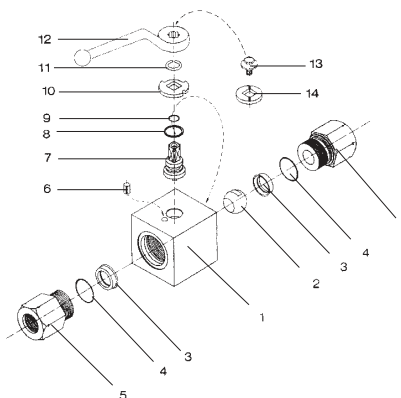


## High-Pressure Block Body Ball Valve - Type BBV-2

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	Lever
13	1	Stem Screw
14	1	Flow Indicator

### Characteristics

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

#### Standard Construction

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

#### Standard Materials

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

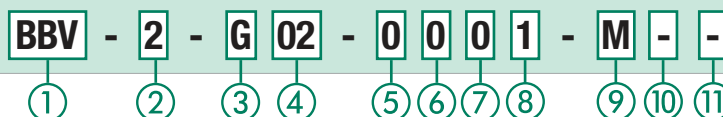
#### Temperature Range

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

Please contact STAUFF for alternative connection styles.

#### ④ Connection Size

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

<b>02</b>	<b>04</b>	<b>06</b>	<b>08</b>	<b>10</b>	<b>12</b>	<b>16</b>	<b>20R</b>	<b>24R</b>
-----------	-----------	-----------	-----------	-----------	-----------	-----------	------------	------------

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

<b>06L</b>	<b>08L</b>	<b>10L</b>	<b>12L</b>	<b>15L</b>	<b>18L</b>	<b>22L</b>	<b>28L</b>	<b>35L</b>	<b>42L</b>
------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

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

<b>06S</b>	<b>08S</b>	<b>10S</b>	<b>12S</b>	<b>14S</b>	<b>16S</b>	<b>20S</b>	<b>25S</b>	<b>30S</b>	<b>38S</b>
------------	------------	------------	------------	------------	------------	------------	------------	------------	------------

Please contact STAUFF for alternative connection sizes.

#### ⑤ Body Material / Surface Finishing

Carbon Steel, zinc/iron-plated	<b>0</b>
Carbon Steel, zinc/nickel-plated	<b>8</b>
Stainless Steel V4A (AISI 316Ti)	<b>1</b>

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

#### ⑥ Ball / Stem Material

Ball: Carbon Steel, hard chrome-plated	<b>0</b>
Stem: Carbon Steel	<b>0</b>
Ball / Stem: Stainless Steel V4A (AISI 316Ti)	<b>1</b>
Ball: Brass, hard chrome-plated	<b>2</b>
Stem: Carbon Steel	<b>2</b>

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

#### ⑦ Ball Seat Material

Delrin® (POM)	<b>0</b>
---------------	----------

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

#### ⑧ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FKM (Viton®)	<b>1</b>
EPDM	<b>3</b>

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

#### ⑨ Manufacturing Code

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

#### ⑩ Lever Options

Supplied with standard lever (according to table)	<b>—</b>
Supplied without lever	<b>O</b>

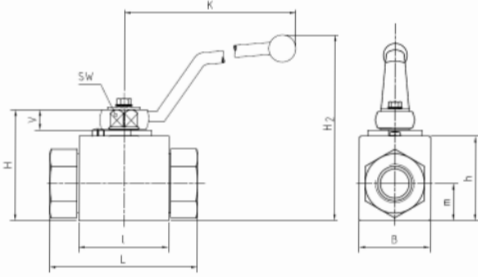
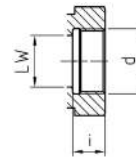
Alternative levers can be ordered separately. Please see page 114 for further information.

#### ⑪ Accessories / Options

Supplied without accessories	<b>—</b>
Supplied with Locking Device LD1	<b>LD1</b>
Supplied with Locking Device LD2	<b>LD2</b>
Supplied with Locking Device LD3	<b>LD3</b>
Supplied with Locking Device LD4	<b>LD4</b>

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



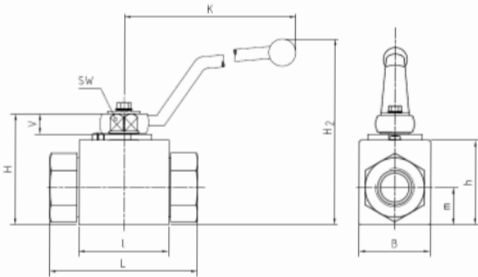
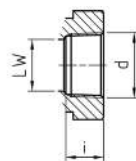
**zinc/nickel-plated**
**High-Pressure Block Body Ball Valve ■ Type BBV-2  
Female BSP Thread (DIN ISO 228)**

**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)  
Aluminium (STAUFF Size 10)  
Carbon Steel (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/m)											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-G02-8001-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-G04-8001-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-G06-8001-M
			.39	2.82	1.68	1.25	2.04	1.49	.69	.43	.35	4.50	.55	3.43	7250	1.19	
08	G 1/2 BSP	13	13	83	48	35	54	40	19	11	9	115	16,3	89	500	0,65	BBV-2-G08-8001-M
			.51	3.25	1.88	1.37	2.11	1.57	.74	.43	.35	4.50	.64	3.50	7250	1.43	
10	G 5/8 BSP	16	15	83	48	38	63	46	19	13	12	160	16	106	420	0,70	BBV-2-G10-8001-M
			.59	3.25	1.88	1.49	2.47	1.80	.74	.51	.47	6.26	.63	4.17	6000	1.54	
12	G 3/4 BSP	20	20	95	62	49	75	57	24,5	14	14	170	18	126	420	1,50	BBV-2-G12-8001-M
			.78	3.72	2.43	1.92	2.94	2.23	.96	.55	.55	6.69	.70	4.96	6000	3.31	
16	G 1 BSP	25	25	113	66	58	83	65	29,5	14	14	170	20	134	350	2,20	BBV-2-G16-8001-M
			.98	4.42	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.78	5.28	5076	4.85	
16	G 1 BSP	25	25	113	74	70	88	70	34,5	14	14	170	20	139	500	3,10	BBV-2-G16-8001-H
			.98	4.42	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	.78	5.47	7250	6.83	
20R	G 1-1/4 BSP	25/32	25	120	66	58	83	65	29,5	14	14	170	22	134	315	2,30	BBV-2-G20R-8001-M
			.98	4.70	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.86	5.28	4500	5.07	
24R	G 1-1/2 BSP	25/40	25	130	66	58	83	65	29,5	14	14	170	24	134	250	2,60	BBV-2-G24R-8001-M
			.98	5.09	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.94	5.28	3600	5.73	

Please note the pressure ratings of the tube connections.

**zinc/nickel-plated**
**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 (Viton®)

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/m)											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-N02-8001-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-N04-8001-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-N06-8001-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-N08-8001-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-N12-8001-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	350	2,30	BBV-2-N16-8001-M
			.98	4.42	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.85	5.28	5076	5.06	
16	1-11/2 NPT	25	25	113	74	70	88	70	34,5	14	14	170	20	139	500	3,16	BBV-2-N16-8001-H
			.98	4.42	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	.78	5.47	7250	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-8001-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-8001-M
			.98	5.09	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.87	5.28	3600	5.94	



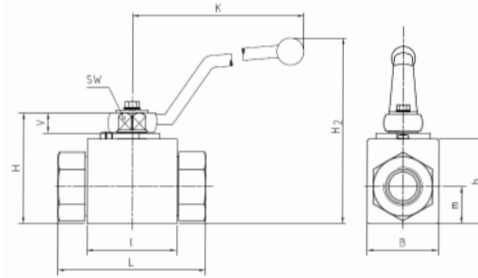
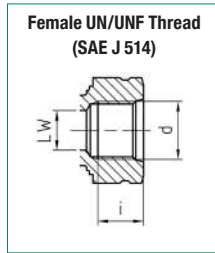
## High-Pressure Block Body Ball Valve - Type BBV-2 Female UN/UNF Thread (SAE J 514)

zinc/nickel-plated

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 (Viton®)



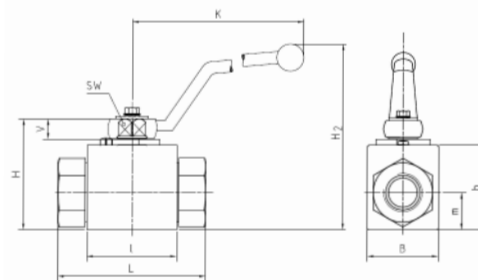
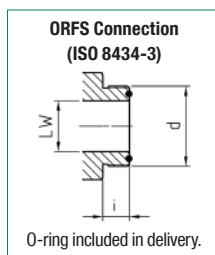
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)											Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	I	B	H	h	m	V	SW	K	i	H2			
04	7/16-20 UNF (1/4" SAE)	6	6	69	40	26	47	33	13,5	11	9	115	14	82	500	0,40	BBV-2-U04-8001-M
			.23	2.70	1.57	1.02	1.84	1.29	.53	.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-U06-8001-M
			.39	2.82	1.68	1.25	2.04	1.49	.69	.43	.35	4.50	.55	3.43	7250	1.10	
08	3/4-16 UNF (1/2" SAE)	13	13	83	48	35	54	40	19	11	9	115	16,3	89	500	0,70	BBV-2-U08-8001-M
			.51	3.25	1.88	1.37	2.11	1.57	.74	.43	.35	4.50	.64	3.50	7250	1.54	
12	1-1/16-12 UN (3/4" SAE)	20	20	95	62	49	75	57	24,5	14	14	170	18	126	420	1,50	BBV-2-U12-8001-M
			.78	3.72	2.43	1.92	2.94	2.23	.96	.55	.55	6.69	.70	4.96	6000	3.31	
16	1-5/16-12 UN (1" SAE)	25	25	113	66	58	83	65	29,5	14	14	170	20	134	350	2,20	BBV-2-U16-8001-M
			.98	4.42	2.58	2.27	3.25	2.55	1.16	.55	.55	6.69	.78	5.28	5076	4.85	
16	1-5/16-12 UN (1" SAE)	25	25	121	74	70	88	70	34,5	14	14	170	20	139	500	2,20	BBV-2-U16-8001-H
			.98	4.76	2.91	2.76	3.46	2.76	1.36	.55	.55	6.69	.78	5.47	7250	4.85	
20R	1-5/8-12 UN (1-1/4" SAE)	25/32	25	120	66	58	83	65	29,5	14	14	170	20	134	315	2,50	BBV-2-U20R-8001-M
			.98	4.70	2.60	2.28	3.27	2.56	1.16	.55	.55	6.69	.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-8001-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:

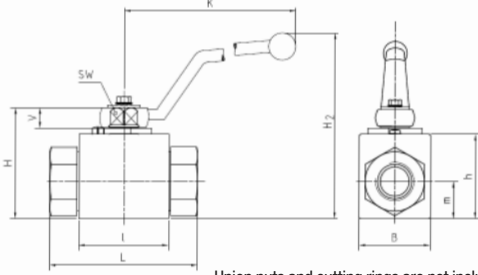
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 08)  
Aluminium (STAUFF Size 10)  
Carbon Steel (STAUFF Sizes 12 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)



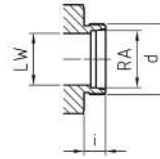
STAUFF Size	Thread Size d	Dimensions (mm/in)											O-ring	Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
		LW	L	I	B	H	h	m	V	SW	K	i	H2				
04	9/16-18 UNF	4,5	73	40	26	47	33	13,5	11	9	115	10	82	7,65 x 1,78	500	0,37	BBV-2-ORFS04-0001-M
		.18	2.87	1.57	1.02	1.84	1.29	.53	.43	.35	4.50	.39	3.23	7250	.81		
06	11/16-16 UN	6,5	73	40	26	47	33	13,5	11	9	115	11	82	9,25 x 1,78	500	0,38	BBV-2-ORFS06-0001-M
		.26	2.87	1.57	1.02	1.84	1.29	.53	.43	.35	4.50	.43	3.23	7250	.83		
08	13/16-16 UN	9,5	78	43	32	52	38	17,5	11	9	115	13	87	12,42 x 1,78	500	0,50	BBV-2-ORFS08-0001-M
		.37	3.07	1.68	1.25	2.04	1.49	.69	.43	.35	4.50	.51	3.43	7250	1.10		
10	1-14 UNS	12,5	90	48	35	54	40	19	11	9	115	15,5	89	15,60 x 1,78	420	0,61	BBV-2-ORFS10-0001-M
		.49	3.54	1.88	1.37	2.11	1.57	.74	.43	.35	4.50	.61	3.50	6000	1.34		
12	1-3/16-12 UN	15,5	98	48	35	63	40	19	13	12	160	17	106	18,77 x 1,78	420	0,80	BBV-2-ORFS12-0001-M
		.61	3.86	1.88	1.37	2.47	1.57	.74	.51	.47	6.26	.67	4.17	6000	1.76		
16	1-7/16-12 UN	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-ORFS16-0001-M
		.81	4.37	2.43	1.92	2.94	2.23	.96	.55	.55	6.69	.69	4.96	4500	3.41		
20	1-11/16-12 UN	26	120	66	58	83	65	29,5	14	14	170	17,5	134	29,87 x 1,78	315	2,10	BBV-2-ORFS20-0001-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.



**zinc/nickel-plated**
**High-Pressure Block Body Ball Valve - Type BBV-2  
24° Cone Connection - Light Series (DIN 2353 / ISO 8434-1)**


Union nuts and cutting rings are not included in delivery.

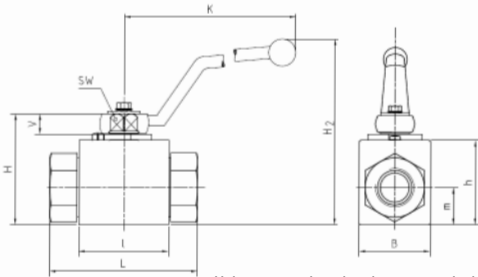
**24° Cone Connection  
(DIN 2353 / ISO 8434-1)**


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

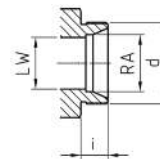
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)  
Carbon Steel (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/m)													Nom. Pressure ( <sup>bar</sup> /psi)	Weight ( <sup>kg</sup> /lbs)	Order Codes (Standard Option)
			RA	LW	L	l	B	H	h	m	V	SW	K	i	H2			
02	06L / M12 x 1,5	4	6 .24	5 .20	67 2.64	40 1.57	26 1.02	47 1.85	33 1.30	13,5 .53	11 .43	9 .35	115 4.53	10 .39	82 3.23	500 7250	0,36 .79	BBV-2-06L-8001-M
04	08L / M14 x 1,5	6	8 .31	6 .24	67 2.64	40 1.57	26 1.02	47 1.85	33 1.30	13,5 .53	11 .43	9 .35	115 4.53	10 .39	82 3.23	500 7250	0,37 .81	BBV-2-08L-8001-M
05	10L / M16 x 1,5	8	10 .39	8 .31	74 2.91	40 1.57	26 1.02	47 1.85	33 1.30	13,5 .53	11 .43	9 .35	115 4.53	11 .43	82 3.23	500 7250	0,38 .83	BBV-2-10L-8001-M
06	12L / M18 x 1,5	10	12 .47	10 .39	74 2.91	43 1.69	32 1.26	52 2.05	38 1.50	17,5 .69	11 .43	9 .35	115 4.53	11 .43	87 3.43	500 7250	0,50 1.10	BBV-2-12L-8001-M
08	15L / M22 x 1,5	13	15 .59	8 .51	82 3.23	48 1.89	35 1.38	54 2.13	40 1.57	19 .75	11 .43	9 .35	115 4.53	12 .47	89 3.50	500 7250	0,61 1.34	BBV-2-15L-8001-M
08	18L / M26 x 1,5	13	18 .71	13 .51	82 3.23	48 1.89	35 1.38	54 2.13	40 1.57	19 .75	11 .43	9 .35	115 4.53	12 .47	89 3.50	500 7250	0,60 1.32	BBV-2-18LDN13-8001-M
12	22L / M30 x 2	20	22 .87	20 .79	101 3.98	62 2.44	49 1.93	75 2.95	57 2.24	24,5 .96	14 .55	14 .55	170 6.69	14 .55	126 4.96	420 6000	1,49 3.33	BBV-2-22L-8001-M
16	28L / M36 x 2	25	28 1.10	25 .98	108 4.25	66 2.60	58 2.28	83 3.27	65 2.56	29,5 1.16	14 .55	14 .55	170 6.69	14 .55	134 5.28	315 4500	2,00 4.41	BBV-2-28L-8001-M
20R	35L / M45 x 2	25/32	35 1.38	25 .98	112 4.41	66 2.60	58 2.28	83 3.27	65 2.56	29,5 1.16	14 .55	14 .55	170 6.69	16 .63	134 5.28	315 4500	2,12 4.66	BBV-2-35LDN25-8001-M
24R	42L / M52 x 2	25/40	42 1.65	25 .98	112 4.41	66 2.60	58 2.28	83 3.27	65 2.56	29,5 1.16	14 .55	14 .55	170 6.69	16 .63	134 5.28	315 4500	2,27 4.99	BBV-2-42LDN25-8001-M

Please note the pressure ratings of the tube connections.

**zinc/nickel-plated**
**High-Pressure Block Body Ball Valve - Type BBV-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: Zinc (STAUFF Sizes 02 to 08)  
Aluminium (STAUFF Size 10)  
Carbon Steel (STAUFF Sizes 12 to 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

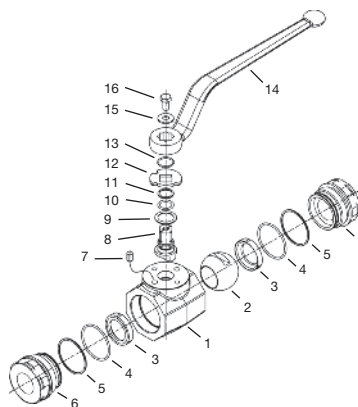
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/m)													Nom. Pressure ( <sup>bar</sup> /psi)	Weight ( <sup>kg</sup> /lbs)	Order Codes (Standard Option)
			RA	LW	L	l	B	H	h	m	V	SW	K	i	H2			
02	08S / M16 x 1,5	4	8 .31	5 .20	73 2.87	40 1.57	26 1.02	47 1.85	33 1.30	13,5 .53	11 .43	9 .35	115 4.53	10 .39	82 3.23	500 7250	0,38 .84	BBV-2-08S-8001-M
04	10S / M18 x 1,5	6	10 .39	6 .24	73 2.87	40 1.57	26 1.02	47 1.85	33 1.30	13,5 .53	11 .43	9 .35	115 4.53	10 .39	82 3.23	500 7250	0,39 .86	BBV-2-10S-8001-M
05	12S / M20 x 1,5	8	12 .47	8 .31	76 2.99	40 1.57	26 1.02	47 1.85	33 1.30	13,5 .53	11 .43	9 .35	115 4.53	11 .43	82 3.23	500 7250	0,39 .86	BBV-2-12S-8001-M
06	14S / M22 x 1,5	10	14 .55	10 .39	80 3.15	43 1.69	32 1.26	52 2.05	38 1.50	17,5 .69	11 .43	9 .35	115 4.53	11 .43	87 3.43	500 7250	0,50 1.10	BBV-2-14S-8001-M
08	16S / M24 x 1,5	13	16 .63	13 .51	86 3.39	48 1.89	35 1.38	54 2.13	40 1.57	19 .75	11 .43	9 .35	115 4.53	12 .47	89 3.50	500 7250	0,60 1.32	BBV-2-16S-8001-M
08	20S / M30 x 2	13	20 .79	15 .59	90 3.54	48 1.89	38 1.50	54 2.13	46 1.81	19 .75	11 .43	9 .35	115 4.53	12 .47	89 3.50	500 7250	0,60 1.32	BBV-2-20SDN13-8001-M
10	20S / M30 x 2	16	20 .79	13 .51	90 3.54	48 1.89	35 1.38	54 2.13	40 1.57	19 .75	13 .51	12 .47	160 6.26	16 .63	106 4.17	420 6000	0,80 1.76	BBV-2-20S-8001-M
12	25S / M36 x 2	20	25 .98	20 .79	109 4.29	62 2.44	49 1.93	75 2.95	57 2.24	24,5 .96	14 .55	14 .55	170 6.69	18 .71	126 4.96	420 6000	1,55 3.41	BBV-2-25S-8001-M
16	30S / M42 x 2	25	30 1.18	25 .98	120 4.72	66 2.60	58 2.28	83 3.27	65 2.56	29,5 1.16	14 .55	14 .55	170 6.69	20 .79	134 5.28	315 4500	2,10 4.63	BBV-2-30S-8001-M
20R	38S / M52 x 2	25/32	38 1.50	25 .98	124 4.88	66 2.60	58 2.28	83 3.27	65 2.56	29,5 1.16	14 .55	14 .55	170 6.69	22 .87	134 5.28	315 4500	2,30 5.07	BBV-2-38SDN25-8001-M

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 (Viton®)

Standard Connections Styles / Sizes

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

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)

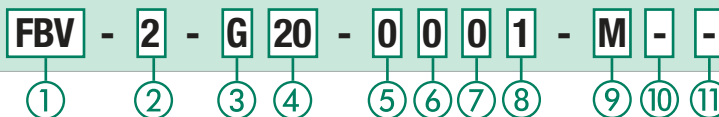
Pressure Range

- 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

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

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

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

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

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM)	<b>0</b>
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Alternative materials are available upon request. Contact STAUFF for further information.

⑧ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FKM (Viton®)	<b>1</b>

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

⑨ Manufacturing Code

Manufacturing code for all connection styles	<b>M</b>
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⑩ Lever Options

Supplied with standard lever (according to table)	<b>—</b>
Supplied without lever	<b>O</b>

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

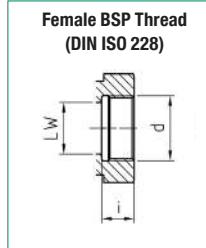
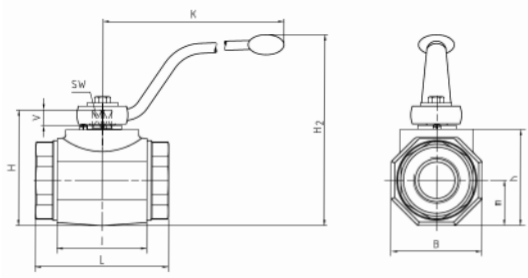
⑪ Accessories / Options

Supplied without accessories	<b>—</b>
Supplied with Locking Device LD1	<b>LD1</b>
Supplied with Locking Device LD2	<b>LD2</b>
Supplied with Locking Device LD3	<b>LD3</b>
Supplied with Locking Device LD4	<b>LD4</b>
Supplied with Locking Device LD6 (US version)	<b>LD6</b>

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)



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

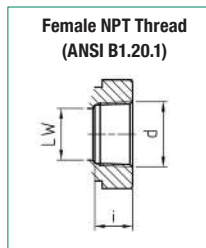
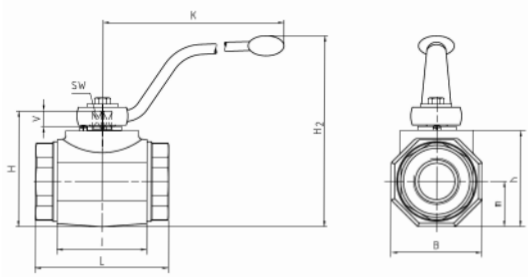
- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Dimensions of stainless steel ball valves may vary!

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/m)												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)



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

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

Dimensions of stainless steel ball valves may vary!

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/m)												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.



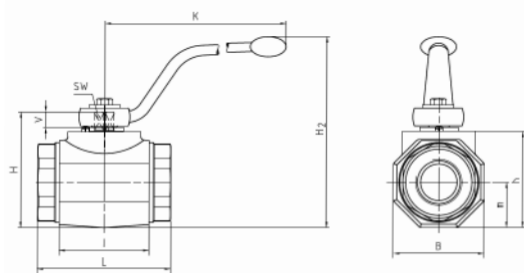
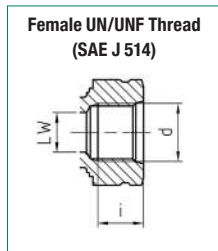
### High-Pressure Forged Body Ball Valve ▪ Type FBV-2 Female UN/UNF Thread (SAE J 514)

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

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

Dimensions of stainless steel ball valves may vary!



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	

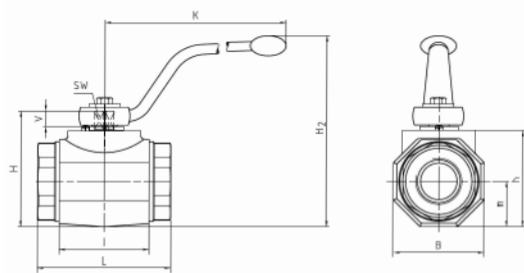
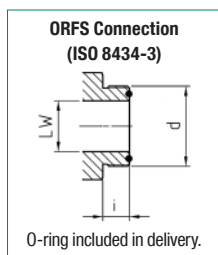
Please note the pressure ratings of the tube connections.

### 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 (Viton®)

Dimensions of stainless steel ball valves may vary!

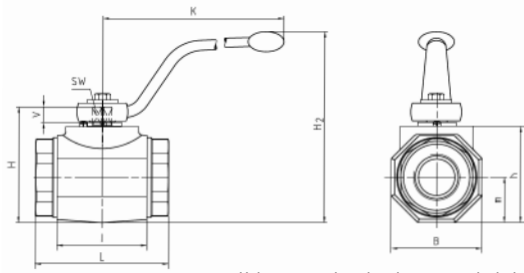


STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)											Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)		
			LW	L	I	B	H	h	m	V	SW	K	i	H2	O-ring			
20	2-12 UN	32	32	139	80	81	107	86	40,5	16,5	17	306	17,5	171	37,82 x 1,78	320	3,52	FBV-2-ORFS20-0001-M
			1.26	5.47	3.15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

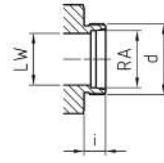


### High-Pressure Forged Body Ball Valve ▪ Type FBV-2 24° Cone Connection ▪ Light Series (DIN 2353 / ISO 8434-1)



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:

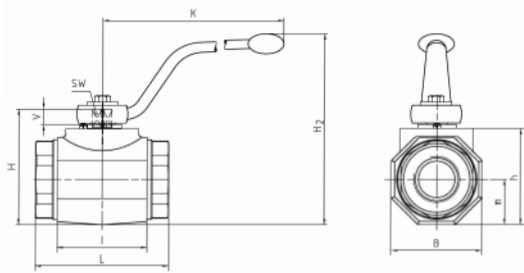
- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

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	l	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	

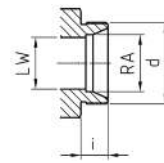
Please note the pressure ratings of the tube connections.

### 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 (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	l	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	

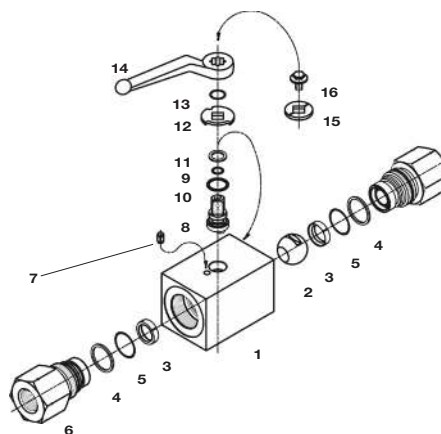
Please note the pressure ratings of the tube connections.





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

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### 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 (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)

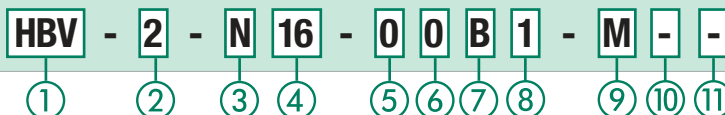
#### Temperature Range

- 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 (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.

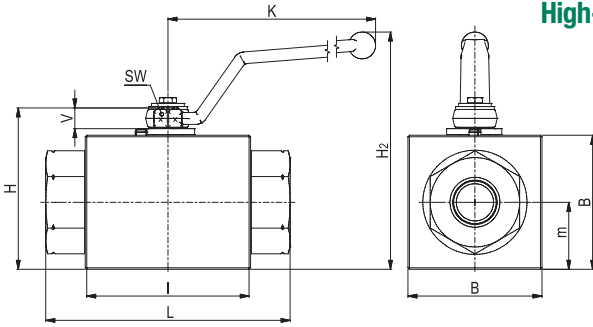
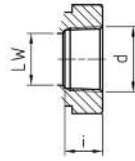
#### ⑪ Accessories / Options

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:

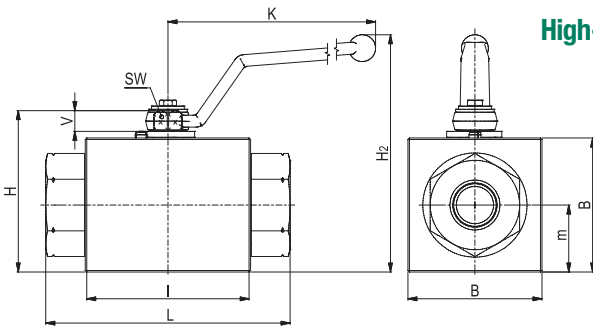
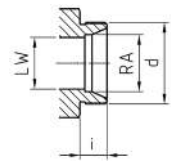
- Body, ball and stem: Carbon Steel
- Lever: Carbon Steel
- Ball seat: POM, encased
- O-rings: FKM (Viton®)

**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 (Viton®)

Union nuts and cutting rings are not included in delivery.

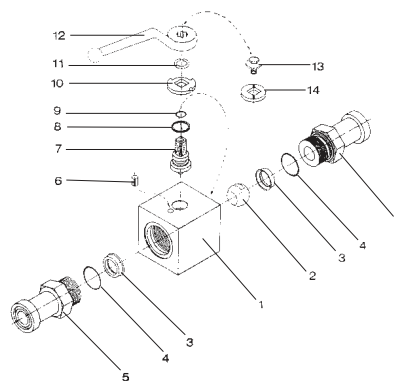
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)											Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	I	B	H	m	V	SW	K	i	H2			
02	08S / M16 x 1,5	4	8	5	110	76	50	64	25	11	9	115	12	101	800	1,60	HBV-2-08S-00B1-M
			.31	.20	4.33	2.99	1.97	2.52	.98	.43	.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 (STAUFF Size 8)  
Steel (STAUFF Size 12-16)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

#### Standard Connections Styles / Sizes

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

#### Pressure Range

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

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

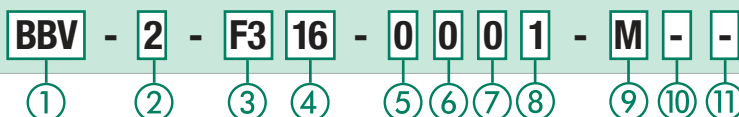
#### Temperature Range

- 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)	<b>F3</b>
3000 PSI (Code 61) SAE Split Flange Connectors (Extended Adaptor Length)	<b>F3X</b>
6000 PSI (code 62) SAE Split Flange Connectors (Standard Adaptor Length)	<b>F6</b>
6000 PSI (code 62) SAE Split Flange Connectors (Extended Adaptor Length)	<b>F6X</b>

Please contact STAUFF for alternative connection styles.

#### ④ Connection Size

STAUFF Size (according to dimension table)		
<b>08</b>	<b>12</b>	<b>16</b>

Please contact STAUFF for alternative connection sizes.

#### ⑤ Body Material / Surface Finishing

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

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

#### ⑥ Ball / Stem Material

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

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

#### ⑦ Ball Seat Material

Delrin® (POM)	<b>0</b>
---------------	----------

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

#### ⑧ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FKM (Viton®)	<b>1</b>

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

#### ⑨ Manufacturing Code

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

#### ⑩ Lever Options

Supplied with standard lever (according to table)	<b>—</b>
Supplied without lever	<b>O</b>

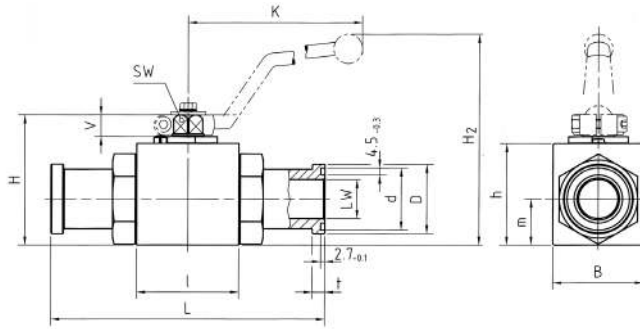
Alternative levers can be ordered separately. Please see page 114 for further information.

#### ⑪ Accessories / Options

Supplied without accessories	<b>—</b>
Supplied with Locking Device LD1	<b>LD1</b>
Supplied with Locking Device LD2	<b>LD2</b>

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)

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 8)  
Steel (STAUFF Size 12-16)
- Ball seat: Delrin® (POM)
- O-rings: FKM (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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>				H2
08	1/2	13	13	151	48	35	54	40	19	11	9	115	25,5	30,2	6,8	89	350	0,85	BBV-2-F308-0001-M
			.51	5.94	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.00	1.19	.27	3.50	5000	1.87	
12	3/4	20	19	162	62	49	75	57	24,5	14	14	171	31,9	38,1	6,8	127	350	1,87	BBV-2-F312-0001-M
			.75	6.38	2.44	1.93	2.95	2.24	.96	.55	.55	6.73	1.26	1.50	.27	5	5000	4.11	
16	1	25	25	178	66	58	83	65	29,5	14	14	171	39,8	44,4	8,1	135	320	2,70	BBV-2-F316-0001-M
			.98	7.01	2.60	2.28	3.27	2.56	1.16	.55	.55	6.73	1.57	1.75	.32	5.31	4600	5.94	

#### 3000 PSI Series (Code 61) - Extended Adaptor Length

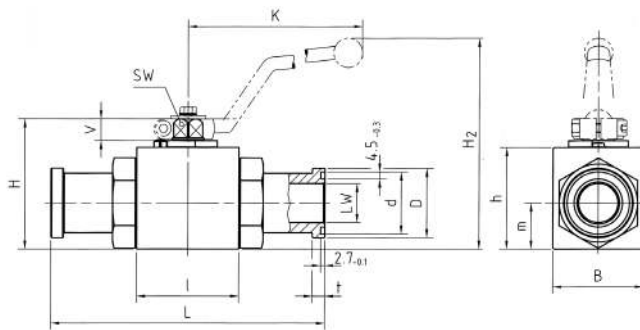
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	I	B	H	h	m	V	SW	K	d <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>				H2
08	1/2	13	13	170	48	35	54	40	19	11	9	115	25,5	30,2	6,8	89	350	0,89	BBV-2-F3X08-0001-M
			.51	6.69	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.00	1.19	.27	3.50	5000	1.96	
12	3/4	20	19	200	62	49	75	57	24,5	14	14	171	31,9	38,1	6,8	127	350	2,00	BBV-2-F3X12-0001-M
			.75	7.87	2.44	1.93	2.95	2.24	.96	.55	.55	6.73	1.26	1.50	.27	5	5000	4.40	
16	1	25	25	215	66	58	83	65	29,5	14	14	171	39,8	44,4	8,1	135	320	2,85	BBV-2-F3X16-0001-M
			.98	8.46	2.60	2.28	3.27	2.56	1.16	.55	.55	6.73	1.57	1.75	.32	5.31	4600	6.27	

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

<sup>1</sup> Dimension d: ±0,1 mm / .004 in

<sup>2</sup> Dimension D: -0,2 mm / .008 in

<sup>3</sup> 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 (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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>				H2
08	1/2	13	13	151	48	35	54	40	19	11	9	115	25,5	31,8	7,9	89	420	0,90	BBV-2-F608-0001-M
			.51	5.94	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.00	1.25	.31	3.50	6000	1.98	
12	3/4	20	19	174	62	49	75	57	24,5	14	14	171	31,9	41,3	8,9	127	420	1,95	BBV-2-F612-0001-M
			.75	6.85	2.44	1.93	2.95	2.24	.96	.55	.55	6.73	1.26	1.63	.35	5	6000	4.29	
16	1	25	25	198	66	58	83	65	29,5	14	14	171	39,8	47,6	9,6	135	320	3,00	BBV-2-F616-0001-M
			.98	7.80	2.60	2.28	3.27	2.56	1.16	.55	.55	6.73	1.70	1.87	.38	5.31	4600	6.60	
16	1	25	25	206	74	70	88	70	34,5	14	14	171	39,8	47,6	9,6	140	420	3,00	BBV-2-F616-0001-H
			.98	8.11	2.91	2.76	3.46	2.76	1.36	.55	.55	6.73	1.70	1.87	.38	5.51	6000	6.60	

#### 6000 PSI Series (Code 62) - 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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>				H2
08	1/2	13	13	180	48	35	54	40	19	11	9	115	25,5	31,8	7,9	89	420	1,00	BBV-2-F6X08-0001-M
			.51	7.09	1.89	1.38	2.13	1.57	.75	.43	.35	4.53	1.00	1.25	.31	3.50	6000	2.20	
12	3/4	20	19	200	62	49	75	57	24,5	14	14	171	31,9	41,3	8,9	127	420	2,10	BBV-2-F6X12-0001-M
			.75	7.87	2.44	1.93	2.95	2.24	.96	.55	.55	6.73	1.26	1.63	.35	5	6000	4.62	
16	1	25	25	250	66	58	83	65	29,5	14	14	171	39,8	47,6	9,6	135	320	3,15	BBV-2-F6X16-0001-M
			.98	9.84	2.60	2.28	3.27	2.56	1.16	.55	.55	6.73	1.70	1.87	.38	5.31	4600	6.93	
16	1	25	25	250	74	70	88	70	34,5	14	14	171	39,8	47,6	9,6	140	420	3,15	BBV-2-F6X16-0001-H
			.98	9.84	2.91	2.76	3.46	2.76	1.36	.55	.55	6.73	1.70	1.87	.38	5.51	6000	6.93	

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

<sup>1</sup> Dimension d: ±0,1 mm / .004 in

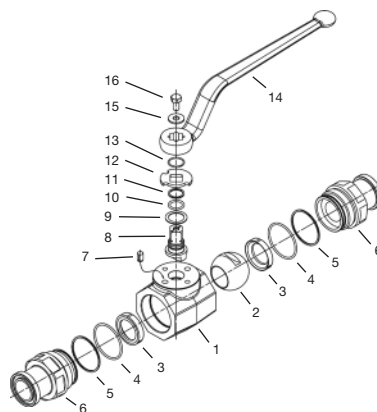
<sup>2</sup> Dimension D: -0,2 mm / .008 in

<sup>3</sup> 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 (Viton®)

#### Standard Connections Styles / Sizes

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

#### Pressure Range

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

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

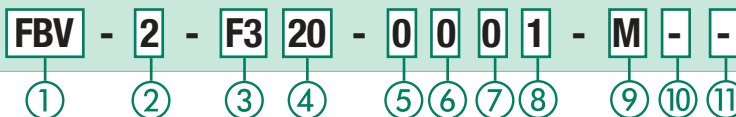
#### Temperature Range

- 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)	<b>F3</b>
3000 PSI (Code 61) SAE Split Flange Connectors (Extended Adaptor Length)	<b>F3X</b>
6000 PSI (code 62) SAE Split Flange Connectors (Standard Adaptor Length)	<b>F6</b>
6000 PSI (code 62) SAE Split Flange Connectors (Extended Adaptor Length)	<b>F6X</b>

Please contact STAUFF for alternative connection styles.

#### ④ Connection Size

STAUFF Size (according to dimension table)		
<b>20</b>	<b>24</b>	<b>32</b>

Please contact STAUFF for alternative connection sizes.

#### ⑤ Body Material / Surface Finishing

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

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

#### ⑥ Ball / Stem Material

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

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

#### ⑦ Ball Seat Material

Delrin® (POM)	<b>0</b>
---------------	----------

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

#### ⑧ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FKM (Viton®)	<b>1</b>

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**

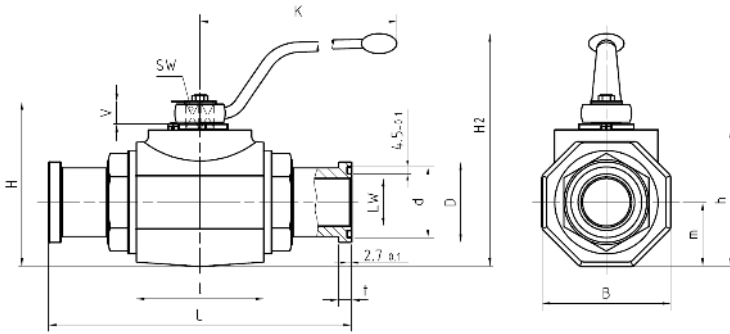
Alternative levers can be ordered separately. Please see page 114 for further information.

#### ⑪ Accessories / Options

Supplied without accessories	<b>—</b>
Supplied with Locking Device LD1	<b>LD1</b>
Supplied with Locking Device LD2	<b>LD2</b>
Supplied with Locking Device LD6 (US version)	<b>LD6</b>

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)

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

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

Dimensions of stainless steel ball valves may vary!

#### 3000 PSI Series (Code 61) - Standard Adaptor Length

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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>			
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

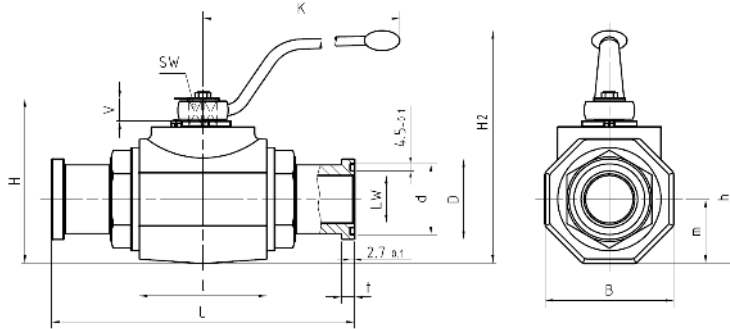
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	B	H	h	m	V	SW	K	d <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>			
20	1-1/4	32	30	275	80	81	107	86	40,5	16,5	17	306	44,6	50,8	8,1	280	5,15	FBV-2-F3X20-0001-M
			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.

<sup>1</sup> Dimension d: ±0,1 mm / .004 in

<sup>2</sup> Dimension D: -0,2 mm / .008 in

<sup>3</sup> 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 (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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>			
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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>			
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.

<sup>1</sup> Dimension d: ±0,1 mm / .004 in

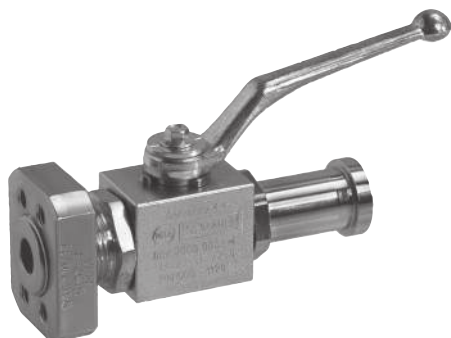
<sup>2</sup> Dimension D: -0,2 mm / .008 in

<sup>3</sup> 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 (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 / 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)
- 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
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## ② Number of Ports

Two Ports (Two-Way Ball Valve)	2
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## 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
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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
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Alternative materials are available upon request. Contact STAUFF for further information.

## ⑨ O-Ring Material

NBR (Buna-N®)	0
FKM (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

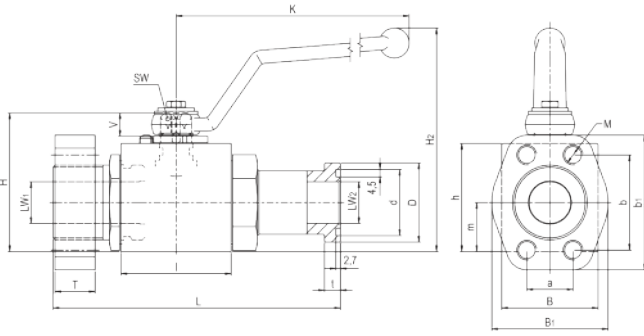
Alternative levers can be ordered separately. Please see page 114 for further information.

## 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)

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

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

#### 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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>	T	a	b	b1	M	H2	(bar/psi)		
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	
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	
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	

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

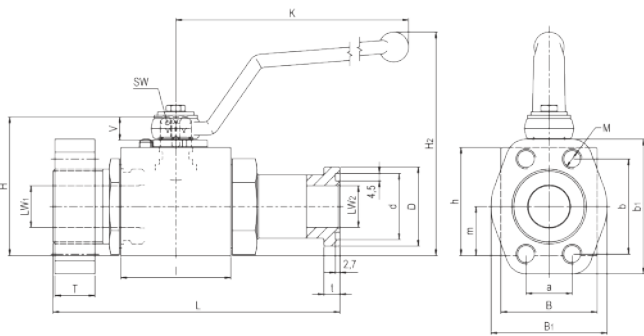
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																				Nom. Pressure		Weight (kg/lbs)	Order Codes (Standard Option)
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>	T	a	b	b1	M	H2	(bar/psi)		
08	1/2	13	13	13	136	48	35	48	54	40	19	11	9	115	25,5	30,2	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	
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	
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	

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

<sup>1</sup> Dimension d: ±0,1 mm / .004 in

<sup>2</sup> Dimension D: -0,2 mm / .008 in

<sup>3</sup> Dimension t: -0,2 mm / .008 in



### 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 (Viton®)

#### 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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>	T	a	b	b1	M	H2	(bar/psi)		
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	
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	
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	
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	

#### 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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>	T	a	b	b1	M	H2	(bar/psi)		
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	
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	
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	
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	

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

<sup>1</sup> Dimension d: ±0,1 mm / .004 in

<sup>2</sup> Dimension D: -0,2 mm / .008 in

<sup>3</sup> Dimension t: -0,2 mm / .008 in





## 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 (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 / 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.**

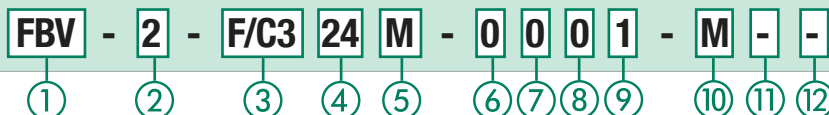
#### Temperature Range

- 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)
- 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



#### 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 (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**

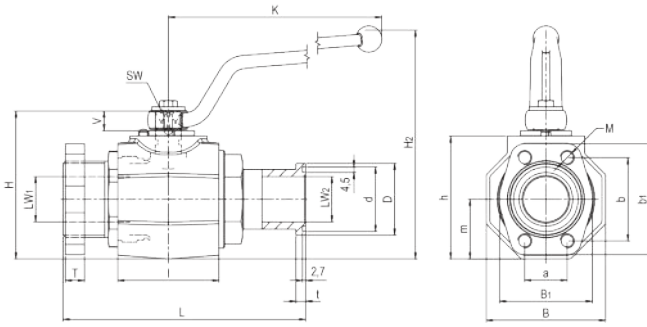
Alternative levers can be ordered separately. Please see page 114 for further information.

#### 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)**

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

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

Dimensions of stainless steel ball valves may vary!

**3000 PSI Series (Code 61) ■ Metric ISO Threads**

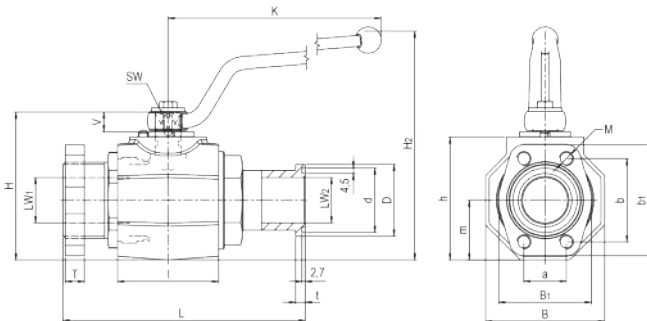
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																			Nom. Pressure		Weight (kg/lbs)	Order Codes (Standard Option)	
			LW1	LW2	L	I	B	B1	H	h	m	V	SW	K	d <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>	T	a	b	b1	M	H2			(bar/psi)
20	1-1/4	32	32	30	181	80	81	68	107	86	40,5	16,5	17	306	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	12.05	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	12.05	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	12.05	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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>	T	a	b	b1	M	H2			(bar/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	12.05	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	12.05	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	12.05	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.

<sup>1</sup> Dimension d: ±0,1 mm / .004in    <sup>2</sup> Dimension D: -0,2mm / .008in    <sup>3</sup> Dimension t: -0,2mm / .008in



**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 (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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>	T	a	b	b1	M	H2			(bar/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	12.05	1.76	2.13	.41	1.06	1.24	2.62	3.74		6.73	6000	13.49	
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	M14	171	420	6,12	FBV-2-F/C620M14-0001-M
			1.26	1.18	7.44	3.15	3.19	3.07	4.21	3.39	1.59	.65	.67	12.05	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	12.05	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	12.05	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 <sup>1</sup>	D <sup>2</sup>	t <sup>3</sup>	T	a	b	b1	M	H2			(bar/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	12.05	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	12.05	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	12.05	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.

<sup>1</sup> Dimension d: ±0,1 mm / .004in    <sup>2</sup> Dimension D: -0,2mm / .008in    <sup>3</sup> Dimension t: -0,2mm / .008in



## 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 (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 / 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)
- 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 **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 (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**

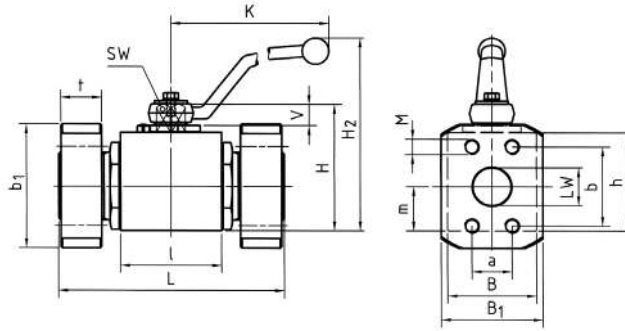
Alternative levers can be ordered separately. Please see page 114 for further information.

## 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 (Viton®)

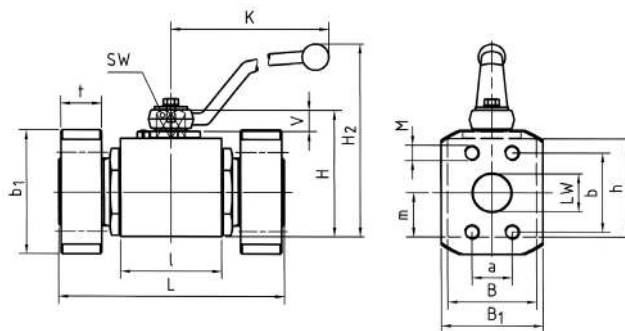
#### 3000 PSI Series (Code 61) - Metric ISO Threads

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	
			.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	
			.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	
			.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	
			.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	
			.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	
			.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 (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	
			.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	
			.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	
			.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	
			.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	
			.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	
			.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	
			.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	
			.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 (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 / 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)
- 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	<b>0</b>
Stainless Steel V4A (AISI 316Ti)	<b>1</b>

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

## ⑦ Ball / Stem Material

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

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

## ⑧ Ball Seat Material

Delrin® (POM)	<b>0</b>
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Alternative materials are available upon request. Contact STAUFF for further information.

## ⑨ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FKM (Viton®)	<b>1</b>

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

## ⑩ Manufacturing Code

Manufacturing code for all connection styles	<b>M</b>
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## ⑪ Lever Options

Supplied with standard lever (according to table)	<b>—</b>
Supplied without lever	<b>0</b>

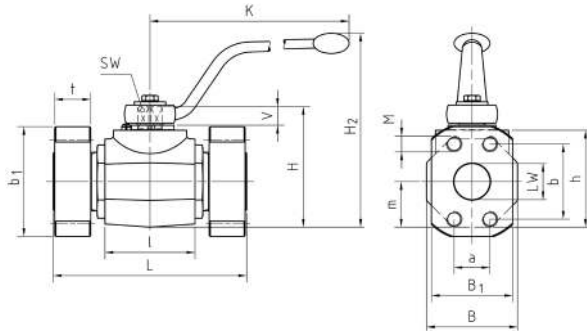
Alternative levers can be ordered separately. Please see page 114 for further information.

## ⑫ Accessories / Options

Supplied without accessories	<b>—</b>
Supplied with Locking Device LD1	<b>LD1</b>
Supplied with Locking Device LD6 (US version)	<b>LD6</b>

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)

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

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

Dimensions of stainless steel ball valves may vary!

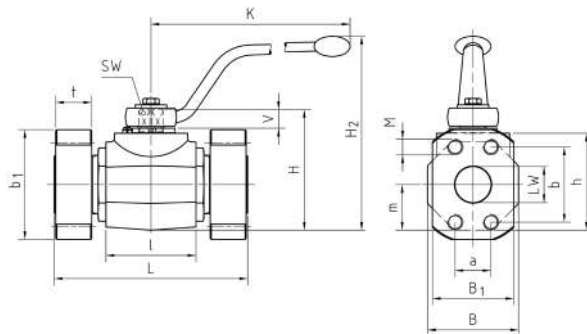
#### 3000 PSI Series (Code 61) - Metric ISO Threads

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			
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 (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			
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 (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 (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			
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		
20	1-1/4	32	32	172	80	81	107	86	40.5	16.5	17	306	78	95	27	31.8	66.6	M14	171	420	7.52	FBV-2-C620M14-0001-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

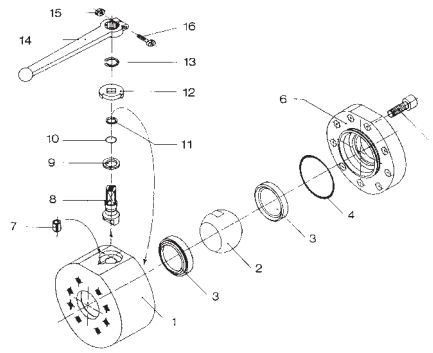
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)																Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	I	B	H	h	m	V	SW	K	B1	b1	t	a	b	M	H2			
20	1-1/4	32	32	172	80	81	107	86	40.5	16.5	17	306	78	95	27	31.8	66.7	1/2-13	171	420	7.52	FBV-2-C620U-0001-M
			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	UNC	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)  
Carbon Steel (STAUFF Sizes 12 and 32)  
Carbon Steel (STAUFF Sizes 40 and 48)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

#### Standard Connections Styles / Sizes

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

#### Pressure Range

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

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

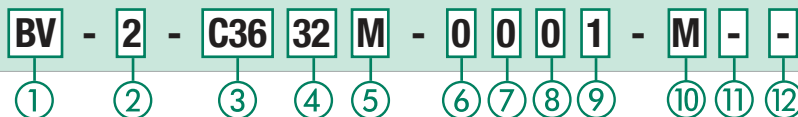
#### Temperature Range

- 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 (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.

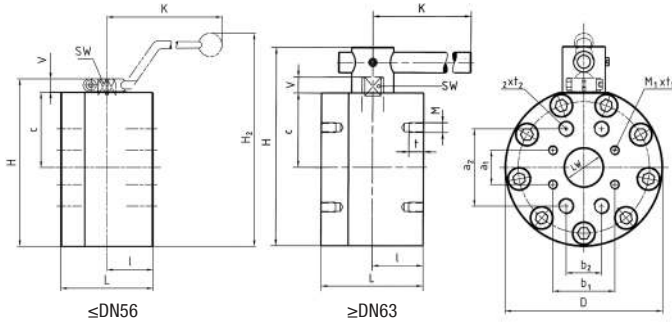
#### ⑫ Accessories / Options

Supplied without accessories **—**  
Supplied with Locking Device up to DN50 **LD2**  
Supplied with Locking Device up to DN50 **LD4**  
Supplied with Locking Device from DN65 **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-C36 3000/6000 PSI Flange Connection (ISO 6162-1/2)



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

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

### 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	H2			
08	1/2	15	15	75	35	88	88	31	13	160	12	17,5	38,1	M8	18	40,5	18,2	M8	18	132	420	2,96	BV-2-C3608M-0001-M
			.59	2.95	1.38	3.46	3.46	1.22	.51	6.30	.47	.69	1.50		.71	1.59	.72		.71	5.20	6000	6.51	
12	3/4	20	20	80	35	98	100	36,5	14	171	14	22,2	47,6	M10	18	50,8	23,8	M10	18	151	420	4,20	BV-2-C3612M-0001-M
			.79	3.15	1.38	3.86	3.94	1.44	.55	6.73	.55	.87	1.87		.71	2.00	.94		.71	5.94	6000	9.24	
16	1	25	25	88	38	118	113	39,5	14	171	14	27,8	57,2	M12	20	52,4	26,2	M10	20	164	420	6,00	BV-2-C3616M-0001-M
			.98	3.46	1.50	4.65	4.45	1.56	.55	6.73	.55	1.09	2.25		.79	2.06	1.03		.79	6.46	6000	13.20	
20	1-1/4	32	32	100	50	145	158	68	17	306	17	30,2	58,7	M10	20	66,6	31,8	M12	22	229	420	11,71	BV-2-C3620M-0001-M
			1.26	3.94	1.97	5.71	6.22	2.68	.67	12.05	.67	1.19	2.31		.79	2.62	1.25		.87	9.02	6000	25.76	
24	1-1/2	40	38	110	55	165	178	78	17	306	17	35,7	69,8	M12	20	79,4	36,5	M16	27	249	420	17,10	BV-2-C3624M-0001-M
			1.50	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	1.41	2.75		.79	3.13	1.44		1.06	9.80	6000	37.62	
32	2	50	48	116	58	198	210	94	17	306	17	42,9	77,8	M12	20	96,8	44,5	M20	28	281	420	24,60	BV-2-C3632M-0001-M
			1.89	4.57	2.28	7.80	8.27	3.70	.67	12.05	.67	1.69	3.06		.79	3.81	1.75		1.10	11.06	6000	54.12	
40	2-1/2	65	63	170	75	218	275	100	20	600	16	58,7	123,8	M24	41	88,9	50,8	M12	19	420	420	44,50	BV-2-C3640M-0001-M
			2.48	6.69	2.95	8.58	10.83	3.94	.79	23.62	.63	2.31	4.78		1.61	3.50	2.00		.75	6000	97.90		
48	3	80	76	170	79	258	315	114,5	26	600	19	71,4	152,4	M30	47	106,4	61,9	M16	24	420	420	60,40	BV-2-C3648M-0001-M
			2.99	6.69	3.11	10.16	12.40	4.51	1.02	23.62	.75	2.81	6.00		1.85	4.19	2.44		.95	6000	132.88		

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

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	H2			
08	1/2	15	15	75	35	88	88	31	13	160	12	17,5	38,1	5/16-18	18	40,5	18,2	5/16-18	18	132	420	2,96	BV-2-C3608U-0001-M
			.59	2.95	1.38	3.46	3.46	1.22	.51	6.30	.47	.69	1.50	UNC	.71	1.59	.72	UNC	.71	5.20	6000	6.51	
12	3/4	20	20	80	35	98	100	36,5	14	171	14	22,2	47,6	3/8-16	18	50,8	23,8	3/8-16	18	151	420	4,20	BV-2-C3612U-0001-M
			.79	3.15	1.38	3.86	3.94	1.44	.55	6.73	.55	.87	1.87	UNC	.71	2.00	.94	UNC	.71	5.94	6000	9.24	
16	1	25	25	88	38	118	113	39,5	14	171	14	27,8	57,2	7/16-14	20	52,4	26,2	3/8-16	20	164	420	6,00	BV-2-C3616U-0001-M
			.98	3.46	1.50	4.65	4.45	1.56	.55	6.73	.55	1.09	2.25	UNC	.79	2.06	1.03	UNC	.79	6.46	6000	13.20	
20	1-1/4	32	32	100	50	145	158	68	17	306	17	30,2	58,7	7/16-14	20	66,6	31,8	1/2-13	22	229	420	11,71	BV-2-C3620U-0001-M
			1.26	3.94	1.97	5.71	6.22	2.68	.67	12.05	.67	1.19	2.31	UNC	.79	2.62	1.25	UNC	.87	9.02	6000	25.76	
24	1-1/2	40	38	110	55	165	178	78	17	306	17	35,7	69,8	1/2-13	20	79,4	36,5	5/8-11	27	249	420	17,10	BV-2-C3624U-0001-M
			1.50	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	1.41	2.75	UNC	.79	3.13	1.44	UNC	1.06	9.80	6000	37.62	
32	2	50	48	116	58	198	210	94	17	306	17	42,9	77,8	1/2-13	20	96,8	44,5	3/4-10	28	281	420	24,60	BV-2-C3632U-0001-M
			1.89	4.57	2.28	7.80	8.27	3.70	.67	12.05	.67	1.69	3.06	UNC	.79	3.81	1.75	UNC	1.10	11.06	6000	54.12	

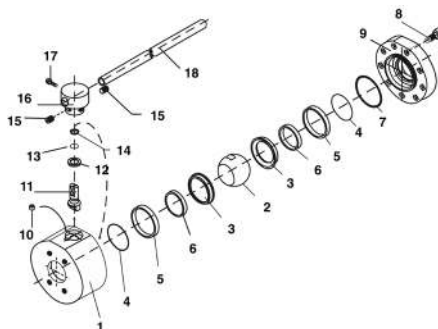
Please note: The final maximum working pressure is determined by flange and pipe/tubing rating.

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





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



### 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 (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.**

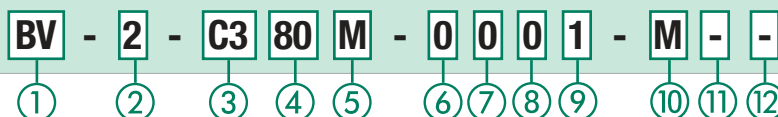
#### Temperature Range

- 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



#### ① Type

High-Pressure Round Body Ball Valve	<b>BV</b>
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#### ② Number of Ports

Two Ports (Two-Way Ball Valve)	<b>2</b>
--------------------------------	----------

#### ③ Connection Style

3000 PSI (Code 61)	<b>C3</b>
SAE Direct Flange Connection	
6000 PSI (Code 62)	<b>C6</b>
SAE Direct Flange Connection	

Please contact STAUFF for alternative connection styles.

#### ④ Connection Size

STAUFF Size (according to dimension table):			
<b>40</b>	<b>48</b>	<b>64</b>	<b>80</b>

Please contact STAUFF for alternative connection sizes.

#### ⑤ Thread Type

Flange Connection with Metric ISO Threads	<b>M</b>
Flange Connection with Unified Coarse (UNC) Threads	<b>U</b>

#### ⑥ Body Material / Surface Finishing

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

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

#### ⑦ Ball / Stem Material

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

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

#### ⑧ Ball Seat Material

Delrin® (POM)	<b>0</b>
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Alternative materials are available upon request. Contact STAUFF for further information.

#### ⑨ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FKM (Viton®)	<b>1</b>

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

#### ⑩ Manufacturing Code

Manufacturing code for all connection styles	<b>M</b>
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#### ⑪ Lever Options

Supplied with standard lever (according to table)	<b>—</b>
Supplied without lever	<b>0</b>

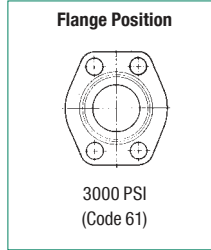
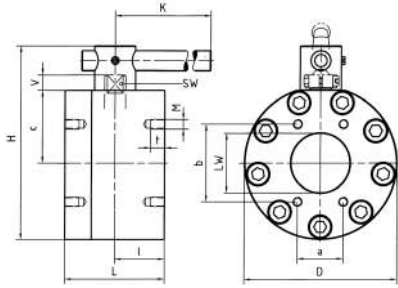
#### ⑫ Accessories / Options

Supplied without accessories	<b>—</b>
Supplied with Locking Device up to DN50	<b>LD2</b>
Supplied with Locking Device up to DN50	<b>LD4</b>
Supplied with Locking Device from DN65	<b>LD5</b>
Supplied with Locking Device LD7 (US version)	<b>LD7</b>

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)



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

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

#### 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	

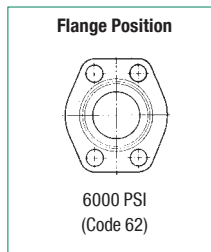
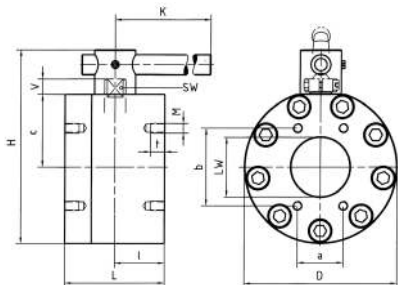
#### 3000 PSI Series (Code 61) - Unified Coarse (UNC) Threads

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)



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

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

#### 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	

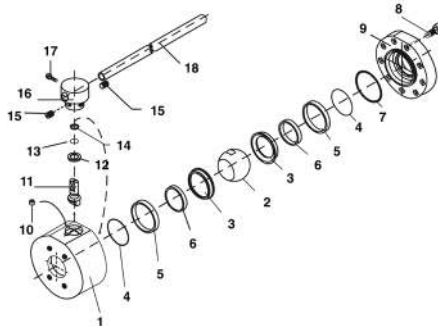
Please note: The final maximum working pressure is determined by flange and pipe/tubing rating.

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)  
Carbon Steel (Nominal Sizes DN19 and DN56)  
Carbon Steel (Nominal Sizes DN63 to DN200)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

#### Standard Connections Styles / Sizes

- 250 bar / 3600 PSI series ISO 6164 flange connection
- 400 bar / 5800 PSI series ISO 6164 flange connection
- 350 bar / 5000 PSI series (similar to ISO 6164) flange connection
- Metric ISO threads

#### Pressure Range

- Pressure range: up to 400bar / 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

BV - 2 - ISO3 DN19 - 0 0 0 1 - M - - -

1    2    3    4    5 6 7 8    9 10 11

#### ① Type

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

#### ② Number of Ports

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

#### ③ Connection Style

250 bar / 3600 PSI Series ISO 6164	<b>ISO2</b>
Flange Connection with Metric ISO Threads	
400 bar / 5800 PSI Series ISO 6164	<b>ISO4</b>
Flange Connection with Metric ISO Threads	
350 bar / 5000 PSI Series (not part of ISO 6164)	<b>ISO3</b>
Flange Connection with Metric ISO Threads	

Please contact STAUFF for alternative connection styles.

#### ④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

#### ⑤ Body Material / Surface Finishing

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

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

#### ⑥ Ball / Stem Material

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

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

#### ⑦ Ball Seat Material

Delrin® (POM)	<b>0</b>
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Alternative materials are available upon request. Contact STAUFF for further information.

#### ⑧ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FKM (Viton®)	<b>1</b>

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**

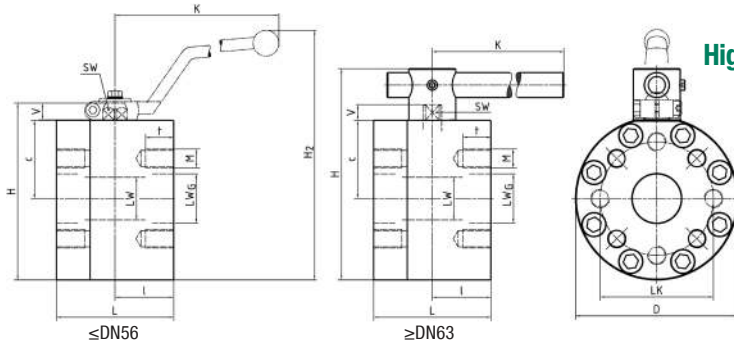
Alternative levers can be ordered separately. Please see page 114 for further information.

#### ⑪ Accessories / Options

Supplied without accessories	<b>—</b>
Supplied with Locking Device up to DN50	<b>LD2</b>
Supplied with Locking Device up to DN50	<b>LD4</b>
Supplied with Locking Device from DN65	<b>LD5</b>
Supplied with Locking Device LD7 (US version)	<b>LD7</b>

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





### High-Pressure Round Body Ball Valve ■ Type BV-2-ISO ISO Flange Connection (ISO 6164)

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

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (Nominal Size DN13)  
Carbon Steel (Nominal Sizes DN19 and DN56)  
Carbon Steel (Nom. Sizes DN63 to DN200)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

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

STAUFF 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	LK	M	t	H2			
08	13	15	15	85	45	78	83	31	13	160	12	42 <sup>1</sup>	4 x M8	16	127	350	2,90	BV-2-ISO2DN13-0001-M
		.59	.59	3.35	1.77	3.07	3.27	1.22	.51	6.30	.47	1.65 <sup>1</sup>		.63	5.00	5000	4.84	
12	19	20	20	88	38	119	110	36.5	14	171	14	50	4 x M8	15	161	350	6,80	BV-2-ISO2DN19-0001-M
		.79	.79	3.46	1.50	4.69	4.33	1.44	.55	6.73	.55	1.97		.59	6.34	5000	14.96	
16	25	25	25	88	38	126	117	39.5	14	171	14	62	4 x M10	20	168	315	7,20	BV-2-ISO2DN25-0001-M
		.98	.98	3.46	1.50	4.96	4.61	1.56	.55	6.73	.55	2.44		.79	6.61	4568	15.84	
20	32	32	32	105	50	145	158	68	17	306	17	73	4 x M12	21	229	250	12,50	BV-2-ISO2DN32-0001-M
		1.26	1.26	4.13	1.97	5.71	6.22	2.68	.67	12.05	.67	2.87		.83	9.02	3600	27.50	
24	38	38	38	110	55	165	178	78	17	306	17	85	4 x M16	24.5	249	250	16,60	BV-2-ISO2DN38-0001-M
		1.50	1.50	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	3.35		.96	9.80	3600	36.52	
32	51	48	47	116	58	198	210	94	17	306	17	98	4 x M16	25.5	281	250	24,90	BV-2-ISO2DN51-0001-M
		1.89	1.85	4.57	2.28	7.80	8.27	3.70	.67	12.05	.67	3.86		1.00	11.06	3600	54.78	
-	56	48	58	123	58	198	210	94	17	306	17	118	4 x M20	33	281	250	26,60	BV-2-ISO2DN56-0001-M
		1.89	2.28	4.84	2.28	7.80	8.27	3.70	.67	12.05	.67	4.65		1.30	11.06	3600	58.52	
40	63	63	70	150	75	208	270	100	20	600	16	145	4 x M20	33	/	250	36,90	BV-2-ISO2DN63-0001-M <sup>1</sup>
		2.48	2.76	5.9	2.9	8.19	10.6	3.94	.79	23.6	.63	5.71		1.3		3600	81.18	

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

STAUFF 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	LK	M	t	H2			
08	13	15	14	85	45	78	83	31	13	160	12	42	4 x M8	16	127	400	2,90	BV-2-ISO4DN13-0001-M
		.59	.55	3.35	1.77	3.07	3.27	1.22	.51	6.30	.47	1.65		.63	5.00	5800	6.38	
12	19	20	18	88	38	119	110	36.5	14	171	14	50	4 x M8	15	161	400	6,80	BV-2-ISO4DN19-0001-M
		.79	.71	3.46	1.50	4.69	4.33	1.44	.55	6.73	.55	1.97		.59	6.34	5800	14.96	
16	25	25	22	88	38	126	117	39.5	14	171	14	62	4 x M10	20	168	400	7,20	BV-2-ISO4DN25-0001-M
		.98	.87	3.46	1.50	4.96	4.61	1.56	.55	6.73	.55	2.44		.79	6.61	5800	15.84	
20	32	32	29	105	50	145	158	68	17	306	17	73	4 x M12	21	229	400	12,50	BV-2-ISO4DN32-0001-M
		1.26	1.14	4.13	1.97	5.71	6.22	2.68	.67	12.05	.67	2.87		.83	9.02	5800	27.50	
24	38	38	35	110	55	165	178	78	17	306	17	85	4 x M16	24.5	249	400	16,60	BV-2-ISO4DN38-0001-M
		1.50	1.38	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	3.35		.96	9.80	5800	36.52	
32	51	48	43	123	58	198	210	94	17	306	17	98	4 x M16	25.5	281	400	24,90	BV-2-ISO4DN51-0001-M
		1.89	1.69	4.84	2.28	7.80	8.27	3.70	.67	12.05	.67	3.86		1.00	11.06	5800	54.78	
-	56	48	53	123	58	198	210	94	17	306	17	118	4 x M20	31	281	400	26,60	BV-2-ISO4DN56-0001-M
		1.89	2.09	4.84	2.28	7.80	8.27	3.70	.67	12.05	.67	4.65		1.22	11.06	5800	58.52	
40	63	65	58	150	75	224	286	108	20	600	16	145	4 x M24	37.5	/	400	42,53	BV-2-ISO4DN63-0001-M <sup>1</sup>
		2.56	2.28	5.91	2.95	8.82	11.26	4.25	.79	23.62	.63	5.71		1.48		5800	93.57	
-	70	65	63	150	75	224	286	108	20	600	16	160	4 x M24	37.5	/	315	43,00	BV-2-ISO4DN70-0001-M <sup>1</sup>
		2.56	2.48	5.91	2.95	8.82	11.26	4.25	.79	23.62	.63	6.30		1.48		4568	94.60	
48	80	76	76	170	78	258	315	114.5	26	600	19	175	4 x M30	35	/	400	63,00	BV-2-ISO4DN80-0001-M <sup>1</sup>
		2.99	2.99	6.69	3.07	10.16	12.40	4.51	1.02	23.62	.75	6.89		1.38		5800	138.60	

#### 350 bar / 5000 PSI Series (not part of ISO 6164) ■ Metric ISO Threads

STAUFF 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	LK	M	t	H2			
12	19	20	20	88	38	119	110	36.5	14	171	14	64	4 x M12	22	161	350	6,80	BV-2-ISO3DN19-0001-M
		.79	.79	3.46	1.50	4.69	4.33	1.44	.55	6.73	.55	2.52		.87	6.34	5000	14.96	
16	25	25	25	88	38	126	117	39.5	14	171	14	72	4 x M12	20	168	350	7,20	BV-2-ISO3DN25-0001-M
		.98	.98	3.46	1.50	4.96	4.61	1.56	.55	6.73	.55	2.83		.79	6.61	5000	15.84	
20	32	32	32	105	50	145	158	68	17	306	17	80	4 x M16	24	229	350	12,50	BV-2-ISO3DN32-0001-M
		1.26	1.26	4.13	1.97	5.71	6.22	2.68	.67	12.05	.67	3.15		.95	9.02	5000	27.50	
24	38	38	38	110	55	165	178	78	17	306	17	98	4 x M16	25	249	350	16,60	BV-2-ISO3DN38-0001-M
		1.50	1.50	4.33	2.17	6.50	7.01	3.07	.67	12.05	.67	3.86		.98	9.80	5000	36.52	
32	51	48	48	122	58	198	210	94	17	306	17	118	4 x M20	28	281	350	24,90	BV-2-ISO3DN51-0001-M
		1.89	1.89	4.85	2.28	7.80	8.27	3.70	.67	12.05	.67	4.65		1.10	11.06	5000	54.78	
40	63	65	63	150	75	208	270	100	20	600	16	145	4 x M24	36	/	350	36,00	BV-2-ISO3DN63-0001-M <sup>1</sup>
		2.56	2.48	5.91	2.95	8.19	1.63	3.94	.79	23.62	.63	5.71		1.42		5000	79.36	
48	80	Use BV-2-ISO4DN80-0001-M from the 400 bar / 5800 PSI Series (ISO 6164)																BV-2-ISO4DN80-0001-M <sup>1</sup>
64	100	100	100	200	100	260	327	122	26	900	24	200	8 x M24	36	/	350	70,00	BV-2-ISO3DN100-0001-M <sup>1</sup>
		3.94	3.94	7.87	3.94	1.24	12.87	4.80	1.02	35.43	.94	7.87		1.42		5000	154.32	
80	125	118	118	230	110	390	470	185	32	900	36	245	8 x M30	45	/	350	209,00	BV-2-ISO3DN125-0001-M <sup>1</sup>
		4.65	4.65	9.06	4.33	15.35	18.50	7.28	1.26	35.43	1.42	9.65		1.77		5000	460.77	
96	150	150	150	285	130	390	475	190	32	900	36	245	8 x M30	46	/	350	225,00	BV-2-ISO3DN150-0001-M <sup>1</sup>
		5.91	5.91	11.22	5.12	15.35	18.70	7.48	1.26	35.43	1.42	9.65		1.81		5000	496.04	
128	200	192	200	378	150	456	598	223	61	940	46	315	8 x M36	55	/	350	395,00	BV-2-ISO3DN200-0001-M <sup>1</sup>
		7.56	7.87	14.88	5.91	17.95	23.54	8.78	2.40	37.01	1.81	12.40		2.17		5000	868.62	

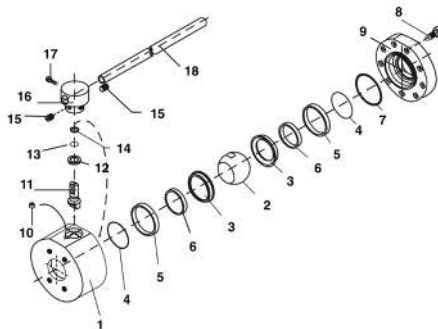
Please note: The final maximum working pressure is determined by flange and pipe/tubing rating.

<sup>1</sup> Please note: 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-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: Zinc (Nominal Size DN 50-DN 56)  
Carbon Steel (Nominal Sizes DN 60 to 100)
- Ball seat: Delrin® (POM)
- O-rings: FKM (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

**BV - 2 - CET4 DN51 - 0 0 0 1 - M - -**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

## ① Type

High-Pressure Round Body Ball Valve	<b>BV</b>
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## ② Number of Ports

Two Ports (Two-Way Ball Valve)	<b>2</b>
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## ③ Connection Style

250 bar / 3600 PSI Series CETOP Flange Connection with Metric ISO Threads	<b>CET2</b>
400 bar / 5800 PSI Series CETOP Flange Connection with Metric ISO Threads	<b>CET4</b>

Please contact STAUFF for alternative connection styles.

## ④ Connection Size

Nominal Size DN				
<b>DN51</b>	<b>DN56</b>	<b>DN63</b>	<b>DN80</b>	<b>DN100</b>

Please contact STAUFF for alternative connection sizes.

## ⑤ Body Material / Surface Finishing

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

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

## ⑥ Ball / Stem Material

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

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

## ⑦ Ball Seat Material

Delrin® (POM)	<b>0</b>
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Alternative materials are available upon request. Contact STAUFF for further information.

## ⑧ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FKM (Viton®)	<b>1</b>

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

## ⑨ Manufacturing Code

Manufacturing code for all connection styles	<b>M</b>
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## ⑩ Lever Options

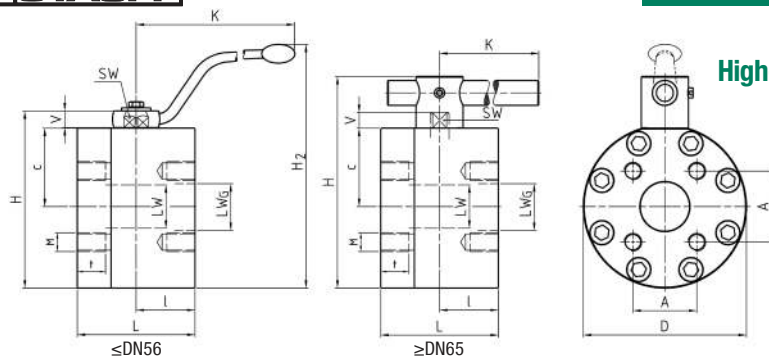
Supplied with standard lever (according to table)	<b>—</b>
Supplied without lever	<b>0</b>

## ⑪ Accessories / Options

Supplied without accessories	<b>—</b>
Supplied with Locking Device up to DN50	<b>LD2</b>
Supplied with Locking Device up to DN50	<b>LD4</b>
Supplied with Locking Device from DN65	<b>LD5</b>
Supplied with Locking Device LD7 (US version)	<b>LD7</b>

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: Zinc (Nominal Size DN 50-DN 56)  
Carbon Steel (Nominal Sizes DN 60 to 100)
- Ball seat: Delrin® (POM)
- O-rings: FKM (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	281	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	11.06	3600	54.78	
-	2-1/2	56	48	58	123	58	198	210	94	17	306	17	83,4	M20	33	281	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	11.06	3600	58.52	
40	3	63	63	70	150	75	208	270	100	20	600	16	102,5	M20	33	281	250	36,90	BV-2-CET2DN63-0001-M <sup>1</sup>
			2.48	2.76	5.91	2.95	8.19	1.63	3.94	.79	23.62	.63	4.04		1.30	11.06	3600	81.18	
48	3	80	76	70	170	78	258	318	114,5	26	600	16	102,5	M20	37	281	250	62,50	BV-2-CET2DN80-0001-M <sup>1</sup>
			2.99	2.76	6.69	3.07	10.16	12.52	4.51	1.02	23.62	.63	4.04		1.46	11.06	3600	137.50	
64	4	100	100	90	200	100	258	326	122	26	900	24	113,2	M24	40	281	250	70,40	BV-2-CET2DN100-0001-M <sup>1</sup>
			3.94	3.54	7.87	3.93	10.16	12.83	4.80	1.02	35.43	.94	4.46		1.57	11.06	3600	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	281	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	11.06	3600	5800	54.78	
-	2-1/2	56	48	53	123	58	198	210	94	17	306	17	83,4	M20	33	281	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	11.06	3600	5800	58.52	
40	3	63	63	58	150	75	224	286	108	20	600	16	102,5	M20	37.5	281	400	42,53	BV-2-CET4DN63-0001-M <sup>1</sup>	
			2.56	2.28	5.91	2.95	8.82	11.26	4.25	.79	23.62	.63	4.04		1.47	11.06	5800	93.56		
48	4	80	76	74	170	78	258	315	114,5	26	600	19	113,2	M24	35	281	400	63,00	BV-2-CET4DN80-0001-M <sup>1</sup>	
			2.99	2.91	6.69	3.07	10.15	12.40	4.51	1.02	23.62	.75	4.46		1.38	11.06	5800	138.60		

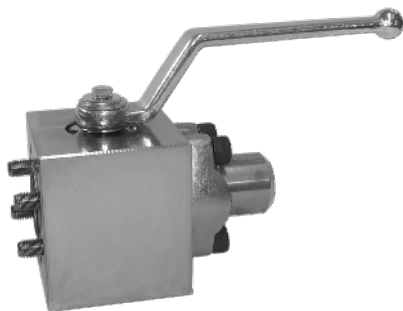
Please note: The final maximum working pressure is determined by flange and pipe/tubing rating.

<sup>1</sup> 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 (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 / 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.**

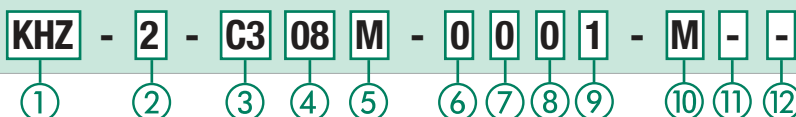
#### Temperature Range

- 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

### Order Codes



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

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  
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 **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 (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.

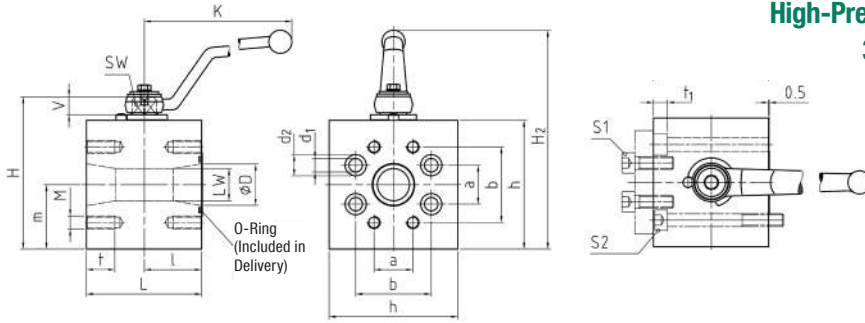
#### ⑫ Accessories / Options

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)



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

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

### 3000 PSI Series (Code 61) - Metric ISO Threads

STAUFF Size	Flange Size	Nominal Size DN	Dimensions (mm/m)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)					
			LW	D	L	I	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/m)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)					
			LW	D	L	I	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	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	UNC	.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	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	UNC	.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	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	UNC	.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	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	UNC	.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	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	UNC	.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	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	UNC	.83	.51	.75	.51	8,78	4000	36.30	

### Recommended Bolts and O-Rings

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

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

Flanges and bolts are not included in delivery.



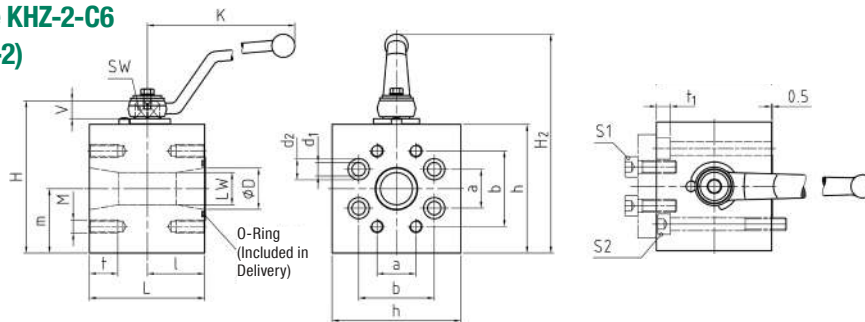


### High-Pressure Block Body Ball Valve - Type KHZ-2-C6 6000 PSI SAE Flange Connection (ISO 6162-2)

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 (Viton®)



#### 6000 PSI Series (Code 62) - Metric ISO Threads

STAUFF Size	Flange Size	Nominal Size DN	Dimensions (mm/m)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)					
			LW	D	L	I	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/m)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)					
			LW	D	L	I	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	UNC	.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	UNC	.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	UNC	.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	UNC	.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	UNC	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	UNC	1.34	.83	1.22	.85	8.78	6000	36.30	

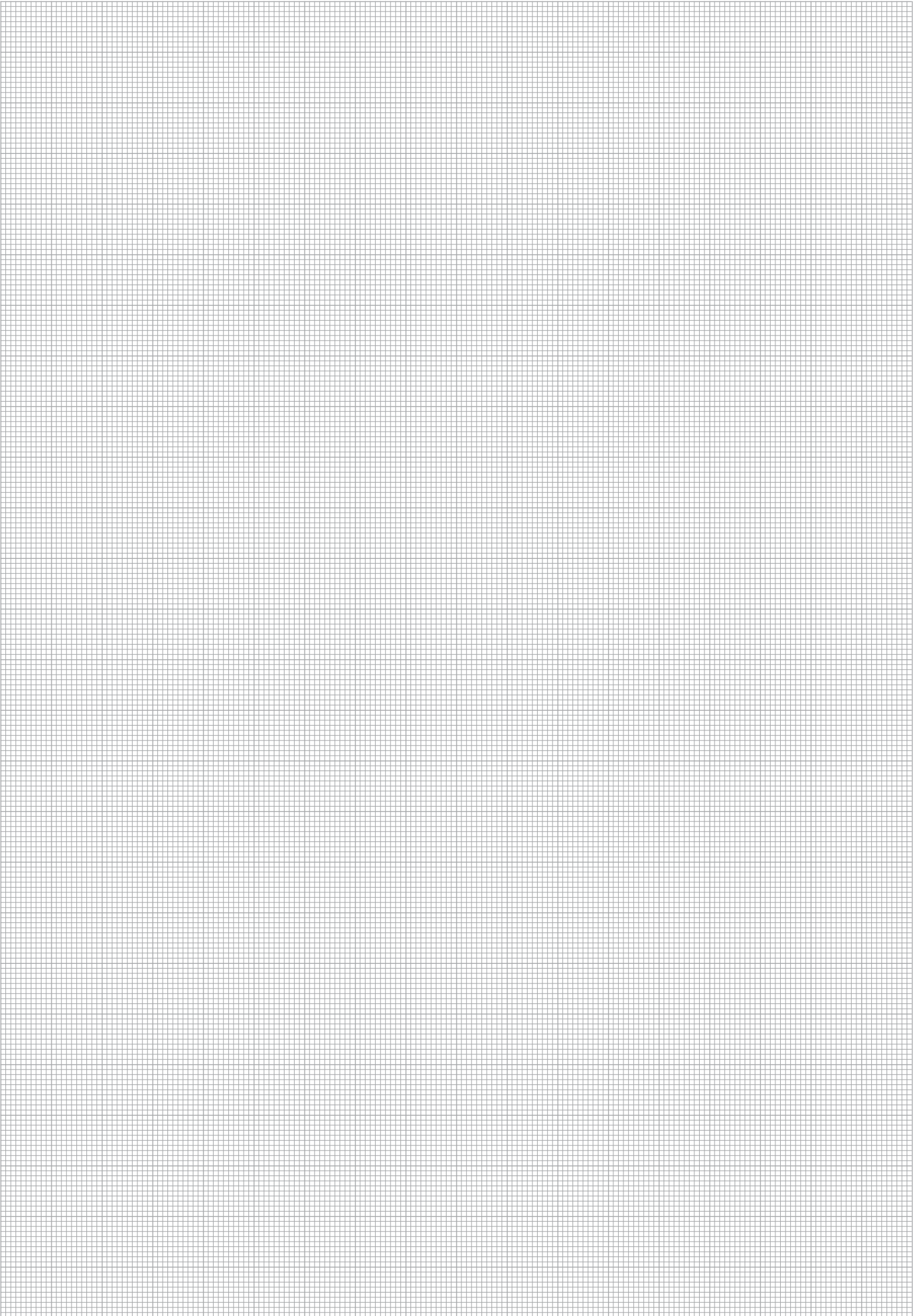
#### Recommended Bolts and O-Rings

STAUFF Size	Nominal Size DN	Recommendations		
		Bolt S1 (min)	Bolt S2 (min)	O-ring (Included in Delivery)
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.

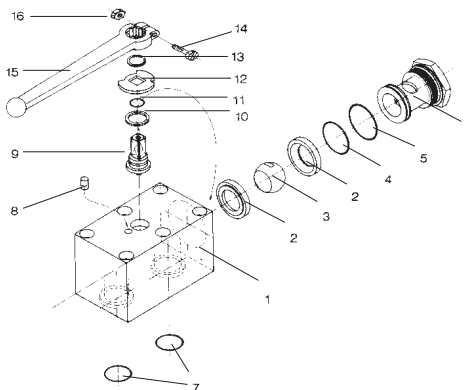
Flanges and bolts are not included in delivery.





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

A



### List of Components

No.	Qty.	Description
1	1	Body
2*	2	Seats
3	1	Ball
4*	1	O-Ring
5*	1	O-Ring
6	1	Tube Connector
7*	2	O-Ring
8	1	Stop Pin
9	1	Stem
10*	1	Thrust Ring
11*	1	O-Ring and Thrust 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 08)  
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM (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)

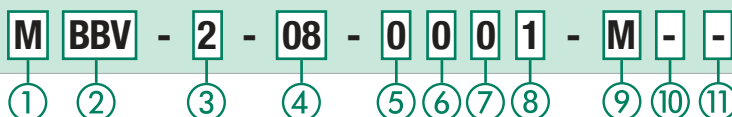
#### Temperature Range

- 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
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Please contact STAUFF for alternative connection sizes.

#### ⑤ Body Material / Surface Finishing

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

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

#### ⑥ Ball / Stem Material

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

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

#### ⑦ Ball Seat Material

Delrin® (POM)	<b>0</b>
PEEK	<b>G</b>
Delrin® (POM) with Protection Ring against Erosion	<b>H</b>

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

#### ⑧ O-Ring Material

NBR (Buna-N®)	<b>0</b>
FKM (Viton®)	<b>1</b>
EPDM	<b>3</b>
NBR (Buna-N®) for Low-Temperature Applications	<b>X</b>

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)	<b>—</b>
Supplied without lever	<b>O</b>

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

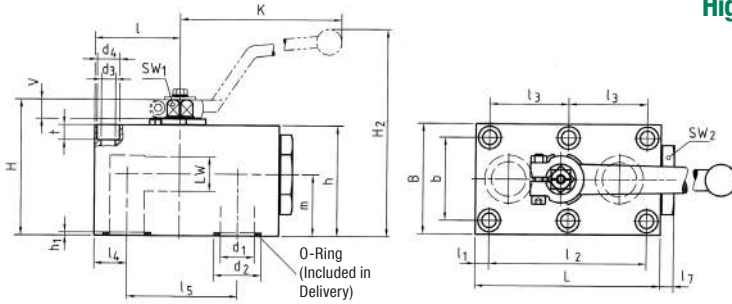
#### ⑪ Accessories / Options

Supplied without accessories	<b>—</b>
Supplied with Locking Device LD1	<b>LD1</b>
Supplied with Locking Device LD4	<b>LD4</b>

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



### High-Pressure Block Body Ball Valve - Type MBBV-2 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 08)  
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM (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
		1.02	.33	1.38		.33	1.38	.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	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
		1.14	.30	2.17		.39	1.73	.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	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
		1.67	.30	3.27	1.63	.63	2.28	.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	10	117	70	51	88	70	37,5	14	14	46	171	20	139	20	29	2	420	3,90	MBBV-2-12-0001-M
		2.01	.39	3.82	1.91	.79	2.72	.39	4.61	2.76	2.01	3.46	2.76	1.48	.55	.55	1.81	6.73	.79	5.47	.79	1.14	.08	6000	8.58	
16	25	62	10	115	57,5	24	81	10	135	80	60	98	80	44,5	14	14	50	171	25	149	25	34,9	2,3	420	5,65	MBBV-2-16-0001-M
		2.44	.39	4.53	2.26	.94	3.19	.39	5.31	3.15	2.36	3.86	3.15	1.75	.55	.55	1.97	6.73	.98	5.87	.98	1.37	.09	6000	12.43	
20	32	75	12	136	68	29	96	10	165	100	78	121	100	54,5	17	17	65	306	32	192	32	40	2	420	11,10	MBBV-2-20-0001-M
		2.95	.47	5.35	2.68	1.14	3.78	.39	6.50	3.94	3.07	4.76	3.94	2.15	.67	.67	2.56	12.05	1.26	7.56	1.26	1.57	.08	6000	24.42	
24	40	84,5	28,5	112	56	28,5	112	17	200	130	95	131	110	57	17	17	80	306	38	202	38	47,7	2,3	420	19,00	MBBV-2-24-0001-M
		3.33	1.12	4.41	2.20	1.12	4.41	.67	7.87	5.12	3.74	5.16	4.33	2.24	.67	.67	3.15	12.05	1.50	7.95	1.50	1.88	.09	6000	41.80	
32	50	106	38	136	68	38	136	15	240	150	112	150	129	71	17	17	90	306	48	221	48	59,8	2,3	420	29,30	MBBV-2-32-0001-M
		4.17	1.50	5.35	2.68	1.50	5.35	.59	9.45	5.91	4.41	5.91	5.08	2.80	.67	.67	3.54	12.05	1.89	8.70	1.89	2.35	.09	6000	64.46	

#### Recommended Bolts, Tightening Torques and O-Rings

STAUFF Size	Nominal Size DN	Recommendations		Dimensions (mm/in)			Tightening Torque	O-Ring (Included in Delivery)
		Bolt (min)		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 5/16-18 x 2-1/2 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	

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.

