	93	1/2-13	188	210	8,82	FBV-2-F/C324U-0001-M
			1,50	1,50	8,03	3,35	3,94	3,07	4,88	4,06	1,97	,65	,67	12,06	2,13	2,37	,32	,63	1,41	2,75	3,66	UNC	7,40	3000	19,45	
32	2	50	48	48	214	100	118	90	138	117	59	16,5	17	306	63,6	71,4	9,6	16	42,9	77,8	102	1/2-13	202	210	14,29	FBV-2-F/C332U-0001-M
			1,89	1,89	8,43	3,94	4,65	3,54	5,43	4,61	2,32	,65	,67	12,06	2,50	2,81	,38	,63	1,69	3,06	4,02	UNC	7,95	3000	31,50	

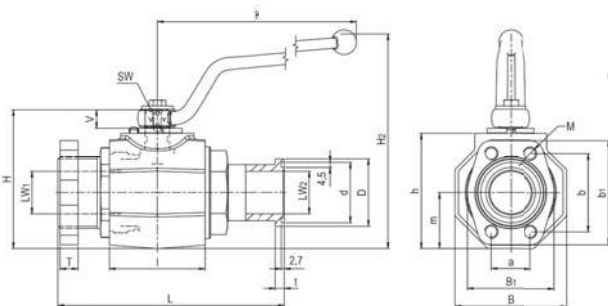
Please note: The final maximum working pressure is determined by flange and pipe/tubing rating.

¹ Dimension d: ±0,1 mm / .004 in

² Dimension D: -0,2 mm / .008 in

³ Dimension t: -0,2 mm / .008 in

High-Pressure Forged Body Ball Valve - Type FBV-2-F/C6 6000 PSI SAE Split / Mating 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: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

6000 PSI Series (Code 62) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																			Nom. Pressure		Weight (kg/lbs)	Order Codes (Standard Option)	
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d ¹	D ²	t ³	T	a	b	b1	M	H2			(°F/PSI)
20	1-1/4	32	32	30	189	80	81	78	107	86	40,5	16,5	17	306	44,6	54	10,4	27	31,8	66,6	95	M12	171	420	6,12	FBV-2-F/C620M-0001-M
			1,26	1,18	7,44	3,15	3,19	3,07	4,21	3,39	1,59	,65	,67	12,06	1,76	2,13	,41	1,06	1,24	2,62	3,74		6,73	6000	13,49	
24	1-1/2	40	38	38	229	85	100	94	124	103	50	16,5	17	306	54,1	63,5	12,7	30	36,5	79,3	112	M16	188	420	9,29	FBV-2-F/C624M-0001-M
			1,50	1,50	9,02	3,35	3,94	3,82	4,88	4,06	1,97	,65	,67	12,06	2,13	2,50	,50	1,18	1,44	3,12	4,41		7,40	6000	20,48	
32	2	50	48	48	256	100	118	114	138	117	59	16,5	17	306	63,6	79,4	12,7	35	44,5	96,3	134	M20	202	420	15,34	FBV-2-F/C632M-0001-M
			1,89	1,89	10,08	3,94	4,65	4,49	5,43	4,61	2,32	,65	,67	12,06	2,50	3,13	,50	1,38	1,75	3,79	5,28		7,95	6000	33,82	

6000 PSI Series (Code 62) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																			Nom. Pressure		Weight (kg/lbs)	Order Codes (Standard Option)	
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d ¹	D ²	t ³	T	a	b	b1	M	H2			(°F/PSI)
20	1-1/4	32	32	30	189	80	81	78	107	86	40,5	16,5	17	306	44,6	54	10,4	27	31,8	66,6	95	1/2-13	171	420	6,12	FBV-2-F/C620U-0001-M
			1,26	1,18	7,44	3,15	3,19	3,07	4,21	3,39	1,59	,65	,67	12,06	1,76	2,13	,41	1,06	1,24	2,62	3,74	UNC	6,73	6000	13,49	
24	1-1/2	40	38	38	229	85	100	94	124	103	50	16,5	17	306	54,1	63,5	12,7	30	36,5	79,3	112	5/8-11	188	420	9,29	FBV-2-F/C624U-0001-M
			1,50	1,50	9,02	3,35	3,94	3,82	4,88	4,06	1,97	,65	,67	12,06	2,13	2,50	,50	1,18	1,44	3,12	4,41	UNC	7,40	6000	20,48	
32	2	50	48	48	256	100	118	114	138	117	59	16,5	17	306	63,6	79,4	12,7	35	44,5	96,3	134	3/4-10	202	420	15,34	FBV-2-F/C632U-0001-M
			1,89	1,89	10,08	3,94	4,65	4,49	5,43	4,61	2,32	,65	,67	12,06	2,50	3,13	,50	1,38	1,75	3,79	5,28	UNC	7,95	6000	33,82	

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

¹ Dimension d: ±0,1 mm / .004 in

² Dimension D: -0,2 mm / .008 in

³ Dimension t: -0,2 mm / .008 in



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

A



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 (STAUFF Size 08)
- Carbon Steel (STAUFF Sizes 12 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- 3000 PSI (code 61) SAE mating flange connectors
- 6000 PSI (code 62) SAE mating flange connectors
- Metric ISO and unified coarse (UNC) threads

Pressure Range

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

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

Temperature Range

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

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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

Order Codes

BBV - 2 - C3 16 M - 0 0 0 1 - M - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① Type

High-Pressure Body Ball Valve **BBV**

② Number of Ports

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

③ Connection Style

3000 PSI (code 61) SAE Mating Flange Connectors **C3**
6000 PSI (code 62) SAE Mating Flange Connectors **C6**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table)
08 12 16

Please contact STAUFF for alternative connection sizes.

⑤ Thread Type

Flange Connection with Metric ISO Threads **M**
Flange Connection with Unified Coarse (UNC) Threads **U**

⑥ Body Material / Surface Finishing

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

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ 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. Contact STAUFF for further information.

⑧ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑩ Manufacturing Code

Manufacturing code for all connection styles **M**
Manufacturing code for high-pressure version of 6000 PSI Series (STAUFF Size 16) **H**

⑪ Lever Options

Supplied with standard lever (according to table) **—**
Supplied without lever **O**

Alternative levers can be ordered separately. Please see page 114 for further information.

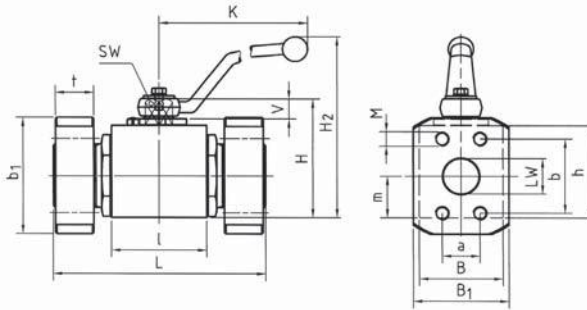
⑫ Accessories / Options

Supplied without accessories **—**
Supplied with Locking Device LD1 **LD1**

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type BBV-2-C3 3000 PSI SAE 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 (STAUFF Size 08)
Carbon Steel (STAUFF Sizes 12 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

A

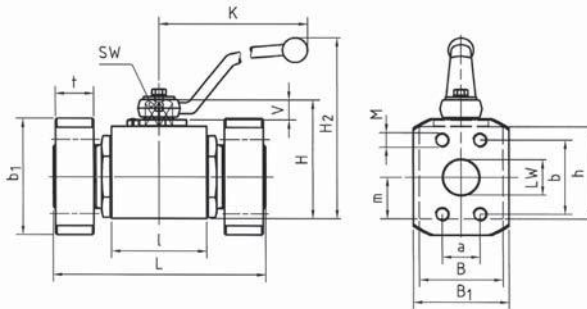
3000 PSI Series (Code 61) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																		Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	B1	b1	t	a	b	M	H2				
08	1/2	13	13	120	48	35	54	40	19	11	9	115	48	56	13	17.5	38.1	M8	89	350	1,50	BBV-2-C308M-0001-M	
			.51	4.72	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.89	2.20	.51	.69	1.50		3.50	5000	3.30		
12	3/4	20	20	136	62	49	75	57	24.5	14	14	170	50	65	14	22.3	47.6	M10	127	350	3,00	BBV-2-C312M-0001-M	
			.79	5.35	2.44	1.93	2.95	2.24	.96	.55	.55	6.69	1.97	2.56	.55	.88	1.87		5.00	5000	6.60		
16	1	25	25	148	66	58	83	65	29.5	14	14	170	60	70	16	26.2	52.4	M10	135	320	4,50	BBV-2-C316M-0001-M	
			.98	5.83	2.60	2.28	3.27	2.56	1.16	.55	.55	6.69	2.36	2.76	.63	1.03	2.06		5.31	4600	9.90		

3000 PSI Series (Code 61) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																		Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	B1	b1	t	a	b	M	H2				
08	1/2	13	13	120	48	35	54	40	19	11	9	115	48	56	13	17.5	38.1	5/16-18	89	350	1,50	BBV-2-C308U-0001-M	
			.51	4.72	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.89	2.20	.51	.69	1.50	UNC	3.50	5000	3.30		
12	3/4	20	20	136	62	49	75	57	24.5	14	14	170	50	65	14	22.3	47.6	3/8-16	127	350	3,00	BBV-2-C312U-0001-M	
			.79	5.35	2.44	1.93	2.95	2.24	.96	.55	.55	6.69	1.97	2.56	.55	.88	1.87	UNC	5.00	5000	6.60		
16	1	25	25	148	66	58	83	65	29.5	14	14	170	60	70	16	26.2	52.4	3/8-16	135	320	4,50	BBV-2-C316U-0001-M	
			.98	5.83	2.60	2.28	3.27	2.56	1.16	.55	.55	6.69	2.36	2.76	.63	1.03	2.06	UNC	5.31	4600	9.90		

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



High-Pressure Block Body Ball Valve - Type BBV-2-C6 6000 PSI SAE 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 (STAUFF Size 08)
Carbon Steel (STAUFF Sizes 12 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

6000 PSI Series (Code 62) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																		Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	B1	b1	t	a	b	M	H2				
08	1/2	13	13	120	48	35	54	40	19	11	9	115	48	56	16	18.2	40.5	M8	89	420	1,50	BBV-2-C608M-0001-M	
			.51	4.72	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.89	2.20	.63	.72	1.59		3.50	6000	3.30		
12	3/4	20	20	136	62	49	75	57	24.5	14	14	170	60	71	19	23.8	50.8	M10	127	420	3,00	BBV-2-C612M-0001-M	
			.79	5.35	2.44	1.93	2.95	2.24	.96	.55	.55	6.69	2.36	2.80	.75	.94	2.00		5.00	6000	6.60		
16	1	25	25	148	66	58	83	65	29.5	14	14	170	70	81	24	27.8	57.2	M12	135	320	3,80	BBV-2-C616M-0001-M	
			.98	5.83	2.60	2.28	3.27	2.56	1.16	.55	.55	6.69	2.76	3.19	.94	1.09	2.25		5.31	4600	8.37		
16	1	25	25	156	74	70	88	70	34.5	14	14	170	70	81	24	27.8	57.2	M12	140	420	4,50	BBV-2-C616M-0001-H	
			.98	6.14	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	2.76	3.19	.94	1.09	2.25		5.51	6000	9.90		

6000 PSI Series (Code 62) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																		Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	B1	b1	t	a	b	M	H2				
08	1/2	13	13	120	48	35	54	40	19	11	9	115	48	56	16	18.2	40.5	5/16-18	89	420	1,50	BBV-2-C608U-0001-M	
			.51	4.72	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.89	2.20	.63	.72	1.59	UNC	3.50	6000	3.30		
12	3/4	20	20	136	62	49	75	57	24.5	14	14	170	60	71	19	23.8	50.8	3/8-16	127	420	3,00	BBV-2-C612U-0001-M	
			.79	5.35	2.44	1.93	2.95	2.24	.96	.55	.55	6.69	2.36	2.80	.75	.94	2.00	UNC	5.00	6000	6.60		
16	1	25	25	148	66	58	83	65	29.5	14	14	170	70	81	24	27.8	57.2	7/16-14	135	320	3,80	BBV-2-C616U-0001-M	
			.98	5.83	2.60	2.28	3.27	2.56	1.16	.55	.55	6.69	2.76	3.19	.94	1.09	2.25	UNC	5.31	4600	8.37		
16	1	25	25	156	74	70	88	70	34.5	14	14	170	70	81	24	27.8	57.2	7/16-14	140	420	4,50	BBV-2-C616U-0001-H	
			.98	6.14	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	2.76	3.19	.94	1.09	2.25	UNC	5.51	6000	9.90		

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



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

A



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/FPM (Viton®)

Standard Connections Styles / Sizes

- 3000 PSI (code 61) SAE mating flange connectors
- 6000 PSI (code 62) SAE mating flange connectors
- Metric ISO and unified coarse (UNC) threads

Pressure Range

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

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

Temperature Range

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

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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

Order Codes

FBV - 2 - C3 20 M - 0 0 0 1 - M - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① Type

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

② Number of Ports

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

③ Connection Style

3000 PSI (code 61) SAE Mating Flange Connectors **C3**
6000 PSI (code 62) SAE Mating Flange Connectors **C6**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table)
20 24 32 40R

Please contact STAUFF for alternative connection sizes.

⑤ Thread Type

Flange Connection with Metric ISO Threads **M**
Flange Connection with Unified Coarse (UNC) Threads **U**

⑥ Body Material / Surface Finishing

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

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ 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. Contact STAUFF for further information.

⑧ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑩ Manufacturing Code

Manufacturing code for all connection styles **M**

⑪ Lever Options

Supplied with standard lever (according to table) **—**
Supplied without lever **O**

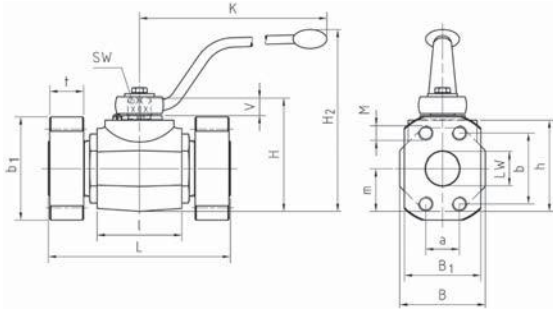
Alternative levers can be ordered separately. Please see page 114 for further information.

⑫ Accessories / Options

Supplied without accessories **—**
Supplied with Locking Device LD1 **LD1**
Supplied with Locking Device LD6 (US version) **LD6**

Please see page 115-119 for further information and options.





High-Pressure Forged Body Ball Valve - Type FBV-2-C3 3000 PSI SAE Flange Connection (ISO 6162-1)

A

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/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

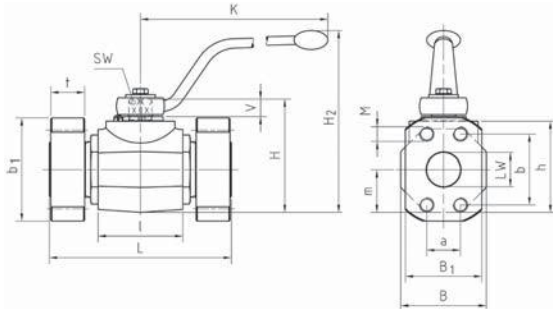
3000 PSI Series (Code 61) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure	Weight	Order Codes (Standard Option)			
			LW	L	I	B	H	h	m	V	SW	K	B1	b1	t	a	b	M	H2	(^{bar} /PSI)	(^{kg} /lbs)	
20	1-1/4	32	32	172	80	81	107	86	40.5	16.5	17	306	68	79	16	30.2	58.7	M10	171	280	7,52	FBV-2-C320M-0001-M
			1.26	6.77	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	2.68	3.11	.63	1.19	2.31	6.73	4000	16.54		
24	1-1/2	40	38	177	85	100	124	103	50	16.5	17	306	78	93	16	35.7	69.8	M12	188	210	11,09	FBV-2-C324M-0001-M
			1.50	6.97	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	3.07	3.66	.63	1.41	2.75	7.40	3000	24.40		
32	2	50	48	196	100	118	138	117	59	16.5	17	306	90	102	16	42.9	77.8	M12	202	210	19,29	FBV-2-C332M-0001-M
			1.89	7.72	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	3.54	4.02	.63	1.69	3.06	7.95	3000	42.44		
40R	2-1/2	50/65	48	196	100	118	138	117	59	16.5	17	306	105	114	19	50.8	88.9	M12	202	175	19,29	FBV-2-C340RM-0001-M
			1.89	7.72	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	4.13	4.49	.75	2.00	3.50	7.95	2500	42.44		

3000 PSI Series (Code 61) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure	Weight	Order Codes (Standard Option)			
			LW	L	I	B	H	h	m	V	SW	K	B1	b1	t	a	b	M	H2	(^{bar} /PSI)	(^{kg} /lbs)	
20	1-1/4	32	32	172	80	81	107	86	40.5	16.5	17	306	68	79	16	30.2	58.7	7/16-14	171	280	7,52	FBV-2-C320U-0001-M
			1.26	6.77	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	2.68	3.11	.63	1.19	2.31	UNC	6.73	4000	16.54	
24	1-1/2	40	38	177	85	100	124	103	50	16.5	17	306	78	93	16	35.7	69.8	1/2-13	188	210	11,09	FBV-2-C324U-0001-M
			1.50	6.97	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	3.07	3.66	.63	1.41	2.75	UNC	7.40	3000	24.40	
32	2	50	48	196	100	118	138	117	59	16.5	17	306	90	102	16	42.9	77.8	1/2-13	202	210	19,29	FBV-2-C332U-0001-M
			1.89	7.72	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	3.54	4.02	.63	1.69	3.06	UNC	7.95	3000	42.44	
40R	2-1/2	50/65	48	196	100	118	138	117	59	16.5	17	306	105	114	19	50.8	88.9	1/2-13	202	175	19,29	FBV-2-C340RU-0001-M
			1.89	7.72	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	4.13	4.49	.75	2.00	3.50	UNC	7.95	2500	42.44	

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



High-Pressure Forged Body Ball Valve - Type FBV-2-C6 6000 PSI SAE 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: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

6000 PSI Series (Code 62) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure	Weight	Order Codes (Standard Option)			
			LW	L	I	B	H	h	m	V	SW	K	B1	b1	t	a	b	M	H2	(^{bar} /PSI)	(^{kg} /lbs)	
20	1-1/4	32	32	172	80	81	107	86	40.5	16.5	17	306	78	95	27	31.8	66.6	M12	171	420	7,52	FBV-2-C620M-0001-M
			1.26	6.77	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	3.07	3.74	1.06	1.25	2.62	6.73	6000	16.54		
24	1-1/2	40	38	177	85	100	124	103	50	16.5	17	306	94	112	30	36.5	79.4	M16	188	420	11,09	FBV-2-C624M-0001-M
			1.50	6.97	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	3.70	4.41	1.18	1.44	3.13	7.40	6000	24.40		
32	2	50	48	196	100	118	138	117	59	16.5	17	306	114	134	35	44.5	96.8	M20	202	420	19,29	FBV-2-C632M-0001-M
			1.89	7.72	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	4.49	5.28	1.38	1.75	3.81	7.95	6000	42.44		

6000 PSI Series (Code 62) - Unified Coarse (UNC) Threads

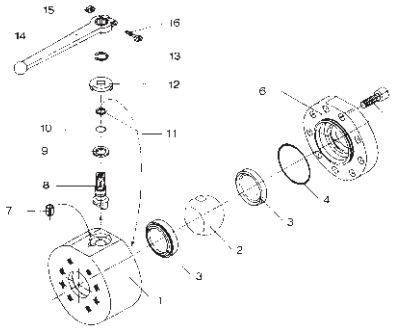
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure	Weight	Order Codes (Standard Option)			
			LW	L	I	B	H	h	m	V	SW	K	B1	b1	t	a	b	M	H2	(^{bar} /PSI)	(^{kg} /lbs)	
20	1-1/4	32	32	172	80	81	107	86	40.5	16.5	17	306	78	95	27	31.8	66.7	1/2-13	171	420	7,52	FBV-2-C620U-0001-M
			1.26	6.77	3.15	3.19	4.21	3.39	1.59	.65	.67	12.05	3.07	3.74	1.06	1.25	2.63	6.73	6000	16.54		
24	1-1/2	40	38	177	85	100	124	103	50	16.5	17	306	94	112	30	36.5	79.4	5/8-11	188	420	11,09	FBV-2-C624U-0001-M
			1.50	6.97	3.35	3.94	4.88	4.06	1.97	.65	.67	12.05	3.70	4.41	1.18	1.44	3.13	UNC	7.40	6000	24.40	
32	2	50	48	196	100	118	138	117	59	16.5	17	306	114	134	35	44.5	96.8	3/4-10	202	420	19,29	FBV-2-C632U-0001-M
			1.89	7.72	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	4.49	5.28	1.38	1.75	3.81	UNC	7.95	6000	42.44	

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



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

A



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 lever

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Size 08)
Zinc (STAUFF Sizes 12 and 16)
Aluminium (STAUFF Sizes 20 to 32)
Carbon Steel (STAUFF Sizes 40 and 48)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (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 flange and pipe/tubing rating.

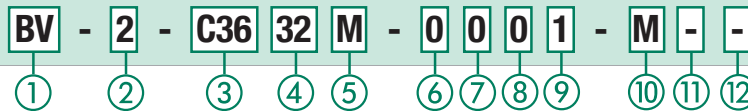
Temperature Range

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

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- 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



① Type

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

② Number of Ports

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

③ Connection Style

3000/6000 PSI (Code 61/62)
SAE Direct Flange Connection **C36**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table):
08 12 16 20 24 32 40 48

Please contact STAUFF for alternative connection sizes.

⑤ Thread Type

Flange Connection with Metric ISO Threads **M**
Flange Connection with Unified Coarse (UNC) Threads **U**

⑥ Body Material / Surface Finishing

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

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated
Stem: Carbon Steel / Duplex (for STAUFF Size 48) **0**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑧ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑩ Manufacturing Code

Manufacturing code for all connection styles **M**

⑪ 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.

⑫ Accessories / Options

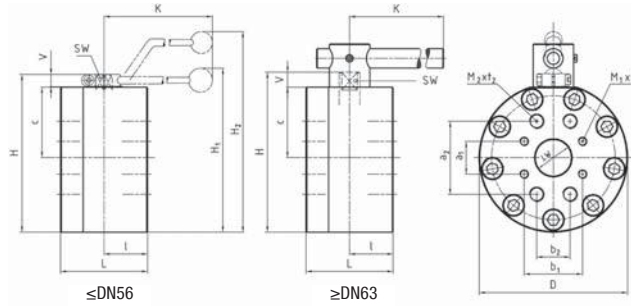
Supplied without accessories **—**
Supplied with Locking Device LD4 **LD4**
Supplied with Locking Device LD7 (US version) **LD7**

Please see page 115-119 for further information and options.



High-Pressure Round Body Ball Valve - Type BV-2-C36 3000/6000 PSI Flange Connection (ISO 6162-1/2)

A



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 (STAUFF Size 08)
Zinc (STAUFF Sizes 12 and 16)
Aluminium (STAUFF Sizes 20 to 32)
Carbon Steel (STAUFF Sizes 40 and 48)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

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

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)						
			LW	L	I	D	H	c	V	K	SW	a1	b1	M1	t1	a2	b2	M2	t2	H1	H2				
08	1/2	15	15 .59	75 2.95	35 1.38	88 3.46	88 3.46	31 1.22	13 .51	160 6.30	12 .47	17.5 .69	38.1 1.50	M8	18 .71	40.5 1.59	18.2 .72	M8	18 .71	132 5.20	18 103	420 6000	2.96 6.51		BV-2-C3608M-0001-M
12	3/4	20	20 .79	80 3.15	35 1.38	98 3.86	98 3.94	14 1.44	14 .55	200 7.87	14 .55	22.2 .87	47.6 1.87	M10	18 .71	50.8 2.00	23.8 .94	M10	18 .71	103 4.06	420 6000	4.20 9.24			BV-2-C3612M-0001-M
16	1	25	25 .98	88 3.46	38 1.50	118 4.65	113 4.45	14 1.56	14 .55	200 7.87	14 .55	27.8 1.09	57.2 2.25	M12	20 .79	52.4 2.06	26.2 1.03	M10	20 .79	116 4.57	420 6000	6.00 13.20			BV-2-C3616M-0001-M
20	1-1/4	32	32 1.26	100 3.94	50 1.97	145 5.71	158 6.22	68 2.68	17 .67	320 12.60	17 .67	30.2 1.19	58.7 2.31	M10	20 .79	66.6 2.62	31.8 1.25	M12	22 .87	167 6.57	420 6000	11.71 25.76			BV-2-C3620M-0001-M
24	1-1/2	40	38 1.50	110 4.33	55 2.17	165 6.50	178 7.01	78 3.07	17 .67	320 12.60	17 .67	35.7 1.41	69.8 2.75	M12	20 .79	79.4 3.13	36.5 1.44	M16	27 1.06	187 7.36	420 6000	17.10 37.62			BV-2-C3624M-0001-M
32	2	50	48 1.89	116 4.57	58 2.28	198 7.80	210 8.27	94 3.70	17 .67	320 12.60	17 .67	42.9 1.69	77.8 3.06	M12	20 .79	96.8 3.81	44.5 1.75	M20	28 1.10	203 7.99	420 6000	24.60 54.12			BV-2-C3632M-0001-M
40	2-1/2	65	63 2.48	170 6.69	75 2.95	218 8.58	275 10.83	100 3.94	20 .79	600 23.62	16 .63	58.7 2.31	123.8 4.78	M24	41 1.61	88.9 3.50	50.8 2.00	M12	19 .75	199 7.84	420 6000	44.50 97.90			BV-2-C3640M-0001-M
48	3	80	76 2.99	170 6.69	79 3.11	258 10.16	315 12.40	114.5 4.51	26 1.02	600 23.62	19 .75	71.4 2.81	152.4 6.00	M30	47 1.85	106.4 4.19	61.9 2.44	M16	24 .95	244 9.61	420 6000	60.40 132.88			BV-2-C3648M-0001-M

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

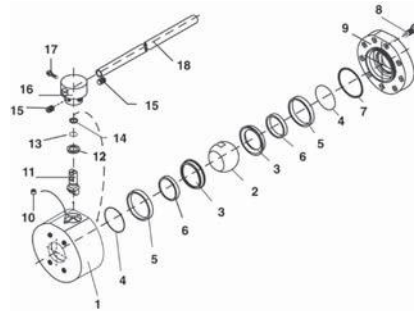
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)						
			LW	L	I	D	H	c	V	K	SW	a1	b1	M1	t1	a2	b2	M2	t2	H1	H2				
08	1/2	15	15 .59	75 2.95	35 1.38	88 3.46	88 3.46	31 1.22	13 .51	160 6.30	12 .47	17.5 .69	38.1 1.50	5/16-18 UNC	18 .71	40.5 1.59	18.2 .72	5/16-18 UNC	18 .71	132 5.20	18 103	420 6000	2.96 6.51		BV-2-C3608U-0001-M
12	3/4	20	20 .79	80 3.15	35 1.38	98 3.86	98 3.94	14 1.44	14 .55	200 7.87	14 .55	22.2 .87	47.6 1.87	3/8-16 UNC	18 .71	50.8 2.00	23.8 .94	3/8-16 UNC	18 .71	103 4.06	420 6000	4.20 9.24			BV-2-C3612U-0001-M
16	1	25	25 .98	88 3.46	38 1.50	118 4.65	113 4.45	14 1.56	14 .55	200 7.87	14 .55	27.8 1.09	57.2 2.25	7/16-14 UNC	20 .79	52.4 2.06	26.2 1.03	3/8-16 UNC	20 .79	116 4.57	420 6000	6.00 13.20			BV-2-C3616U-0001-M
20	1-1/4	32	32 1.26	100 3.94	50 1.97	145 5.71	158 6.22	68 2.68	17 .67	320 12.60	17 .67	30.2 1.19	58.7 2.31	7/16-14 UNC	20 .79	66.6 2.62	31.8 1.25	1/2-13 UNC	22 .87	167 6.57	420 6000	11.71 25.76			BV-2-C3620U-0001-M
24	1-1/2	40	38 1.50	110 4.33	55 2.17	165 6.50	178 7.01	78 3.07	17 .67	320 12.60	17 .67	35.7 1.41	69.8 2.75	1/2-13 UNC	20 .79	79.4 3.13	36.5 1.44	5/8-11 UNC	27 1.06	187 7.36	420 6000	17.10 37.62			BV-2-C3624U-0001-M
32	2	50	48 1.89	116 4.57	58 2.28	198 7.80	210 8.27	94 3.70	17 .67	320 12.60	17 .67	42.9 1.69	77.8 3.06	1/2-13 UNC	20 .79	96.8 3.81	44.5 1.75	3/4-10 UNC	28 1.10	203 7.99	420 6000	24.60 54.12			BV-2-C3632U-0001-M

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.



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

A



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 removable, adjustable 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/FPM (Viton®)

Standard Connections Styles / Sizes

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

Pressure Range

- Pressure range: up to 420 bar / 6090PSI (depending on size and material combination of the ball valve)

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

Temperature Range

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

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- 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 - C3 80 M - 0 0 0 1 - M - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① Type

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

② Number of Ports

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

③ Connection Style

3000 PSI (Code 61) **C3**
SAE Direct Flange Connection
6000 PSI (Code 62) **C6**
SAE Direct Flange Connection

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table):
40 48 64 80

Please contact STAUFF for alternative connection sizes.

⑤ Thread Type

Flange Connection **M**
with Metric ISO Threads
Flange Connection **U**
with Unified Coarse (UNC) Threads

⑥ Body Material / Surface Finishing

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

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
Stem: Carbon Steel / Duplex (from STAUFF Size 48 on) **0**
Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑧ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑩ Manufacturing Code

Manufacturing code for all connection styles **M**

⑪ Lever Options

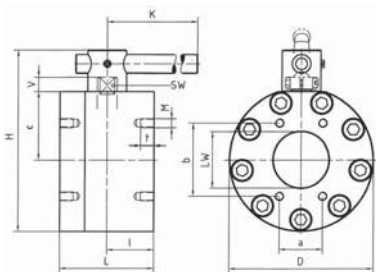
Supplied with standard lever (according to table) **—**
Supplied without lever **O**

⑫ Accessories / Options

Supplied without accessories **—**
Supplied with Locking Device LD5 **LD5**
Supplied with Locking Device LD7 (US version) **LD7**

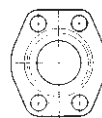
Please see page 115-119 for further information and options.





High-Pressure Round Body Ball Valve - Type BV-2-C3 3000 PSI Flange Connection (ISO 6162-1)

Flange Position



3000 PSI
(Code 61)

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/FPM (Viton®)

A

3000 PSI Series (Code 61) - Metric ISO Threads

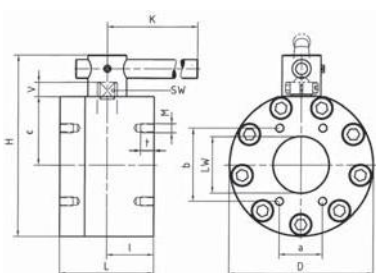
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	D	H	c	V	K	SW	a	b	M	t			
64	4	100	100	170	85	258	326	122	27	900	24	77,8	130,2	M16	24	35	60,50	BV-2-C364M-0001-M
			3.94	6.69	3.35	10.16	12.83	4.80	1.06	35.43	.94	3.06	5.13		.95	500	133.10	
80	5	125	118	210	105	295	377	140	33	900	36	92,1	152,4	M16	30	35	95,50	BV-2-C380M-0001-M
			4.65	8.27	4.13	11.61	14.84	5.51	1.30	35.43	1.42	3.63	6.00		1.18	500	210.10	

3000 PSI Series (Code 61) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	D	H	c	V	K	SW	a	b	M	t			
40	2-1/2	65	63	150	75	198	259	94	20	600	16	50,8	88,9	1/2-13 UNC	19	175	33,50	BV-2-C340U-0001-M
			2.48	5.91	2.95	7.80	10.20	3.70	.79	23.62	.63	2.00	3.50		.75	2500	73.70	
48	3	80	76	150	80	218	284	103,5	26	600	19	61,9	106,4	5/8-11 UNC	24	160	41,00	BV-2-C348U-0001-M
			2.99	5.91	3.15	8.58	11.18	4.07	1.02	23.62	.75	2.44	4.19		.95	2300	90.20	
64	4	100	100	170	85	258	326	122	27	900	24	77,8	130,2	5/8-11 UNC	24	35	60,50	BV-2-C364U-0001-M
			3.94	6.69	3.35	10.16	12.83	4.80	1.06	35.43	.94	3.06	5.13		.95	500	133.10	
80	5	125	118	210	105	295	377	140	33	900	36	92,1	152,4	5/8-11 UNC	30	35	95,50	BV-2-C380U-0001-M
			4.65	8.27	4.13	11.61	14.84	5.51	1.30	35.43	1.42	3.63	6.00		1.18	500	210.10	

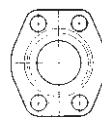
Please note: The final maximum working pressure is determined by flange and pipe/tubing rating.

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



High-Pressure Round Body Ball Valve - Type BV-2-C6 6000 PSI Flange Connection (ISO 6162-2)

Flange Position



6000 PSI
(Code 62)

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/FPM (Viton®)

6000 PSI Series (Code 62) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	D	H	c	V	K	SW	a	b	M	t			
40	2-1/2	65	63	170	75	218	275	100	20	600	16	123,8	58,8	7/8-9 UNC	41	420	44,50	BV-2-C640U-0001-M
			2.48	6.69	2.95	8.58	10.83	3.94	.79	23.62	.63	4.87	2.31		1.61	6000	97.90	
48	3	80	76	180	80	258	315	114,5	21	600	19	152,4	71,4	1-1/8-7 UNC	47	420	63,50	BV-2-C648U-0001-M
			2.99	7.09	3.15	10.16	12.40	4.51	.83	23.62	.75	6.00	2.81		1.85	6000	139.71	

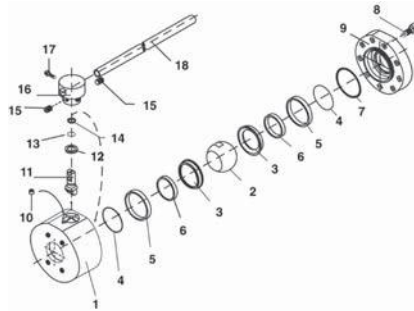
Please note: The final maximum working pressure is determined by flange and pipe/tubing rating.

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



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

A



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 lever

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (Nominal Size DN13)
Zinc (Nominal Sizes DN19 and DN25)
Aluminium (Nominal Sizes DN32 to DN56)
Carbon Steel (Nominal Sizes DN63 to DN200)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (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 (similar to ISO 6164) flange connection
- Metric ISO threads

Pressure Range

- Pressure range: up to 400 bar / 5800PSI (depending on size and material combination of the ball valve)

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

Temperature Range

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

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- 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



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	ISO2
Flange Connection with Metric ISO Threads	
400 bar / 5800 PSI Series ISO 6164	ISO4
Flange Connection with Metric ISO Threads	
350 bar / 5000 PSI Series (not part of ISO 6164)	ISO3
Flange Connection with Metric ISO Threads	

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
Stem: Carbon Steel / Duplex (from DN63 on) **0**
Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

Supplied with standard lever (according to table) **—**
Supplied without lever **O**

Alternative levers can be ordered separately. Please see page 114 for further information.

⑪ Accessories / Options

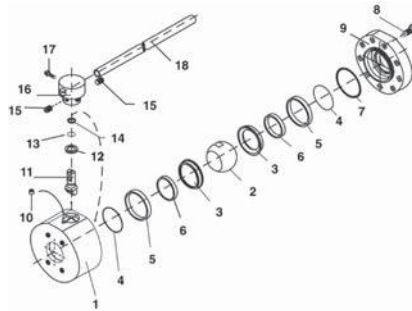
Supplied without accessories **—**
Supplied with Locking Device LD4 **LD4**
Supplied with Locking Device LD5 **LD5**

Please see page 115-119 for further information and options.



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

A



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 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/FPM (Viton®)

Standard Connections Styles / Sizes

- 250 bar / 3600 PSI series CETOP RP 63 H flange connection
- 400 bar / 5800 PSI series CETOP RP 63 H flange connection
- Metric ISO threads

Pressure Range

- Pressure range: up to 400 bar / 5800 PSI (depending on size and material combination of the ball valve)

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

Temperature Range

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

Options / Accessories

- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- 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



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 CETOP
Flange Connection with Metric ISO Threads **CET2**
400 bar / 5800 PSI Series CETOP
Flange Connection with Metric ISO Threads **CET4**

Please contact STAUFF for alternative connection styles.

④ Connection Size

Nominal Size DN
DN51 **DN56** **DN63** **DN80** **DN100**

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
Stem: Carbon Steel / Duplex (from DN63 on) **0**
Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

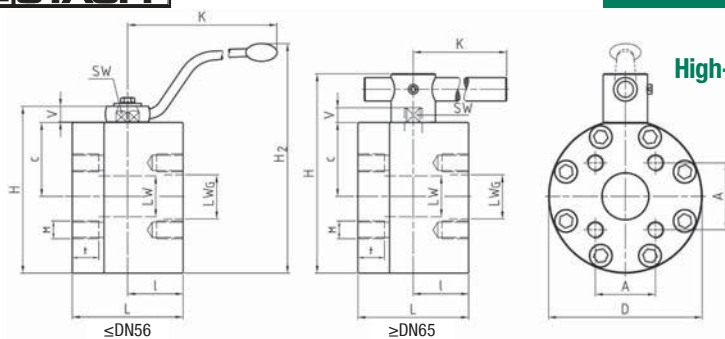
Supplied with standard lever (according to table) **—**
Supplied without lever **O**

⑪ Accessories / Options

Supplied without accessories **—**
Supplied with Locking Device LD4 **LD4**
Supplied with Locking Device LD5 **LD5**

Please see page 115-119 for further information and options.




**High-Pressure Round Body Ball Valve - Type BV-2-CET
CETOP Flange Connection (CETOP RP 63 H)**

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/FPM (Viton®)

A
250 bar / 3600 PSI Series (CETOP RP 63 H) - Metric ISO Threads

STAUFF Size	Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	LWG	L	I	D	H	c	V	K	SW	A	M	t				H2
32	2	51	48	47	123	58	198	210	94	17	306	17	69,4	M16	24,5	283	250	24,90	BV-2-CET2DN51-0001-M
			1.89	1.85	4.84	2.28	7.80	8.27	3.70	.67	12.04	.67	2.73		.96	11.14	3600	54.78	
-	2-1/2	56	48	58	123	58	198	210	94	17	306	17	83,4	M20	33	283	250	26,60	BV-2-CET2DN56-0001-M
			1.89	2.28	4.84	2.28	7.80	8.27	3.70	.67	12.04	.67	3.28		1.30	11.14	3600	58.52	
40	3	63	63	70	150	75	208	270	100	20	600	16	102,5	M20	33	250	3600	36,90	BV-2-CET2DN63-0001-M ¹
			2.48	2.76	5.91	2.95	8.19	1.63	3.94	.79	23.62	.63	4.04		1.30			81.18	
48	3	80	76	70	170	78	258	318	114,5	26	600	16	102,5	M20	37	250	3600	62,50	BV-2-CET2DN80-0001-M ¹
			2.99	2.76	6.69	3.07	10.16	12.52	4.51	1.02	23.62	.63	4.04		1.46			137.50	
64	4	100	100	90	200	100	258	326	122	26	900	24	113,2	M24	40	250	3600	70,40	BV-2-CET2DN100-0001-M ¹
			3.94	3.54	7.87	3.93	10.16	12.83	4.80	1.02	35.43	.94	4.46		1.57			154.88	

400 bar / 5800 PSI Series (CETOP RP 63 H) - Metric ISO Threads

STAUFF Size	Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)		
			LW	LWG	L	I	D	H	c	V	K	SW	A	M	t				H2	
32	2	51	48	43	116	58	198	210	94	17	306	17	69,4	M16	24,5	283	250	400	24,90	BV-2-CET4DN51-0001-M
			1.89	1.69	4.57	2.28	7.80	8.27	3.70	.67	12.04	.67	2.73		.96	11.14	3600	5800	54.78	
-	2-1/2	56	48	53	123	58	198	210	94	17	306	17	83,4	M20	33	283	250	400	26,60	BV-2-CET4DN56-0001-M
			1.89	2.09	4.84	2.28	7.80	8.27	3.70	.67	12.04	.67	3.28		1.30	11.14	3600	5800	58.52	
40	3	63	63	58	150	75	224	286	108	20	600	16	102,5	M20	37,5	400	5800	42,53	BV-2-CET4DN63-0001-M ¹	
			2.56	2.28	5.91	2.95	8.82	11.26	4.25	.79	23.62	.63	4.04		1.47			93.56		
48	4	80	76	74	170	78	258	315	114,5	26	600	19	113,2	M24	35	400	5800	63,00	BV-2-CET4DN80-0001-M ¹	
			2.99	2.91	6.69	3.07	10.15	12.40	4.51	1.02	23.62	.75	4.46		1.38			138.60		

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

¹ Lever must be fixed in central position during operation. In case of vibration, the lever may otherwise operate the valve by itself.



High-Pressure Block Body Ball Valve ▪ Type KHZ-2-C

A



Characteristics

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

Standard Construction

- Compact block body design for manifold mounting or in-line assembly
- Supplied with off-set lever

Please note: Manifold side of valve must be secured to manifold or flange prior to operation. Failure to comply could lead to serious injury or death.

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/FPM (Viton®)

Standard Connections Styles / Sizes

- 3000 PSI (code 61) SAE flange bore patterns
- 6000 PSI (code 62) SAE flange bore patterns
- Metric ISO and unified coarse (UNC) threads

Pressure Range

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

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

Temperature Range

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

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits

Order Codes

KHZ - **2** - **C3 08 M** - **0 0 0 1** - **M** - **-**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① Type

High-Pressure Compact Block Body Ball Valve **KHZ**

② Number of Ports

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

③ Connection Style

3000 PSI (code 61) **C3**
SAE Flange Bore Patterns
6000 PSI (code 62) **C6**
SAE Flange Bore Patterns

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table):
08 12 16 20 24 32

Please contact STAUFF for alternative connection sizes.

⑤ Thread Type

Flange Connection **M**
with Metric ISO Threads
Flange Connection **U**
with Unified Coarse (UNC) Threads

⑥ Body Material / Surface Finishing

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

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball / Stem Material

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

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑧ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**

Alternative materials are available upon request. Contact STAUFF for further information.

⑩ Manufacturing Code

Manufacturing code for all connection styles **M**

⑪ Lever Options

Supplied with standard lever (according to table) **—**
Supplied without lever **0**

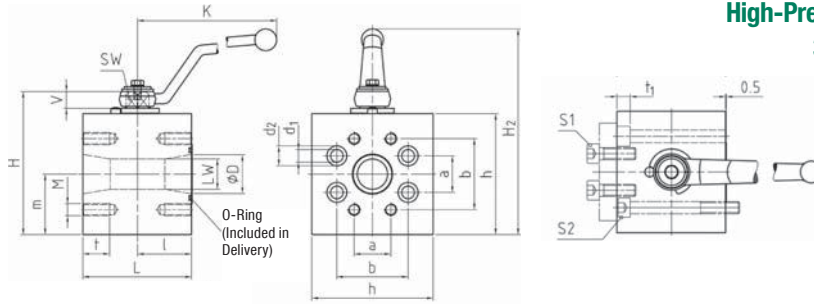
Alternative levers can be ordered separately. Please see page 114 for further information.

⑫ Accessories / Options

Supplied without accessories **—**

Please see page 115-119 for further information and options.



**High-Pressure Block Body Ball Valve - Type KHZ-2-C3
3000 PSI SAE Flange Connection (ISO 6162-1)**
A


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/FPM (Viton®)

3000 PSI Series (Code 61) - Metric ISO Threads

STAUFF Size	Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)				
			LW	D	L	l	H	h	m	K	SW	V	a	b	M	t	d1	d2	t1	H2			
08	1/2	13	13	13	68	34	72	58	30	115	9	11	17,5	38,1	M8	15	8,5	13,5	9	109	350	1,80	KHZ-2-C308M-0001-M
			.51	.51	2.68	1.34	2.83	2.28	1.18	4.53	.35	.43	.69	1.50	.59	.33	.53	.35	4,29	5000	3.96		
12	3/4	20	20	20	70	35	93	75	37,5	170	14	14	22,3	47,6	M10	17	10,5	16,5	11	146	350	2,80	KHZ-2-C312M-0001-M
			.79	.79	2.76	1.38	3.66	2.95	1.48	6.69	.55	.55	.88	1.87	.67	.41	.65	.43	5,75	5000	6.16		
16	1	25	25	25	78	39	103	84,5	44	170	14	14	26,2	52,4	M10	17	10,5	16,5	11	155	320	3,90	KHZ-2-C316M-0001-M
			.98	.98	3.07	1.54	4.06	3.33	1.73	6.69	.55	.55	1.03	2.06	.67	.41	.65	.43	6,10	4600	8.58		
20	1-1/4	32	25	32	90	45	118,5	100	50	170	14	14	30,2	58,7	M10	21	10,5	16,5	11	171	280	6,50	KHZ-2-C320M-0001-M
			.98	1.26	3.54	1.77	4.67	3.94	1.97	6.69	.55	.55	1.19	2.31	.83	.41	.65	.43	6,73	4000	14.30		
24	1-1/2	40	32	38	99	49,5	141,5	120	60	306	17	17	35,7	69,9	M12	21	13	19	13	206	280	10,50	KHZ-2-C324M-0001-M
			1.26	1.50	3.90	1.95	5.57	4.72	2.36	12.05	.67	.67	1.41	2.75	.83	.51	.75	.51	8,11	4000	23.10		
32	2	50	38	49	120	60	158,5	137,5	70	306	17	17	42,9	77,8	M12	21	13	19	13	223	280	16,50	KHZ-2-C332M-0001-M
			1.50	1.93	4.72	2.36	6.24	5.41	2.76	12.05	.67	.67	1.69	3.06	.83	.51	.75	.51	8,78	4000	36.30		

3000 PSI Series (Code 61) - Unified Coarse (UNC) Threads

STAUFF Size	Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)				
			LW	D	L	l	H	h	m	K	SW	V	a	b	M	t	d1	d2	t1	H2			
08	1/2	13	13	13	68	34	72	58	30	115	9	11	17,5	38,1	5/16-18 UNC	15	8,5	13,5	9	109	350	1,80	KHZ-2-C308U-0001-M
			.51	.51	2.68	1.34	2.83	2.28	1.18	4.53	.35	.43	.69	1.50	.59	.33	.53	.35	4,29	5000	3.96		
12	3/4	20	20	20	70	35	93	75	37,5	170	14	14	22,3	47,6	3/8-16 UNC	17	10,5	16,5	11	146	350	2,80	KHZ-2-C312U-0001-M
			.79	.79	2.76	1.38	3.66	2.95	1.48	6.69	.55	.55	.88	1.87	.67	.41	.65	.43	5,75	5000	6.16		
16	1	25	25	25	78	39	103	84,5	44	170	14	14	26,2	52,4	3/8-16 UNC	17	10,5	16,5	11	155	320	3,90	KHZ-2-C316U-0001-M
			.98	.98	3.07	1.54	4.06	3.33	1.73	6.69	.55	.55	1.03	2.06	.67	.41	.65	.43	6,10	4600	8.58		
20	1-1/4	32	25	32	90	45	118,5	100	50	170	14	14	30,2	58,7	7/16-14 UNC	21	10,5	16,5	11	171	280	6,50	KHZ-2-C320U-0001-M
			.98	1.26	3.54	1.77	4.67	3.94	1.97	6.69	.55	.55	1.19	2.31	.83	.41	.65	.43	6,73	4000	14.30		
24	1-1/2	40	32	38	99	49,5	141,5	120	60	306	17	17	35,7	69,9	1/2-13 UNC	21	13	19	13	206	280	10,50	KHZ-2-C324U-0001-M
			1.26	1.50	3.90	1.95	5.57	4.72	2.36	12.05	.67	.67	1.41	2.75	.83	.51	.75	.51	8,11	4000	23.10		
32	2	50	38	49	120	60	158,5	137,5	70	306	17	17	42,9	77,8	1/2-13 UNC	21	13	19	13	223	280	16,50	KHZ-2-C332U-0001-M
			1.50	1.93	4.72	2.36	6.24	5.41	2.76	12.05	.67	.67	1.69	3.06	.83	.51	.75	.51	8,78	4000	36.30		

Recommended Bolts and O-Rings

STAUFF Size	Nominal Size DN	Recommendations		O-ring (Included in Delivery)
		Bolt S1 (min)	Bolt S2 (min)	
08	13	M8 x 30 - 10.9	M8 x 70 - 10.9	18,64 x 3,53
		5/16-18 UNC x 1-1/4 - Gr. 8	5/16-18 UNC x 2-3/4 - Gr. 8	
12	20	M10 x 30 - 10.9	M10 x 80 - 10.9	24,99 x 3,53
		3/8-16 UNC x 1-1/4 - Gr. 8	3/8-16 UNC x 3-1/4 - Gr. 8	
16	25	M10 x 30 - 10.9	M10 x 80 - 10.9	32,92 x 3,53
		3/8-16 UNC x 1-1/4 - Gr. 8	3/8-16 UNC x 3-1/4 - Gr. 8	
20	32	M10 x 30 - 10.9	M10 x 90 - 10.9	37,69 x 3,53
		7/16-14 UNC x 1-1/4 - Gr. 8	7/16-14 UNC x 3-1/2 - Gr. 8	
24	40	M12 x 35 - 10.9	M12 x 100 - 10.9	47,22 x 3,53
		1/2-13 UNC x 1-1/2 - Gr. 8	1/2-13 UNC x 4 - Gr. 8	
32	50	M12 x 35 - 10.9	M12 x 120 - 10.9	56,74 x 3,53
		1/2-13 UNC x 1-1/2 - Gr. 8	1/2-13 UNC x 4-3/4 - Gr. 8	

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

Flanges and bolts are not included in delivery.

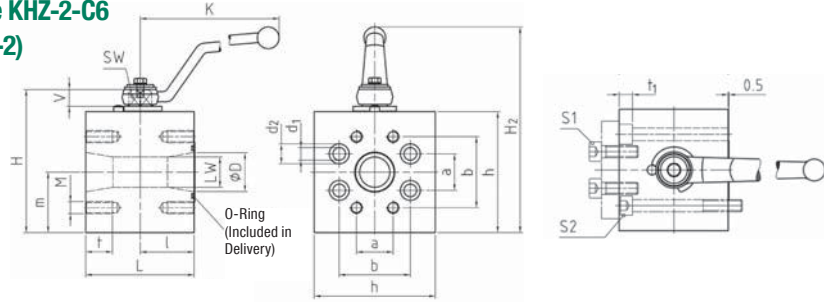


High-Pressure Block Body Ball Valve - Type KHZ-2-C6 6000 PSI SAE Flange Connection (ISO 6162-2)

A

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/FPM (Viton®)



6000 PSI Series (Code 62) - Metric ISO Threads

STAUFF Size	Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)				
			LW	D	L	l	H	h	m	K	SW	V	a	b	M	t	d1	d2	t1	H2			
08	1/2	13	13	13	68	34	72	58	30	115	9	11	18,2	40,5	M8	15	8,5	13,5	9	109	420	1,80	KHZ-2-C608M-0001-M
			.51	.51	2.68	1.34	2.83	2.28	1.18	4.53	.35	.43	.72	1.59	.59	.33	.53	.35	4.29	6000	3.96		
12	3/4	20	20	20	70	35	93	75	37,5	170	14	14	23,8	50,8	M10	17	10,5	16,5	11	146	420	2,80	KHZ-2-C612M-0001-M
			.79	.79	2.76	1.38	3.66	2.95	1.48	6.69	.55	.55	.94	2.00	.67	.41	.65	.43	5.75	6000	6.16		
16	1	25	25	25	78	39	103	84,5	44	170	14	14	27,8	57,2	M12	21	13	19	13	155	420	3,90	KHZ-2-C616M-0001-M
			.98	.98	3.07	1.54	4.06	3.33	1.73	6.69	.55	.55	1.09	2.25	.83	.51	.75	.51	6.10	6000	8.58		
20	1-1/4	32	25	32	90	45	118,5	100	50	170	14	14	31,8	66,6	M12	20	13	19	13	171	420	6,50	KHZ-2-C620M-0001-M
			.98	1.26	3.54	1.77	4.67	3.94	1.97	6.69	.55	.55	1.25	2.62	.79	.51	.75	.51	6.73	6000	14.30		
24	1-1/2	40	32	38	99	49,5	141,5	120	60	306	17	17	36,5	79,3	M16	26	17	25	17,5	206	420	10,50	KHZ-2-C624M-0001-M
			1.26	1.50	3.90	1.95	5.57	4.72	2.36	12.05	.67	.67	1.44	3.12	1.02	.67	.98	.69	8.11	6000	23.10		
32	2	50	38	49	120	60	158,5	137,5	70	306	17	17	44,5	96,8	M20	34	21	31	21,5	223	420	16,50	KHZ-2-C632M-0001-M
			1.50	1.93	4.72	2.36	6.24	5.41	2.76	12.05	.67	.67	1.75	3.81	1.34	.83	1.22	.85	8.78	6000	36.30		

6000 PSI Series (Code 62) - Unified Coarse (UNC) Threads

STAUFF Size	Flange Size	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)				
			LW	D	L	l	H	h	m	K	SW	V	a	b	M	t	d1	d2	t1	H2			
08	1/2	13	13	13	68	34	72	58	30	115	9	11	18,2	40,5	5/16-18 UNC	15	8,5	13,5	9	109	420	1,80	KHZ-2-C608U-0001-M
			.51	.51	2.68	1.34	2.83	2.28	1.18	4.53	.35	.43	.72	1.59	.59	.33	.53	.35	4.29	6000	3.96		
12	3/4	20	20	20	70	35	93	75	37,5	170	14	14	23,8	50,8	3/8-16 UNC	17	10,5	16,5	11	146	420	2,80	KHZ-2-C612U-0001-M
			.79	.79	2.76	1.38	3.66	2.95	1.48	6.69	.55	.55	.94	2.00	.67	.41	.65	.43	5.75	6000	6.16		
16	1	25	25	25	78	39	103	84,5	44	170	14	14	27,8	57,2	7/16-14 UNC	21	13	19	13	155	420	3,90	KHZ-2-C616U-0001-M
			.98	.98	3.07	1.54	4.06	3.33	1.73	6.69	.55	.55	1.09	2.25	.83	.51	.75	.51	6.10	6000	8.58		
20	1-1/4	32	25	32	90	45	118,5	100	50	170	14	14	31,8	66,6	1/2-13 UNC	20	13	19	13	171	420	6,50	KHZ-2-C620U-0001-M
			.98	1.26	3.54	1.77	4.67	3.94	1.97	6.69	.55	.55	1.25	2.62	.79	.51	.75	.51	6.73	6000	14.30		
24	1-1/2	40	32	38	99	49,5	141,5	120	60	306	17	17	36,5	79,3	5/8-11 UNC	26	17	25	17,5	206	420	10,50	KHZ-2-C624U-0001-M
			1.26	1.50	3.90	1.95	5.57	4.72	2.36	12.05	.67	.67	1.44	3.12	1.02	.67	.98	.69	8.11	6000	23.10		
32	2	50	38	49	120	60	158,5	137,5	70	306	17	17	44,5	96,8	3/4-10 UNC	34	21	31	21,5	223	420	16,50	KHZ-2-C632U-0001-M
			1.50	1.93	4.72	2.36	6.24	5.41	2.76	12.05	.67	.67	1.75	3.81	1.34	.83	1.22	.85	8.78	6000	36.30		

Recommended Bolts and O-Rings

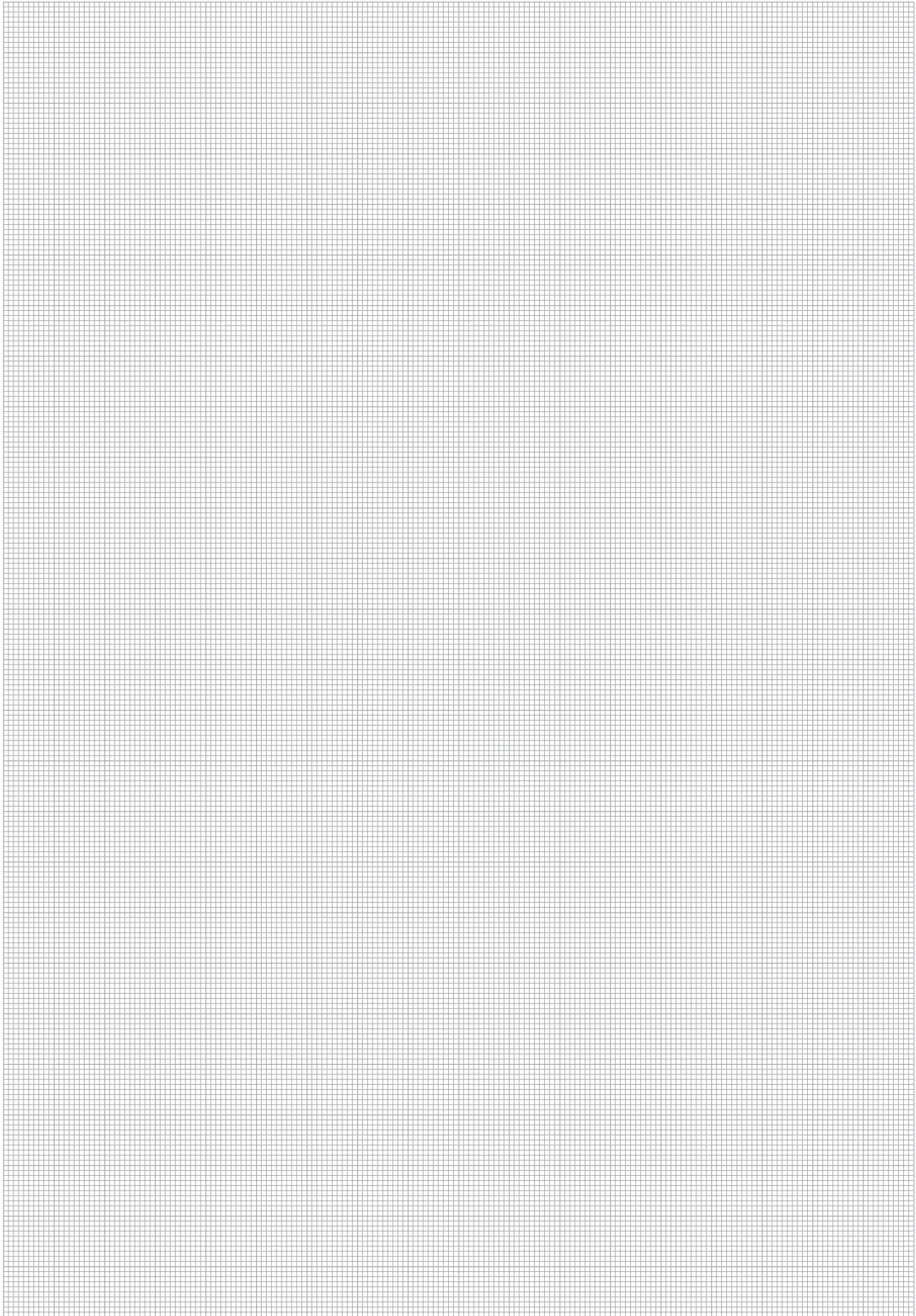
STAUFF Size	Nominal Size DN	Recommendations		O-ring (Included in Delivery)
		Bolt S1 (min)	Bolt S2 (min)	
08	13	M8 x 30 - 10.9	M8 x 70 - 10.9	18,64 x 3,53
		5/16-18 UNC x 1-1/4 - Gr. 8	5/16-18 UNC x 2-3/4 - Gr. 8	
12	20	M10 x 35 - 12.9	M10 x 80 - 12.9	24,99 x 3,53
		3/8-16UNC x 1-1/2 - Gr. 10	3/8-16UNC x 3-1/4 - Gr. 10	
16	25	M12 x 45 - 10.9	M12 x 80 - 10.9	32,92 x 3,53
		7/16-14 UNC x 1-3/4 - Gr. 8	7/16-14 UNC x 3-1/4 - Gr. 8	
20	32	M12 x 45 - 10.9	M12 x 90 - 10.9	37,69 x 3,53
		7/16-14 UNC x 1-3/4 - Gr. 8	7/16-14 UNC x 3-1/2 - Gr. 8	
24	40	M16 x 55 - 10.9	M16 x 100 - 10.9	47,22 x 3,53
		5/8-11 UNC x 2-1/4 - Gr. 8	5/8-11 UNC x 4 - Gr. 8	
32	50	M20 x 70 - 10.9	M20 x 130 - 10.9	56,74 x 3,53
		3/4-10 UNC x 2-3/4 - Gr. 8	3/4-10 UNC x 5-1/4 - Gr. 8	

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

Flanges and bolts are not included in delivery.

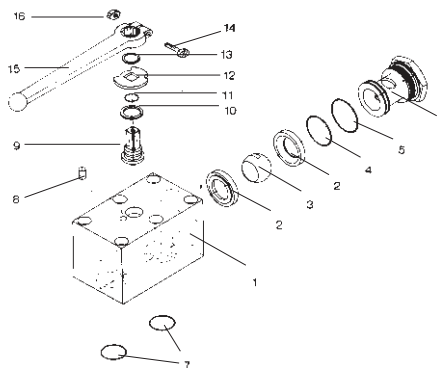


A



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

A



List of Components

No.	Qty.	Description
1	1	Body
2*	1	Seats
3	2	Ball
4*	2	O-Ring
5*	2	O-Ring
6	2	Retainer Plug
7*	2	O-Ring
8	1	Stop Pin
9	1	Stem
10*	1	Thrust Ring
11	1	O-Ring
12	1	Cam Plate
13	1	Snap Ring
14	1	Clamping Screw
15	1	Handle
16	1	Clamping Nut

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 manifold mounting
- Improved manifold design eliminates external piping and connectors
- Supplied with lever

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 16)
Aluminium (STAUFF Sizes 20 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Manifold mounting
- Either 4 or 6 mounting holes for added safety (bolts are not included in delivery)

Pressure Range

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

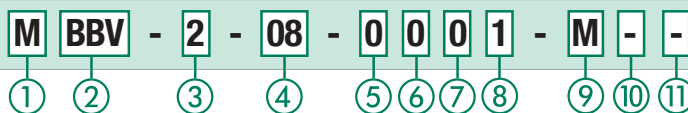
Temperature Range

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

Options / Accessories

- Three-way version with 90° operation (see pages 52-53)
- Three-way version with 180° operation (see pages 54-55)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- 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



① Connection Style

Manifold Mounting **M**

② Type

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

③ Number of Ports

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

④ Connection Size

STAUFF Size (according to dimension table):
04 06 08 12 16 20 24 32

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

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. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**
PEEK **G**
Delrin® (POM) with
Protection Ring against Erosion **H**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**
EPDM **3**
NBR (Buna-N®) for Low-Temperature Applications **X**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **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.

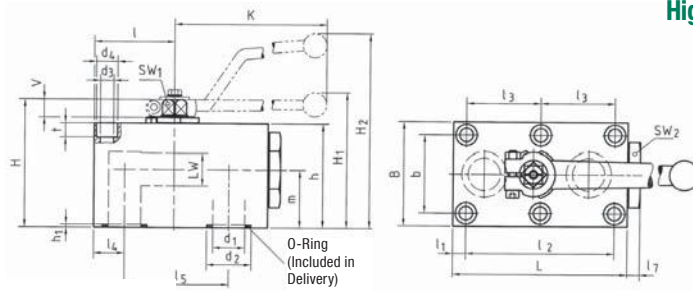
⑪ Accessories / Options

Supplied without accessories **—**
Supplied with Locking Device LD1 **LD1**
Supplied with Locking Device LD4 **LD4**

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type MBBV-2 Manifold Mounting

A


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 (STAUFF Sizes 04 to 16)
Aluminium (STAUFF Sizes 20 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Nominal Size DN	Dimensions (mm/in)																				Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
04	6	26	8,5	35	8,5	35	6	57	40	27	43	35	19,5	6	7	19	80	6	67	6	11,8	1,9	500	0,60	MBBV-2-04-0001-M
06	10	29	7,5	55	10	44	10	70	55	40	59	45	24,5	11	9	30	115	10	93	9,5	14,9	1,9	500	1,30	MBBV-2-06-0001-M
08	13	42,5	7,5	83	16	58	10	98	60	45	69	55	34	11	9	32	115	13	104	13	24,9	1,9	420	2,20	MBBV-2-08-0001-M
12	20	51	10	97	20	69	10	117	70	51	88	70	37,5	14	14	46	200	20	120	20	29	2	420	3,90	MBBV-2-12-0001-M
16	25	62	10	115	24	81	10	135	80	60	98	80	44,5	14	14	50	200	25	102	25	34,9	2,3	420	5,65	MBBV-2-16-0001-M
20	32	75	12	136	29	96	10	165	100	78	121	100	54,5	17	17	65	320	32	130	32	40	2	420	11,10	MBBV-2-20-0001-M
24	40	84,5	28,5	112	56	112	17	200	130	95	131	110	57	17	17	80	320	38	140	38	47,7	2,3	420	19,00	MBBV-2-24-0001-M
32	50	106	38	136	68	136	15	240	150	112	150	129	71	17	17	90	320	48	159	48	59,8	2,3	420	29,30	MBBV-2-32-0001-M

Recommended Bolts, Tightening Torques and O-Rings

STAUFF Size	Nominal Size DN	Recommendations Bolt (min)	Dimensions (mm/in)			Tightening Torque	O-Ring (Included in Delivery)
04	6	4 x M6 x 40 - 8.8	6,5	10,5	6,8	9 N-m	7x2,5
06	10	4 x 1/4-20 x 1-1/2 UNC - Gr. 5	.26	.41	.27	10 ft-lb	10x2,5
08	13	6 x M8 x 60 - 10.9	8,4	13,5	7	30 N-m	20x2,5
12	20	6 x 5/16-18 x 2-1/2 UNC - Gr. 8	.33	.53	.28	29 ft-lb	23,47x2,62
16	25	6 x M10 x 80 - 10.9	10,5	16,5	10,5	60 N-m	29x3
20	32	6 x 3/8-16 x 3-1/4 UNC - Gr. 10	.41	.65	.41	58 ft-lb	34,59x2,62
24	40	6 x M10 x 90 - 12.9	10,5	16,5	10,5	70 N-m	42x3
32	50	6 x 3/8-16 x 3-1/2 UNC - Gr. 10	.41	.65	.41	58 ft-lb	54x3
		6 x 7/16-14 x 4-1/2 UNC - Gr. 8	.51	.75	.47	70 ft-lb	
		6 x M16 x 120 - 12.9	16,5	25	19	300 N-m	
		6 x 5/8-11 x 5 UNC - Gr. 8	.65	.98	.75	170 ft-lb	
		6 x M20 x 140 - 10.9	21	31	21,5	600 N-m	
		6 x 3/4-10 x 5-1/2 UNC - Gr. 8	.83	1.22	.85	200 ft-lb	

Please note: Bolts are not included in delivery.

We recommend to use socket cap screws according to ISO 4762 or ANSI / ASME B18.3 for installation.





**High-Pressure Block Body Ball Valve
for Manifold Mounting**
Pressure inlet only from the center port

51-52

MCBVL-3 90° Operation 52



**High-Pressure Block Body Ball Valve
for Manifold Mounting**
Pressure inlet possible from all ports

53-54

MCBVSL-3 180° Operation 54



**High-Pressure Block Body Ball Valve
L-Bore Three-Way Selector**
Pressure inlet only from the center port

56-59

CBVL-3-G Female BSP Thread 57

CBVL-3-N Female NPT Thread 57

CBVL-3-U Female UN/UNF Thread 58

CBVL-3-L/S 24° Cone Connection 59



**High-Pressure Block Body Ball Valve
T-Bore Three-Way Selector**
Pressure inlet only from the center port

60-63

CBVT-3-G Female BSP Thread 61

CBVT-3-N Female NPT Thread 61

CBVT-3-U Female UN/UNF Thread 62

CBVT-3-L/S 24° Cone Connection 63



**High-Pressure Block Body Ball Valve
L-Bore Three-Way Selector**
Pressure inlet only from the center port

64-65

CBVL-3-C SAE Flange Connection
6000 PSI Series
(ISO 6162-2) 65



High-Pressure Block Body Ball Valve
L-Bore Three-Way Selector
Pressure inlet possible from all ports

66-69

CBVSL-3-G	Female BSP Thread	67
CBVSL-3-N	Female NPT Thread	67
CBVSL-3-U	Female UN/UNF Thread	68
CBVSL-3-L/S	24° Cone Connection	69



High-Pressure Block Body Ball Valve
T-Bore Four-Four Selector
Pressure inlet possible from all ports

82-85

TBV-4-G	Female BSP Thread	83
TBV-4-N	Female NPT Thread	83
TBV-4-U	Female UN/UNF Thread	84
TBV-4-L/S	24° Cone Connection	85



High-Pressure Block Body Ball Valve
T-Bore Three-Way Selector
Pressure inlet possible from all ports

70-73

CBVST-3-G	Female BSP Thread	71
CBVST-3-N	Female NPT Thread	71
CBVST-3-U	Female UN/UNF Thread	72
CBVST-3-L/S	24° Cone Connection	73



High-Pressure Block Body Ball Valve
Double L-Bore Four-Way Selector
Pressure inlet possible from all ports

86-89

XBV-4-G	Female BSP Thread	87
XBV-4-N	Female NPT Thread	87
XBV-4-U	Female UN/UNF Thread	88
XBV-4-L/S	24° Cone Connection	89



High-Pressure Block Body Ball Valve
L-Bore Three-Way Selector
Pressure inlet possible from all ports

74-77

LBV-3-G	Female BSP Thread	75
LBV-3-N	Female NPT Thread	75
LBV-3-U	Female UN/UNF Thread	76
LBV-3-L/S	24° Cone Connection	77



High-Pressure Block Body Ball Valve
T-Bore Three-Way Selector
Pressure inlet possible from all ports

78-81

TBV-3-G	Female BSP Thread	79
TBV-3-N	Female NPT Thread	79
TBV-3-U	Female UN/UNF Thread	80
TBV-3-L/S	24° Cone Connection	81

B



High-Pressure Block Body Ball Valve - Type MCBVL-3

B



Characteristics

Three-way high-pressure block body ball valves designed for use as three-way selectors (L-bore, 90° operation) for hydraulic applications

Standard Construction

- Block body design for manifold mounting
- Improved manifold design eliminates external piping and connectors
- Supplied with lever

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 16)
Aluminium (STAUFF Sizes 20 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Manifold mounting
- Either 4 or 6 mounting holes for added safety (bolts are not included in delivery)

Pressure inlet only from the center port!

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 (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media

Porting Pattern

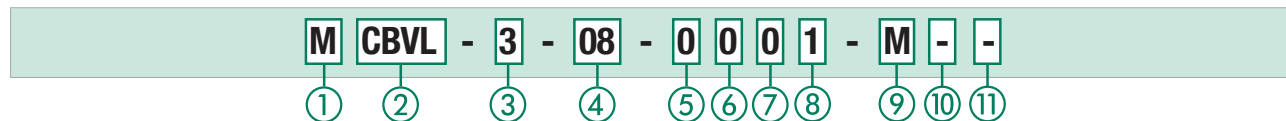
- Symbol: LLU
- Overlap: negative
- Operating: 90°



- Stop of end position:



Order Codes



① Connection Style

Manifold Mounting **M**

② Type

Compact High-Pressure Block Body Ball Valve **CBVL**

③ Number of Ports

Three Ports (Three-Way Ball Valve) **3**

④ Connection Size

STAUFF Size (according to dimension table):
04 06 08 12 16 20 24 32

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

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. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**
PEEK **G**
Delrin® (POM) with
Protection Ring against Erosion **H**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**
EPDM **3**
NBR (Buna-N®) for Low-Temperature Applications **X**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

Supplied with standard lever (according to table) **—**
Supplied without lever **O**

Alternative levers can be ordered separately. Please see page 114 for further information.

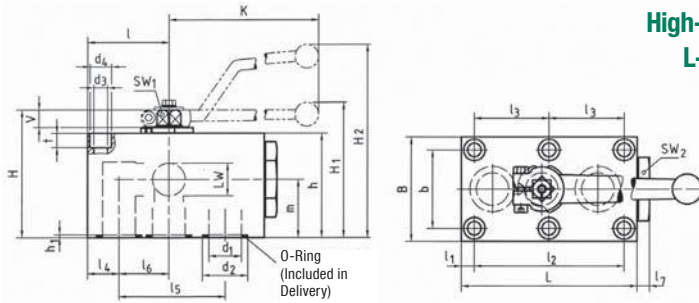
⑪ Accessories / Options

Supplied without accessories **—**
Supplied with Locking Device LD1 **LD1**
Supplied with Locking Device LD4 **LD4**

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type MCBVL-3 L-Bore Three-Way Selector for Manifold Mounting



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 (STAUFF Sizes 04 to 16)
Aluminium (STAUFF Sizes 20 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

Pressure Inlet only from the Center Port - 90° Operation

STAUFF Size	Nominal Size DN	Dimensions (mm/in)																				Nom. Pressure (PSI/PSa)	Weight (kg/lbs)	Order Codes (Standard Option)					
		I	I1	I2	I3	I4	I5	I6	I7	L	B	b	H	h	m	V	SW1	SW2	K	LW	H1	H2	d1	d2	h1				
04	6	26	8,5	35	/	8,5	35	17,5	6	57	40	27	43	35	19,5	6	7	19	80	6	/	67	6	11,8	1,9	500	0,60	MCBVL-3-04-0001-M	
		1.02	.33	1.38		.33	1.38	.69	.24	2.24	1.57	1.06	1.69	1.38	.77	.24	.28	.75	3.15	.24		2.64	.24	.46	.07	7250	1.32		
06	10	29	7,5	55	/	10	44	19	10	70	55	40	59	45	24,5	11	9	30	115	10	/	93	9,5	14,9	1,9	500	1,30	MCBVL-3-06-0001-M	
		1.14	.30	2.17		.39	1.73	.75	.39	2.76	2.17	1.57	2.32	1.77	.96	.43	.35	1.18	4.53	.39		3.66	.37	.59	.07	7250	2.86		
08	13	42,5	7,5	83	/	41,5	16	58	26,5	10	98	60	45	69	55	34	11	9	32	115	13	/	104	13	24,9	1,9	420	2,20	MCBVL-3-08-0001-M
		1.67	.30	3.27		1.63	.63	2.28	1.04	.39	3.86	2.36	1.77	2.72	2.17	1.34	.43	.35	1.26	4.53	.51		4.09	.51	.98	.07	6000	4.84	
12	20	51	10	97	/	48,5	20	69	31,5	10	117	70	51	88	70	37,5	14	14	46	200	20	92	20	29	2	420	3,90	MCBVL-3-12-0001-M	
		2.01	.39	3.82		1.91	.79	2.72	1.24	.39	4.61	2.76	2.01	3.46	2.76	1.48	.55	.55	1.81	7.87	.79	3.62	.79	1.14	.08	6000	8.58		
16	25	62	10	115	/	57,5	24	81	38	10	135	80	60	98	80	44,5	14	14	50	200	25	102	25	34,9	2,3	420	5,65	MCBVL-3-16-0001-M	
		2.44	.39	4.53		2.26	.94	3.19	1.50	.39	5.31	3.15	2.36	3.86	3.15	1.75	.55	.55	1.97	7.87	.98	4.02	.98	1.37	.09	6000	12.43		
20	32	75	12	136	/	68	29	96	46	10	165	100	78	121	100	54,5	16,5	17	65	320	32	130	32	40	2	420	11,10	MCBVL-3-20-0001-M	
		2.95	.47	5.35		2.68	1.14	3.78	1.81	.39	6.50	3.94	3.07	4.76	3.94	2.15	.65	.67	2.56	12.60	1.26	5.12	1.26	1.57	.08	6000	24.42		
24	40	84,5	28,5	112	/	56	28,5	112	56	17	200	130	95	131	110	57	16,5	17	80	320	38	140	38	47,7	2,3	420	19,00	MCBVL-3-24-0001-M	
		3.33	1.12	4.41		2.20	1.12	4.41	2.20	.67	7.87	5.12	3.74	5.16	4.33	2.24	.65	.67	3.15	12.60	1.50	5.51	1.50	1.88	.09	6000	41.80		
32	50	106	38	136	/	68	38	136	68	15	240	150	112	150	129	71	16,5	17	90	320	48	159	48	59,8	2,3	420	29,30	MCBVL-3-32-0001-M	
		4.17	1.50	5.35		2.68	1.50	5.35	2.68	.59	9.45	5.91	4.41	5.91	5.08	2.80	.65	.67	3.54	12.60	1.89	6.26	1.89	2.35	.09	6000	64.46		

Recommended Bolts, Tightening Torques and O-Rings

STAUFF Size	Nominal Size DN	Recommendations Bolt (min)	Dimensions (mm/in)			Tightening Torque	O-Ring (Included in Delivery)
			d3	d4	t		
04	6	4 x M6 x 40 - 8.8	6,5	10,5	6,8	9 N-m	7x2,5
		4 x 1/4-20 x 1-1/2 UNC - Gr. 5	.26	.41	.27	10 ft-lb	
06	10	4 x M8 x 50 - 8.8	8,4	13,5	8,5	21 N-m	10x2,5
		4 x 1/4-20 x 2 UNC - Gr. 5	.33	.53	.33	10 ft-lb	
08	13	6 x M8 x 60 - 10.9	8,4	13,5	7	30 N-m	20x2,5
		6 x 5/16-18 x 2-1/2 UNC - Gr. 8	.33	.53	.28	29 ft-lb	
12	20	6 x M10 x 80 - 10.9	10,5	16,5	10,5	60 N-m	23,47x2,62
		6 x 3/8-16 x 3-1/4 UNC - Gr. 10	.41	.65	.41	58 ft-lb	
16	25	6 x M10 x 90 - 12.9	10,5	16,5	10,5	70 N-m	29x3
		6 x 3/8-16 x 3-1/2 UNC - Gr. 10	.41	.65	.41	58 ft-lb	
20	32	6 x M12 x 110 - 10.9	13	19	12	100 N-m	34,59x2,62
		6 x 7/16-14 x 4-1/2 UNC - Gr. 8	.51	.75	.47	70 ft-lb	
24	40	6 x M16 x 120 - 12.9	16,5	25	19	300 N-m	42x3
		6 x 5/8-11 x 5 UNC - Gr. 8	.65	.98	.75	170 ft-lb	
32	50	6 x M20 x 140 - 10.9	21	31	21,5	600 N-m	54x3
		6 x 3/4-10 x 5-1/2 UNC - Gr. 8	.83	1.22	.85	200 ft-lb	

Pressure inlet only from the center port!

Please note: Bolts are not included in delivery. We recommend to use socket cap screws according to ISO 4762 or ANSI / ASME B18.3 for installation.



High-Pressure Block Body Ball Valve - Type MCBVSL-3

B



Characteristics

Three-way high-pressure block body ball valves designed for use as three-way selectors (L-bore, 180° operation) for hydraulic applications

Standard Construction

- Block body design for manifold mounting
- Improved manifold design eliminates external piping and connectors
- Supplied with lever

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 16)
Aluminium (STAUFF Sizes 20 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Manifold mounting
- Either 4 or 6 mounting holes for added safety (bolts are not included in delivery)

Pressure inlet possible from all ports!
Must be operated without pressure!

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 (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media

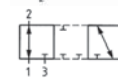
Porting Pattern

- Symbol: LU
- Overlap: positive
- Operating: 180°

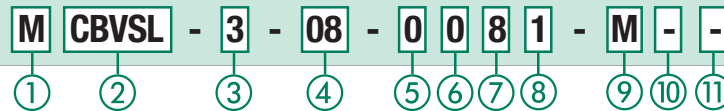
P57



- Stop of end position:



Order Codes



① Connection Style

Manifold Mounting **M**

② Type

Compact High-Pressure Block Body Ball Valve with Pressure Inlet Possible from all Ports **CBVSL**

③ Number of Ports

Three Ports (Three-Way Ball Valve) **3**

④ Connection Size

STAUFF Size (according to dimension table):
04 06 08 12 16 20 24 32

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

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. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) Frontside Sealing **8**
PEEK **G**
Delrin® (POM) with
Protection Ring against Erosion **H**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
FKM/FPM (Viton®) **1**
EPDM **3**
NBR (Buna-N®) for Low-Temperature Applications **X**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

Supplied with standard lever (according to table) **—**
Supplied without lever **O**

Alternative levers can be ordered separately. Please see page 114 for further information.

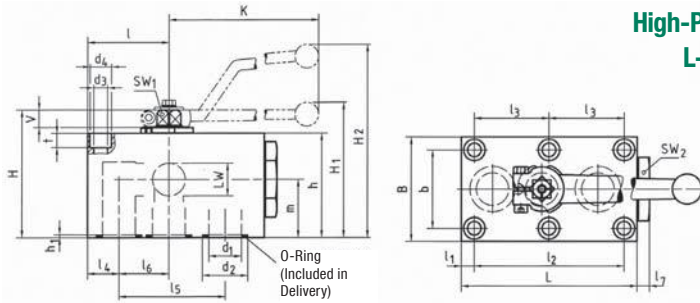
⑪ Accessories / Options

Supplied without accessories **—**
Supplied with Locking Device LD1 **LD1S**
(not available for SW1 = 17 mm / .71 in)
Supplied with Locking Device LD4 **LD4S**

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type MCBVSL-3 L-Bore Three-Way Selector for Manifold Mounting



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 (STAUFF Sizes 04 to 16)
Aluminium (STAUFF Sizes 20 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

B

Pressure Inlet possible from all Ports - 180° Operation

STAUFF Size	Nominal Size DN	Dimensions (mm/in)																				Nom. Pressure (PSI/PSa)	Weight (kg/lbs)	Order Codes (Standard Option)					
		I	I1	I2	I3	I4	I5	I6	I7	L	B	b	H	h	m	V	SW1	SW2	K	LW	H1	H2	d1	d2	h1				
04	6	26	8,5	35	/	8,5	35	17,5	6	57	40	27	43	35	19,5	6	7	19	80	6	/	67	6	11,8	1,9	250	0,60	MCBVSL-3-04-0081-M	
		1.02	.33	1.38	/	.33	1.38	.69	.24	2.24	1.57	1.06	1.69	1.38	.77	.24	.28	.75	3.15	.24	/	2.64	.24	.46	.07	3625	1.32		
06	10	29	7,5	55	/	10	44	19	10	70	55	40	59	45	24,5	11	9	30	115	10	/	93	9,5	14,9	1,9	500	1,30	MCBVSL-3-06-0081-M	
		1.14	.30	2.17	/	.39	1.73	.75	.39	2.76	2.17	1.57	2.32	1.77	.96	.43	.35	1.18	4.53	.39	/	3.66	.37	.59	.07	7250	2.86		
08	13	42,5	7,5	83	/	41,5	16	58	26,5	10	98	60	45	69	55	34	11	9	32	115	13	/	104	13	24,9	1,9	400	2,20	MCBVSL-3-08-0081-M
		1.67	.30	3.27	/	1.63	.63	2.28	1.04	.39	3.86	2.36	1.77	2.72	2.17	1.34	.43	.35	1.26	4.53	.51	/	4.09	.51	.98	.07	5800	4.84	
12	20	51	10	97	/	48,5	20	69	31,5	10	117	70	51	88	70	37,5	14	14	46	200	20	92	/	20	29	2	315	3,90	MCBVSL-3-12-0081-M
		2.01	.39	3.82	/	1.91	.79	2.72	1.24	.39	4.61	2.76	2.01	3.46	2.76	1.48	.55	.55	1.81	7.87	.79	3.62	/	.79	1.14	.08	4500	8.58	
16	25	62	10	115	/	57,5	24	81	38	10	135	80	60	98	80	44,5	14	14	50	200	25	102	/	25	34,9	2,3	315	5,65	MCBVSL-3-16-0081-M
		2.44	.39	4.53	/	2.26	.94	3.19	1.50	.39	5.31	3.15	2.36	3.86	3.15	1.75	.55	.55	1.97	7.87	.98	4.02	/	.98	1.37	.09	4500	12.43	
20	32	75	12	136	/	68	29	96	46	10	165	100	78	121	100	54,5	16,5	17	65	320	32	130	/	32	40	2	420	11,10	MCBVSL-3-20-0081-M
		2.95	.47	5.35	/	2.68	1.14	3.78	1.81	.39	6.50	3.94	3.07	4.76	3.94	2.15	.65	.67	2.56	12.60	1.26	5.12	/	1.26	1.57	.08	6000	24.42	
24	40	84,5	28,5	112	/	56	28,5	112	56	17	200	130	95	131	110	57	16,5	17	80	320	38	140	/	38	47,7	2,3	420	19,00	MCBVSL-3-24-0081-M
		3.33	1.12	4.41	/	2.20	1.12	4.41	2.20	.67	7.87	5.12	3.74	5.16	4.33	2.24	.65	.67	3.15	12.60	1.50	5.51	/	1.50	1.88	.09	6000	41.80	
32	50	106	38	136	/	68	38	136	68	15	240	150	112	150	129	71	16,5	17	90	320	48	159	/	48	59,8	2,3	420	29,30	MCBVSL-3-32-0081-M
		4.17	1.50	5.35	/	2.68	1.50	5.35	2.68	.59	9.45	5.91	4.41	5.91	5.08	2.80	.65	.67	3.54	12.60	1.89	6.26	/	1.89	2.35	.09	6000	64.46	

Recommended Bolts, Tightening Torques and O-Rings

STAUFF Size	Nominal Size DN	Recommendations Bolt (min)	Dimensions (mm/in)			Tightening Torque	O-Ring (Included in Delivery)
			d3	d4	t		
04	6	4 x M6 x 40 - 8.8	6,5	10,5	6,8	9 N-m	7x2,5
		4 x 1/4-20 x 1-1/2 UNC - Gr. 5	.26	.41	.27	10 ft-lb	
06	10	4 x M8 x 50 - 8.8	8,4	13,5	8,5	21 N-m	10x2,5
		4 x 1/4-20 x 2 UNC - Gr. 5	.33	.53	.33	10 ft-lb	
08	13	6 x M8 x 60 - 10.9	8,4	13,5	7	30 N-m	20x2,5
		6 x 5/16-18 x 2-1/2 UNC - Gr. 8	.33	.53	.28	29 ft-lb	
12	20	6 x M10 x 80 - 10.9	10,5	16,5	10,5	60 N-m	23,47x2,62
		6 x 3/8-16 x 3-1/4 UNC - Gr. 10	.41	.65	.41	58 ft-lb	
16	25	6 x M10 x 90 - 12.9	10,5	16,5	10,5	70 N-m	29x3
		6 x 3/8-16 x 3-1/2 UNC - Gr. 10	.41	.65	.41	58 ft-lb	
20	32	6 x M12 x 110 - 10.9	13	19	12	100 N-m	34,59x2,62
		6 x 7/16-14 x 4-1/2 UNC - Gr. 8	.51	.75	.47	70 ft-lb	
24	40	6 x M16 x 120 - 12.9	16,5	25	19	300 N-m	42x3
		6 x 5/8-11 x 5 UNC - Gr. 8	.65	.98	.75	170 ft-lb	
32	50	6 x M20 x 140 - 10.9	21	31	21,5	600 N-m	54x3
		6 x 3/4-10 x 5-1/2 UNC - Gr. 8	.83	1.22	.85	200 ft-lb	

**Pressure inlet possible from all ports!
Must be operated without pressure!**

Please note: Bolts are not included in delivery.
We recommend to use socket cap screws according to ISO 4762 or ANSI / ASME B18.3 for installation.

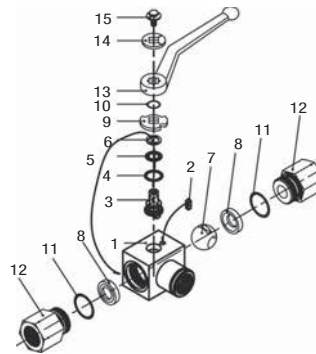


High-Pressure Block Body Ball Valve - Type CBVL-3

B



Pressure inlet possible
from center port!



List of Components

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

Characteristics

Compact three-way high-pressure block body ball valves designed for use as three-way selectors (L-bore, 90° operation) for hydraulic applications

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated (gradual changeover of this series to Steel, zinc/nickel-plated)
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08) Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >G 2 BSP
- Female NPT thread (ANSI B1.20.1) >2 NPT
- Female UN/UNF thread (SAE J 514) >2-1/2-12 UN (2" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure inlet only from the center port!

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 (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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)

Porting Pattern

- Symbol: L
- Overlap: negative
- Operating: 90°

P50



- Stop of end position:



Order Codes

CBVL - **3** - **G 02** - **0 0 0 1** - **M** - **-**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

① Type

Compact High-Pressure Block Body Ball Valve **CBVL**

② Number of Ports

Three Ports (Three-Way Ball Valve) **3**

③ Connection Style

Female BSP Thread (DIN ISO 228) **G**
 Female NPT Thread (ANSI B1.20.1) **N**
 Female UN/UNF Thread (SAE J 514) **U**
 24° Cone Connection (Light / Heavy Series) **—**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table) for connection styles G, N and U:
02 04 06 08 12 16 20 24 32
 Tube Size (according to dimension table) for 24° Cone Connection (Light Series):
06L 08L 10L 12L 15L 18L 22L 28L 35L
 Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):
08S 10S 12S 14S 16S 20S 25S 30S 38S

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
 Stem: Carbon Steel **0**
 Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM/FPM (Viton®) **1**
 EPDM **3**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **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.

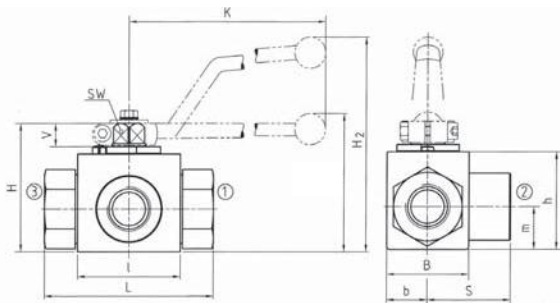
⑪ Accessories / Options

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**

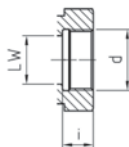
Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type CBVL-3 L-Bore Three-Way Selector - Female BSP Thread (DIN ISO 228)



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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

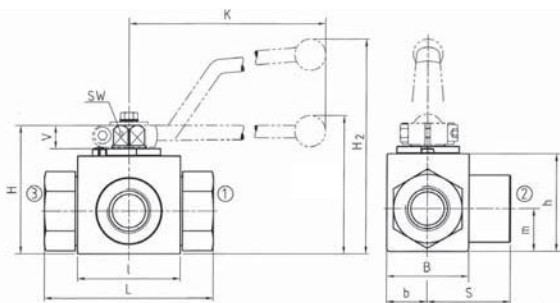
B

Pressure Inlet only from the Center Port

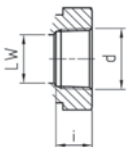
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	m	S	V	SW	K	i	H2			
02	G 1/8 BSP	4	5	69	40	13	29	47	33	13,5	34,5	11	9	115	10	82	500	0,40	CBVL-3-G02-0001-M
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.39	3.23	7250	.88	
04	G 1/4 BSP	6	6	69	40	13	29	47	33	13,5	34,5	11	9	115	14	82	500	0,46	CBVL-3-G04-0001-M
			.24	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.55	3.23	7250	1.01	
06	G 3/8 BSP	10	10	72	43	16	35	52	38	17,5	36	11	9	115	14	87	500	0,60	CBVL-3-G06-0001-M
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.55	3.42	7250	1.32	
08	G 1/2 BSP	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	16,3	89	500	0,70	CBVL-3-G08-0001-M
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.64	3.50	7250	1.54	
12	G 3/4 BSP	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	18	126	350	1,80	CBVL-3-G12-0001-M
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.71	4.96	5075	3.96	
16	G 1 BSP	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	20	134	315	2,40	CBVL-3-G16-0001-M
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.79	5.73	4500	5.28	
20	G 1-1/4 BSP	32	30	111	81	39	106	84,5	39	55	16,5	17	320	22	170	350	3,80	CBVL-3-G20-0001-M	
			1.18	4.37	3.19	1.54	4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000	8.36		
24	G 1-1/2 BSP	40	38	130	104	53	127	106	53	65	16,5	17	320	24	191	350	6,20	CBVL-3-G24-0001-M	
			1.50	5.12	4.09	2.09	5.00	4.17	2.09	2.56	.65	.67	12.60	.94	7.52	5000	13.64		
32	G 2 BSP	50	48	150	118	58	116	137	116	58	75	16,5	17	320	26	201	350	7,80	CBVL-3-G32-0001-M
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.02	7.91	5000	17.16	

Please note the pressure ratings of the tube connections.

High-Pressure Block Body Ball Valve - Type CBVL-3 L-Bore Three-Way Selector - Female NPT Thread (ANSI B1.20.1)



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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Pressure Inlet only from the Center Port

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	K	S	V	SW	K	i	H2			
02	1/8 NPT	4	5	69	40	13	29	47	33	13,5	34,5	11	9	115	10,5	82	500	0,40	CBVL-3-N02-0001-M
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.41	3.23	7250	.88	
04	1/4 NPT	6	6	69	40	13	29	47	33	13,5	34,5	11	9	115	13,7	82	500	0,46	CBVL-3-N04-0001-M
			.24	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.54	3.23	7250	1.01	
06	3/8 NPT	10	10	72	43	16	35	52	38	17,5	36	11	9	115	13,5	87	500	0,60	CBVL-3-N06-0001-M
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.53	3.42	7250	1.32	
08	1/2 NPT	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	17	89	500	0,70	CBVL-3-N08-0001-M
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.67	3.50	7250	1.54	
12	3/4 NPT	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	18,3	126	350	1,80	CBVL-3-N12-0001-M
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.72	4.96	5075	3.96	
16	1 NPT	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	21,6	134	315	2,40	CBVL-3-N16-0001-M
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.85	5.73	4500	5.28	
20	1-1/4 NPT	32	30	120	81	39	106	84,5	39	55	16,5	17	320	22,1	170	350	3,80	CBVL-3-N20-0001-M	
			1.18	4.72	3.19	1.54	4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000	8.36		
24	1-1/2 NPT	40	38	140	104	53	127	106	53	65	16,5	17	320	22,1	191	350	6,20	CBVL-3-N24-0001-M	
			1.50	5.51	4.09	2.09	5.00	4.17	2.09	2.56	.65	.67	12.60	.87	7.52	5000	13.64		
32	2 NPT	50	48	150	118	58	116	137	116	58	75	16,5	17	320	30,2	201	350	7,80	CBVL-3-N32-0001-M
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.19	7.91	5000	17.16	

Please note the pressure ratings of the tube connections.

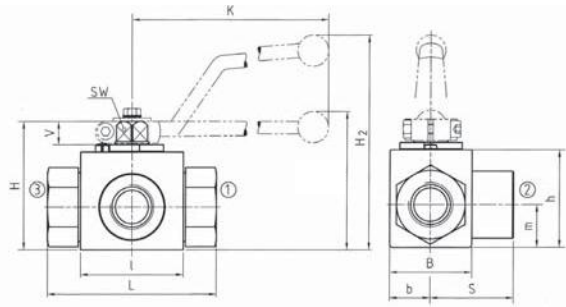
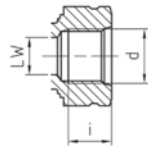


High-Pressure Block Body Ball Valve - Type CBVL-3 L-Bore Three-Way Selector - Female UN/UNF Thread (SAE J 514)

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 (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Female UN/UNF Thread (SAE J 514)



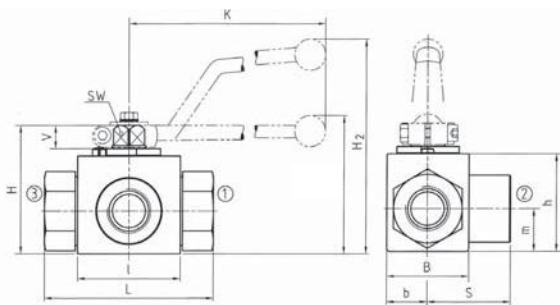
Pressure Inlet only from the Center Port

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)															Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	K	S	V	SW	K	i	H2				
04	7/16-20 UNF (1/4" SAE)	6	5	69	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,46	CBVL-3-U04-0001-M	
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	1.01		
06	9/16-18 UNF (3/4" SAE)	10	10	72	43	16	35	52	38	17,5	36	11	9	115	13	87	500	0,60	CBVL-3-U06-0001-M	
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.51	3.42	7250	1.32		
08	3/4-16 UNF (1/2" SAE)	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	15	89	500	0,70	CBVL-3-U08-0001-M	
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.59	3.50	7250	1.54		
12	1-1/16-12 UN (3/4" SAE)	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	20	126	350	1,80	CBVL-3-U12-0001-M	
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.79	4.96	5075	3.96		
16	1-5/16-12 UN (1" SAE)	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	20	134	315	2,40	CBVL-3-U16-0001-M	
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.79	5.73	4500	5.28		
20	1-5/8-12 UN (1-1/4" SAE)	32	30	111	81	39		106	84,5	39	55	16,5	17	320	20	170	350	3,80	CBVL-3-U20-0001-M	
			1.18	4.37	3.19	1.54		4.17	3.33	1.54	2.17	.65	.67	12.60	.79	6.69	5000	8.36		
24	1-7/8-12 UN (1-1/2" SAE)	40	38	130	104	53		127	106	53	65	16,5	17	320	20	191	350	6,20	CBVL-3-U24-0001-M	
			1.50	5.12	4.09	2.09		5.00	4.17	2.09	2.56	.65	.67	12.60	.79	7.52	5000	13.64		
32	2-1/2-12 UN (2" SAE)	50	48	150	118	58	116	137	116	58	75	16,5	17	320	20	201	350	7,80	CBVL-3-U32-0001-M	
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	.79	7.91	5000	17.16		

Please note the pressure ratings of the tube connections.

B

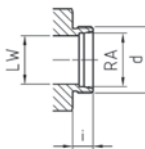




Union nuts and cutting rings are not included in delivery.

High-Pressure Block Body Ball Valve - Type CBVL-3 L-Bore Three-Way Selector - 24° Cone Connection Light Series (DIN 2353 / ISO 8434-1)

**24° Cone Connection
(DIN 2353 / ISO 8434-1)**



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

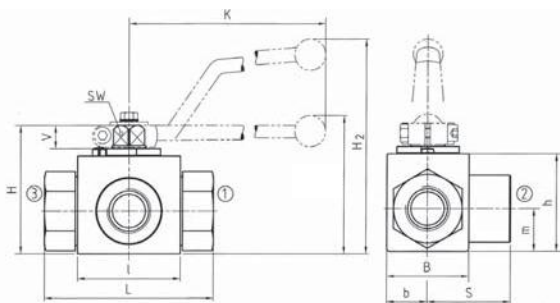
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

Pressure Inlet only from the Center Port

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	I	b	B	H	h	m	S	V	SW	K	i	H2			
02	06L / M12 x 1,5	4	6	5	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,30	CBVL-3-06L-0001-M
			.24	.20	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.66	
04	08L / M14 x 1,5	6	8	6	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,40	CBVL-3-08L-0001-M
			.31	.24	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.88	
05	10L / M16 x 1,5	8	10	6	74	40	13	29	47	33	13,5	34,5	11	9	115	11	82	500	0,40	CBVL-3-10L-0001-M
			.39	.24	2.91	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.43	3.23	7250	.88	
06	12L / M18 x 1,5	10	12	10	74	43	16	35	52	38	17,5	36,5	11	9	115	11	87	500	0,50	CBVL-3-12L-0001-M
			.47	.39	2.91	1.69	.63	1.38	2.05	1.50	.69	1.44	.43	.35	4.53	.43	3.42	7250	1.10	
08	15L / M22 x 1,5	13	15	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,65	CBVL-3-15L-0001-M
			.59	.51	3.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.43	
08	18L / M26 x 1,5	13	18	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,69	CBVL-3-18L-0001-M
			.71	.51	2.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.52	
12	22L / M30 x 2	20	22	20	101	62	24,5	52	75	57	24,5	48	14	14	170	14	126	350	1,50	CBVL-3-22L-0001-M
			.87	.79	3.98	2.44	.96	2.05	2.95	2.24	.96	1.89	.55	.55	6.69	.55	4.96	5075	3.30	
16	28L / M36 x 2	25	28	25	108	66	29	61	83	65	29,5	54	14	14	170	14	134	315	2,10	CBVL-3-28L-0001-M
			1.10	.98	4.25	2.60	1.14	2.40	3.27	2.56	1.16	2.13	.55	.55	6.69	.55	5.73	4500	4.62	
20R	35L / M45 x 2	25/32	35	25	112	66	29	61	83	65	29,5	56	14	14	170	16	134	315	2,50	CBVL-3-35LDN25-0001-M
			1.38	.98	4.41	2.60	1.14	2.40	3.27	2.56	1.16	2.20	.55	.55	6.69	.63	5.73	4500	5.50	

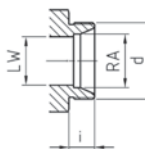
Please note the pressure ratings of the tube connections.



Union nuts and cutting rings are not included in delivery.

High-Pressure Block Body Ball Valve - Type CBVL-3 L-Bore Three-Way Selector - 24° Cone Connection Heavy Series (DIN 2353 / ISO 8434-1)

**24° Cone Connection
(DIN 2353 / ISO 8434-1)**



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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Pressure Inlet only from the Center Port

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	I	b	B	H	h	m	S	V	SW	K	i	H2			
02	08S / M16 x 1,5	4	8	5	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,42	CBVL-3-08S-0001-M
			.31	.20	2.87	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.92	
04	10S / M18 x 1,5	6	10	6	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,43	CBVL-3-10S-0001-M
			.39	.24	2.87	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.95	
05	12S / M20 x 1,5	8	12	6	76	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,44	CBVL-3-12S-0001-M
			.47	.24	2.99	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.97	
06	14S / M22 x 1,5	10	14	10	80	43	16	35	52	38	17,5	36,5	11	9	115	14	87	500	0,50	CBVL-3-14S-0001-M
			.55	.39	3.15	1.69	.63	1.38	2.05	1.50	.69	1.43	.43	.35	4.53	.55	3.42	7250	1.10	
08	16S / M24 x 1,5	13	16	13	86	48	17,5	38	54	40	19	43	11	9	115	14	89	500	0,65	CBVL-3-16S-0001-M
			.63	.51	3.39	1.89	.69	1.50	2.13	1.57	.75	1.69	.43	.35	4.53	.55	3.50	7250	1.43	
08	20S / M30 x 2	13	20	13	90	48	17,5	38	54	40	19	43	11	9	115	16	89	500	0,70	CBVL-3-20SDN13-0001-M
			.79	.51	3.54	1.89	.69	1.50	2.13	1.57	.75	1.69	.43	.35	4.53	.63	3.50	7250	1.54	
12	25S / M36 x 2	20	25	20	109	62	24,5	52	75	57	24,5	48	14	14	170	18	126	350	1,70	CBVL-3-25S-0001-M
			.98	.79	4.29	2.44	.96	2.05	2.95	2.24	.96	1.89	.55	.55	6.69	.71	4.96	5075	3.74	
16	30S / M42 x 2	25	30	25	120	66	29	61	83	65	29,5	57,5	14	14	170	20	134	315	2,40	CBVL-3-30S-0001-M
			1.18	.98	4.72	2.60	1.14	2.40	3.27	2.56	1.16	2.26	.55	.55	6.69	.79	5.73	4500	5.28	
20R	38S / M52 x 2	25/32	38	25	124	66	29	61	83	65	29,5	57,5	14	14	170	22	134	315	2,80	CBVL-3-38SDN25-0001-M
			1.50	.98	4.88	2.60	1.14	2.40	3.27	2.56	1.16	2.26	.55	.55	6.69	.87	5.73	4500	6.16	

Please note the pressure ratings of the tube connections.

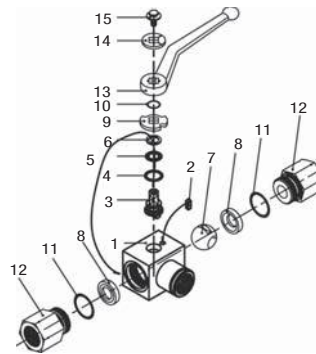


High-Pressure Block Body Ball Valve - Type CBVT-3

B



Pressure inlet possible from center port!



List of Components

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

Characteristics

Compact three-way high-pressure block body ball valves designed for use as three-way selectors (T-bore, 90° operation) for hydraulic applications

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated (gradual changeover of this series to Steel, zinc/nickel-plated)
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08) Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >G 2 BSP
- Female NPT thread (ANSI B1.20.1) >2 NPT
- Female UN/UNF thread (SAE J 514) >2-1/2-12 UN (2" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure inlet only from the center port!

Pressure Range

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

Temperature Range

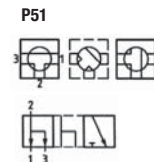
- Operating temperature range: -20 °C ... +100 °C / -4 °F ... +212 °F

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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)

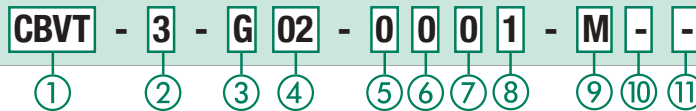
Porting Pattern

- Symbol: T
- Overlap: negative
- Operating: 90°



- Stop of end position:

Order Codes



① Type

Compact High-Pressure Block Body Ball Valve **CBVT**

② Number of Ports

Three Ports (Three-Way Ball Valve) **3**

③ Connection Style

Female BSP Thread (DIN ISO 228) **G**
 Female NPT Thread (ANSI B1.20.1) **N**
 Female UN/UNF Thread (SAE J 514) **U**
 24° Cone Connection (Light / Heavy Series) **—**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table) for connection styles G, N and U:
02 04 06 08 12 16 20 24 32
 Tube Size (according to dimension table) for 24° Cone Connection (Light Series):
06L 08L 10L 12L 15L 18L 22L 28L 35L
 Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):
08S 10S 12S 14S 16S 20S 25S 30S 38S

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
 Stem: Carbon Steel **0**
 Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM/FPM (Viton®) **1**
 EPDM **3**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

Supplied with standard lever (according to table) **—**
 Supplied without lever **0**

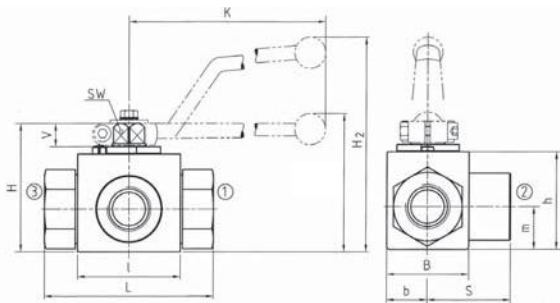
Alternative levers can be ordered separately. Please see page 114 for further information.

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**

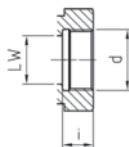
Please see page 115-119 for further information and options.





High-Pressure Block Body Ball Valve - Type CBVT-3 T-Bore Three-Way Selector - Female BSP Thread (DIN ISO 228)

Female BSP Thread (DIN ISO 228)



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

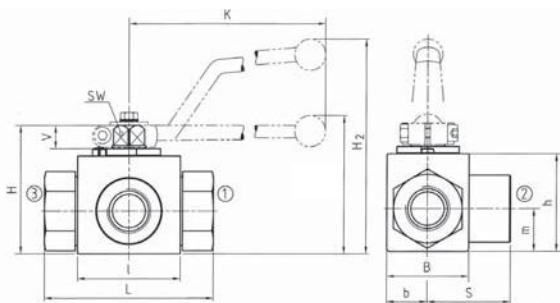
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

Pressure Inlet only from the Center Port

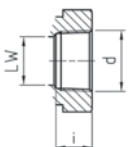
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	m	S	V	SW	K	i	H2			
02	G 1/8 BSP	4	5	69	40	13	29	47	33	13,5	34,5	11	9	115	10	82	500	0,40	CBVT-3-G02-0001-M
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.39	3.23	7250	.88	
04	G 1/4 BSP	6	6	69	40	13	29	47	33	13,5	34,5	11	9	115	14	82	500	0,46	CBVT-3-G04-0001-M
			.24	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.55	3.23	7250	1.01	
06	G 3/8 BSP	10	10	72	43	16	35	52	38	17,5	36	11	9	115	14	87	500	0,60	CBVT-3-G06-0001-M
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.55	3.42	7250	1.32	
08	G 1/2 BSP	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	16,3	89	500	0,70	CBVT-3-G08-0001-M
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.64	3.50	7250	1.54	
12	G 3/4 BSP	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	18	126	350	1,80	CBVT-3-G12-0001-M
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.71	4.96	5075	3.96	
16	G 1 BSP	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	20	134	315	2,40	CBVT-3-G16-0001-M
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.79	5.73	4500	5.28	
20	G 1-1/4 BSP	32	30	111	81	39	106	84,5	39	55	16,5	17	320	22	170	350	3,80	CBVT-3-G20-0001-M	
			1.18	4.37	3.19	1.54	4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000	8.36		
24	G 1-1/2 BSP	40	38	130	104	53	127	106	53	65	16,5	17	320	24	191	350	6,20	CBVT-3-G24-0001-M	
			1.50	5.12	4.09	2.09	5.00	4.17	2.09	2.56	.65	.67	12.60	.94	7.52	5000	13.64		
32	G 2 BSP	50	48	150	118	58	116	137	116	58	75	16,5	17	320	26	201	350	7,80	CBVT-3-G32-0001-M
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.02	7.91	5000	17.16	

Please note the pressure ratings of the tube connections.



High-Pressure Block Body Ball Valve - Type CBVT-3 T-Bore Three-Way Selector - Female NPT Thread (ANSI B1.20.1)

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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Pressure Inlet only from the Center Port

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	K	S	V	SW	K	i	H2			
02	1/8 NPT	4	5	69	40	13	29	47	33	13,5	34,5	11	9	115	10,5	82	500	0,40	CBVT-3-N02-0001-M
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.41	3.23	7250	.88	
04	1/4 NPT	6	6	69	40	13	29	47	33	13,5	34,5	11	9	115	13,7	82	500	0,46	CBVT-3-N04-0001-M
			.24	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.54	3.23	7250	1.01	
06	3/8 NPT	10	10	72	43	16	35	52	38	17,5	36	11	9	115	13,5	87	500	0,60	CBVT-3-N06-0001-M
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.53	3.42	7250	1.32	
08	1/2 NPT	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	17	89	500	0,70	CBVT-3-N08-0001-M
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.67	3.50	7250	1.54	
12	3/4 NPT	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	18,3	126	350	1,80	CBVT-3-N12-0001-M
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.72	4.96	5075	3.96	
16	1 NPT	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	21,6	134	315	2,40	CBVT-3-N16-0001-M
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.85	5.73	4500	5.28	
20	1-1/4 NPT	32	30	120	81	39	106	84,5	39	55	16,5	17	320	22,1	170	350	3,80	CBVT-3-N20-0001-M	
			1.18	4.72	3.19	1.54	4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000	8.36		
24	1-1/2 NPT	40	38	140	104	53	127	106	53	65	16,5	17	320	22,1	191	350	6,20	CBVT-3-N24-0001-M	
			1.50	5.51	4.09	2.09	5.00	4.17	2.09	2.56	.65	.67	12.60	.87	7.52	5000	13.64		
32	2 NPT	50	48	150	118	58	116	137	116	58	75	16,5	17	320	30,2	201	350	7,80	CBVT-3-N32-0001-M
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.19	7.91	5000	17.16	

Please note the pressure ratings of the tube connections.

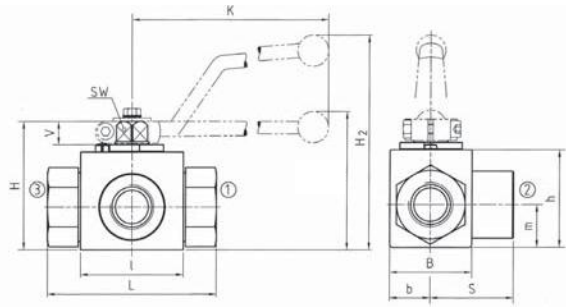
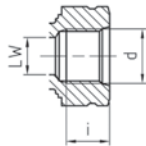


High-Pressure Block Body Ball Valve - Type CBVT-3 T-Bore Three-Way Selector - Female UN/UNF Thread (SAE J 514)

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 (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Female UN/UNF Thread (SAE J 514)



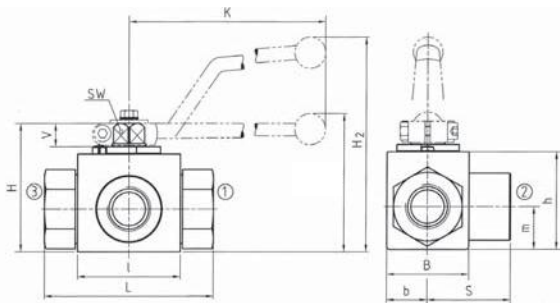
Pressure Inlet only from the Center Port

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)															Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	K	S	V	SW	K	i	H2				
04	7/16-20 UNF (1/4" SAE)	6	5	69	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,46	CBVT-3-U04-0001-M	
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	1.01		
06	9/16-18 UNF (3/4" SAE)	10	10	72	43	16	35	52	38	17,5	36	11	9	115	13	87	500	0,60	CBVT-3-U06-0001-M	
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.51	3.42	7250	1.32		
08	3/4-16 UNF (1/2" SAE)	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	15	89	500	0,70	CBVT-3-U08-0001-M	
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.59	3.50	7250	1.54		
12	1-1/16-12 UN (3/4" SAE)	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	20	126	350	1,80	CBVT-3-U12-0001-M	
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.79	4.96	5075	3.96		
16	1-5/16-12 UN (1" SAE)	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	20	134	315	2,40	CBVT-3-U16-0001-M	
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.79	5.73	4500	5.28		
20	1-5/8-12 UN (1-1/4" SAE)	32	30	111	81	39		106	84,5	39	55	16,5	17	320	20	170	350	3,80	CBVT-3-U20-0001-M	
			1.18	4.37	3.19	1.54		4.17	3.33	1.54	2.17	.65	.67	12.60	.79	6.69	5000	8.36		
24	1-7/8-12 UN (1-1/2" SAE)	40	38	130	104	53		127	106	53	65	16,5	17	320	20	191	350	6,20	CBVT-3-U24-0001-M	
			1.50	5.12	4.09	2.09		5.00	4.17	2.09	2.56	.65	.67	12.60	.79	7.52	5000	13.64		
32	2-1/2-12 UN (2" SAE)	50	48	150	118	58	116	137	116	58	75	16,5	17	320	20	201	350	7,80	CBVT-3-U32-0001-M	
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	.79	7.91	5000	17.16		

Please note the pressure ratings of the tube connections.

B

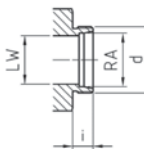




Union nuts and cutting rings are not included in delivery.

High-Pressure Block Body Ball Valve - Type CBVT-3 T-Bore Three-Way Selector - 24° Cone Connection Light Series (DIN 2353 / ISO 8434-1)

24° Cone Connection (DIN 2353 / ISO 8434-1)



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

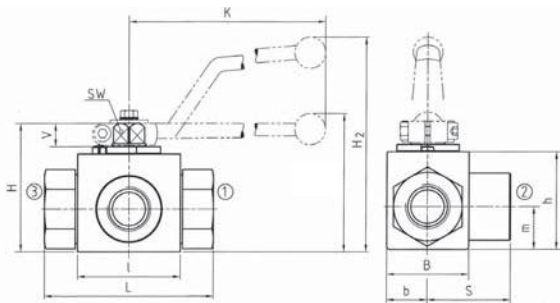
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

Pressure Inlet only from the Center Port

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)																Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2				
02	06L / M12 x 1,5	4	6	5	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,30	CBVT-3-06L-0001-M	
			.24	.20	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.66		
04	08L / M14 x 1,5	6	8	6	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,40	CBVT-3-08L-0001-M	
			.31	.24	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.88		
05	10L / M16 x 1,5	8	10	6	74	40	13	29	47	33	13,5	34,5	11	9	115	11	82	500	0,40	CBVT-3-10L-0001-M	
			.39	.24	2.91	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.43	3.23	7250	.88		
06	12L / M18 x 1,5	10	12	10	74	43	16	35	52	38	17,5	36,5	11	9	115	11	87	500	0,50	CBVT-3-12L-0001-M	
			.47	.39	2.91	1.69	.63	1.38	2.05	1.50	.69	1.44	.43	.35	4.53	.43	3.42	7250	1.10		
08	15L / M22 x 1,5	13	15	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,65	CBVT-3-15L-0001-M	
			.59	.51	3.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.43		
08	18L / M26 x 1,5	13	18	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,69	CBVT-3-18L-0001-M	
			.71	.51	2.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.52		
12	22L / M30 x 2	20	22	20	101	62	24,5	52	75	57	24,5	48	14	14	170	14	126	350	1,50	CBVT-3-22L-0001-M	
			.87	.79	3.98	2.44	.96	2.05	2.95	2.24	.96	1.89	.55	.55	6.69	.55	4.96	5075	3.30		
16	28L / M36 x 2	25	28	25	108	66	29	61	83	65	29,5	54	14	14	170	14	134	315	2,10	CBVT-3-28L-0001-M	
			1.10	.98	4.25	2.60	1.14	2.40	3.27	2.56	1.16	2.13	.55	.55	6.69	.55	5.73	4500	4.62		
20R	35L / M45 x 2	25/32	35	25	112	66	29	61	83	65	29,5	56	14	14	170	16	134	315	2,50	CBVT-3-35LDN25-0001-M	
			1.38	.98	4.41	2.60	1.14	2.40	3.27	2.56	1.16	2.20	.55	.55	6.69	.63	5.73	4500	5.50		

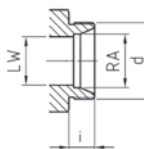
Please note the pressure ratings of the tube connections.



Union nuts and cutting rings are not included in delivery.

High-Pressure Block Body Ball Valve - Type CBVT-3 T-Bore Three-Way Selector - 24° Cone Connection Heavy Series (DIN 2353 / ISO 8434-1)

24° Cone Connection (DIN 2353 / ISO 8434-1)



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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Pressure Inlet only from the Center Port

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)																Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2				
02	08S / M16 x 1,5	4	8	5	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,42	CBVT-3-08S-0001-M	
			.31	.20	2.87	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.92		
04	10S / M18 x 1,5	6	10	6	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,43	CBVT-3-10S-0001-M	
			.39	.24	2.87	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.95		
05	12S / M20 x 1,5	8	12	6	76	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,44	CBVT-3-12S-0001-M	
			.47	.24	2.99	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.97		
06	14S / M22 x 1,5	10	14	10	80	43	16	35	52	38	17,5	36,5	11	9	115	14	87	500	0,50	CBVT-3-14S-0001-M	
			.55	.39	3.15	1.69	.63	1.38	2.05	1.50	.69	1.43	.43	.35	4.53	.55	3.42	7250	1.10		
08	16S / M24 x 1,5	13	16	13	86	48	17,5	38	54	40	19	43	11	9	115	14	89	500	0,65	CBVT-3-16S-0001-M	
			.63	.51	3.39	1.89	.69	1.50	2.13	1.57	.75	1.69	.43	.35	4.53	.55	3.50	7250	1.43		
08	20S / M30 x 2	13	20	13	90	48	17,5	38	54	40	19	43	11	9	115	16	89	500	0,70	CBVT-3-20SDN13-0001-M	
			.79	.51	3.54	1.89	.69	1.50	2.13	1.57	.75	1.69	.43	.35	4.53	.63	3.50	7250	1.54		
12	25S / M36 x 2	20	25	20	109	62	24,5	52	75	57	24,5	48	14	14	170	18	126	350	1,70	CBVT-3-25S-0001-M	
			.98	.79	4.29	2.44	.96	2.05	2.95	2.24	.96	1.89	.55	.55	6.69	.71	4.96	5075	3.74		
16	30S / M42 x 2	25	30	25	120	66	29	61	83	65	29,5	57,5	14	14	170	20	134	315	2,40	CBVT-3-30S-0001-M	
			1.18	.98	4.72	2.60	1.14	2.40	3.27	2.56	1.16	2.26	.55	.55	6.69	.79	5.73	4500	5.28		
20R	38S / M52 x 2	25/32	38	25	124	66	29	61	83	65	29,5	57,5	14	14	170	22	134	315	2,80	CBVT-3-38SDN25-0001-M	
			1.50	.98	4.88	2.60	1.14	2.40	3.27	2.56	1.16	2.26	.55	.55	6.69	.87	5.73	4500	6.16		

Please note the pressure ratings of the tube connections.



High-Pressure Block Body Ball Valve - Type CBVL-3-C

B



Characteristics

Compact three-way high-pressure block body ball valves designed for use as three-way selectors (L-bore, 90° operation) for hydraulic applications

Standard Construction

- Block body design for in-line assembly
- Compact diverter style
- 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/FPM (Viton®)

Standard Connections Styles / Sizes

- 6000 PSI (code 62) direct SAE flange connection
- Metric ISO and unified coarse (UNC) threads

Pressure inlet only from the center port!

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 flange and pipe/tubing rating.

Temperature Range

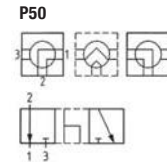
- Operating temperature range: -20 °C ... +100 °C / -4 °F ... + 212 °F

Options / Accessories

- Flanges and flange kits (see catalogue STAUFF Flanges)
- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media

Porting Pattern

- Symbol : L
- Overlap: negative
- Operating: 90°



- Stop of end position:

Order Codes



① Type

Compact High-Pressure Block Body Ball Valve **CBVL**

② Number of Ports

Three Ports (Three-Way Ball Valve) **3**

③ Connection Style

6000 PSI (Code 62) SAE Direct Flange Connection with Metric ISO Threads **C6M**
 6000 PSI (Code 62) SAE Direct Flange Connection with Unified Coarse (UNC) Threads **C6U**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table):
08 12 16 20 24 32

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated **0**
 Stem: Carbon Steel **0**
 Ball / Stem: Stainless Steel V4A (AISI 316Ti) **1**

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM/FPM (Viton®) **1**
 EPDM **3**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **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.

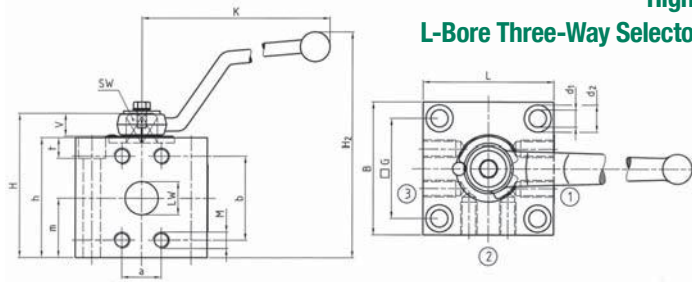
⑪ Accessories / Options

Supplied without accessories **—**
 Supplied with Locking Device LD4 **LD4**

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type CBVL-3-C L-Bore Three-Way Selector - 6000 PSI SAE 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: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

6000 PSI Series (Code 62) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (PSI/PS)	Weight (kg/lbs)	Order Codes (Standard Option)				
			LW	L	B	H	h	m	V	SW	K	a	b	M								
08	1/2	13	13	70	70	63	56	28	11	9	115	18,2	40,5	M8	43	8,5	13,5	9	101	420	2,00	CBVL-3-C6M08-0001-M
			.51	2.76	2.76	2.48	2.20	1.10	.43	.35	4.53	.72	1.59		1.69	.33	.53	.35	3.98	6000	4.40	
12	3/4	20	20	80	80	87	72	36	14	14	170	23,8	50,8	M10	60	10,5	16,5	11	137	420	3,40	CBVL-3-C6M12-0001-M
			.79	3.15	3.15	3.43	2.83	1.42	.55	.55	6.69	.94	2.00		2.36	.41	.65	.43	5.39	6000	7.48	
16	1	25	25	94	94	96	81	42	14	14	170	27,8	57,2	M12	70	10,5	16,5	11	147	420	5,40	CBVL-3-C6M16-0001-M
			.98	3.70	3.70	3.78	3.19	1.65	.55	.55	6.69	1.09	2.25		2.76	.41	.65	.43	5.79	6000	11.88	
20	1-1/4	32	30	100	100	117	100	50,5	16,5	17	306	31,8	66,6	M12	76	13	19	13	181	420	6,80	CBVL-3-C6M20-0001-M
			1.18	3.94	3.94	4.61	3.94	1.99	.65	.67	12.05	1.25	2.62		2.99	.51	.75	.51	7.13	6000	14.96	
24	1-1/2	40	32	110	110	136	115	55	16,5	17	306	36,5	79,4	M16	84	13	19	13	193	420	10,20	CBVL-3-C6M24-0001-M
			1.26	4.33	4.33	5.35	4.53	2.17	.65	.67	12.05	1.44	3.13		3.31	.51	.75	.51	7.60	6000	22.44	
32	2	50	48	135	135	147	135	67,5	16,5	17	306	44,5	96,8	M20	108	13	19	13	211	420	18,50	CBVL-3-C6M32-0001-M
			1.89	5.31	5.31	5.79	5.31	2.66	.65	.67	12.05	1.75	3.81		4.25	.51	.75	.51	8.31	6000	40.70	

6000 PSI Series (Code 62) - Unified Coarse (UNC) Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (PSI/PS)	Weight (kg/lbs)	Order Codes (Standard Option)				
			LW	L	B	H	h	m	V	SW	K	a	b	M								
08	1/2	13	13	70	70	63	56	28	11	9	115	18,2	40,5	5/16-18 UNC	43	8,5	13,5	9	101	420	2,00	CBVL-3-C6U08-0001-M
			.51	2.76	2.76	2.48	2.20	1.10	.43	.35	4.53	.72	1.59		1.69	.33	.53	.35	3.98	6000	4.40	
12	3/4	20	20	80	80	87	72	36	14	14	170	23,8	50,8	3/8-16 UNC	60	10,5	16,5	11	137	420	3,40	CBVL-3-C6U12-0001-M
			.79	3.15	3.15	3.43	2.83	1.42	.55	.55	6.69	.94	2.00		2.36	.41	.65	.43	5.39	6000	7.48	
16	1	25	25	94	94	96	81	42	14	14	170	27,8	57,2	7/16-14 UNC	70	10,5	16,5	11	147	420	5,40	CBVL-3-C6U16-0001-M
			.98	3.70	3.70	3.78	3.19	1.65	.55	.55	6.69	1.09	2.25		2.76	.41	.65	.43	5.79	6000	11.88	
20	1-1/4	32	30	100	100	117	100	50,5	16,5	17	306	31,8	66,6	1/2-13 UNC	76	13	19	13	181	420	6,80	CBVL-3-C6U20-0001-M
			1.18	3.94	3.94	4.61	3.94	1.99	.65	.67	12.05	1.25	2.62		2.99	.51	.75	.51	7.13	6000	14.96	
24	1-1/2	40	32	110	110	136	115	55	16,5	17	306	36,5	79,4	5/8-11 UNC	84	13	19	13	193	420	10,20	CBVL-3-C6U24-0001-M
			1.26	4.33	4.33	5.35	4.53	2.17	.65	.67	12.05	1.44	3.13		3.31	.51	.75	.51	7.60	6000	22.44	
32	2	50	48	135	135	147	135	67,5	16,5	17	306	44,5	96,8	3/4-10 UNC	108	13	19	13	211	420	18,50	CBVL-3-C6U32-0001-M
			1.89	5.31	5.31	5.79	5.31	2.66	.65	.67	12.05	1.75	3.81		4.25	.51	.75	.51	8.31	6000	40.70	

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

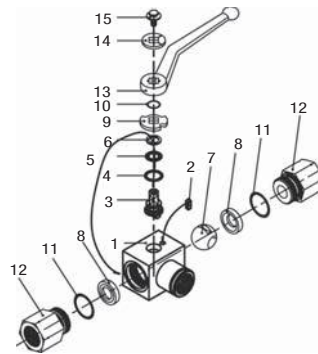


High-Pressure Block Body Ball Valve - Type CBVSL-3

B



Pressure inlet possible
from all ports!



List of Components

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

Characteristics

Compact three-way high-pressure block body ball valves designed for use as three-way selectors (L-bore, 90° operation) for hydraulic applications

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated (gradual changeover of this series to Steel, zinc/nickel-plated)
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08) Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >G 2 BSP
- Female NPT thread (ANSI B1.20.1) >2 NPT
- Female UN/UNF thread (SAE J 514) >2-1/2-12 UN (2" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure inlet possible from all ports!
Must be operated without pressure!

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 (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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)

Porting Pattern

- Symbol: L
- Overlap: negative
- Operating: 90°

P55



- Stop of end position:



Order Codes

CBVSL - 3 - G 02 - 0 0 8 1 - M - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

① Type

Compact High-Pressure Block Body Ball Valve with Pressure Inlet Possible from all Ports **CBVSL**

② Number of Ports

Three Ports (Three-Way Ball Valve) **3**

③ Connection Style

Female BSP Thread (DIN ISO 228)	G
Female NPT Thread (ANSI B1.20.1)	N
Female UN/UNF Thread (SAE J 514)	U
24° Cone Connection (Light / Heavy Series)	—

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table) for connection styles G, N and U:

02 04 06 08 12 16 20 24 32

Tube Size (according to dimension table) for 24° Cone Connection (Light Series):

06L 08L 10L 12L 15L 18L 22L 28L 35L

Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):

08S 10S 12S 14S 16S 20S 25S 30S 38S

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated	0
Stem: Carbon Steel	0
Ball / Stem: Stainless Steel V4A (AISI 316Ti)	1

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) Frontside Sealing	8
---------------------------------	----------

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®)	0
FKM/FPM (Viton®)	1
EPDM	3

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles	M
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⑩ Lever Options

Supplied with standard lever (according to table)	—
Supplied without lever	0

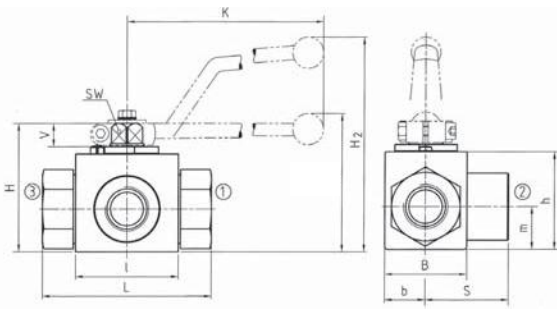
Alternative levers can be ordered separately. Please see page 114 for further information.

⑪ Accessories / Options

Supplied without accessories	—
Supplied with Locking Device LD1	LD1
Supplied with Locking Device LD4	LD4

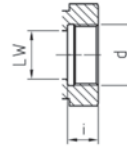
Please see page 115-119 for further information and options.





High-Pressure Block Body Ball Valve - Type CBVSL-3 L-Bore Three-Way Selector - Female BSP Thread (DIN ISO 228)

Female BSP Thread (DIN ISO 228)



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

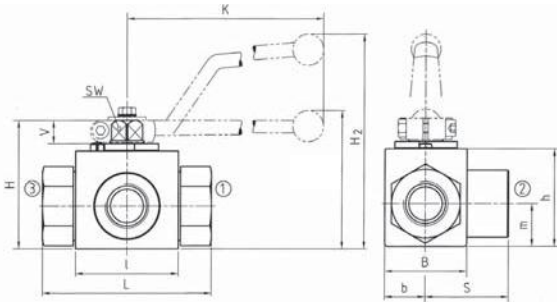
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

B

Pressure Inlet possible from all Ports

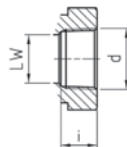
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (^{bar} /psi)	Weight (^{kg} /lbs)	Order Codes (Standard Option)	
			LW	L	I	b	B	H	h	m	S	V	SW	K	i				H2
02	G 1/8 BSP	4	5	69	40	13	29	47	33	13,5	34,5	11	9	115	10	82	500	0,40	CBVSL-3-G02-0081-M
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.39	3.23	7250	.88	
04	G 1/4 BSP	6	6	69	40	13	29	47	33	13,5	34,5	11	9	115	14	82	500	0,46	CBVSL-3-G04-0081-M
			.24	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.55	3.23	7250	1.01	
06	G 3/8 BSP	10	10	72	43	16	35	52	38	17,5	36	11	9	115	14	87	500	0,60	CBVSL-3-G06-0081-M
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.55	3.42	7250	1.32	
08	G 1/2 BSP	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	16,3	89	500	0,70	CBVSL-3-G08-0081-M
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.64	3.50	7250	1.54	
12	G 3/4 BSP	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	18	126	350	1,80	CBVSL-3-G12-0081-M
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.71	4.96	5075	3.96	
16	G 1 BSP	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	20	134	315	2,40	CBVSL-3-G16-0081-M
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.79	5.73	4500	5.28	
20	G 1-1/4 BSP	32	30	111	81	39	106	84,5	39	55	16,5	17	320	22	170	350	3,80	CBVSL-3-G20-0081-M	
			1.18	4.37	3.19	1.54		4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000		8.36
24	G 1-1/2 BSP	40	38	130	104	53	127	106	53	65	16,5	17	320	24	191	350	6,20	CBVSL-3-G24-0081-M	
			1.50	5.12	4.09	2.09		5.00	4.17	2.09	2.56	.65	.67	12.60	.94	7.52	5000		13.64
32	G 2 BSP	50	48	150	118	58	116	137	116	58	75	16,5	17	320	26	201	350	7,80	CBVSL-3-G32-0081-M
			1.89	5.91	4.65	2.28		4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.02	7.91	5000	

Please note the pressure ratings of the tube connections.



High-Pressure Block Body Ball Valve - Type CBVSL-3 L-Bore Three-Way Selector - Female NPT Thread (ANSI B1.20.1)

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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

Pressure Inlet possible from all Ports

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (^{bar} /psi)	Weight (^{kg} /lbs)	Order Codes (Standard Option)	
			LW	L	I	b	B	H	h	K	S	V	SW	K	i				H2
02	1/8 NPT	4	5	69	40	13	29	47	33	13,5	34,5	11	9	115	10,5	82	500	0,40	CBVSL-3-N02-0081-M
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.41	3.23	7250	.88	
04	1/4 NPT	6	6	69	40	13	29	47	33	13,5	34,5	11	9	115	13,7	82	500	0,46	CBVSL-3-N04-0081-M
			.24	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.54	3.23	7250	1.01	
06	3/8 NPT	10	10	72	43	16	35	52	38	17,5	36	11	9	115	13,5	87	500	0,60	CBVSL-3-N06-0081-M
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.53	3.42	7250	1.32	
08	1/2 NPT	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	17	89	500	0,70	CBVSL-3-N08-0081-M
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.67	3.50	7250	1.54	
12	3/4 NPT	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	18,3	126	350	1,80	CBVSL-3-N12-0081-M
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.72	4.96	5075	3.96	
16	1 NPT	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	21,6	134	315	2,40	CBVSL-3-N16-0081-M
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.85	5.73	4500	5.28	
20	1-1/4 NPT	32	30	120	81	39	106	84,5	39	55	16,5	17	320	22,1	170	350	3,80	CBVSL-3-N20-0081-M	
			1.18	4.72	3.19	1.54		4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000		8.36
24	1-1/2 NPT	40	38	140	104	53	127	106	53	65	16,5	17	320	22,1	191	350	6,20	CBVSL-3-N24-0081-M	
			1.50	5.51	4.09	2.09		5.00	4.17	2.09	2.56	.65	.67	12.60	.87	7.52	5000		13.64
32	2 NPT	50	48	150	118	58	116	137	116	58	75	16,5	17	320	30,2	201	350	7,80	CBVSL-3-N32-0081-M
			1.89	5.91	4.65	2.28		4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.19	7.91	5000	

Please note the pressure ratings of the tube connections.

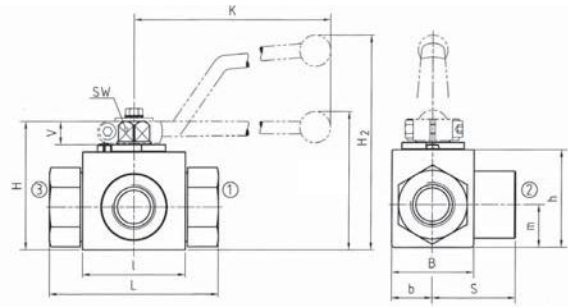
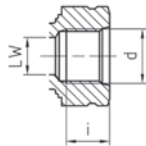


High-Pressure Block Body Ball Valve - Type CBVSL-3 L-Bore Three-Way Selector - Female UN/UNF Thread (SAE J 514)

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 (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

Female UN/UNF Thread (SAE J 514)



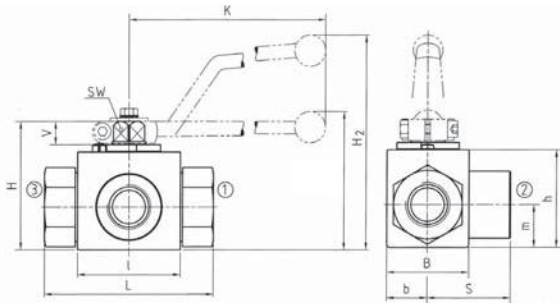
Pressure Inlet possible from all Ports

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)															Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	l	b	B	H	h	K	S	V	SW	K	i	H2				
04	7/16-20 UNF (1/4" SAE)	6	5	69	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,46	CBVSL-3-U04-0081-M	
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	1.01		
06	9/16-18 UNF (3/8" SAE)	10	10	72	43	16	35	52	38	17,5	36	11	9	115	13	87	500	0,60	CBVSL-3-U06-0081-M	
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.51	3.42	7250	1.32		
08	3/4-16 UNF (1/2" SAE)	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	15	89	500	0,70	CBVSL-3-U08-0081-M	
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.59	3.50	7250	1.54		
12	1-1/16-12 UN (3/4" SAE)	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	20	126	350	1,80	CBVSL-3-U12-0081-M	
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.79	4.96	5075	3.96		
16	1-5/16-12 UN (1" SAE)	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	20	134	315	2,40	CBVSL-3-U16-0081-M	
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.79	5.73	4500	5.28		
20	1-5/8-12 UN (1-1/4" SAE)	32	30	111	81	39		106	84,5	39	55	16,5	17	320	20	170	350	3,80	CBVSL-3-U20-0081-M	
			1.18	4.37	3.19	1.54		4.17	3.33	1.54	2.17	.65	.67	12.60	.79	6.69	5000	8.36		
24	1-7/8-12 UN (1-1/2" SAE)	40	38	130	104	53		127	106	53	65	16,5	17	320	20	191	350	6,20	CBVSL-3-U24-0081-M	
			1.50	5.12	4.09	2.09		5.00	4.17	2.09	2.56	.65	.67	12.60	.79	7.52	5000	13.64		
32	2-1/2-12 UN (2" SAE)	50	48	150	118	58	116	137	116	58	75	16,5	17	320	20	201	350	7,80	CBVSL-3-U32-0081-M	
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	.79	7.91	5000	17.16		

Please note the pressure ratings of the tube connections.

B

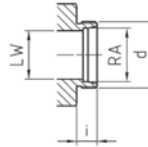




Union nuts and cutting rings are not included in delivery.

High-Pressure Block Body Ball Valve - Type CBVSL-3 L-Bore Three-Way Selector - 24° Cone Connection Light Series (DIN 2353 / ISO 8434-1)

**24° Cone Connection
(DIN 2353 / ISO 8434-1)**



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

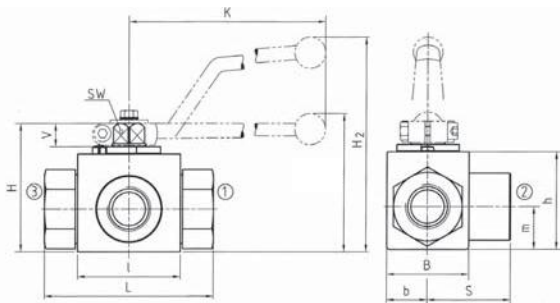
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

B

Pressure Inlet possible from all Ports

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2			
02	06L / M12 x 1,5	4	6	5	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,30	CBVSL-3-06L-0081-M
			.24	.20	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.66	
04	08L / M14 x 1,5	6	8	6	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,40	CBVSL-3-08L-0081-M
			.31	.24	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.88	
05	10L / M16 x 1,5	8	10	6	74	40	13	29	47	33	13,5	34,5	11	9	115	11	82	500	0,40	CBVSL-3-10L-0081-M
			.39	.24	2.91	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.43	3.23	7250	.88	
06	12L / M18 x 1,5	10	12	10	74	43	16	35	52	38	17,5	36,5	11	9	115	11	87	500	0,50	CBVSL-3-12L-0081-M
			.47	.39	2.91	1.69	.63	1.38	2.05	1.50	.69	1.44	.43	.35	4.53	.43	3.42	7250	1.10	
08	15L / M22 x 1,5	13	15	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,65	CBVSL-3-15L-0081-M
			.59	.51	3.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.43	
08	18L / M26 x 1,5	13	18	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,69	CBVSL-3-18L-0081-M
			.71	.51	2.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.52	
12	22L / M30 x 2	20	22	20	101	62	24,5	52	75	57	24,5	48	14	14	170	14	126	350	1,50	CBVSL-3-22L-0081-M
			.87	.79	3.98	2.44	.96	2.05	2.95	2.24	.96	1.89	.55	.55	6.69	.55	4.96	5075	3.30	
16	28L / M36 x 2	25	28	25	108	66	29	61	83	65	29,5	54	14	14	170	14	134	315	2,10	CBVSL-3-28L-0081-M
			1.10	.98	4.25	2.60	1.14	2.40	3.27	2.56	1.16	2.13	.55	.55	6.69	.55	5.73	4500	4.62	
20R	35L / M45 x 2	25/32	35	25	112	66	29	61	83	65	29,5	56	14	14	170	16	134	315	2,50	CBVSL-3-35LDN25-0081-M
			1.38	.98	4.41	2.60	1.14	2.40	3.27	2.56	1.16	2.20	.55	.55	6.69	.63	5.73	4500	5.50	

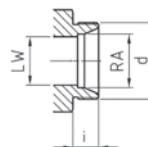
Please note the pressure ratings of the tube connections.



Union nuts and cutting rings are not included in delivery.

High-Pressure Block Body Ball Valve - Type CBVSL-3 L-Bore Three-Way Selector - 24° Cone Connection Heavy Series (DIN 2353 / ISO 8434-1)

**24° Cone Connection
(DIN 2353 / ISO 8434-1)**



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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

Pressure Inlet possible from all Ports

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2			
02	08S / M16 x 1,5	4	8	5	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,42	CBVSL-3-08S-0081-M
			.31	.20	2.87	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.92	
04	10S / M18 x 1,5	6	10	6	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,43	CBVSL-3-10S-0081-M
			.39	.24	2.87	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.95	
05	12S / M20 x 1,5	8	12	6	76	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,44	CBVSL-3-12S-0081-M
			.47	.24	2.99	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.97	
06	14S / M22 x 1,5	10	14	10	80	43	16	35	52	38	17,5	36,5	11	9	115	14	87	500	0,50	CBVSL-3-14S-0081-M
			.55	.39	3.15	1.69	.63	1.38	2.05	1.50	.69	1.43	.43	.35	4.53	.55	3.42	7250	1.10	
08	16S / M24 x 1,5	13	16	13	86	48	17,5	38	54	40	19	43	11	9	115	14	89	500	0,65	CBVSL-3-16S-0081-M
			.63	.51	3.39	1.89	.69	1.50	2.13	1.57	.75	1.69	.43	.35	4.53	.55	3.50	7250	1.43	
08	20S / M30 x 2	13	20	13	90	48	17,5	38	54	40	19	43	11	9	115	16	89	500	0,70	CBVSL-3-20SDN13-0081-M
			.79	.51	3.54	1.89	.69	1.50	2.13	1.57	.75	1.69	.43	.35	4.53	.63	3.50	7250	1.54	
12	25S / M36 x 2	20	25	20	109	62	24,5	52	75	57	24,5	48	14	14	170	18	126	350	1,70	CBVSL-3-25S-0081-M
			.98	.79	4.29	2.44	.96	2.05	2.95	2.24	.96	1.89	.55	.55	6.69	.71	4.96	5075	3.74	
16	30S / M42 x 2	25	30	25	120	66	29	61	83	65	29,5	57,5	14	14	170	20	134	315	2,40	CBVSL-3-30S-0081-M
			1.18	.98	4.72	2.60	1.14	2.40	3.27	2.56	1.16	2.26	.55	.55	6.69	.79	5.73	4500	5.28	
20R	38S / M52 x 2	25/32	38	25	124	66	29	61	83	65	29,5	57,5	14	14	170	22	134	315	2,80	CBVSL-3-38SDN25-0081-M
			1.50	.98	4.88	2.60	1.14	2.40	3.27	2.56	1.16	2.26	.55	.55	6.69	.87	5.73	4500	6.16	

Please note the pressure ratings of the tube connections.

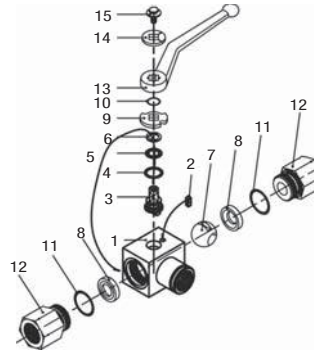


High-Pressure Block Body Ball Valve - Type CBVST-3

B



Pressure inlet possible from all ports!



List of Components

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

Characteristics

Compact three-way high-pressure block body ball valves designed for use as three-way selectors (T-bore, 90° operation) for hydraulic applications

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated (gradual changeover of this series to Steel, zinc/nickel-plated)
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08) Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >G 2 BSP
- Female NPT thread (ANSI B1.20.1) >2 NPT
- Female UN/UNF thread (SAE J 514) >2-1/2-12 UN (2" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure inlet possible from all ports!
Must be operated without pressure!

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 (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- 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)

Porting Pattern

- Symbol: T
- Overlap: negative
- Operating: 90°

P56



- Stop of end position:



Order Codes

CBVST - 3 - G 02 - 0 0 8 1 - M - - -

1
 2
 3 4
 5 6 7 8
 9 10 11

1 Type

Compact High-Pressure Block Body Ball Valve with Pressure Inlet Possible from all Ports **CBVST**

2 Number of Ports

Three Ports (Three-Way Ball Valve) **3**

3 Connection Style

Female BSP Thread (DIN ISO 228)	G
Female NPT Thread (ANSI B1.20.1)	N
Female UN/UNF Thread (SAE J 514)	U
24° Cone Connection (Light / Heavy Series)	—

Please contact STAUFF for alternative connection styles.

4 Connection Size

STAUFF Size (according to dimension table) for connection styles G, N and U:

02 04 06 08 12 16 20 24 32

Tube Size (according to dimension table) for 24° Cone Connection (Light Series):

06L 08L 10L 12L 15L 18L 22L 28L 35L

Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):

08S 10S 12S 14S 16S 20S 25S 30S 38S

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

6 Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated	0
Stem: Carbon Steel	0
Ball / Stem: Stainless Steel V4A (AISI 316Ti)	1

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

7 Ball Seat Material

Delrin® (POM) Frontside Sealing	8
---------------------------------	----------

Alternative materials are available upon request. Contact STAUFF for further information.

8 O-Ring Material

NBR (Buna-N®)	0
FKM/FPM (Viton®)	1
EPDM	3

Alternative materials are available upon request. Contact STAUFF for further information.

9 Manufacturing Code

Manufacturing code for all connection styles **M**

10 Lever Options

Supplied with standard lever (according to table)	—
Supplied without lever	0

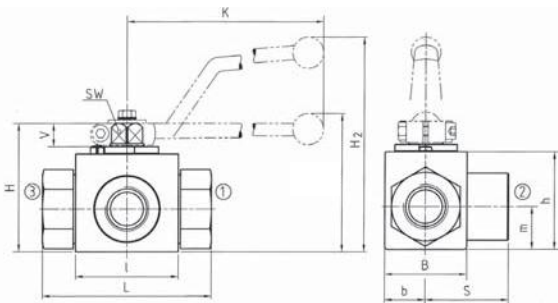
Alternative levers can be ordered separately. Please see page 114 for further information.

11 Accessories / Options

Supplied without accessories	—
Supplied with Locking Device LD1	LD1
Supplied with Locking Device LD4	LD4

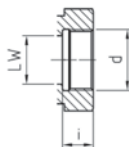
Please see page 115-119 for further information and options.





High-Pressure Block Body Ball Valve - Type CBVST-3 T-Bore Three-Way Selector - Female BSP Thread (DIN ISO 228)

Female BSP Thread (DIN ISO 228)



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

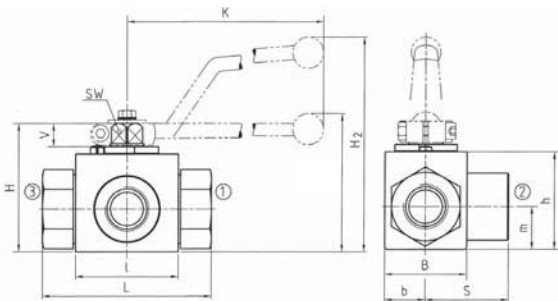
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

B

Pressure Inlet possible from all Ports

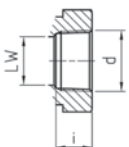
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	m	S	V	SW	K	i	H2			
02	G 1/8 BSP	4	5	69	40	13	29	47	33	13,5	34,5	11	9	115	10	82	500	0,40	CBVST-3-G02-0081-M
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.39	3.23	7250	.88	
04	G 1/4 BSP	6	6	69	40	13	29	47	33	13,5	34,5	11	9	115	14	82	500	0,46	CBVST-3-G04-0081-M
			.24	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.55	3.23	7250	1.01	
06	G 3/8 BSP	10	10	72	43	16	35	52	38	17,5	36	11	9	115	14	87	500	0,60	CBVST-3-G06-0081-M
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.55	3.42	7250	1.32	
08	G 1/2 BSP	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	16,3	89	500	0,70	CBVST-3-G08-0081-M
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.64	3.50	7250	1.54	
12	G 3/4 BSP	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	18	126	350	1,80	CBVST-3-G12-0081-M
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.71	4.96	5075	3.96	
16	G 1 BSP	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	20	134	315	2,40	CBVST-3-G16-0081-M
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.79	5.73	4500	5.28	
20	G 1-1/4 BSP	32	30	111	81	39	106	84,5	39	55	16,5	17	320	22	170	350	3,80	CBVST-3-G20-0081-M	
			1.18	4.37	3.19	1.54	4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000	8.36		
24	G 1-1/2 BSP	40	38	130	104	53	127	106	53	65	16,5	17	320	24	191	350	6,20	CBVST-3-G24-0081-M	
			1.50	5.12	4.09	2.09	5.00	4.17	2.09	2.56	.65	.67	12.60	.94	7.52	5000	13.64		
32	G 2 BSP	50	48	150	118	58	116	137	116	58	75	16,5	17	320	26	201	350	7,80	CBVST-3-G32-0081-M
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.02	7.91	5000	17.16	

Please note the pressure ratings of the tube connections.



High-Pressure Block Body Ball Valve - Type CBVST-3 T-Bore Three-Way Selector - Female NPT Thread (ANSI B1.20.1)

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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

Pressure Inlet possible from all Ports

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	K	S	V	SW	K	i	H2			
02	1/8 NPT	4	5	69	40	13	29	47	33	13,5	34,5	11	9	115	10,5	82	500	0,40	CBVST-3-N02-0081-M
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.41	3.23	7250	.88	
04	1/4 NPT	6	6	69	40	13	29	47	33	13,5	34,5	11	9	115	13,7	82	500	0,46	CBVST-3-N04-0081-M
			.24	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.54	3.23	7250	1.01	
06	3/8 NPT	10	10	72	43	16	35	52	38	17,5	36	11	9	115	13,5	87	500	0,60	CBVST-3-N06-0081-M
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.53	3.42	7250	1.32	
08	1/2 NPT	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	17	89	500	0,70	CBVST-3-N08-0081-M
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.67	3.50	7250	1.54	
12	3/4 NPT	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	18,3	126	350	1,80	CBVST-3-N12-0081-M
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.72	4.96	5075	3.96	
16	1 NPT	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	21,6	134	315	2,40	CBVST-3-N16-0081-M
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.85	5.73	4500	5.28	
20	1-1/4 NPT	32	30	120	81	39	106	84,5	39	55	16,5	17	320	22,1	170	350	3,80	CBVST-3-N20-0081-M	
			1.18	4.72	3.19	1.54	4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000	8.36		
24	1-1/2 NPT	40	38	140	104	53	127	106	53	65	16,5	17	320	22,1	191	350	6,20	CBVST-3-N24-0081-M	
			1.50	5.51	4.09	2.09	5.00	4.17	2.09	2.56	.65	.67	12.60	.87	7.52	5000	13.64		
32	2 NPT	50	48	150	118	58	116	137	116	58	75	16,5	17	320	30,2	201	350	7,80	CBVST-3-N32-0081-M
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.19	7.91	5000	17.16	

Please note the pressure ratings of the tube connections.

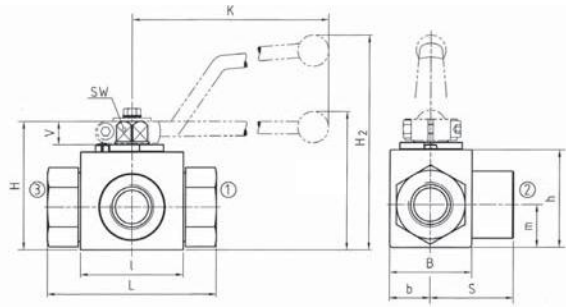
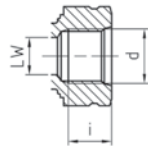


High-Pressure Block Body Ball Valve - Type CBVST-3 T-Bore Three-Way Selector - Female UN/UNF Thread (SAE J 514)

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 (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

Female UN/UNF Thread (SAE J 514)



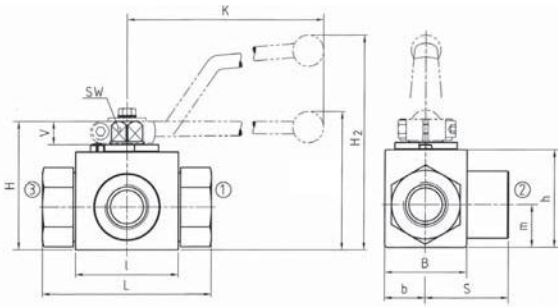
Pressure Inlet possible from all Ports

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)															Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	K	S	V	SW	K	i	H2				
04	7/16-20 UNF (1/4" SAE)	6	5	69	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,46	CBVST-3-U04-0081-M	
			.20	2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	1.01		
06	9/16-18 UNF (3/8" SAE)	10	10	72	43	16	35	52	38	17,5	36	11	9	115	13	87	500	0,60	CBVST-3-U06-0081-M	
			.39	2.83	1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.51	3.42	7250	1.32		
08	3/4-16 UNF (1/2" SAE)	13	13	83	48	17,5	38	54	40	19	41,5	11	9	115	15	89	500	0,70	CBVST-3-U08-0081-M	
			.51	3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.59	3.50	7250	1.54		
12	1-1/16-12 UN (3/4" SAE)	20	20	95	62	24,5	52	75	57	24,5	47,5	14	14	170	20	126	350	1,80	CBVST-3-U12-0081-M	
			.79	3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.79	4.96	5075	3.96		
16	1-5/16-12 UN (1" SAE)	25	25	113	66	29	61	83	65	29,5	56,5	14	14	170	20	134	315	2,40	CBVST-3-U16-0081-M	
			.98	4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.79	5.73	4500	5.28		
20	1-5/8-12 UN (1-1/4" SAE)	32	30	111	81	39		106	84,5	39	55	16,5	17	320	20	170	350	3,80	CBVST-3-U20-0081-M	
			1.18	4.37	3.19	1.54		4.17	3.33	1.54	2.17	.65	.67	12.60	.79	6.69	5000	8.36		
24	1-7/8-12 UN (1-1/2" SAE)	40	38	130	104	53		127	106	53	65	16,5	17	320	20	191	350	6,20	CBVST-3-U24-0081-M	
			1.50	5.12	4.09	2.09		5.00	4.17	2.09	2.56	.65	.67	12.60	.79	7.52	5000	13.64		
32	2-1/2-12 UN (2" SAE)	50	48	150	118	58	116	137	116	58	75	16,5	17	320	20	201	350	7,80	CBVST-3-U32-0081-M	
			1.89	5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	.79	7.91	5000	17.16		

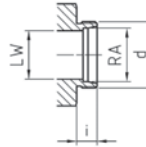
Please note the pressure ratings of the tube connections.

B





Union nuts and cutting rings are not included in delivery.

24° Cone Connection (DIN 2353 / ISO 8434-1)


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

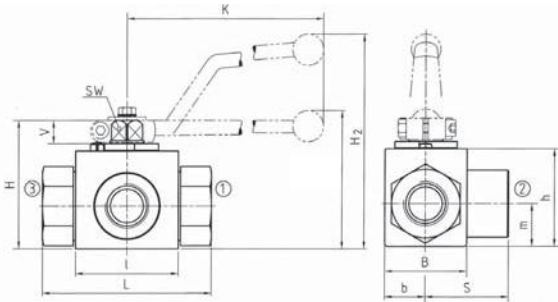
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

B

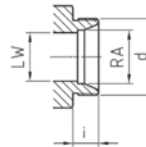
Pressure Inlet possible from all Ports

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (PSI/PS)	Weight (lb/oz)	Order Codes (Standard Option)		
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2				
02	06L / M12 x 1,5	4	6	.24	20	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,30	CBVST-3-06L-0081-M
																		7250	.66		
04	08L / M14 x 1,5	6	8	.31	24	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,40	CBVST-3-08L-0081-M
																		7250	.88		
05	10L / M16 x 1,5	8	10	.39	24	74	40	13	29	47	33	13,5	34,5	11	9	115	11	82	500	0,40	CBVST-3-10L-0081-M
																		7250	.88		
06	12L / M18 x 1,5	10	12	.47	24	74	43	16	35	52	38	17,5	36,5	11	9	115	11	87	500	0,50	CBVST-3-12L-0081-M
																		7250	1,10		
08	15L / M22 x 1,5	13	15	.59	24	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,65	CBVST-3-15L-0081-M
																		7250	1,43		
08	18L / M26 x 1,5	13	18	.71	24	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,69	CBVST-3-18L-0081-M
																		7250	1,52		
12	22L / M30 x 2	20	22	.87	20	101	62	24,5	52	75	57	24,5	48	14	14	170	14	126	350	1,50	CBVST-3-22L-0081-M
																		5075	3,30		
16	28L / M36 x 2	25	28	1,10	25	108	66	29	61	83	65	29,5	54	14	14	170	14	134	315	2,10	CBVST-3-28L-0081-M
																		4500	4,62		
20R	35L / M45 x 2	25/32	35	1,38	25	112	66	29	61	83	65	29,5	56	14	14	170	16	134	315	2,50	CBVST-3-35LDN25-0081-M
																		4500	5,50		

Please note the pressure ratings of the tube connections.



Union nuts and cutting rings are not included in delivery.

24° Cone Connection (DIN 2353 / ISO 8434-1)


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 (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM/FPM (Viton®)

Pressure Inlet possible from all Ports

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (PSI/PS)	Weight (lb/oz)	Order Codes (Standard Option)		
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2				
02	08S / M16 x 1,5	4	8	.31	20	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,42	CBVST-3-08S-0081-M
																		7250	.92		
04	10S / M18 x 1,5	6	10	.39	24	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,43	CBVST-3-10S-0081-M
																		7250	.95		
05	12S / M20 x 1,5	8	12	.47	24	76	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,44	CBVST-3-10S-0081-M
																		7250	.97		
06	14S / M22 x 1,5	10	14	.55	24	80	43	16	35	52	38	17,5	36,5	11	9	115	14	87	500	0,50	CBVST-3-14S-0081-M
																		7250	1,10		
08	16S / M24 x 1,5	13	16	.63	24	86	48	17,5	38	54	40	19	43	11	9	115	14	89	500	0,65	CBVST-3-16S-0081-M
																		7250	1,43		
08	20S / M30 x 2	13	20	.79	20	90	48	17,5	38	54	40	19	43	11	9	115	16	89	500	0,70	CBVST-3-20SDN13-0081-M
																		7250	1,54		
12	25S / M36 x 2	20	25	.98	20	109	62	24,5	52	75	57	24,5	48	14	14	170	18	126	350	1,70	CBVST-3-25S-0081-M
																		5075	3,74		
16	30S / M42 x 2	25	30	1,18	25	120	66	29	61	83	65	29,5	57,5	14	14	170	20	134	315	2,40	CBVST-3-30S-0081-M
																		4500	5,28		
20R	38S / M52 x 2	25/32	38	1,50	25	124	66	29	61	83	65	29,5	57,5	14	14	170	22	134	315	2,80	CBVST-3-38SDN25-0081-M
																		4500	6,16		

Please note the pressure ratings of the tube connections.

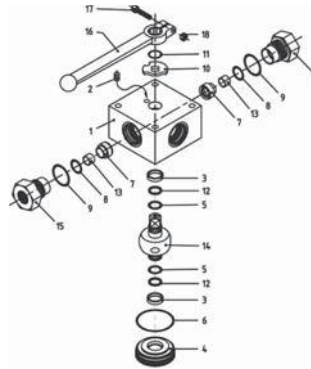


High-Pressure Block Body Ball Valve - Type LBV-3

B



Pressure inlet possible from all ports!



List of Components

No.	Qty.	Description
1	1	Body
2	1	Stop Pin
3*	2	Bearing
4	1	Trunnion Retainer
5*	2	Trunnion O-Ring
6*	1	Retainer O-Ring
7*	3	Ball Seat
8*	3	Seat O-Ring
9*	3	Connector O-Ring
10	1	Cam Plate
11	1	Snap Ring
12*	2	Trunnion Back Up Ring
13	3	Seat Support
14	1	Trunnion Ball
15	3	Connector
16	1	Handle
17	1	Handle Bolt

Characteristics

Three-way high-pressure block body ball valves designed for use as three-way selectors (L-bore, 90° operation) for hydraulic applications

Standard Construction

- Block body design for in-line assembly
- Multi-way valve with trunnion-style ball
- Supplied with lever

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >G 1-1/2 BSP
- Female NPT thread (ANSI B1.20.1) >1-1/2 NPT
- Female UN/UNF thread (SAE J 514) >1-5/16-12 UN (1" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure loaded seats at all ports!

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 (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- 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)

Porting Pattern

- Symbol : L
- Overlap: positive
- Operating: 90°

P01



- Stop of end position:

Please see pages 120-121 for alternative porting patterns.

Order Codes

LBV - 3 - G 02 - 0 0 0 1 - M - -

1 2 3 4 5 6 7 8 9 10 11

1 Type

Multi-Way L-Bore Ball Valve LBV

2 Number of Ports

Three Ports (Three-Way Ball Valve) 3

3 Connection Style

Female BSP Thread (DIN ISO 228)	G
Female NPT Thread (ANSI B1.20.1)	N
Female UN/UNF Thread (SAE J 514)	U
24° Cone Connection (Light / Heavy Series)	—

Please contact STAUFF for alternative connection styles.

4 Connection Size

STAUFF Size (according to dimension table) for connection styles G, N and U:

02	04	06	08	10	12	16	20R	24R
----	----	----	----	----	----	----	-----	-----

Tube Size (according to dimension table) for 24° Cone Connection (Light Series):

06L	08L	10L	12L	15L	18L	22L	28L	35L
-----	-----	-----	-----	-----	-----	-----	-----	-----

Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):

08S	10S	12S	14S	16S	20S	25S	30S	38S
-----	-----	-----	-----	-----	-----	-----	-----	-----

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

6 Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated	0
Stem: Carbon Steel	0
Ball / Stem: Stainless Steel V4A (AISI 316Ti)	1

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

7 Ball Seat Material

Delrin® (POM)	0
---------------	----------

Alternative materials are available upon request. Contact STAUFF for further information.

8 O-Ring Material

NBR (Buna-N®)	0
FKM/FPM (Viton®)	1
EPDM	3

Alternative materials are available upon request. Contact STAUFF for further information.

9 Manufacturing Code

Manufacturing code for all connection styles	M
--	----------

10 Lever Options

Supplied with standard lever (according to table)	—
Supplied without lever	O

Alternative levers can be ordered separately. Please see page 114 for further information.

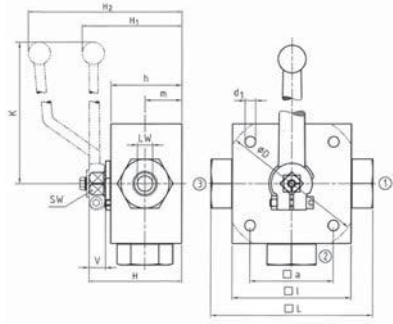
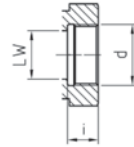
11 Accessories / Options

Supplied without accessories	—
Supplied with Locking Device LD4	LD4

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type LBV-3 L-Bore Three-Way Selector - Female BSP Thread (DIN ISO 228)


**Female BSP Thread
(DIN ISO 228)**


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

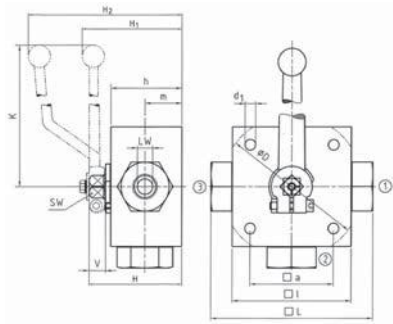
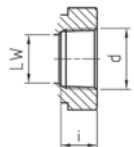
- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1				H1
02	G 1/8 BSP	4	5	100	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	LBV-3-G02-0001-M	
			.20	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250	3.52		
04	G 1/4 BSP	6	5	100	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	LBV-3-G04-0001-M	
			.20	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55	.26	3.98	7250	3.52		
06	G 3/8 BSP	10	8	115	80	65	68	50	27	200	14	14	14	6,5	72	500	2,70	LBV-3-G06-0001-M	
			.31	4.53	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.55	.26	2.83	7250	5.94		
08	G 1/2 BSP	13	13	136	100	80	78	60	31	200	14	14	16,3	9	82	400	4,90	LBV-3-G08-0001-M	
			.51	5.35	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.64	.35	3.23	5800	10.78		
10	G 5/8 BSP	16	13	139	100	80	78	60	31	200	14	14	18	9	82	400	4,90	LBV-3-G10-0001-M	
			.51	5.47	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.71	.35	3.23	5800	10.78		
12	G 3/4 BSP	20	18	154	138	113	85	88	67	36,5	320	16,5	17	18	8,5	96	315	6,70	LBV-3-G12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.71	.33	3.78	4500	14.74	
16	G 1 BSP	25	23	172	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	315	8,30	LBV-3-G16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.79	.33	4.41	4500	18.26	
20R	G 1-1/4 BSP	25/32	23	180	138	119	85	103	82	47,5	320	16,5	17	22	8,5	112	315	8,50	LBV-3-G20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	4500	18.70	
24R	G 1-1/2 BSP	25/40	23	180	138	119	85	103	82	47,5	320	16,5	17	24	8,5	112	250	8,50	LBV-3-G24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.94	.33	4.41	3600	18.70	

Please note the pressure ratings of the tube connections.

High-Pressure Block Body Ball Valve - Type LBV-3 L-Bore Three-Way Selector - Female NPT Thread (ANSI B1.20.1)


**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: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1				H1
02	1/8 NPT	4	5	100	70	55	58	40	22	160	14	12	10,5	6,5	101	500	1,60	LBV-3-N02-0001-M	
			.20	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.41	.26	3.98	7250	3.52		
04	1/4 NPT	6	5	100	70	55	58	40	22	160	14	12	13,7	6,5	101	500	1,60	LBV-3-N04-0001-M	
			.20	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.54	.26	3.98	7250	3.52		
06	3/8 NPT	10	8	115	80	65	68	50	27	200	14	14	13,5	6,5	72	500	2,80	LBV-3-N06-0001-M	
			.31	4.53	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.53	.26	2.83	7250	6.16		
08	1/2 NPT	13	13	136	100	80	78	60	31	200	14	14	17	9	82	400	5,20	LBV-3-N08-0001-M	
			.51	5.35	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.67	.35	3.23	5800	11.44		
12	3/4 NPT	20	18	154	138	113	85	88	67	36,5	320	16,5	17	18,3	8,5	96	315	6,80	LBV-3-N12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.72	.33	3.78	4500	14.96	
16	1 NPT	25	23	172	138	119	85	103	82	47,5	320	16,5	17	21,6	8,5	112	315	8,50	LBV-3-N16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.85	.33	4.41	4500	18.70	
20R	1-1/4 NPT	25/32	23	180	138	119	85	103	82	47,5	320	16,5	17	22,1	8,5	112	315	8,80	LBV-3-N20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	4500	19.36	
24R	1-1/2 NPT	25/40	23	180	138	119	85	103	82	47,5	320	16,5	17	22,1	8,5	112	250	8,80	LBV-3-N24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	3600	19.36	

Please note the pressure ratings of the tube connections.



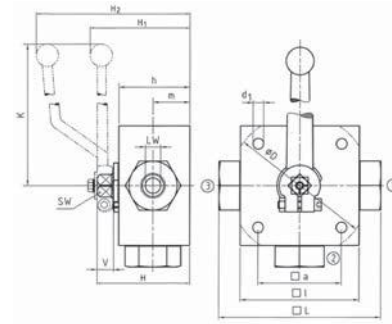
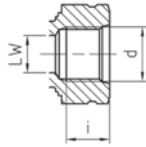
High-Pressure Block Body Ball Valve - Type LBV-3
L-Bore Three-Way Selector - Female UN/UNF Thread (SAE J 514)

B

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 (STAUFF Size 04)
Zinc (STAUFF Sizes 06 and 08)
Aluminium (STAUFF Sizes 12 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Female UN/UNF Thread (SAE J 514)

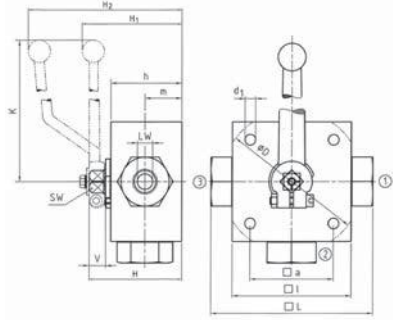


STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)															Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2				
04	7/16-20 UNF (1/4" SAE)	6	5	100		70	55	58	40	22	160	14	12	14	6,5		101	500	1,60	LBV-3-U04-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55	.26		3.98	7250	3.52		
06	9/16-18 UNF (3/4" SAE)	10	8	115		80	65	68	50	27	200	14	14	14	6,5	72		500	2,80	LBV-3-U06-0001-M	
			.31	4.53		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.55	.26	2.83		7250	6.16		
08	3/4-16 UNF (1/2" SAE)	13	13	144		100	80	78	60	31	200	14	14	14	16,3	9	82		400	5,20	LBV-3-U08-0001-M
			.51	5.67		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.64	.35	3.23		5800	11.44		
12	1-1/16-12 UN (3/4" SAE)	20	18	164	138	113	85	88	67	36,5	320	16,5	17	18	8,5	96		315	6,80	LBV-3-U12-0001-M	
			.71	6.46	5.43	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.71	.33	3.78		4500	14.96		
16	1-5/16-12 UN (1" SAE)	25	23	180	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112		315	8,50	LBV-3-U16-0001-M	
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.79	.33	4.41		4500	18.70		

Please note the pressure ratings of the tube connections.

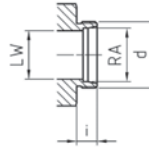


High-Pressure Block Body Ball Valve - Type LBV-3 L-Bore Three-Way Selector - 24° Cone Connection Light Series (DIN 2353 / ISO 8434-1)



Union nuts and cutting rings are not included in delivery.

24° Cone Connection
(DIN 2353 / ISO 8434-1)



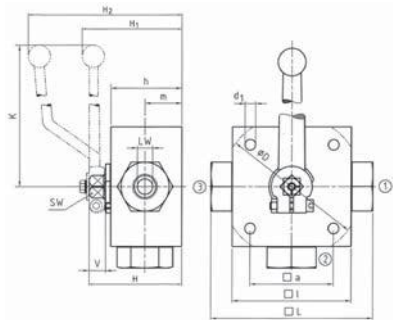
When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 05 to 10)
Aluminium (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

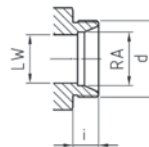
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)		
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2			
02	06L / M12 x 1,5	4	6	5	105	70	55	58	40	22	160	14	12	10	6,5	101	101	500	1,60	LBV-3-06L-0001-M	
			.24	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39		.26	3.98	7250		3.52
04	08L / M14 x 1,5	6	8	5	105	70	55	58	40	22	160	14	12	10	6,5	101	101	500	1,80	LBV-3-08L-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39		.26	3.98	7250		3.96
05	10L / M16 x 1,5	8	10	8	114	80	65	68	50	27	200	14	14	11	6,5	72	72	500	2,60	LBV-3-10L-0001-M	
			.39	.31	4.49		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.43		.26	2.83	7250		5.72
06	12L / M18 x 1,5	10	12	8	114	80	65	68	50	27	200	14	14	11	6,5	72	72	500	2,60	LBV-3-12L-0001-M	
			.47	.31	4.49		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.43		.26	2.83	7250		5.72
08	15L / M22 x 1,5	13	15	13	137	100	80	78	60	31	200	14	14	12	9	82	82	400	4,70	LBV-3-15L-0001-M	
			.59	.51	5.39		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.47		.35	3.23	5800		10.34
10	18L / M26 x 1,5	16	18	18	137	113	85	88	67	36,5	320	16,5	17	12	8,5	82	82	400	4,70	LBV-3-18LDN16-0001-M	
			.71	.71	5.39		4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.47		.33	3.23	5800		10.34
12	22L / M30 x 2	20	22	23	152	138	119	85	103	82	47,5	320	16,5	17	14	8,5	96	96	315	6,60	LBV-3-22L-0001-M
			.87	.91	5.98	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.55	.33		3.78	4500	14.52	
16	28L / M36 x 2	25	28	23	166	138	119	85	103	82	47,5	320	16,5	17	14	8,5	112	112	315	8,00	LBV-3-28L-0001-M
			1.10	.91	6.54	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.55	.33		4.41	4500	17.60	
20R	35L / M45 x 2	25/32	35	23	170	138	119	85	103	82	47,5	320	16,5	17	16	8,5	112	112	315	8,12	LBV-3-35LDN25-0001-M
			1.38	.91	6.69	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.63	.33		4.41	4500	17.86	

Please note the pressure ratings of the tube connections.



Union nuts and cutting rings are not included in delivery.

24° Cone Connection
(DIN 2353 / ISO 8434-1)



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

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 05 to 10)
Aluminium (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)		
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2			
02	08S / M16 x 1,5	4	8	5	105	70	55	58	40	22	160	14	12	12	6,5	101	101	500	1,60	LBV-3-08S-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47		.26	3.98	7250		3.52
04	10S / M18 x 1,5	6	10	5	105	70	55	58	40	22	160	14	12	12	6,5	101	101	500	1,80	LBV-3-10S-0001-M	
			.39	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47		.26	3.98	7250		3.96
05	12S / M20 x 1,5	8	12	8	116	80	65	68	50	27	200	14	14	12	6,5	72	72	500	2,60	LBV-3-12S-0001-M	
			.47	.31	4.57		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.47		.26	2.83	7250		5.72
06	14S / M22 x 1,5	10	14	8	120	80	65	68	50	27	200	14	14	14	6,5	72	72	500	2,60	LBV-3-14S-0001-M	
			.55	.31	4.72		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.55		.26	2.83	7250		5.72
08	16S / M24 x 1,5	13	16	13	141	100	80	78	60	31	200	14	14	14	9	82	82	400	4,70	LBV-3-16S-0001-M	
			.63	.51	5.55		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.55		.35	3.23	5800		10.34
10	20S / M30 x 2	16	20	18	145	113	85	88	67	36,5	320	16,5	17	16	8,5	82	82	400	4,70	LBV-3-20S-0001-M	
			.79	.71	5.71		4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.63		.33	3.23	5800		10.34
12	25S / M36 x 2	20	25	23	160	138	119	85	103	82	47,5	320	16,5	17	18	8,5	96	96	315	6,60	LBV-3-25S-0001-M
			.98	.91	6.30	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.71	.33		3.78	4500	14.52	
16	30S / M42 x 2	25	30	23	176	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	112	315	8,00	LBV-3-30S-0001-M
			1.18	.91	6.93	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.79	.33		4.41	4500	17.60	
20R	38S / M52 x 2	25/32	38	23	180	138	119	85	103	82	47,5	320	16,5	17	22	8,5	112	112	315	8,12	LBV-3-38SDN25-0001-M
			1.50	.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33		4.41	4500	17.86	

Please note the pressure ratings of the tube connections.

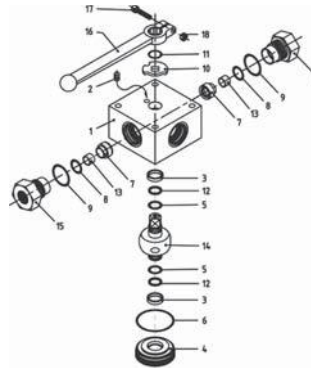


High-Pressure Block Body Ball Valve - Type TBV-3

B



Pressure inlet possible from all ports!



List of Components

No.	Qty.	Description
1	1	Body
2	1	Stop Pin
3*	2	Bearing
4	1	Trunnion Retainer
5*	2	Trunnion O-Ring
6*	1	Retainer O-Ring
7*	3	Ball Seat
8*	3	Seat O-Ring
9*	3	Connector O-Ring
10	1	Cam Plate
11	1	Snap Ring
12*	2	Trunnion Back Up Ring
13	3	Seat Support
14	1	Trunnion Ball
15	3	Connector
16	1	Handle
17	1	Handle Bolt

Characteristics

Three-way high-pressure block body ball valves designed for use as three-way selectors (T-bore, 90° operation) for hydraulic applications

Standard Construction

- Block body design for in-line assembly
- Multi-way valve with trunnion-style ball
- Supplied with lever

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >G 1-1/2 BSP
- Female NPT thread (ANSI B1.20.1) >1-1/2 NPT
- Female UN/UNF thread (SAE J 514) >1-5/16-12 UN (1" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure loaded seats at all ports!

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 (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- 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)

Porting Pattern

- Symbol : T
- Overlap: positive
- Operating: 90°

P02



- Stop of end position:



Please see pages 120-121 for alternative porting patterns.

Order Codes

TBV - 3 - G 02 - 0 0 0 1 - M - -

1 2 3 4 5 6 7 8 9 10 11

1 Type

Multi-Way T-Bore Ball Valve **TBV**

2 Number of Ports

Three Ports (Three-Way Ball Valve) **3**

3 Connection Style

Female BSP Thread (DIN ISO 228)	G
Female NPT Thread (ANSI B1.20.1)	N
Female UN/UNF Thread (SAE J 514)	U
24° Cone Connection (Light / Heavy Series)	—

Please contact STAUFF for alternative connection styles.

4 Connection Size

STAUFF Size (according to dimension table) for connection styles G, N and U:

02	04	06	08	10	12	16	20R	24R
----	----	----	----	----	----	----	-----	-----

Tube Size (according to dimension table) for 24° Cone Connection (Light Series):

06L	08L	10L	12L	15L	18L	22L	28L	35L
-----	-----	-----	-----	-----	-----	-----	-----	-----

Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):

08S	10S	12S	14S	16S	20S	25S	30S	38S
-----	-----	-----	-----	-----	-----	-----	-----	-----

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

6 Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated	0
Stem: Carbon Steel	0
Ball / Stem: Stainless Steel V4A (AISI 316Ti)	1

Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

7 Ball Seat Material

Delrin® (POM)	0
---------------	----------

Alternative materials are available upon request. Contact STAUFF for further information.

8 O-Ring Material

NBR (Buna-N®)	0
FKM/FPM (Viton®)	1
EPDM	3

Alternative materials are available upon request. Contact STAUFF for further information.

9 Manufacturing Code

Manufacturing code for all connection styles	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.

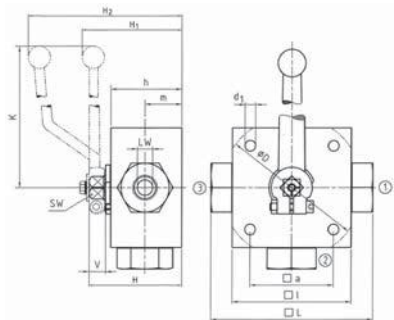
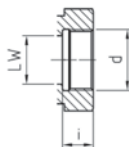
11 Accessories / Options

Supplied without accessories	—
Supplied with Locking Device LD4	LD4

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type TBV-3 T-Bore Three-Way Selector - Female BSP Thread (DIN ISO 228)


**Female BSP Thread
(DIN ISO 228)**


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

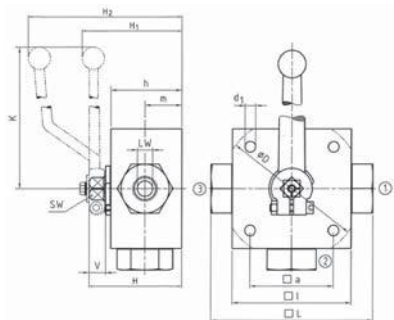
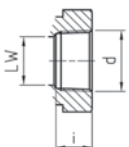
- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1				H1
02	G 1/8 BSP	4	5	100	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	TBV-3-G02-0001-M	
			.20	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250	3.52		
04	G 1/4 BSP	6	5	100	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	TBV-3-G04-0001-M	
			.20	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55	.26	3.98	7250	3.52		
06	G 3/8 BSP	10	8	115	80	65	68	50	27	200	14	14	14	6,5	72	500	2,70	TBV-3-G06-0001-M	
			.31	4.53	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.55	.26	2.83	7250	5.94		
08	G 1/2 BSP	13	13	136	100	80	78	60	31	200	14	14	16,3	9	82	400	4,90	TBV-3-G08-0001-M	
			.51	5.35	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.64	.35	3.23	5800	10.78		
10	G 5/8 BSP	16	13	139	100	80	78	60	31	200	14	14	18	9	82	400	4,90	TBV-3-G10-0001-M	
			.51	5.47	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.71	.35	3.23	5800	10.78		
12	G 3/4 BSP	20	18	154	138	113	85	88	67	36,5	320	16,5	17	18	8,5	96	315	6,70	TBV-3-G12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.71	.33	3.78	4500	14.74	
16	G 1 BSP	25	23	172	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	315	8,30	TBV-3-G16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.79	.33	4.41	4500	18.26	
20R	G 1-1/4 BSP	25/32	23	180	138	119	85	103	82	47,5	320	16,5	17	22	8,5	112	315	8,50	TBV-3-G20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	4500	18.70	
24R	G 1-1/2 BSP	25/40	23	180	138	119	85	103	82	47,5	320	16,5	17	24	8,5	112	250	8,50	TBV-3-G24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.94	.33	4.41	3600	18.70	

Please note the pressure ratings of the tube connections.

High-Pressure Block Body Ball Valve - Type TBV-3 T-Bore Three-Way Selector - Female NPT Thread (ANSI B1.20.1)


**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: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1				H1
02	1/8 NPT	4	5	100	70	55	58	40	22	160	14	12	10,5	6,5	101	500	1,60	TBV-3-N02-0001-M	
			.20	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.41	.26	3.98	7250	3.52		
04	1/4 NPT	6	5	100	70	55	58	40	22	160	14	12	13,7	6,5	101	500	1,60	TBV-3-N04-0001-M	
			.20	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.54	.26	3.98	7250	3.52		
06	3/8 NPT	10	8	115	80	65	68	50	27	200	14	14	13,5	6,5	72	500	2,80	TBV-3-N06-0001-M	
			.31	4.53	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.53	.26	2.83	7250	6.16		
08	1/2 NPT	13	13	136	100	80	78	60	31	200	14	14	17	9	82	400	5,20	TBV-3-N08-0001-M	
			.51	5.35	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.67	.35	3.23	5800	11.44		
12	3/4 NPT	20	18	154	138	113	85	88	67	36,5	320	16,5	17	18,3	8,5	96	315	6,80	TBV-3-N12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.72	.33	3.78	4500	14.96	
16	1 NPT	25	23	172	138	119	85	103	82	47,5	320	16,5	17	21,6	8,5	112	315	8,50	TBV-3-N16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.85	.33	4.41	4500	18.70	
20R	1-1/4 NPT	25/32	23	180	138	119	85	103	82	47,5	320	16,5	17	22,1	8,5	112	315	8,80	TBV-3-N20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	4500	19.36	
24R	1-1/2 NPT	25/40	23	180	138	119	85	103	82	47,5	320	16,5	17	22,1	8,5	112	250	8,80	TBV-3-N24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	3600	19.36	

Please note the pressure ratings of the tube connections.



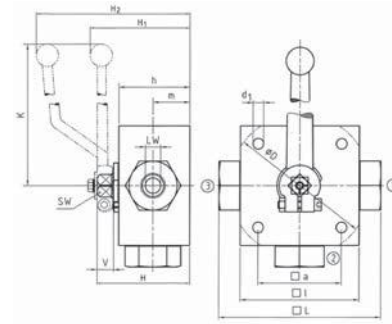
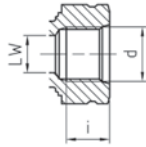
High-Pressure Block Body Ball Valve - Type TBV-3 T-Bore Three-Way Selector - Female UN/UNF Thread (SAE J 514)

B

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 (STAUFF Size 04)
Zinc (STAUFF Sizes 06 and 08)
Aluminium (STAUFF Sizes 12 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Female UN/UNF Thread (SAE J 514)

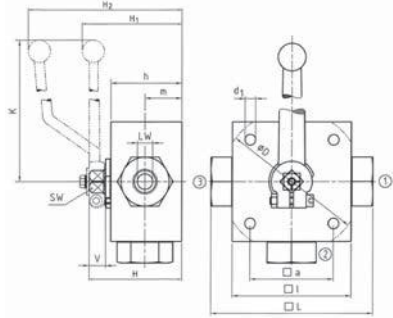


STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)		
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2				
04	7/16-20 UNF (1/4" SAE)	6	5	100	/	70	55	58	40	22	160	14	12	14	6,5	/	101	500	1,60	TBV-3-U04-0001-M	
			0,20	3,94		2,76	2,17	2,28	1,57	0,87	6,30	0,55	0,47	0,55	0,26		3,98	7250	3,52		
06	9/16-18 UNF (3/8" SAE)	10	8	115	/	80	65	68	50	27	200	14	14	14	6,5	72	/	500	2,80	TBV-3-U06-0001-M	
			0,31	4,53		3,15	2,56	2,68	1,97	1,06	7,87	0,55	0,55	0,55	0,26	2,83		7250	6,16		
08	3/4-16 UNF (1/2" SAE)	13	13	144	/	100	80	78	60	31	200	14	14	14	16,3	9	82	/	400	5,20	TBV-3-U08-0001-M
			0,51	5,67		3,94	3,15	3,07	2,36	1,22	7,87	0,55	0,55	0,64	0,35	3,23	5800		11,44		
12	1-1/16-12 UN (3/4" SAE)	20	18	164	138	113	85	88	67	36,5	320	16,5	17	18	8,5	96	/	315	6,80	TBV-3-U12-0001-M	
			0,71	6,46	5,43	4,45	3,35	3,46	2,64	1,44	12,60	0,65	0,67	0,71	0,33	3,78		4500	14,96		
16	1-5/16-12 UN (1" SAE)	25	23	180	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	/	315	8,50	TBV-3-U16-0001-M	
			0,91	7,09	5,43	4,69	3,35	4,06	3,23	1,87	12,60	0,65	0,67	0,79	0,33	4,41		4500	18,70		

Please note the pressure ratings of the tube connections.

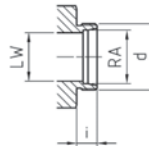


**High-Pressure Block Body Ball Valve - Type TBV-3
T-Bore Three-Way Selector - 24° Cone Connection
Light Series (DIN 2353 / ISO 8434-1)**



Union nuts and cutting rings are not included in delivery.

**24° Cone Connection
(DIN 2353 / ISO 8434-1)**



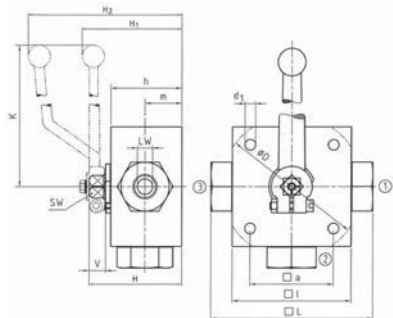
When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 05 to 10)
Aluminium (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

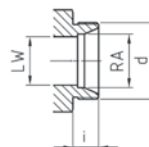
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)															Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2			
02	06L / M12 x 1,5	4	6	5	105	70	55	58	40	22	160	14	12	10	6,5	101	101	500	1,60	TBV-3-06L-0001-M	
			.24	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39		.26	3.98	7250		3.52
04	08L / M14 x 1,5	6	8	5	105	70	55	58	40	22	160	14	12	10	6,5	101	101	500	1,80	TBV-3-08L-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39		.26	3.98	7250		3.96
05	10L / M16 x 1,5	8	10	8	114	80	65	68	50	27	200	14	14	11	6,5	72	72	500	2,60	TBV-3-10L-0001-M	
			.39	.31	4.49		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.43		.26	2.83	7250		5.72
06	12L / M18 x 1,5	10	12	8	114	80	65	68	50	27	200	14	14	11	6,5	72	72	500	2,60	TBV-3-12L-0001-M	
			.47	.31	4.49		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.43		.26	2.83	7250		5.72
08	15L / M22 x 1,5	13	15	13	137	100	80	78	60	31	200	14	14	12	9	82	82	400	4,70	TBV-3-15L-0001-M	
			.59	.51	5.39		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.47		.35	3.23	5800		10.34
10	18L / M26 x 1,5	16	18	18	137	113	85	88	67	36,5	320	16,5	17	12	8,5	82	82	400	4,70	TBV-3-18LDN16-0001-M	
			.71	.71	5.39		4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.47		.33	3.23	5800		10.34
12	22L / M30 x 2	20	22	23	152	138	119	85	103	82	47,5	320	16,5	17	14	8,5	96	96	315	6,60	TBV-3-22L-0001-M
			.87	.91	5.98	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.55	.33		3.78	4500	14.52	
16	28L / M36 x 2	25	28	23	166	138	119	85	103	82	47,5	320	16,5	17	14	8,5	112	112	315	8,00	TBV-3-28L-0001-M
			1.10	.91	6.54	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.55	.33		4.41	4500	17.60	
20R	35L / M45 x 2	25/32	35	23	170	138	119	85	103	82	47,5	320	16,5	17	16	8,5	112	112	315	8,12	TBV-3-35LDN25-0001-M
			1.38	.91	6.69	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.63	.33		4.41	4500	17.86	

Please note the pressure ratings of the tube connections.



Union nuts and cutting rings are not included in delivery.

**24° Cone Connection
(DIN 2353 / ISO 8434-1)**



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

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 05 to 10)
Aluminium (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)															Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2			
02	08S / M16 x 1,5	4	8	5	105	70	55	58	40	22	160	14	12	12	6,5	101	101	500	1,60	TBV-3-08S-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47		.26	3.98	7250		3.52
04	10S / M18 x 1,5	6	10	5	105	70	55	58	40	22	160	14	12	12	6,5	101	101	500	1,80	TBV-3-10S-0001-M	
			.39	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47		.26	3.98	7250		3.96
05	12S / M20 x 1,5	8	12	8	116	80	65	68	50	27	200	14	14	12	6,5	72	72	500	2,60	TBV-3-12S-0001-M	
			.47	.31	4.57		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.47		.26	2.83	7250		5.72
06	14S / M22 x 1,5	10	14	8	120	80	65	68	50	27	200	14	14	14	6,5	72	72	500	2,60	TBV-3-14S-0001-M	
			.55	.31	4.72		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.55		.26	2.83	7250		5.72
08	16S / M24 x 1,5	13	16	13	141	100	80	78	60	31	200	14	14	14	9	82	82	400	4,70	TBV-3-16S-0001-M	
			.63	.51	5.55		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.35		3.23	5800	10.34		
10	20S / M30 x 2	16	20	18	145	113	85	88	67	36,5	320	16,5	17	16	8,5	82	82	400	4,70	TBV-3-20S-0001-M	
			.79	.71	5.71		4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.63		.33	3.23	5800		10.34
12	25S / M36 x 2	20	25	23	160	138	119	85	103	82	47,5	320	16,5	17	18	8,5	96	96	315	6,60	TBV-3-25S-0001-M
			.98	.91	6.30	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.71	.33		3.78	4500	14.52	
16	30S / M42 x 2	25	30	23	176	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	112	315	8,00	TBV-3-30S-0001-M
			1.18	.91	6.93	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.79	.33		4.41	4500	17.60	
20R	38S / M52 x 2	25/32	38	23	180	138	119	85	103	82	47,5	320	16,5	17	22	8,5	112	112	315	8,12	TBV-3-38SDN25-0001-M
			1.50	.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33		4.41	4500	17.86	

Please note the pressure ratings of the tube connections.

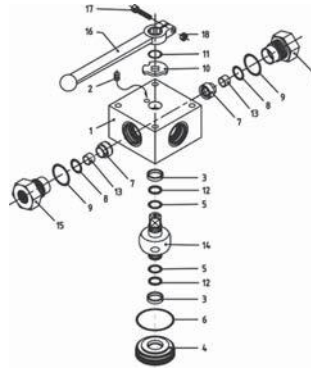


High-Pressure Block Body Ball Valve - Type TBV-4

B



Pressure inlet possible from all ports!



List of Components

No.	Qty.	Description
1	1	Body
2	1	Stop Pin
3*	2	Bearing
4	1	Trunnion Retainer
5*	2	Trunnion O-Ring
6*	1	Retainer O-Ring
7*	4	Ball Seat
8*	4	Seat O-Ring
9*	4	Connector O-Ring
10	1	Cam Plate
11	1	Snap Ring
12*	2	Trunnion Back Up Ring
13	4	Seat Support
14	1	Trunnion Ball
15	4	Connector
16	1	Handle
17	1	Handle Bolt

Characteristics

Four-way high-pressure block body ball valves designed for use as 4-way selectors (T-bore, 90° operation) for hydraulic applications

Standard Construction

- Block body design for in-line assembly
- Multi-way valve with trunnion-style ball
- Supplied with lever

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >G 1-1/2 BSP
- Female NPT thread (ANSI B1.20.1) >1-1/2 NPT
- Female UN/UNF thread (SAE J 514) >1-5/16-12 UN (1" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure loaded seats at all ports!

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 (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- 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)

Porting Pattern

- Symbol : T
- Overlap: positive
- Operating: 90°

P13



- Stop of end position:



Please see pages 120-121 for alternative porting patterns.

Order Codes

TBV - 4 - G 02 - 0 0 0 1 - M - -

1 2 3 4 5 6 7 8 9 10 11

① Type

Multi-Way T-Bore Ball Valve **TBV**

② Number of Ports

Four Ports (Four-Way Ball Valve) **4**

③ Connection Style

Female BSP Thread (DIN ISO 228) **G**
 Female NPT Thread (ANSI B1.20.1) **N**
 Female UN/UNF Thread (SAE J 514) **U**
 24° Cone Connection (Light / Heavy Series) **—**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table) for connection styles G, N and U:
02 04 06 08 10 12 16 20R 24R
 Tube Size (according to dimension table) for 24° Cone Connection (Light Series):
06L 08L 10L 12L 15L 18L 22L 28L 35L
 Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):
08S 10S 12S 14S 16S 20S 25S 30S 38S

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

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. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM/FPM (Viton®) **1**
 EPDM **3**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

Supplied with standard lever (according to table) **—**
 Supplied without lever **0**

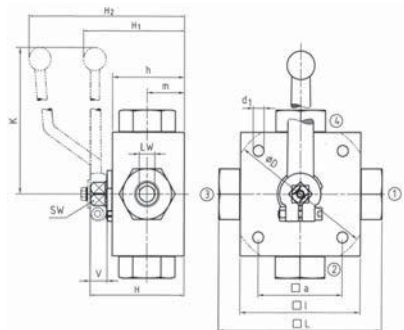
Alternative levers can be ordered separately. Please see page 114 for further information.

⑪ Accessories / Options

Supplied without accessories **—**
 Supplied with Locking Device LD4 **LD4**

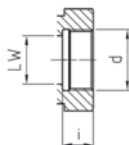
Please see page 115-119 for further information and options.





High-Pressure Block Body Ball Valve - Type TBV-4 T-Bore Four-Way Selector - Female BSP Thread (DIN ISO 228)

Female BSP Thread (DIN ISO 228)



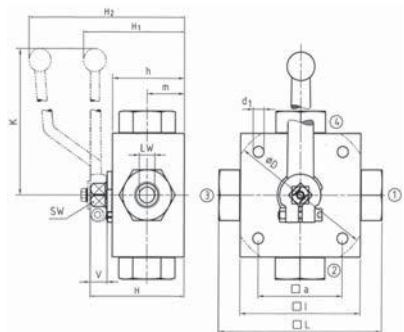
When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

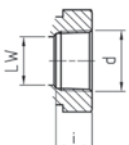
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1			
02	G 1/8 BSP	4	5	100	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	TBV-4-G02-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39		.26	3.98		7250
04	G 1/4 BSP	6	5	100	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	TBV-4-G04-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55		.26	3.98		7250
06	G 3/8 BSP	10	8	115	80	65	68	50	27	200	14	14	14	6,5	72	500	2,80	TBV-4-G06-0001-M	
			.31	4.53		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.55		.26	2.83		7250
08	G 1/2 BSP	13	13	136	100	80	78	60	31	200	14	14	16,3	9	82	400	4,90	TBV-4-G08-0001-M	
			.51	5.35		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.64		.35	3.23		5800
10	G 5/8 BSP	16	13	139	100	80	78	60	31	200	14	14	18	9	82	400	4,90	TBV-4-G10-0001-M	
			.51	5.47		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.71		.35	3.23		5800
12	G 3/4 BSP	20	18	154	138	113	85	88	67	36,5	320	16,5	17	18	8,5	96	315	6,80	TBV-4-G12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.71	.33	3.78	4500	14.96	
16	G 1 BSP	25	23	172	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	315	8,50	TBV-4-G16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.79	.33	4.41	4500	18.70	
20R	G 1-1/4 BSP	25/32	23	180	138	119	85	103	82	47,5	320	16,5	17	22	8,5	112	315	8,80	TBV-4-G20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	4500	19.36	
24R	G 1-1/2 BSP	25/40	23	180	138	119	85	103	82	47,5	320	16,5	17	24	8,5	112	250	8,80	TBV-4-G24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.94	.33	4.41	3600	19.36	

Please note the pressure ratings of the tube connections.



High-Pressure Block Body Ball Valve - Type TBV-4 T-Bore Four-Way Selector - Female NPT Thread (ANSI B1.20.1)

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: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1			
02	1/8 NPT	4	5	100	70	55	58	40	22	160	14	12	10,5	6,5	101	500	1,60	TBV-4-N02-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.41		.26	3.98		7250
04	1/4 NPT	6	5	100	70	55	58	40	22	160	14	12	13,7	6,5	101	500	1,60	TBV-4-N04-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.54		.26	3.98		7250
06	3/8 NPT	10	8	115	80	65	68	50	27	200	14	14	13,5	6,5	72	500	2,80	TBV-4-N06-0001-M	
			.31	4.53		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.53		.26	2.83		7250
08	1/2 NPT	13	13	136	100	80	78	60	31	200	14	14	17	9	82	400	4,90	TBV-4-N08-0001-M	
			.51	5.35		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.67		.35	3.23		5800
12	3/4 NPT	20	18	154	138	113	85	88	67	36,5	320	16,5	17	18,3	8,5	96	315	6,80	TBV-4-N12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.72	.33	3.78	4500	14.96	
16	1 NPT	25	23	172	138	119	85	103	82	47,5	320	16,5	17	21,6	8,5	112	315	8,50	TBV-4-N16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.85	.33	4.41	4500	18.70	
20R	1-1/4 NPT	25/32	23	180	138	119	85	103	82	47,5	320	16,5	17	22,1	8,5	112	315	8,80	TBV-4-N20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	4500	19.36	
24R	1-1/2 NPT	25/40	23	180	138	119	85	103	82	47,5	320	16,5	17	22,1	8,5	112	250	8,80	TBV-4-N24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	3600	19.36	

Please note the pressure ratings of the tube connections.



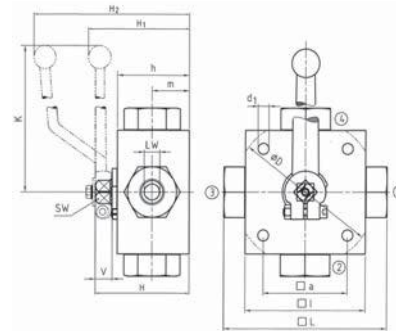
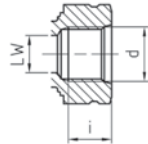
High-Pressure Block Body Ball Valve - Type TBV-4
T-Bore Four-Way Selector - Female UN/UNF Thread (SAE J 514)

B

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 (STAUFF Size 04)
Zinc (STAUFF Sizes 06 and 08)
Aluminium (STAUFF Sizes 12 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Female UN/UNF Thread (SAE J 514)

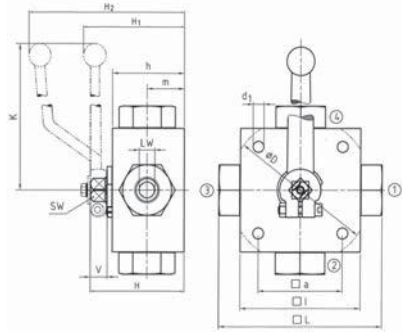


STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2			
04	7/16-20 UNF (1/4" SAE)	6	5	100	/	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	TBV-4-U04-0001-M	
			0,20	3,94		2,76	2,17	2,28	1,57	0,87	6,30	0,55	0,47	0,55	0,26	3,98	7250	3,52		
06	9/16-18 UNF (3/8" SAE)	10	8	115	/	80	65	68	50	27	200	14	14	14	6,5	72	500	2,80	TBV-4-U06-0001-M	
			0,31	4,53		3,15	2,56	2,68	1,97	1,06	7,87	0,55	0,55	0,55	0,26	2,83	7250	6,16		
08	3/4-16 UNF (1/2" SAE)	13	13	144	/	100	80	78	60	31	200	14	14	14	16,3	9	82	400	5,20	TBV-4-U08-0001-M
12	1-1/16-12 UN (3/4" SAE)	20	18	164	138	113	85	88	67	36,5	320	16,5	17	18	8,5	96	315	6,80	TBV-4-U12-0001-M	
			0,71	6,46	5,43	4,45	3,35	3,46	2,64	1,44	12,60	0,65	0,67	0,71	0,33	3,78	4500	14,96		
16	1-5/16-12 UN (1" SAE)	25	23	180	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	315	8,50	TBV-4-U16-0001-M	
			0,91	7,09	5,43	4,69	3,35	4,06	3,23	1,87	12,60	0,65	0,67	0,79	0,33	4,41	4500	18,70		

Please note the pressure ratings of the tube connections.

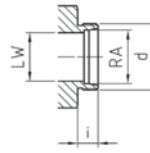


High-Pressure Block Body Ball Valve - Type TBV-4 T-Bore Four-Way Selector - 24° Cone Connection Light Series (DIN 2353 / ISO 8434-1)



Inion nuts and cutting rings are not included in delivery.

24° Cone Connection (DIN 2353 / ISO 8434-1)



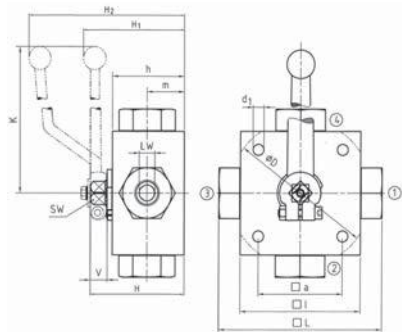
When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 05 to 10)
Aluminium (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)		
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2			
02	06L / M12 x 1,5	4	6	5	105	70	55	58	40	22	160	14	12	10	6,5	101	101	500	1,60	TBV-4-06L-0001-M	
			.24	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39		.26	3.98	7250		3.52
04	08L / M14 x 1,5	6	8	5	105	70	55	58	40	22	160	14	12	10	6,5	101	101	500	1,80	TBV-4-08L-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39		.26	3.98	7250		3.96
05	10L / M16 x 1,5	8	10	8	114	80	65	68	50	27	200	14	14	11	6,5	72	500	2,60	TBV-4-10L-0001-M		
			.39	.31	4.49		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.43		.26	2.83		7250	5.72
06	12L / M18 x 1,5	10	12	8	114	80	65	68	50	27	200	14	14	11	6,5	72	500	2,60	TBV-4-12L-0001-M		
			.47	.31	4.49		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.43		.26	2.83		7250	5.72
08	15L / M22 x 1,5	13	15	13	137	100	80	78	60	31	200	14	14	12	9	82	400	4,70	TBV-4-15L-0001-M		
			.59	.51	5.39		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.47		.35	3.23		5800	10.34
10	18L / M26 x 1,5	16	18	18	137	113	85	88	67	36,5	320	16,5	17	12	8,5	82	400	4,70	TBV-4-18LDN16-0001-M		
			.71	.71	5.39		4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.47		.33	3.23		5800	10.34
12	22L / M30 x 2	20	22	23	152	138	119	85	103	82	47,5	320	16,5	17	14	8,5	96	315	6,60	TBV-4-22L-0001-M	
			.87	.91	5.98	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.55	.33		3.78	4500		14.52
16	28L / M36 x 2	25	28	23	166	138	119	85	103	82	47,5	320	16,5	17	14	8,5	112	315	8,00	TBV-4-28L-0001-M	
			1.10	.91	6.54	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.55	.33		4.41	4500		17.60
20R	35L / M45 x 2	25/32	35	23	170	138	119	85	103	82	47,5	320	16,5	17	16	8,5	112	315	8,12	TBV-4-35LDN25-0001-M	
			1.38	.91	6.69	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.63	.33		4.41	4500		17.86

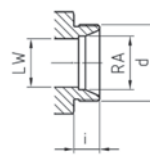
Please note the pressure ratings of the tube connections.



Inion nuts and cutting rings are not included in delivery.

High-Pressure Block Body Ball Valve - Type TBV-4 T-Bore Four-Way Selector - 24° Cone Connection Heavy Series (DIN 2353 / ISO 8434-1)

24° Cone Connection (DIN 2353 / ISO 8434-1)



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

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 05 to 10)
Aluminium (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)		
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2			
02	08S / M16 x 1,5	4	8	5	105	70	55	58	40	22	160	14	12	12	6,5	101	101	500	1,60	TBV-4-08S-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47		.26	3.98	7250		3.52
04	10S / M18 x 1,5	6	10	5	105	70	55	58	40	22	160	14	12	12	6,5	101	101	500	1,80	TBV-4-10S-0001-M	
			.39	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47		.26	3.98	7250		3.96
05	12S / M20 x 1,5	8	12	8	116	80	65	68	50	27	200	14	14	12	6,5	72	500	2,60	TBV-4-12S-0001-M		
			.47	.31	4.57		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.47		.26	2.83		7250	5.72
06	14S / M22 x 1,5	10	14	8	120	80	65	68	50	27	200	14	14	14	6,5	72	500	2,60	TBV-4-14S-0001-M		
			.55	.31	4.72		3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.55		.26	2.83		7250	5.72
08	16S / M24 x 1,5	13	16	13	141	100	80	78	60	31	200	14	14	14	9	82	400	4,70	TBV-4-16S-0001-M		
			.63	.51	5.55		3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.55		.35	3.23		5800	10.34
10	20S / M30 x 2	16	20	18	145	113	85	88	67	36,5	320	16,5	17	16	8,5	82	400	4,70	TBV-4-20S-0001-M		
			.79	.71	5.71		4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.63		.33	3.23		5800	10.34
12	25S / M36 x 2	20	25	23	160	138	119	85	103	82	47,5	320	16,5	17	18	8,5	96	315	6,60	TBV-4-25S-0001-M	
			.98	.91	6.30	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.71	.33		3.78	4500		14.52
16	30S / M42 x 2	25	30	23	176	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	315	8,00	TBV-4-30S-0001-M	
			1.18	.91	6.93	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.79	.33		4.41	4500		17.60
20R	38S / M52 x 2	25/32	38	23	180	138	119	85	103	82	47,5	320	16,5	17	22	8,5	112	315	8,12	TBV-4-38SDN25-0001-M	
			1.50	.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33		4.41	4500		17.86

Please note the pressure ratings of the tube connections.

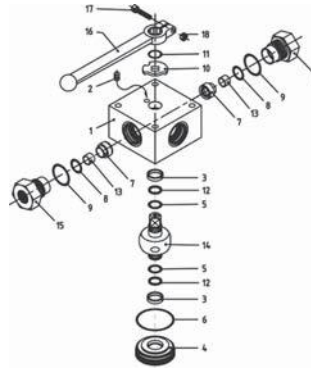


High-Pressure Block Body Ball Valve - Type XBV-4

B



Pressure inlet possible from all ports!



List of Components

No.	Qty.	Description
1	1	Body
2	1	Stop Pin
3*	2	Bearing
4	1	Trunnion Retainer
5*	2	Trunnion O-Ring
6*	1	Retainer O-Ring
7*	4	Ball Seat
8*	4	Seat O-Ring
9*	4	Connector O-Ring
10	1	Cam Plate
11	1	Snap Ring
12*	2	Trunnion Back Up Ring
13	4	Seat Support
14	1	Trunnion Ball
15	4	Connector
16	1	Handle
17	1	Handle Bolt

Characteristics

Four-way high-pressure block body ball valves designed for use as 4-way selectors (double L-bore, 90° operation with closed position) for hydraulic applications

Standard Construction

- Block body design for in-line assembly
- Multi-way valve with trunnion-style ball
- Supplied with lever

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Standard Connections Styles / Sizes

- Female BSP thread (DIN ISO 228) >G 1-1/2 BSP
- Female NPT thread (ANSI B1.20.1) >1-1/2 NPT
- Female UN/UNF thread (SAE J 514) >1-5/16-12 UN (1" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure loaded seats at all ports!

Pressure Range

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

Temperature Range

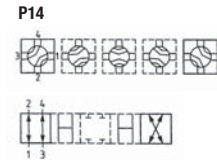
- Operating temperature range: -20°C ... +100°C / -4°F ... +212°F

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- 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)

Porting Pattern

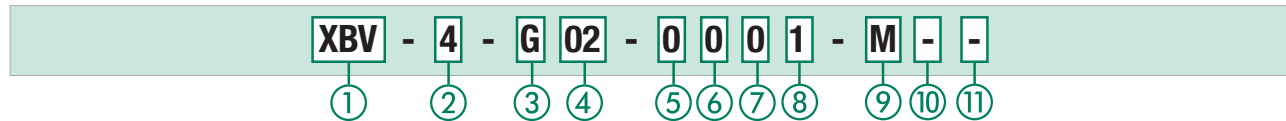
- Symbol : X
- Overlap: negative
- Operating: 90° with closed position



- Stop of end position:

Please see pages 120-121 for alternative porting patterns.

Order Codes



① Type

Multi-Way Double L-Bore Ball Valve **XBV**

② Number of Ports

Four Ports (Four-Way Ball Valve) **4**

③ Connection Style

Female BSP Thread (DIN ISO 228) **G**
 Female NPT Thread (ANSI B1.20.1) **N**
 Female UN/UNF Thread (SAE J 514) **U**
 24° Cone Connection (Light / Heavy Series) **—**

Please contact STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table) for connection styles G, N and U:
02 04 06 08 10 12 16 20R 24R
 Tube Size (according to dimension table) for 24° Cone Connection (Light Series):
06L 08L 10L 12L 15L 18L 22L 28L 35L
 Tube Size (according to dimension table) for 24° Cone Connection (Heavy Series):
08S 10S 12S 14S 16S 20S 25S 30S 38S

Please contact STAUFF for alternative connection sizes.

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. Contact STAUFF for further information.

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. Contact STAUFF for further information.

⑦ Ball Seat Material

Delrin® (POM) **0**

Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®) **0**
 FKM/FPM (Viton®) **1**
 EPDM **3**

Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **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.

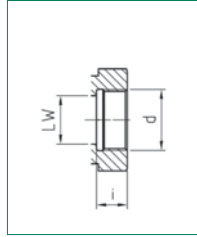
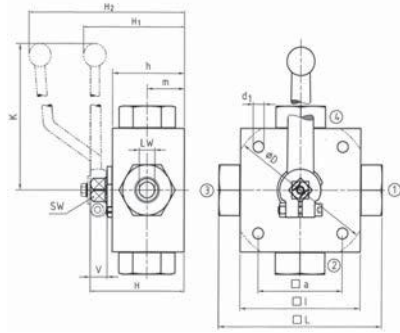
⑪ Accessories / Options

Supplied without accessories **—**
 Supplied with Locking Device LD4 **LD4**

Please see page 115-119 for further information and options.



High-Pressure Block Body Ball Valve - Type XBV-4 Double L-Bore Four-Way Selector - Female BSP Thread (DIN ISO 228)



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

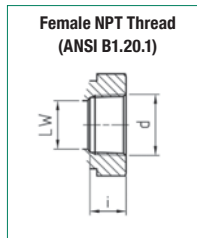
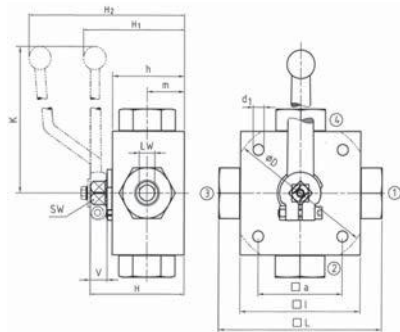
- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1			
02	G 1/8 BSP	4	4	100	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	XBV-4-G02-0001-M	
			.16	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250	3.52		
04	G 1/4 BSP	6	4	100	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	XBV-4-G04-0001-M	
			.16	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55	.26	3.98	7250	3.52		
06	G 3/8 BSP	10	7	115	80	65	68	50	27	200	14	14	14	6,5	72	500	2,80	XBV-4-G06-0001-M	
			.28	4.53	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.55	.26	2.83	7250	6.16		
08	G 1/2 BSP	13	10	136	100	80	78	60	31	200	14	14	16,3	9	82	400	4,90	XBV-4-G08-0001-M	
			.39	5.35	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.64	.35	3.23	5800	10.78		
10	G 5/8 BSP	16	10	139	100	80	78	60	31	200	14	14	18	9	82	400	4,90	XBV-4-G10-0001-M	
			.39	5.47	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.71	.35	3.23	5800	10.78		
12	G 3/4 BSP	20	14	154	138	113	85	88	67	36,5	320	16,5	17	18	8,5	96	315	6,80	XBV-4-G12-0001-M
			.55	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.71	.33	3.78	4500	14.96	
16	G 1 BSP	25	17	172	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	315	8,50	XBV-4-G16-0001-M
			.67	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.79	.33	4.41	4500	18.70	
20R	G 1-1/4 BSP	25/32	17	180	138	119	85	103	82	47,5	320	16,5	17	22	8,5	112	315	8,80	XBV-4-G20R-0001-M
			.67	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	4500	19.36	
24R	G 1-1/2 BSP	25/40	17	180	138	119	85	103	82	47,5	320	16,5	17	24	8,5	112	250	8,80	XBV-4-G24R-0001-M
			.67	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.94	.33	4.41	3600	19.36	

Please note the pressure ratings of the tube connections.

High-Pressure Block Body Ball Valve - Type XBV-4 Double L-Bore Four-Way Selector - Female NPT Thread (ANSI B1.20.1)



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: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 06 to 10)
Aluminium (STAUFF Sizes 12 to 24)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1			
02	1/8 NPT	4	4	100	70	55	58	40	22	160	14	12	10,5	6,5	101	500	1,60	XBV-4-N02-0001-M	
			.16	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.41	.26	3.98	7250	3.52		
04	1/4 NPT	6	4	100	70	55	58	40	22	160	14	12	13,7	6,5	101	500	1,60	XBV-4-N04-0001-M	
			.16	3.94	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.54	.26	3.98	7250	3.52		
06	3/8 NPT	10	7	115	80	65	68	50	27	200	14	14	13,5	6,5	72	500	2,80	XBV-4-N06-0001-M	
			.28	4.53	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.53	.26	2.83	7250	6.16		
08	1/2 NPT	13	10	136	100	80	78	60	31	200	14	14	17	9	82	400	4,90	XBV-4-N08-0001-M	
			.39	5.35	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.67	.35	3.23	5800	10.78		
12	3/4 NPT	20	14	154	138	113	85	88	67	36,5	320	16,5	17	18,3	8,5	96	315	6,80	XBV-4-N12-0001-M
			.55	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.72	.33	3.78	4500	14.96	
16	1 NPT	25	17	172	138	119	85	103	82	47,5	320	16,5	17	21,6	8,5	112	315	8,50	XBV-4-N16-0001-M
			.67	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.85	.33	4.41	4500	18.70	
20R	1-1/4 NPT	25/32	17	180	138	119	85	103	82	47,5	320	16,5	17	22,1	8,5	112	315	8,80	XBV-4-N20R-0001-M
			.67	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	4500	19.36	
24R	1-1/2 NPT	25/40	17	180	138	119	85	103	82	47,5	320	16,5	17	22,1	8,5	112	250	8,80	XBV-4-N24R-0001-M
			.67	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	3600	19.36	

Please note the pressure ratings of the tube connections.



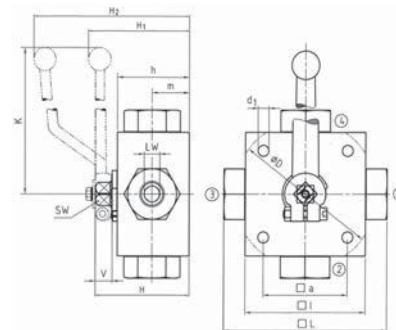
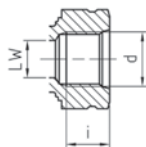
High-Pressure Block Body Ball Valve - Type XBV-4
Double L-Bore Four-Way Selector - Female UN/UNF Thread (SAE J 514)

B

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 (STAUFF Size 04)
Zinc (STAUFF Sizes 06 and 08)
Aluminium (STAUFF Sizes 12 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

Female UN/UNF Thread (SAE J 514)

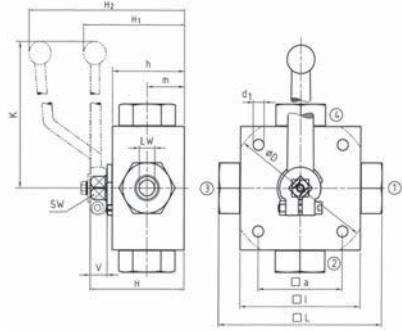


STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1			
04	7/16-20 UNF (1/4" SAE)	6	4	100	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	XBV-4-N04-0001-M	
			.16	3,94	2,76	2,17	2,28	1,57	0,87	6,30	0,55	0,47	0,55	0,26	3,98	7250	3,52		
06	9/16-18 UNF (3/8" SAE)	10	7	115	80	65	68	50	27	200	14	14	14	6,5	72	500	2,80	XBV-4-N06-0001-M	
			.28	4,53	3,15	2,56	2,68	1,97	1,06	7,87	0,55	0,55	0,55	0,26	2,83	7250	6,16		
08	3/4-16 UNF (1/2" SAE)	13	10	144	100	80	78	60	31	200	14	14	16,3	9	82	400	5,20	XBV-4-N08-0001-M	
			.39	5,67	3,94	3,15	3,07	2,36	1,22	7,87	0,55	0,55	0,64	0,35	3,23	5800	11,44		
12	1-1/16-12 UN (3/4" SAE)	20	14	164	138	113	85	88	67	36,5	320	16,5	17	18	8,5	96	315	6,80	XBV-4-N12-0001-M
			.55	6,46	5,43	4,45	3,35	3,46	2,64	1,44	12,60	0,65	0,67	0,71	0,33	3,78	4500	14,96	
16	1-5/16-12 UN (1" SAE)	25	17	180	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	315	8,50	XBV-4-N16-0001-M
			.67	7,09	5,43	4,69	3,35	4,06	3,23	1,87	12,60	0,65	0,67	0,79	0,33	4,41	4500	18,70	

Please note the pressure ratings of the tube connections.

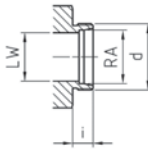


High-Pressure Block Body Ball Valve - Type XBV-4 Double L-Bore Four-Way Selector - 24° Cone Connection Light Series (DIN 2353 / ISO 8434-1)



Inion nuts and cutting rings are not included in delivery.

24° Cone Connection
(DIN 2353 / ISO 8434-1)



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

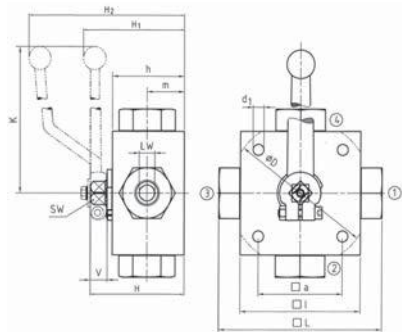
- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 05 to 10)
Aluminium (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

B

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)																Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2			
02	06L / M12 x 1,5	4	6	4	105	/	70	55	58	40	22	160	14	12	10	6,5	/	101	500	1,60	XBV-4-06L-0001-M
			.24	.16	4.13	/	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	/	3.98	7250	3.52	
04	08L / M14 x 1,5	6	8	4	105	/	70	55	58	40	22	160	14	12	10	6,5	/	101	500	1,80	XBV-4-08L-0001-M
			.31	.16	4.13	/	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	/	3.98	7250	3.96	
05	10L / M16 x 1,5	8	10	7	114	/	80	65	68	50	27	200	14	14	11	6,5	72	/	500	2,60	XBV-4-10L-0001-M
			.39	.28	4.49	/	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.43	.26	2.83	/	7250	5.72	
06	12L / M18 x 1,5	10	12	7	114	/	80	65	68	50	27	200	14	14	11	6,5	72	/	500	2,60	XBV-4-12L-0001-M
			.47	.28	4.49	/	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.43	.26	2.83	/	7250	5.72	
08	15L / M22 x 1,5	13	15	10	137	/	100	80	78	60	31	200	14	14	12	9	82	/	400	4,70	XBV-4-15L-0001-M
			.59	.39	5.39	/	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.47	.35	3.23	/	5800	10.34	
10	18L / M26 x 1,5	16	18	10	137	/	113	85	88	67	36,5	320	16,5	17	12	8,5	82	/	400	4,70	XBV-4-18LDN16-0001-M
			.71	.39	5.39	/	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.47	.33	3.23	/	5800	10.34	
12	22L / M30 x 2	20	22	14	152	138	119	85	103	82	47,5	320	16,5	17	14	8,5	96	/	315	6,60	XBV-4-22L-0001-M
			.87	.55	5.98	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.55	.33	3.78	/	4500	14.52	
16	28L / M36 x 2	25	28	17	166	138	119	85	103	82	47,5	320	16,5	17	14	8,5	112	/	315	8,00	XBV-4-28L-0001-M
			1.10	.67	6.54	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.55	.33	4.41	/	4500	17.60	
20R	35L / M45 x 2	25/32	35	17	170	138	119	85	103	82	47,5	320	16,5	17	16	8,5	112	/	315	8,12	XBV-4-35LDN25-0001-M
			1.38	.67	6.69	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.63	.33	4.41	/	4500	17.86	

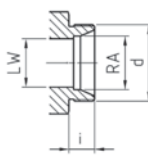
Please note the pressure ratings of the tube connections.

High-Pressure Block Body Ball Valve - Type XBV-4 Double L-Bore Four-Way Selector - 24° Cone Connection Heavy Series (DIN 2353 / ISO 8434-1)



Inion nuts and cutting rings are not included in delivery.

24° Cone Connection
(DIN 2353 / ISO 8434-1)



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

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Zinc (STAUFF Sizes 05 to 10)
Aluminium (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM/FPM (Viton®)

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)																Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H1	H2			
02	08S / M16 x 1,5	4	8	4	105	/	70	55	58	40	22	160	14	12	12	6,5	/	101	500	1,60	XBV-4-08S-0001-M
			.31	.16	4.13	/	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	/	3.98	7250	3.52	
04	10S / M18 x 1,5	6	10	4	105	/	70	55	58	40	22	160	14	12	12	6,5	/	101	500	1,80	XBV-4-10S-0001-M
			.39	.16	4.13	/	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	/	3.98	7250	3.96	
05	12S / M20 x 1,5	8	12	7	116	/	80	65	68	50	27	200	14	14	12	6,5	72	/	500	2,60	XBV-4-12S-0001-M
			.47	.28	4.57	/	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.47	.26	2.83	/	7250	5.72	
06	14S / M22 x 1,5	10	14	7	120	/	80	65	68	50	27	200	14	14	14	6,5	72	/	500	2,60	XBV-4-14S-0001-M
			.55	.28	4.72	/	3.15	2.56	2.68	1.97	1.06	7.87	.55	.55	.55	.26	2.83	/	7250	5.72	
08	16S / M24 x 1,5	13	16	10	141	/	100	80	78	60	31	200	14	14	14	9	82	/	400	4,70	XBV-4-16S-0001-M
			.63	.39	5.55	/	3.94	3.15	3.07	2.36	1.22	7.87	.55	.55	.55	.35	3.23	/	5800	10.34	
10	20S / M30 x 2	16	20	10	145	/	113	85	88	67	36,5	320	16,5	17	16	8,5	82	/	400	4,70	XBV-4-20S-0001-M
			.79	.39	5.71	/	4.45	3.35	3.46	2.64	1.44	12.60	.65	.67	.63	.33	3.23	/	5800	10.34	
12	25S / M36 x 2	20	25	14	160	138	119	85	103	82	47,5	320	16,5	17	18	8,5	96	/	315	6,60	XBV-4-25S-0001-M
			.98	.55	6.30	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.71	.33	3.78	/	4500	14.52	
16	30S / M42 x 2	25	30	17	176	138	119	85	103	82	47,5	320	16,5	17	20	8,5	112	/	315	8,00	XBV-4-30S-0001-M
			1.18	.67	6.93	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.79	.33	4.41	/	4500	17.60	
20R	38S / M52 x 2	25/32	38	17	180	138	119	85	103	82	47,5	320	16,5	17	22	8,5	112	/	315	8,12	XBV-4-38SDN25-0001-M
			1.50	.67	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.60	.65	.67	.87	.33	4.41	/	4500	17.86	

Please note the pressure ratings of the tube connections.

