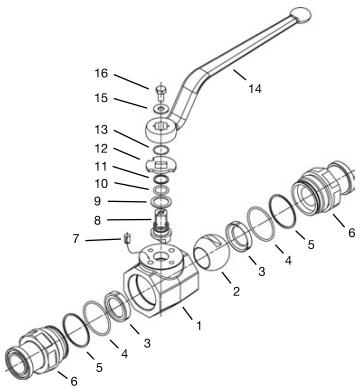
High-Pressure Forged Body Ball Valve ▪ Type FBV22/23



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

* Included in seal kit

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 straight 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: FPM (Viton®)

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

Pressure Range
- Pressure range: up to 420 bar / 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 Flanges section)
- Alternative lever designs/materials (see page F92)
- Locking devices (see pages F93-95)
- Actuator packages (see page F96)
- Limit switches (see page F96)
- Additional assembling threads / holes (see page F97)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media

Order Codes

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

① Type

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

② Number of Ports

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

③ Connection Style

3000 PSI (Code 61) SAE Split Flange Connectors (Standard Adaptor Length)	**2**
3000 PSI (Code 61) SAE Split Flange Connectors (Extended Adaptor Length)	**2X**
6000 PSI (code 62) SAE Split Flange Connectors (Standard Adaptor Length)	**3**
6000 PSI (code 62) SAE Split Flange Connectors (Extended Adaptor Length)	**3X**

Please consult STAUFF for alternative connection styles.

④ Connection Size

STAUFF Size (according to dimension table)		
20	**24**	**32**

Please consult 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. Consult STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM)	**0**

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

⑧ O-Ring Material

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

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

⑨ Manufacturing Code

Manufacturing code for all connection styles	**M**

⑩ Lever Options

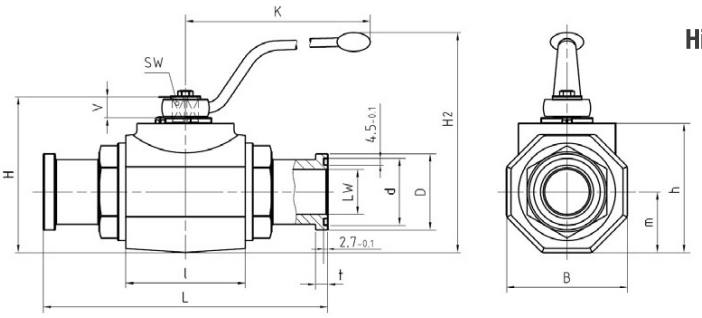
Supplied with standard lever (according to table)	**-**
Supplied without lever	**-0**

Alternative levers can be ordered separately. Please see page F92 for further information.

⑪ Accessories / Options

Supplied without accessories	**-**
Supplied with Locking Device LD1	**-LD1**
Supplied with Locking Device LD2	**-LD2**
Supplied with Locking Device LD6	**-LD6**
Supplied with Double-Acting Pneumatic Actuator (Please add size **)	**-EDA****
Supplied with Single-Acting Pneumatic Actuator (Please add size **)	**-ESA****

Please see page F93-F97 for further information and options.



High-Pressure Forged Body Ball Valve ▪ Type FBV22/23
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: FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

3000 PSI Series (Code 61) ▪ Standard Adaptor Length

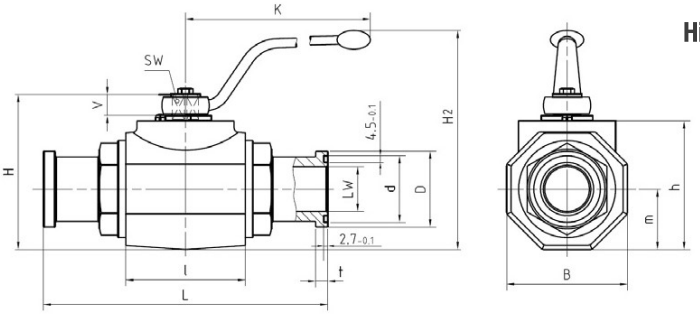
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in) LW	L	l	B	H	h	m	V	SW	K	d[1]	D[2]	t[3]	Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
20	1-1/4	32	30	191	80	81	107	86	40,5	16,5	17	306	44,6	50,8	8,1	280	4,22	FBV22200001M
			1.18	7.52	3.15	3.19	4.21	3.39	1.59	.65	.67	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	FBV22240001M
			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	FBV22320001M
			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) LW	L	l	B	H	h	m	V	SW	K	d[1]	D[2]	t[3]	Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
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	FBV22X200001M
			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	FBV22X240001M
			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	FBV22X320001M
			1.89	12.72	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	2.50	2.81	.38	3000	25.30	

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

[1] Dimension d: ±0,1 mm / .004 in
[2] Dimension D: –0,2 mm / .008 in
[3] Dimension t: –0,2 mm / .008 in



High-Pressure Forged Body Ball Valve ▪ Type FBV22/23
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: FPM (Viton®)

Dimensions of stainless steel ball valves may vary!

6000 PSI Series (Code 62) ▪ Standard Adaptor Length

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in) LW	L	l	B	H	h	m	V	SW	K	d[1]	D[2]	t[3]	Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
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	FBV23200001M
			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	FBV23240001M
			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	FBV23320001M
			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) LW	L	l	B	H	h	m	V	SW	K	d[1]	D[2]	t[3]	Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
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	FBV23X200001M
			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	FBV23X240001M
			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	FBV23X320001M
			1.89	15.16	3.94	4.65	5.43	4.61	2.32	.65	.67	12.05	2.50	3.13	.50	6000	26.40	

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

[1] Dimension d: ±0,1 mm / .004 in
[2] Dimension D: –0,2 mm / .008 in
[3] Dimension t: –0,2 mm / .008 in