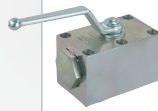


STAUFF Valves

Ball valves and flow control valves for shutting off and throttling fluid media

Product Catalogue

Version
10/2025



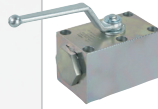
**High-Pressure Block Body Ball Valve
for Manifold Mounting**
Pressure inlet only from the center port

51-52

MCBVL-3

90° Operation

52



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

53-54

MCBVSL-3

180° Operation

54



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

56-59

CBVL-3-G

Female BSP Thread

57

CBVL-3-N

Female NPT Thread

57

CBVL-3-U

Female UN/UNF Thread

58

CBVL-3-L/S

24° Cone Connection

59



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

60-63

CBVT-3-G

Female BSP Thread

61

CBVT-3-N

Female NPT Thread

61

CBVT-3-U

Female UN/UNF Thread

62

CBVT-3-L/S

24° Cone Connection

63



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

64-65

CBVL-3-C

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

65



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

66-69

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



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

82-85

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



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

70-73

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



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

86-89

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



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

74-77

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



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

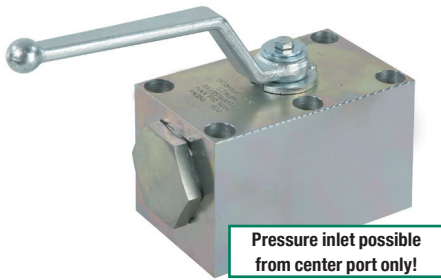
78-81

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

B

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

B



Characteristics

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

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 20 to 12)
- 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 inlet only from the center port!

Pressure Range

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

Temperature Range

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

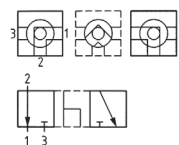
Options / Accessories

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

Porting Pattern

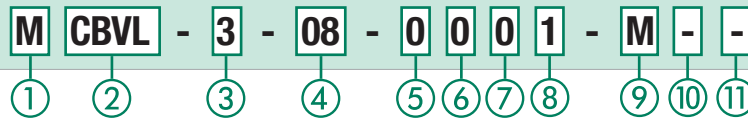
- Symbol : LLU
- Overlap: negative
- Operating: 90°

P58



- Stop of end position:

Order Codes



① Connection Style

Manifold Mounting **M**

② Type

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

③ Number of Ports

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

④ Connection Size

STAUFF Size (according to dimension table):

04	06	08	12	16	20	24	32
----	----	----	----	----	----	----	----

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

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

Note: Stainless steel version may vary in dimensions and design.
 Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

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

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

⑧ O-Ring Material

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

NBR (Buna-N®) for Low-Temperature Applications **X**
 Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

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

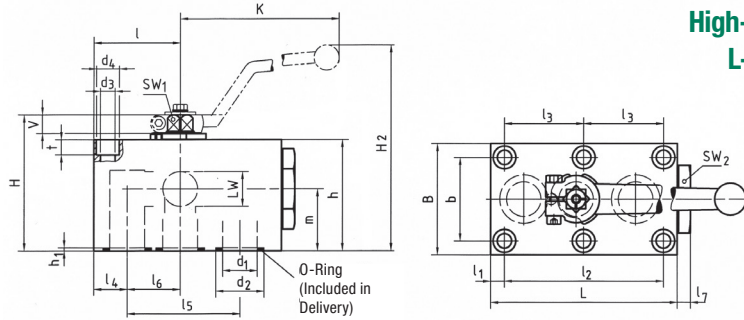
Alternative levers can be ordered separately. Please see page 114 for further information.

⑪ Accessories / Options

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

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

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



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

- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

B

Pressure Inlet only from the Center Port - 90° Operation

STAUFF Size	Nominal Size DN	Dimensions (mm/in)																			Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)				
		l	l1	l2	l3	l4	l5	l6	l7	L	B	b	H	h	m	V	SW1	SW2	K	LW	H2	d1	d2	h1			
04	6	26	8,5	35		8,5	35	17,5	6	57	40	27	43	35	19,5	6	7	19	80	6	67	6	11,8	1,9	500	0,60	MCBVL-3-04-0001-M
		1.02	.33	1.38		.33	1.38	.69	.24	2.24	1.57	1.06	1.69	1.38	.77	.24	.28	.75	3.15	.24	2.64	.24	.46	.07	7250	1.32	
06	10	29	7,5	55		10	44	19	10	70	55	40	59	45	24,5	11	9	30	115	10	93	9,5	14,9	1,9	500	1,30	MCBVL-3-06-0001-M
		1.14	.30	2.17		.39	1.73	.75	.39	2.76	2.17	1.57	2.32	1.77	.96	.43	.35	1.18	4.53	.39	3.66	.37	.59	.07	7250	2.86	
08	13	42,5	7,5	83	41,5	16	58	26,5	10	98	60	45	69	55	34	11	9	32	115	13	104	13	24,9	1,9	420	2,20	MCBVL-3-08-0001-M
		1.67	.30	3.27	1.63	.63	2.28	1.04	.39	3.86	2.36	1.77	2.72	2.17	1.34	.43	.35	1.26	4.53	.51	4.09	.51	.98	.07	6000	4.84	
12	20	51	10	97	48,5	20	69	31,5	10	117	70	51	88	70	37,5	14	14	46	171	20	139	20	29	2	420	3,90	MCBVL-3-12-0001-M
		2.01	.39	3.82	1.91	.79	2.72	1.24	.39	4.61	2.76	2.01	3.46	2.76	1.48	.55	.55	1.81	6.73	.79	5.47	.79	1.14	.08	6000	8.58	
16	25	62	10	115	57,5	24	81	38	10	135	80	60	98	80	44,5	14	14	50	171	25	149	25	34,9	2,3	420	5,65	MCBVL-3-16-0001-M
		2.44	.39	4.53	2.26	.94	3.19	1.50	.39	5.31	3.15	2.36	3.86	3.15	1.75	.55	.55	1.97	6.73	.98	5.87	.98	1.37	.09	6000	12.43	
20	32	75	12	136	68	29	96	46	10	165	100	78	121	100	54,5	16,5	17	65	306	32	192	32	40	2	420	11,10	MCBVL-3-20-0001-M
		2.95	.47	5.35	2.68	1.14	3.78	1.81	.39	6.50	3.94	3.07	4.76	3.94	2.15	.65	.67	2.56	12.05	1.26	7.56	1.26	1.57	.08	6000	24.42	
24	40	84,5	28,5	112	56	28,5	112	56	17	200	130	95	131	110	57	16,5	17	80	306	38	202	38	47,7	2,3	420	19,00	MCBVL-3-24-0001-M
		3.33	1.12	4.41	2.20	1.12	4.41	2.20	.67	7.87	5.12	3.74	5.16	4.33	2.24	.65	.67	3.15	12.05	1.50	7.95	1.50	1.88	.09	6000	41.80	
32	50	106	38	136	68	38	136	68	15	240	150	112	150	129	71	16,5	17	90	306	48	221	48	59,8	2,3	420	29,30	MCBVL-3-32-0001-M
		4.17	1.50	5.35	2.68	1.50	5.35	2.68	.59	9.45	5.91	4.41	5.91	5.08	2.80	.65	.67	3.54	12.05	1.89	8.70	1.89	2.35	.09	6000	64.46	

Dimensions and design for stainless steel may vary.

Recommended Bolts, Tightening Torques and O-Rings

STAUFF Size	Nominal Size DN	Recommendations Bolt (min)	Dimensions (mm/in)			Tightening Torque	O-Ring (Included in Delivery)
			d3	d4	t		
04	6	4 x M6 x 40 - 8.8	6,5	10,5	6,8	9 N·m	7x2,5
		4 x 1/4-20 x 1-1/2 UNC - Gr. 5	.26	.41	.27	10 ft·lb	
06	10	4 x M8 x 50 - 8.8	8,4	13,5	8,5	21 N·m	10x2,5
		4 x 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	

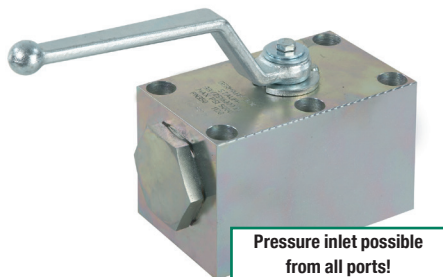
Pressure inlet only from the center port!

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

Dimensions and design for stainless steel may vary.

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

B



Characteristics

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

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- 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 inlet possible from all ports!
Must be operated without pressure!**

Pressure Range

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

Temperature Range

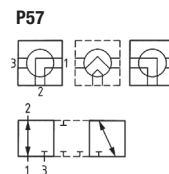
- Operating temperature range:
-20 °C ... +100 °C / -4 °F ... +212 °F

Options / Accessories

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

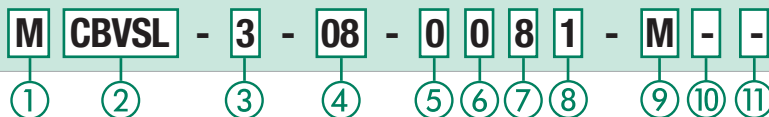
Porting Pattern

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



- Stop of end position:

Order Codes



① Connection Style

Manifold Mounting **M**

② Type

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

③ Number of Ports

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

④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

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

Note: Stainless steel version may vary in dimensions and design.
Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

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

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

⑧ O-Ring Material

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

NBR (Buna-N®) for Low-Temperature Applications **X**
Alternative materials are available upon request. Contact STAUFF for further information.

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

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

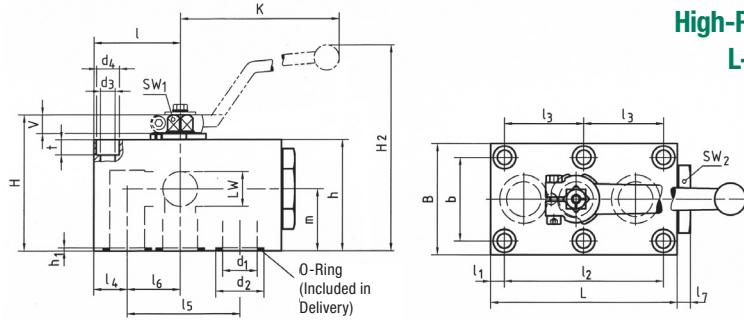
Alternative levers can be ordered separately. Please see page 114 for further information.

⑪ Accessories / Options

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

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

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



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

- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM (Viton®)

B

Pressure Inlet possible from all Ports - 180° Operation

STAUFF Size	Nominal Size DN	Dimensions (mm/in)																				Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)			
		l	l1	l2	l3	l4	l5	l6	l7	L	B	b	H	h	m	V	SW1	SW2	K	LW	H2	d1	d2	h1			
04	6	26	8,5	35		8,5	35	17,5	6	57	40	27	43	35	19,5	6	7	19	80	6	67	6	11,8	1,9	250	0,60	MCBVSL-3-04-0081-M
		1.02	.33	1.38		.33	1.38	.69	.24	2.24	1.57	1.06	1.69	1.38	.77	.24	.28	.75	3.15	.24	2.64	.24	.46	.07	3625	1.32	
06	10	29	7,5	55		10	44	19	10	75	55	40	59	45	24,5	11	9	30	115	10	93	9,5	14,9	1,9	500	1,30	MCBVSL-3-06-0081-M
		1.14	.30	2.17		.39	1.73	.75	.39	2.95	2.17	1.57	2.32	1.77	.96	.43	.35	1.18	4.53	.39	3.66	.37	.59	.07	7250	2.86	
08	13	42,5	7,5	83	41,5	16	58	26,5	10	98	60	45	69	55	34	11	9	32	115	13	104	13	24,9	1,9	400	2,20	MCBVSL-3-08-0081-M
		1.67	.30	3.27	1.63	.63	2.28	1.04	.39	3.86	2.36	1.77	2.72	2.17	1.34	.43	.35	1.26	4.53	.51	4.09	.51	.98	.07	5800	4.84	
12	20	51	10	97	48,5	20	69	31,5	10	117	70	51	88	70	37,5	14	14	46	171	20	139	20	29	2	315	3,90	MCBVSL-3-12-0081-M
		2.01	.39	3.82	1.91	.79	2.72	1.24	.39	4.61	2.76	2.01	3.46	2.76	1.48	.55	.55	1.81	6.73	.79	5.47	.79	1.14	.08	4500	8.58	
16	25	62	10	115	57,5	24	81	38	10	135	80	60	98	80	44,5	14	14	50	171	25	149	25	34,9	2,3	315	5,65	MCBVSL-3-16-0081-M
		2.44	.39	4.53	2.26	.94	3.19	1.50	.39	5.31	3.15	2.36	3.86	3.15	1.75	.55	.55	1.97	6.73	.98	5.87	.98	1.37	.09	4500	12.43	
20	32	75	12	136	68	29	96	46	10	165	100	78	121	100	54,5	16,5	17	65	306	32	192	32	40	2	420	11,10	MCBVSL-3-20-0081-M
		2.95	.47	5.35	2.68	1.14	3.78	1.81	.39	6.50	3.94	3.07	4.76	3.94	2.15	.65	.67	2.56	12.05	1.26	7.56	1.26	1.57	.08	6000	24.42	
24	40	84,5	28,5	112	56	28,5	112	56	17	200	130	95	131	110	57	16,5	17	80	306	38	202	38	47,7	2,3	420	19,00	MCBVSL-3-24-0081-M
		3.33	1.12	4.41	2.20	1.12	4.41	2.20	.67	7.87	5.12	3.74	5.16	4.33	2.24	.65	.67	3.15	12.05	1.50	7.95	1.50	1.88	.09	6000	41.80	
32	50	106	38	136	68	38	136	68	15	240	150	112	150	129	71	16,5	17	90	306	48	221	48	59,8	2,3	420	29,30	MCBVSL-3-32-0081-M
		4.17	1.50	5.35	2.68	1.50	5.35	2.68	.59	9.45	5.91	4.41	5.91	5.08	2.80	.65	.67	3.54	12.05	1.89	8.70	1.89	2.35	.09	6000	64.46	

Dimensions and design for stainless steel may vary.

Recommended Bolts, Tightening Torques and O-Rings

STAUFF Size	Nominal Size DN	Recommendations Bolt (min)	Dimensions (mm/in)			Tightening Torque	O-Ring (Included in Delivery)
			d3	d4	t		
04	6	4 x M6 x 40 - 8.8	6,5	10,5	6,8	9 N·m	7x2,5
		4 x 1/4-20 x 1-1/2 UNC - Gr. 5	.26	.41	.27	10 ft·lb	
06	10	4 x M8 x 50 - 8.8	8,4	13,5	8,5	21 N·m	10x2,5
		4 x 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	

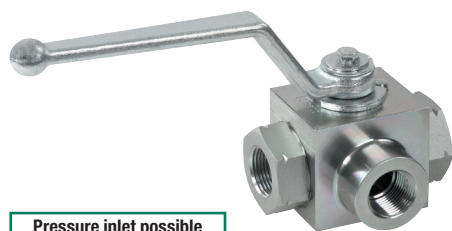
**Pressure inlet possible from all ports!
Must be operated without pressure!**

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

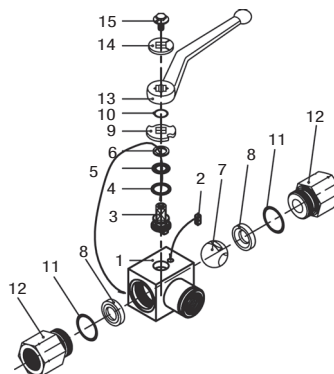
Dimensions and design for stainless steel may vary.

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

B



Pressure inlet possible from center port!



List of Components

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

Characteristics

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

Standard Construction

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

Standard Materials

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

Standard Connections Styles / Sizes

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

Pressure inlet only from the center port!

Pressure Range

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

Temperature Range

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

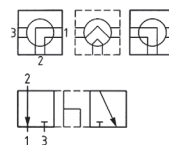
Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Porting Pattern

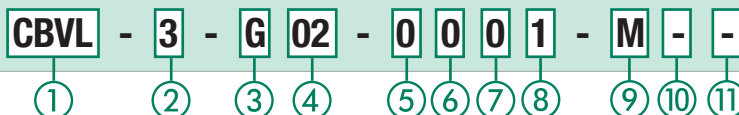
- Symbol : L
- Overlap: negative
- Operating: 90°

P50



- Stop of end position:

Order Codes



① Type

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

② Number of Ports

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

③ Connection Style

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

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

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

Note: Stainless steel version may vary in dimensions and design.
 Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM) **0**

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

⑧ O-Ring Material

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

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

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

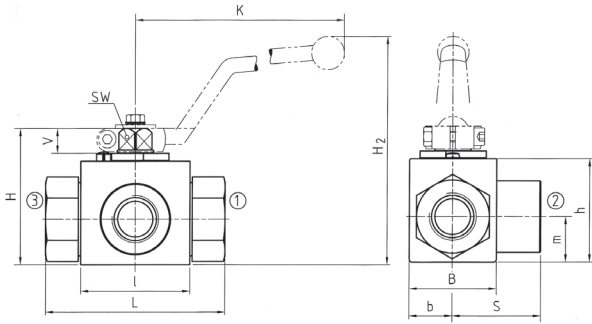
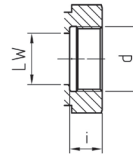
Supplied with standard lever (according to table) **—**
 Supplied without lever **0**

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

⑪ Accessories / Options

Supplied without accessories **—**
 Supplied with Locking Device LD1 **LD1**
 Supplied with Locking Device LD2 **LD2**
 Supplied with Locking Device LD3 **LD3**
 Supplied with Locking Device LD4 **LD4**

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

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

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


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

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

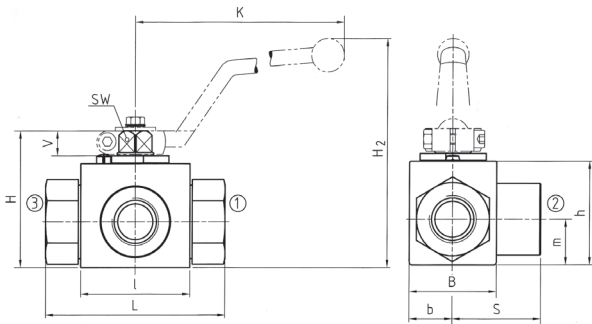
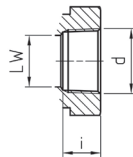
From DN32, STAUFF size 20 made from one block

Pressure Inlet only from the Center Port

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	m	S	V	SW	K	i	H2			
02	G 1/8 BSP	4	5.20	69	40	13	29	47	33	13.5	34.5	11	9	115	10	82	500	0.40	CBVL-3-G02-8001-M *
			2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.39	3.23	7250	.88		
04	G 1/4 BSP	6	6.24	69	40	13	29	47	33	13.5	34.5	11	9	115	14	82	500	0.46	CBVL-3-G04-8001-M *
			2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.55	3.23	7250	1.01		
06	G 3/8 BSP	10	10.39	72	43	16	35	52	38	17.5	36	11	9	115	14	87	500	0.60	CBVL-3-G06-8001-M *
			1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.55	3.42	7250	1.32			
08	G 1/2 BSP	13	13.51	83	48	17.5	38	54	40	19	41.5	11	9	115	16.3	89	500	0.70	CBVL-3-G08-8001-M *
			3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.64	3.50	7250	1.54		
12	G 3/4 BSP	20	20.79	95	62	24.5	52	75	57	24.5	47.5	14	14	170	18	126	315	1.80	CBVL-3-G12-8001-M *
			3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.71	4.96	4500	3.96		
16	G 1 BSP	25	25.98	113	66	29	61	83	65	29.5	56.5	14	14	170	20	134	315	2.40	CBVL-3-G16-8001-M *
			4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.79	5.73	4500	5.28		
20	G 1-1/4 BSP	32	30.18	111	81	39	106	84.5	39	55	16.5	17	320	22	170	350	3.80	CBVL-3-G20-0001-M	
			4.37	3.19	1.54	4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000	8.36			
24	G 1-1/2 BSP	40	38.15	130	104	53	127	106	53	65	16.5	17	320	24	191	350	6.20	CBVL-3-G24-0001-M	
			5.12	4.09	2.09	5.00	4.17	2.09	2.56	.65	.67	12.60	.94	7.52	5000	13.64			
32	G 2 BSP	50	48.189	150	118	58	116	137	116	58	75	16.5	17	320	26	201	350	7.80	CBVL-3-G32-0001-M
			5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.02	7.91	5000	17.16		

 Please note the pressure ratings of the tube connections.
 Dimensions and design for stainless steel may vary.

* Standard option zinc/nickel


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


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

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

From DN32, STAUFF size 20 made from one block

Pressure Inlet only from the Center Port

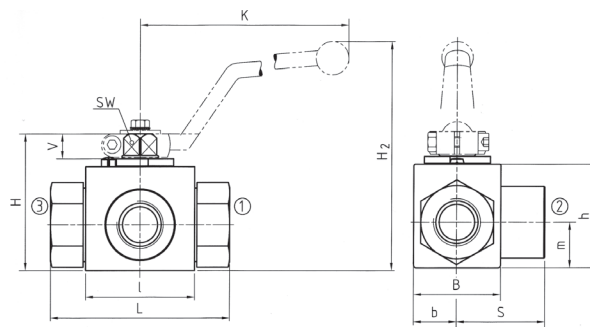
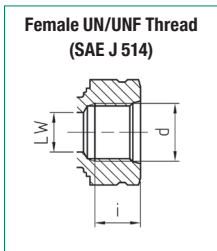
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	I	b	B	H	h	K	S	V	SW	K	i	H2			
02	1/8 NPT	4	5.20	69	40	13	29	47	33	13.5	34.5	11	9	115	10.5	82	500	0.40	CBVL-3-N02-0001-M
			2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.41	3.23	7250	.88		
04	1/4 NPT	6	6.24	69	40	13	29	47	33	13.5	34.5	11	9	115	13.7	82	500	0.46	CBVL-3-N04-0001-M
			2.72	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.54	3.23	7250	1.01		
06	3/8 NPT	10	10.39	72	43	16	35	52	38	17.5	36	11	9	115	13.5	87	500	0.60	CBVL-3-N06-0001-M
			1.69	.63	1.38	2.05	1.50	.69	1.42	.43	.35	4.53	.53	3.42	7250	1.32			
08	1/2 NPT	13	13.51	83	48	17.5	38	54	40	19	41.5	11	9	115	17	89	500	0.70	CBVL-3-N08-0001-M
			3.27	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.67	3.50	7250	1.54		
12	3/4 NPT	20	20.79	95	62	24.5	52	75	57	24.5	47.5	14	14	170	18.3	126	315	1.80	CBVL-3-N12-0001-M
			3.74	2.44	.96	2.05	2.95	2.24	.96	1.87	.55	.55	6.69	.72	4.96	4500	3.96		
16	1 NPT	25	25.98	113	66	29	61	83	65	29.5	56.5	14	14	170	21.6	134	315	2.40	CBVL-3-N16-0001-M
			4.45	2.60	1.14	2.40	3.27	2.56	1.16	2.22	.55	.55	6.69	.85	5.73	4500	5.28		
20	1-1/4 NPT	32	30.18	111	81	39	106	84.5	39	55	16.5	17	320	22.1	170	350	3.80	CBVL-3-N20-0001-M	
			4.72	3.19	1.54	4.17	3.33	1.54	2.17	.65	.67	12.60	.87	6.69	5000	8.36			
24	1-1/2 NPT	40	38.15	130	104	53	127	106	53	65	16.5	17	320	22.1	191	350	6.20	CBVL-3-N24-0001-M	
			5.51	4.09	2.09	5.00	4.17	2.09	2.56	.65	.67	12.60	.87	7.52	5000	13.64			
32	2 NPT	50	48.189	150	118	58	116	137	116	58	75	16.5	17	320	30.2	201	350	7.80	CBVL-3-N32-0001-M
			5.91	4.65	2.28	4.57	5.39	4.57	2.28	2.95	.65	.67	12.60	1.19	7.91	5000	17.16		

 Please note the pressure ratings of the tube connections.
 Dimensions and design for stainless steel may vary.

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

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

- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

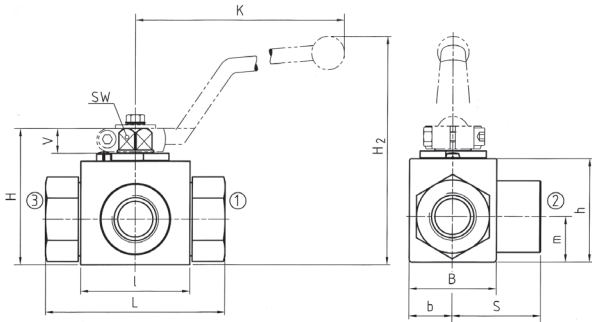


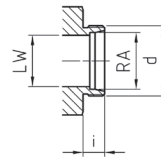
From DN32, STAUFF size 20 made from one block

Pressure Inlet only from the Center Port

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

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

 Union nuts and cutting rings
are not included in delivery.

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


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

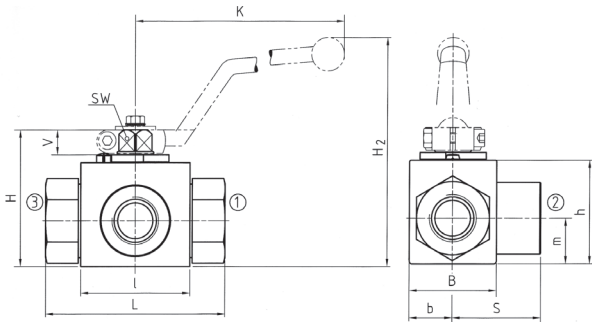
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

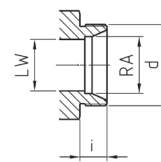
Pressure Inlet only from the Center Port

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)																Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2				
02	06L / M12 x 1,5	4	6	5	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,30	CBVL-3-06L-8001-M	
			.24	.20	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.66		
04	08L / M14 x 1,5	6	8	6	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,40	CBVL-3-08L-8001-M	
			.31	.24	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.88		
05	10L / M16 x 1,5	8	10	6	74	40	13	29	47	33	13,5	34,5	11	9	115	11	82	500	0,40	CBVL-3-10L-8001-M	
			.39	.24	2.91	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.43	3.23	7250	.88		
06	12L / M18 x 1,5	10	12	10	74	43	16	35	52	38	17,5	36,5	11	9	115	11	87	500	0,50	CBVL-3-12L-8001-M	
			.47	.39	2.91	1.69	.63	1.38	2.05	1.50	.69	1.44	.43	.35	4.53	.43	3.42	7250	1.10		
08	15L / M22 x 1,5	13	15	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,65	CBVL-3-15L-8001-M	
			.59	.51	3.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.43		
08	18L / M26 x 1,5	13	18	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,69	CBVL-3-18LDN13-8001-M	
			.71	.51	2.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.52		
12	22L / M30 x 2	20	22	20	101	62	24,5	52	75	57	24,5	48	14	14	170	14	126	315	1,50	CBVL-3-22L-8001-M	
			.87	.79	3.98	2.44	.96	2.05	2.95	2.24	.96	1.89	.55	.55	6.69	.55	4.96	4500	3.30		
16	28L / M36 x 2	25	28	25	108	66	29	61	83	65	29,5	54	14	14	170	14	134	315	2,10	CBVL-3-28L-8001-M	
			1.10	.98	4.25	2.60	1.14	2.40	3.27	2.56	1.16	2.13	.55	.55	6.69	.55	5.73	4500	4.62		
20R	35L / M45 x 2	25/32	35	25	112	66	29	61	83	65	29,5	56	14	14	170	16	134	315	2,50	CBVL-3-35LDN25-8001-M	
			1.38	.98	4.41	2.60	1.14	2.40	3.27	2.56	1.16	2.20	.55	.55	6.69	.63	5.73	4500	5.50		

Please note the pressure ratings of the tube connections.

Dimensions and design for stainless steel may vary.

zinc/nickel-plated
**High-Pressure Block Body Ball Valve - Type CBVL-3
L-Bore Three-Way Selector - 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)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

Pressure Inlet only from the Center Port

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)																Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2				
02	08S / M16 x 1,5	4	8	5	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,42	CBVL-3-08S-8001-M	
			.31	.20	2.87	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.92		
04	10S / M18 x 1,5	6	10	6	73	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,43	CBVL-3-10S-8001-M	
			.39	.24	2.87	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.95		
05	12S / M20 x 1,5	8	12	6	76	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,44	CBVL-3-12S-8001-M	
			.47	.24	2.99	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.47	3.23	7250	.97		
06	14S / M22 x 1,5	10	14	10	80	43	16	35	52	38	17,5	36,5	11	9	115	14	87	500	0,50	CBVL-3-14S-8001-M	
			.55	.39	3.15	1.69	.63	1.38	2.05	1.50	.69	1.43	.43	.35	4.53	.55	3.42	7250	1.10		
08	16S / M24 x 1,5	13	16	13	86	48	17,5	38	54	40	19	43	11	9	115	14	89	500	0,65	CBVL-3-16S-8001-M	
			.63	.51	3.39	1.89	.69	1.50	2.13	1.57	.75	1.69	.43	.35	4.53	.55	3.50	7250	1.43		
08	20S / M30 x 2	13	20	13	90	48	17,5	38	54	40	19	43	11	9	115	16	89	500	0,70	CBVL-3-20SDN13-8001-M	
			.79	.51	3.54	1.89	.69	1.50	2.13	1.57	.75	1.69	.43	.35	4.53	.63	3.50	7250	1.54		
12	25S / M36 x 2	20	25	20	109	62	24,5	52	75	57	24,5	48	14	14	170	18	126	315	1,70	CBVL-3-25S-8001-M	
			.98	.79	4.29	2.44	.96	2.05	2.95	2.24	.96	1.89	.55	.55	6.69	.71	4.96	4500	3.74		
16	30S / M42 x 2	25	30	25	120	66	29	61	83	65	29,5	57,5	14	14	170	20	134	315	2,40	CBVL-3-30S-8001-M	
			1.18	.98	4.72	2.60	1.14	2.40	3.27	2.56	1.16	2.26	.55	.55	6.69	.79	5.73	4500	5.28		
20R	38S / M52 x 2	25/32	38	25	124	66	29	61	83	65	29,5	57,5	14	14	170	22	134	315	2,80	CBVL-3-38SDN25-8001-M	
			1.50	.98	4.88	2.60	1.14	2.40	3.27	2.56	1.16	2.26	.55	.55	6.69	.87	5.73	4500	6.16		

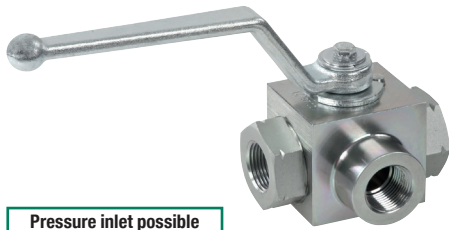
Please note the pressure ratings of the tube connections.

Dimensions and design for stainless steel may vary.

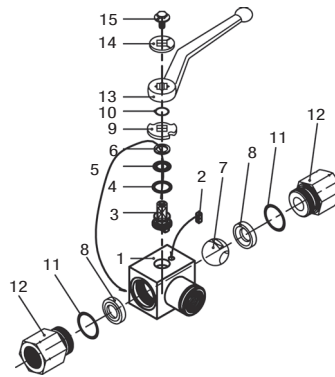
B

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

B



Pressure inlet possible from center port!



List of Components

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

Characteristics

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

Standard Construction

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

Standard Materials

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

Standard Connections Styles / Sizes

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

Pressure inlet only from the center port!

Pressure Range

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

Temperature Range

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

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Porting Pattern

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

P51



- Stop of end position:

Order Codes

CBVT - 3 - G 02 - 0 0 0 1 - M - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

① Type

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

② Number of Ports

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

③ Connection Style

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

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

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

Note: Stainless steel version may vary in dimensions and design.
 Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM) **0**

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

⑧ O-Ring Material

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

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

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

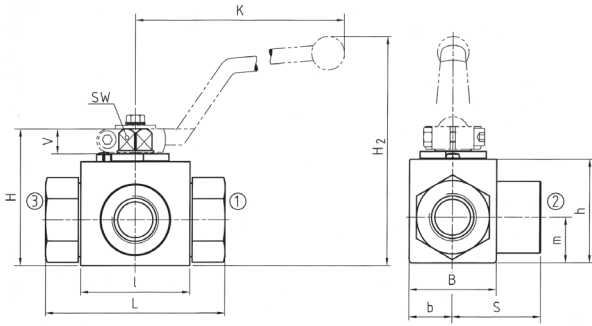
Supplied with standard lever (according to table) **-**
 Supplied without lever **0**

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

⑪ Accessories / Options

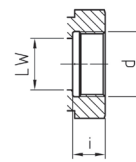
Supplied without accessories **-**
 Supplied with Locking Device LD1 **LD1**
 Supplied with Locking Device LD2 **LD2**
 Supplied with Locking Device LD3 **LD3**
 Supplied with Locking Device LD4 **LD4**

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



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

Female BSP Thread (DIN ISO 228)



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

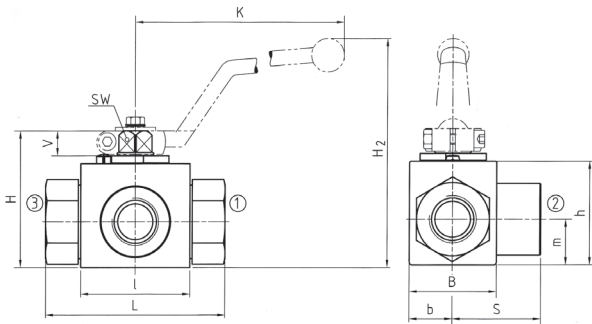
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

From DN32, STAUFF size 20 made from one block

Pressure Inlet only from the Center Port

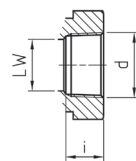
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2			
02	G 1/8 BSP	4	5.20	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.4.53	10.39	82.3.23	500.7250	0.40.88	CBVT-3-G02-0001-M
04	G 1/4 BSP	6	6.24	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.4.53	14.55	82.3.23	500.7250	0.46.1.01	CBVT-3-G04-0001-M
06	G 3/8 BSP	10	10.39	72.283	43.169	16.63	35.138	52.205	38.150	17.5.69	36.1.42	11.43	9.35	115.4.53	14.55	87.3.42	500.7250	0.60.1.32	CBVT-3-G06-0001-M
08	G 1/2 BSP	13	13.51	83.327	48.189	17.5.69	38.150	54.213	40.19	19.157	41.5.75	11.43	9.35	115.4.53	16.3.64	89.3.50	500.7250	0.70.1.54	CBVT-3-G08-0001-M
12	G 3/4 BSP	20	20.79	95.374	62.244	24.5.96	52.205	75.295	57.224	24.5.96	47.5.187	14.55	14.55	170.6.69	18.71	126.4.96	315.4500	1.80.3.96	CBVT-3-G12-0001-M
16	G 1 BSP	25	25.98	113.445	66.260	29.114	61.240	83.327	65.256	29.5.116	56.5.222	14.55	14.55	170.6.69	20.79	134.5.73	315.4500	2.40.5.28	CBVT-3-G16-0001-M
20	G 1-1/4 BSP	32	30.118	111.437	81.319	39.154	61.240	106.417	84.5.333	39.154	55.217	17.65	17.65	320.12.60	22.87	170.6.69	350.5000	3.80.8.36	CBVT-3-G20-0001-M
24	G 1-1/2 BSP	40	38.150	130.512	104.409	53.209	61.240	127.500	106.417	53.209	65.256	17.65	17.65	320.12.60	24.94	191.7.52	350.5000	6.20.13.64	CBVT-3-G24-0001-M
32	G 2 BSP	50	48.189	150.591	118.465	58.228	116.457	137.539	116.457	58.228	75.295	17.65	17.65	320.12.60	30.2	201.7.91	350.5000	7.80.17.16	CBVT-3-G32-0001-M

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



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

Female NPT Thread (ANSI B1.20.1)



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

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

From DN32, STAUFF size 20 made from one block

Pressure Inlet only from the Center Port

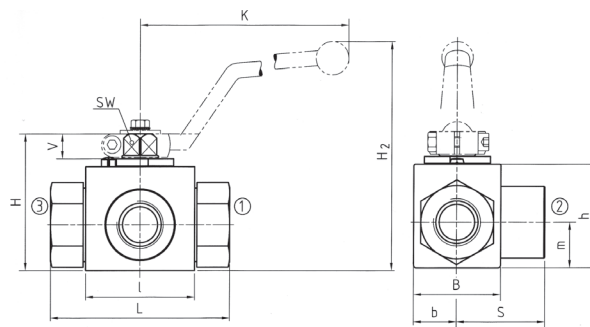
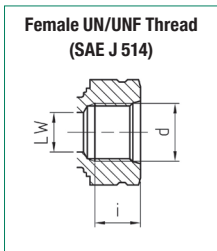
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	l	b	B	H	h	K	S	V	SW	K	i	H2			
02	1/8 NPT	4	5.20	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.4.53	10.5.41	82.3.23	500.7250	0.40.88	CBVT-3-N02-0001-M
04	1/4 NPT	6	6.24	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.4.53	13.7.54	82.3.23	500.7250	0.46.1.01	CBVT-3-N04-0001-M
06	3/8 NPT	10	10.39	72.283	43.169	16.63	35.138	52.205	38.150	17.5.69	36.1.42	11.43	9.35	115.4.53	13.5.53	87.3.42	500.7250	0.60.1.32	CBVT-3-N06-0001-M
08	1/2 NPT	13	13.51	83.327	48.189	17.5.69	38.150	54.213	40.19	19.157	41.5.75	11.43	9.35	115.4.53	17.89	89.3.50	500.7250	0.70.1.54	CBVT-3-N08-0001-M
12	3/4 NPT	20	20.79	95.374	62.244	24.5.96	52.205	75.295	57.224	24.5.96	47.5.187	14.55	14.55	170.6.69	18.3.72	126.4.96	315.4500	1.80.3.96	CBVT-3-N12-0001-M
16	1 NPT	25	25.98	113.445	66.260	29.114	61.240	83.327	65.256	29.5.116	56.5.222	14.55	14.55	170.6.69	21.6.85	134.5.73	315.4500	2.40.5.28	CBVT-3-N16-0001-M
20	1-1/4 NPT	32	30.118	120.472	81.319	39.154	61.240	106.417	84.5.333	39.154	55.217	17.65	17.65	320.12.60	22.1.87	170.6.69	350.5000	3.80.8.36	CBVT-3-N20-0001-M
24	1-1/2 NPT	40	38.150	140.551	104.409	53.209	61.240	127.500	106.417	53.209	65.256	17.65	17.65	320.12.60	22.1.87	191.7.52	350.5000	6.20.13.64	CBVT-3-N24-0001-M
32	2 NPT	50	48.189	150.591	118.465	58.228	116.457	137.539	116.457	58.228	75.295	17.65	17.65	320.12.60	30.2.19	201.7.91	350.5000	7.80.17.16	CBVT-3-N32-0001-M

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

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

- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM)
- rings: FKM (Viton®)

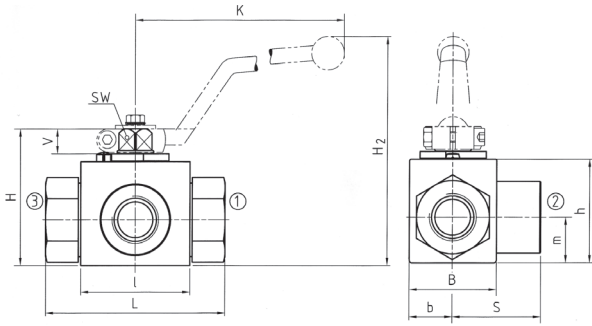


From DN32, STAUFF size 20 made from one block

Pressure Inlet only from the Center Port

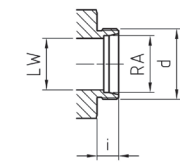
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	l	b	B	H	h	K	S	V	SW	K	i	H2			
04	7/16-20 UNF (1/4" SAE)	6	5	69	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,46	CBVT-3-U04-0001-M
			.20	2.72	1.57	.51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

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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



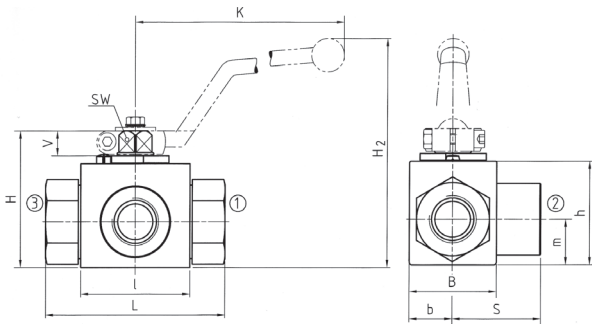
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

Pressure Inlet only from the Center Port

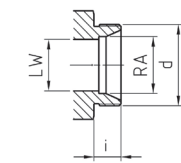
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/m)																Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2				
02	06L / M12 x 1,5	4	6	5	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,30	CBVT-3-06L-0001-M	
			.24	.20	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.66		
04	08L / M14 x 1,5	6	8	6	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,40	CBVT-3-08L-0001-M	
			.31	.24	2.64	1.57	.51	1.14	1.85	1.30	.53	1.32	.43	.35	4.53	.39	3.23	7250	.88		
05	10L / M16 x 1,5	8	10	6	74	40	13	29	47	33	13,5	34,5	11	9	115	11	82	500	0,40	CBVT-3-10L-0001-M	
			.39	.24	2.91	1.57	.51	1.14	1.85	1.30	.53	1.36	.43	.35	4.53	.43	3.23	7250	.88		
06	12L / M18 x 1,5	10	12	10	74	43	16	35	52	38	17,5	36,5	11	9	115	11	87	500	0,50	CBVT-3-12L-0001-M	
			.47	.39	2.91	1.69	.63	1.38	2.05	1.50	.69	1.44	.43	.35	4.53	.43	3.42	7250	1.10		
08	15L / M22 x 1,5	13	15	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,65	CBVT-3-15L-0001-M	
			.59	.51	3.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.43		
08	18L / M26 x 1,5	13	18	13	82	48	17,5	38	54	40	19	41,5	11	9	115	12	89	500	0,69	CBVT-3-18LDN13-0001-M	
			.71	.51	2.23	1.89	.69	1.50	2.13	1.57	.75	1.63	.43	.35	4.53	.47	3.50	7250	1.52		
12	22L / M30 x 2	20	22	20	101	62	24,5	52	75	57	24,5	48	14	14	170	14	126	315	1,50	CBVT-3-22L-0001-M	
			.87	.79	3.98	2.44	.96	2.05	2.95	2.24	.96	1.89	.55	.55	6.69	.55	4.96	4500	3.30		
16	28L / M36 x 2	25	28	25	108	66	29	61	83	65	29,5	54	14	14	170	14	134	315	2,10	CBVT-3-28L-0001-M	
			1.10	.98	4.25	2.60	1.14	2.40	3.27	2.56	1.16	2.13	.55	.55	6.69	.55	5.73	4500	4.62		
20R	35L / M45 x 2	25/32	35	25	112	66	29	61	83	65	29,5	56	14	14	170	16	134	315	2,50	CBVT-3-35LDN25-0001-M	
			1.38	.98	4.41	2.60	1.14	2.40	3.27	2.56	1.16	2.20	.55	.55	6.69	.63	5.73	4500	5.50		

Please note the pressure ratings of the tube connections. Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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



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

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

Pressure Inlet only from the Center Port

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

Please note the pressure ratings of the tube connections. Dimensions and design for stainless steel may vary.

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

B



Characteristics

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

Standard Construction

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

Standard Materials

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

Standard Connections Styles / Sizes

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

Pressure inlet only from the center port!

Pressure Range

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

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

Temperature Range

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

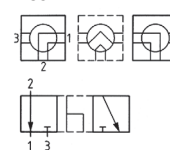
Options / Accessories

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

Porting Pattern

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

P50



- Stop of end position:

Order Codes

CBVL - 3 - C6 08 M - 0 0 0 1 - M - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① Type

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

② Number of Ports

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

③ Connection Style

6000 PSI (Code 62)
SAE Direct Flange Connection **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**
Stainless Steel V4A (AISI 316Ti) **1**

Note: Stainless steel version may vary in dimensions and design.
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**
EPDM **3**

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

⑩ Manufacturing Code

Manufacturing code for all connection styles **M**

⑪ Lever Options

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

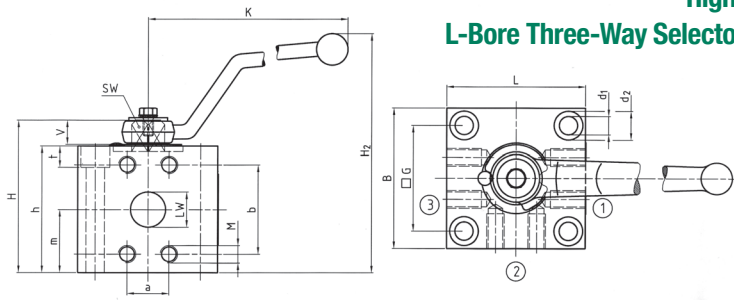
Alternative levers can be ordered separately. Please see page 114 for further information.

⑫ Accessories / Options

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

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

High-Pressure Block Body Ball Valve - Type CBVL-3-C L-Bore Three-Way Selector - 6000 PSI SAE Flange Connection (ISO 6162-2)



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

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

B

6000 PSI Series (Code 62) - Metric ISO Threads

STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (PSI)	Weight (kg/lbs)	Order Codes (Standard Option)				
			LW	L	B	H	h	m	V	SW	K	a	b	M								
08	1/2	13	13	70	70	63	56	28	11	9	115	18,2	40,5	M8	43	8,5	13,5	9	101	420	2,00	CBVL-3-C608M-0001-M
			.51	2.76	2.76	2.48	2.20	1.10	.43	.35	4.53	.72	1.59		1.69	.33	.53	.35	3.98	6000	4.40	
12	3/4	20	20	80	80	87	72	36	14	14	170	23,8	50,8	M10	60	10,5	16,5	11	137	420	3,40	CBVL-3-C612M-0001-M
			.79	3.15	3.15	3.43	2.83	1.42	.55	.55	6.69	.94	2.00		2.36	.41	.65	.43	5.39	6000	7.48	
16	1	25	25	94	94	96	81	42	14	14	170	27,8	57,2	M12	70	10,5	16,5	11	147	420	5,40	CBVL-3-C616M-0001-M
			.98	3.70	3.70	3.78	3.19	1.65	.55	.55	6.69	1.09	2.25		2.76	.41	.65	.43	5.79	6000	11.88	
20	1-1/4	32	30	100	100	117	100	50,5	16,5	17	306	31,8	66,6	M12	76	13	19	13	181	420	6,80	CBVL-3-C620M-0001-M
			1.18	3.94	3.94	4.61	3.94	1.99	.65	.67	12.05	1.25	2.62		2.99	.51	.75	.51	7.13	6000	14.96	
24	1-1/2	40	32	110	110	136	115	55	16,5	17	306	36,5	79,4	M16	84	13	19	13	193	420	10,20	CBVL-3-C624RM-0001-M
			1.26	4.33	4.33	5.35	4.53	2.17	.65	.67	12.05	1.44	3.13		3.31	.51	.75	.51	7.60	6000	22.44	
32	2	50	48	135	135	147	135	67,5	16,5	17	306	44,5	96,8	M20	108	13	19	13	211	420	18,50	CBVL-3-C632M-0001-M
			1.89	5.31	5.31	5.79	5.31	2.66	.65	.67	12.05	1.75	3.81		4.25	.51	.75	.51	8.31	6000	40.70	

Dimensions and design for stainless steel may vary.

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

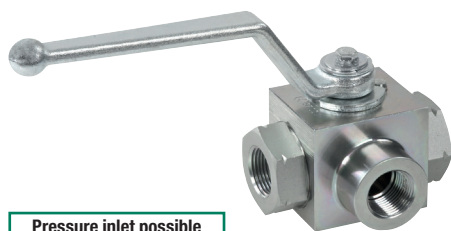
STAUFF Size	SAE Flange Size	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (PSI)	Weight (kg/lbs)	Order Codes (Standard Option)				
			LW	L	B	H	h	m	V	SW	K	a	b	M								
08	1/2	13	13	70	70	63	56	28	11	9	115	18,2	40,5	5/16-18 UNC	43	8,5	13,5	9	101	420	2,00	CBVL-3-C608U-0001-M
			.51	2.76	2.76	2.48	2.20	1.10	.43	.35	4.53	.72	1.59		1.69	.33	.53	.35	3.98	6000	4.40	
12	3/4	20	20	80	80	87	72	36	14	14	170	23,8	50,8	3/8-16 UNC	60	10,5	16,5	11	137	420	3,40	CBVL-3-C612U-0001-M
			.79	3.15	3.15	3.43	2.83	1.42	.55	.55	6.69	.94	2.00		2.36	.41	.65	.43	5.39	6000	7.48	
16	1	25	25	94	94	96	81	42	14	14	170	27,8	57,2	7/16-14 UNC	70	10,5	16,5	11	147	420	5,40	CBVL-3-C616U-0001-M
			.98	3.70	3.70	3.78	3.19	1.65	.55	.55	6.69	1.09	2.25		2.76	.41	.65	.43	5.79	6000	11.88	
20	1-1/4	32	30	100	100	117	100	50,5	16,5	17	306	31,8	66,6	1/2-13 UNC	76	13	19	13	181	420	6,80	CBVL-3-C620U-0001-M
			1.18	3.94	3.94	4.61	3.94	1.99	.65	.67	12.05	1.25	2.62		2.99	.51	.75	.51	7.13	6000	14.96	
24	1-1/2	40	32	110	110	136	115	55	16,5	17	306	36,5	79,4	5/8-11 UNC	84	13	19	13	193	420	10,20	CBVL-3-C624RU-0001-M
			1.26	4.33	4.33	5.35	4.53	2.17	.65	.67	12.05	1.44	3.13		3.31	.51	.75	.51	7.60	6000	22.44	
32	2	50	48	135	135	147	135	67,5	16,5	17	306	44,5	96,8	3/4-10 UNC	108	13	19	13	211	420	18,50	CBVL-3-C632U-0001-M
			1.89	5.31	5.31	5.79	5.31	2.66	.65	.67	12.05	1.75	3.81		4.25	.51	.75	.51	8.31	6000	40.70	

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

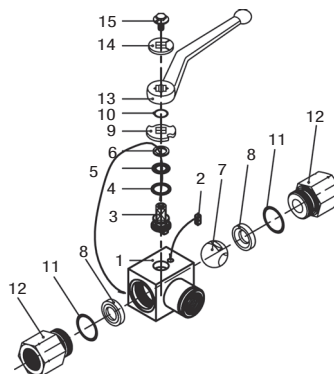
Dimensions and design for stainless steel may vary.

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

B



Pressure inlet possible from all ports!



List of Components

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

Characteristics

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

Standard Construction

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

Standard Materials

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

Standard Connections Styles / Sizes

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

Pressure inlet possible from all ports!

Must be operated without pressure!

Pressure Range

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

Temperature Range

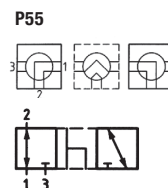
- Operating temperature range: -20°C ... +100°C / -4°F ... +212°F

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

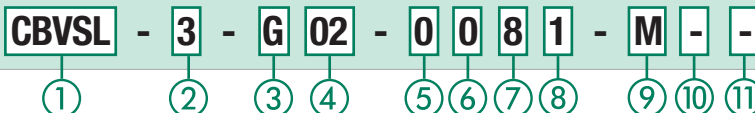
Porting Pattern

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



- Stop of end position:

Order Codes



① Type

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

② Number of Ports

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

③ Connection Style

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

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

02 04 06 08 12 16 20 24 32

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

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

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

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

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

Note: Stainless steel version may vary in dimensions and design.
 Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM) Frontside Sealing **8**

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

⑧ O-Ring Material

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

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

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

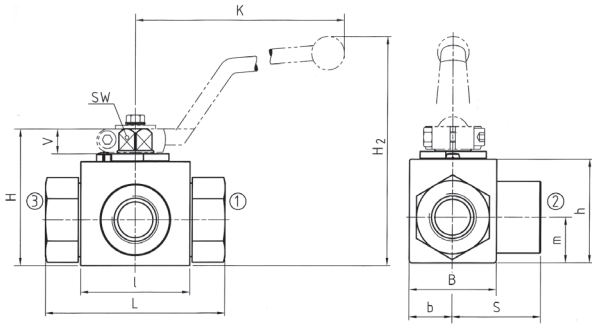
Supplied with standard lever (according to table) **—**
 Supplied without lever **0**

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

⑪ Accessories / Options

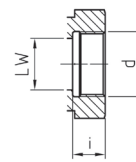
Supplied without accessories **—**
 Supplied with Locking Device LD1 **LD1**
 Supplied with Locking Device LD4 **LD4**

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



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

Female BSP Thread (DIN ISO 228)



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

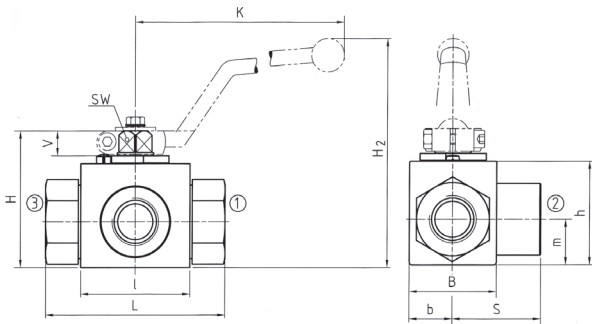
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM (Viton®)

From DN32, STAUFF size 20 made from one block

Pressure Inlet possible from all Ports

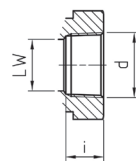
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2			
02	G 1/8 BSP	4	5.20	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.4.53	10.39	82.3.23	500.7250	0.40.88	CBVSL-3-G02-0081-M
04	G 1/4 BSP	6	6.24	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.4.53	14.55	82.3.23	500.7250	0.46.1.01	CBVSL-3-G04-0081-M
06	G 3/8 BSP	10	10.39	72.283	43.169	16.63	35.138	52.2.05	38.1.50	17.5.69	36.1.42	11.43	9.35	115.4.53	14.55	87.3.42	500.7250	0.60.1.32	CBVSL-3-G06-0081-M
08	G 1/2 BSP	13	13.51	83.3.27	48.1.89	17.5.69	38.1.50	54.2.13	40.1.57	19.75	41.5.1.63	11.43	9.35	115.4.53	16.3.64	89.3.50	315.4500	0.70.1.54	CBVSL-3-G08-0081-M
12	G 3/4 BSP	20	20.79	95.3.74	62.2.44	24.5.96	52.2.05	75.2.95	57.2.24	39.96	55.1.87	17.55	14.55	170.6.69	18.71	126.4.96	315.4500	1.80.3.96	CBVSL-3-G12-0081-M
16	G 1 BSP	25	25.98	113.4.45	66.2.60	29.1.14	61.2.40	83.3.27	65.2.56	65.1.16	29.5.2.22	14.55	14.55	170.6.69	20.79	134.5.73	315.4500	2.40.5.28	CBVSL-3-G16-0081-M
20	G 1-1/4 BSP	32	30.1.18	111.4.37	81.3.19	39.1.54	116.4.17	116.3.33	116.3.33	116.1.54	116.2.17	17.65	17.65	320.12.60	22.87	170.6.69	350.5000	3.80.8.36	CBVSL-3-G20-0081-M
24	G 1-1/2 BSP	40	38.1.50	130.5.12	104.4.09	53.2.09	137.5.00	137.4.17	137.4.17	137.2.09	137.2.56	17.65	17.65	320.12.60	24.94	191.7.52	350.5000	6.20.13.64	CBVSL-3-G24-0081-M
32	G 2 BSP	50	48.1.89	150.5.91	118.4.65	58.2.28	116.4.57	137.5.39	137.4.57	137.2.28	137.2.95	17.65	17.65	320.12.60	30.2.1.02	201.7.91	350.5000	7.80.17.16	CBVSL-3-G32-0081-M

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



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

Female NPT Thread (ANSI B1.20.1)



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

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

From DN32, STAUFF size 20 made from one block

Pressure Inlet possible from all Ports

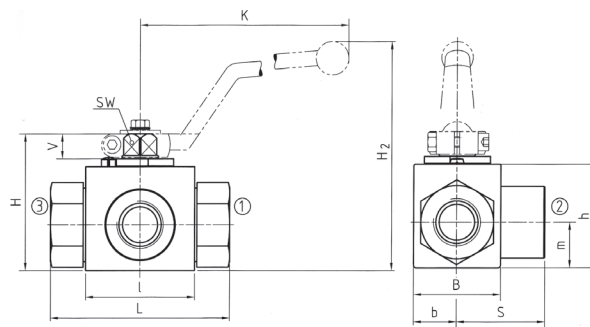
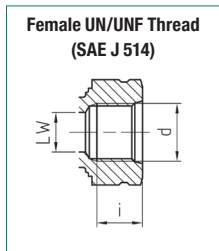
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	l	b	B	H	h	K	S	V	SW	K	i	H2			
02	1/8 NPT	4	5.20	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.4.53	10.5.41	82.3.23	500.7250	0.40.88	CBVSL-3-N02-0081-M
04	1/4 NPT	6	6.24	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.4.53	13.7.54	82.3.23	500.7250	0.46.1.01	CBVSL-3-N04-0081-M
06	3/8 NPT	10	10.39	72.283	43.169	16.63	35.138	52.2.05	38.1.50	17.5.69	36.1.42	11.43	9.35	115.4.53	13.5.53	87.3.42	500.7250	0.60.1.32	CBVSL-3-N06-0081-M
08	1/2 NPT	13	13.51	83.3.27	48.1.89	17.5.69	38.1.50	54.2.13	40.1.57	19.75	41.5.1.63	11.43	9.35	115.4.53	17.89	89.3.50	315.4500	0.70.1.54	CBVSL-3-N08-0081-M
12	3/4 NPT	20	20.79	95.3.74	62.2.44	24.5.96	52.2.05	75.2.95	57.2.24	39.96	55.1.87	17.55	14.55	170.6.69	18.3.72	126.4.96	315.4500	1.80.3.96	CBVSL-3-N12-0081-M
16	1 NPT	25	25.98	113.4.45	66.2.60	29.1.14	61.2.40	83.3.27	65.2.56	65.1.16	29.5.2.22	14.55	14.55	170.6.69	21.6.85	134.5.73	315.4500	2.40.5.28	CBVSL-3-N16-0081-M
20	1-1/4 NPT	32	30.1.18	120.4.72	81.3.19	39.1.54	116.4.17	116.3.33	116.3.33	116.1.54	116.2.17	17.65	17.65	320.12.60	22.1.87	170.6.69	350.5000	3.80.8.36	CBVSL-3-N20-0081-M
24	1-1/2 NPT	40	38.1.50	140.5.51	104.4.09	53.2.09	137.5.00	137.4.17	137.4.17	137.2.09	137.2.56	17.65	17.65	320.12.60	22.1.87	191.7.52	350.5000	6.20.13.64	CBVSL-3-N24-0081-M
32	2 NPT	50	48.1.89	150.5.91	118.4.65	58.2.28	116.4.57	137.5.39	137.4.57	137.2.28	137.2.95	17.65	17.65	320.12.60	30.2.1.19	201.7.91	350.5000	7.80.17.16	CBVSL-3-N32-0081-M

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

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

- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM (Viton®)

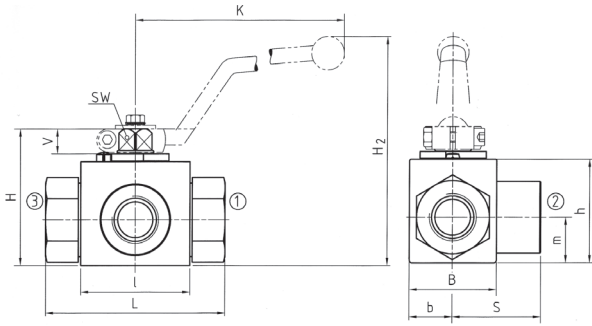


From DN32, STAUFF size 20 made from one block

Pressure Inlet possible from all Ports

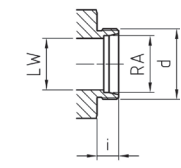
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	l	b	B	H	h	K	S	V	SW	K	i	H2			
04	7/16-20 UNF (1/4" SAE)	6	5	69	40	13	29	47	33	13,5	34,5	11	9	115	12	82	500	0,46	CBVSL-3-U04-0081-M
			.20	2.72	1.57	.51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

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



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

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



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

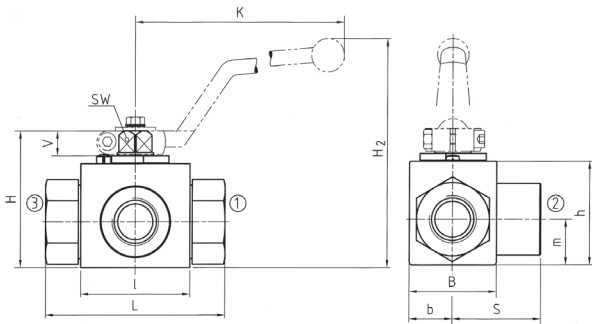
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 20R)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM (Viton®)

Union nuts and cutting rings are not included in delivery.

Pressure Inlet possible from all Ports

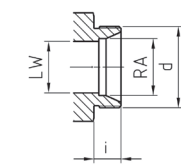
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/m)														Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2			
02	06L / M12 x 1,5	4	6	5	67	40	13	29	47	33	13,5	33,5	11	9	115	10	82	500	0,30	CBVSL-3-06L-0081-M
			.24	.20	2.64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

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



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

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



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

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

Union nuts and cutting rings are not included in delivery.

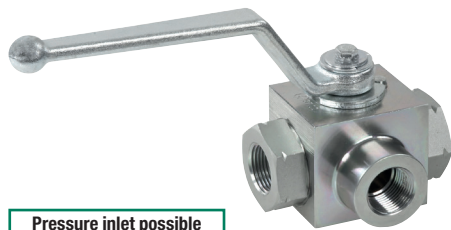
Pressure Inlet possible from all Ports

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

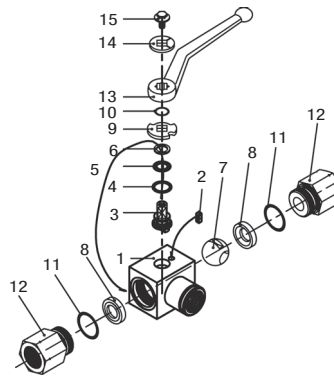
Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

List of Components



Pressure inlet possible from all ports!



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

Characteristics

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

Standard Construction

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

Standard Materials

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

Standard Connections Styles / Sizes

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

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

Pressure Range

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

Temperature Range

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

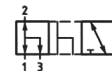
Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Additional assembling threads / holes (see page 119)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Porting Pattern

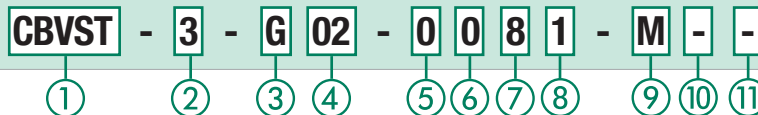
- Symbol: T
- Overlap: negative
- Operating: 90°

P56



- Stop of end position:

Order Codes



① Type

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

② Number of Ports

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

③ Connection Style

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

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

02 04 06 08 12 16 20 24 32

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

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

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

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

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

Note: Stainless steel version may vary in dimensions and design.
 Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM) Frontside Sealing **8**

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

⑧ O-Ring Material

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

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

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

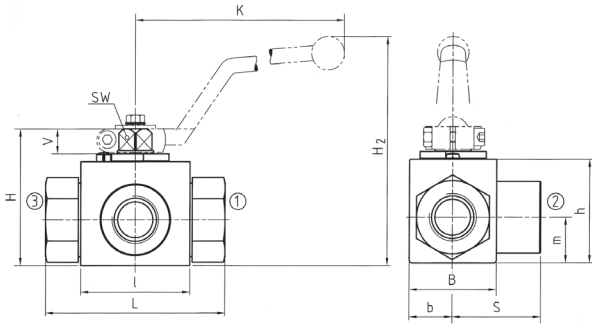
Supplied with standard lever (according to table) **—**
 Supplied without lever **0**

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

⑪ Accessories / Options

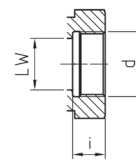
Supplied without accessories **—**
 Supplied with Locking Device LD1 **LD1**
 Supplied with Locking Device LD4 **LD4**

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



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

Female BSP Thread (DIN ISO 228)



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

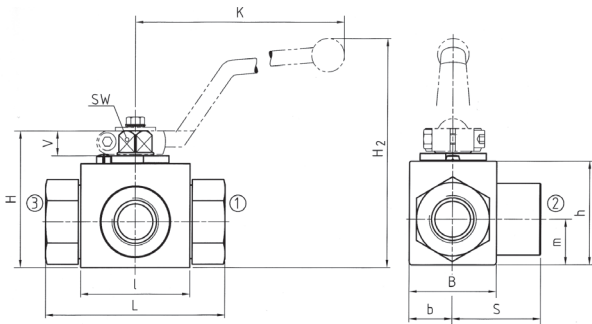
- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 02 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM (Viton®)

From DN32, STAUFF size 20 made from one block

Pressure Inlet possible from all Ports

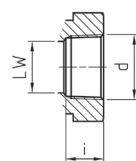
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	l	b	B	H	h	m	S	V	SW	K	i	H2			
02	G 1/8 BSP	4	5.20	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.453	10.39	82.323	500.7250	0.40.88	CBVST-3-G02-0081-M
04	G 1/4 BSP	6	6.24	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.453	14.55	82.323	500.7250	0.46.101	CBVST-3-G04-0081-M
06	G 3/8 BSP	10	10.39	72.283	43.169	16.63	35.138	52.205	38.150	17.5.69	36.142	11.43	9.35	115.453	14.55	87.342	500.7250	0.60.132	CBVST-3-G06-0081-M
08	G 1/2 BSP	13	13.51	83.327	48.189	17.5.69	38.150	54.213	40.19	19.157	41.5.75	11.43	9.35	115.453	16.3.64	89.350	315.4500	0.70.154	CBVST-3-G08-0081-M
12	G 3/4 BSP	20	20.79	95.374	62.244	24.5.96	52.205	75.295	57.224	24.5.96	47.5.187	14.55	14.55	170.6.69	18.71	126.4.96	315.4500	1.80.3.96	CBVST-3-G12-0081-M
16	G 1 BSP	25	25.98	113.445	66.260	29.114	61.240	83.327	65.256	29.5.116	83.2.22	14.55	14.55	170.6.69	20.79	134.5.73	315.4500	2.40.5.28	CBVST-3-G16-0081-M
20	G 1-1/4 BSP	32	30.118	111.437	81.319	39.154	81.154	116.4.17	39.55	106.84.5	39.55	16.5.17	320.22	170.320	22.170	170.350	350.350	3.80.8.36	CBVST-3-G20-0081-M
24	G 1-1/2 BSP	40	38.150	130.512	104.409	53.209	53.209	137.5.00	83.65	127.106	53.65	16.5.17	320.24	191.320	24.191	191.350	350.5000	6.20.13.64	CBVST-3-G24-0081-M
32	G 2 BSP	50	48.189	150.591	118.465	58.228	116.4.57	137.5.39	116.4.57	137.5.39	116.4.57	16.5.17	320.1.02	201.7.91	201.7.91	350.5000	7.80.17.16	CBVST-3-G32-0081-M	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



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

Female NPT Thread (ANSI B1.20.1)



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

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

From DN32, STAUFF size 20 made from one block

Pressure Inlet possible from all Ports

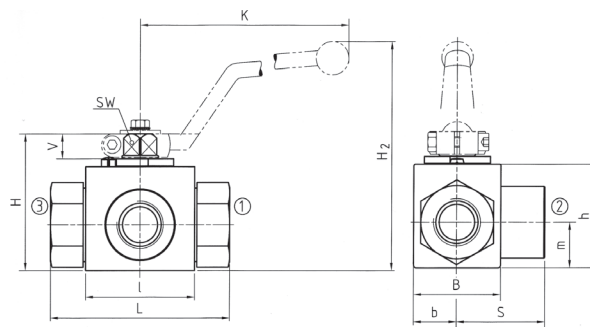
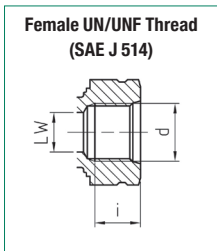
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	l	b	B	H	h	K	S	V	SW	K	i	H2			
02	1/8 NPT	4	5.20	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.453	10.5.41	82.323	500.7250	0.40.88	CBVST-3-N02-0081-M
04	1/4 NPT	6	6.24	69.272	40.157	13.51	29.114	47.185	33.130	13.5.53	34.5.136	11.43	9.35	115.453	13.7.54	82.323	500.7250	0.46.101	CBVST-3-N04-0081-M
06	3/8 NPT	10	10.39	72.283	43.169	16.63	35.138	52.205	38.150	17.5.69	36.142	11.43	9.35	115.453	13.5.53	87.342	500.7250	0.60.132	CBVST-3-N06-0081-M
08	1/2 NPT	13	13.51	83.327	48.189	17.5.69	38.150	54.213	40.19	19.157	41.5.75	11.43	9.35	115.453	17.89	89.350	315.4500	0.70.154	CBVST-3-N08-0081-M
12	3/4 NPT	20	20.79	95.374	62.244	24.5.96	52.205	75.295	57.224	24.5.96	47.5.187	14.55	14.55	170.6.69	18.3.72	126.4.96	315.4500	1.80.3.96	CBVST-3-N12-0081-M
16	1 NPT	25	25.98	113.445	66.260	29.114	61.240	83.327	65.256	29.5.116	83.2.22	14.55	14.55	170.6.69	21.6.85	134.5.73	315.4500	2.40.5.28	CBVST-3-N16-0081-M
20	1-1/4 NPT	32	30.118	120.472	81.319	39.154	39.154	116.4.17	39.55	106.84.5	39.55	16.5.17	320.22	170.320	22.170	170.350	350.350	3.80.8.36	CBVST-3-N20-0081-M
24	1-1/2 NPT	40	38.150	140.551	104.409	53.209	53.209	137.5.00	83.65	127.106	53.65	16.5.17	320.22	191.320	22.191	191.350	350.5000	6.20.13.64	CBVST-3-N24-0081-M
32	2 NPT	50	48.189	150.591	118.465	58.228	116.4.57	137.5.39	116.4.57	137.5.39	116.4.57	16.5.17	320.1.19	302.7.91	201.7.91	350.5000	7.80.17.16	CBVST-3-N32-0081-M	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

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

- Body, ball and stem: Carbon Steel
- Lever: Zinc (STAUFF Sizes 04 to 08)
Carbon Steel (STAUFF Sizes 12 to 32)
- Ball seat: Delrin® (POM) Frontside Sealing
- O-rings: FKM (Viton®)

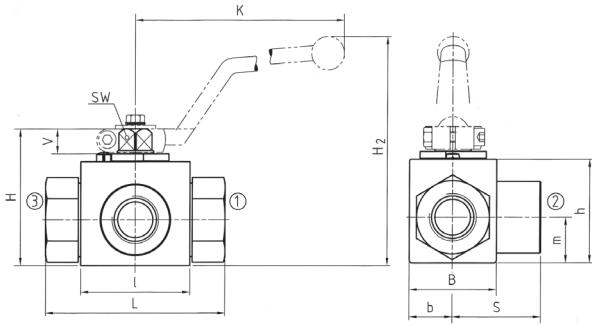


From DN32, STAUFF size 20 made from one block

Pressure Inlet possible from all Ports

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

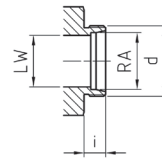
Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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

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



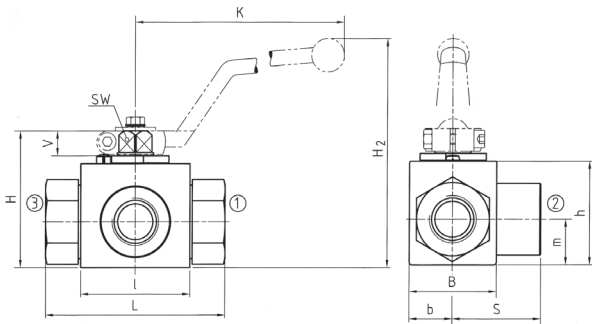
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

Pressure Inlet possible from all Ports

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

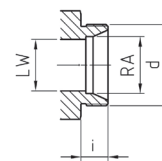
Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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

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



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

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

Pressure Inlet possible from all Ports

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

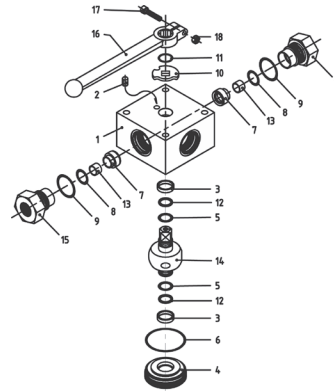
Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

B



Pressure inlet possible from all ports!



List of Components

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

Characteristics

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

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 06 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 NPT
- Female UN/UNF thread (SAE J 514) >1-5/16-12 UN (1" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure loaded seats at all ports!

Pressure Range

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

Temperature Range

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

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Porting Pattern

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

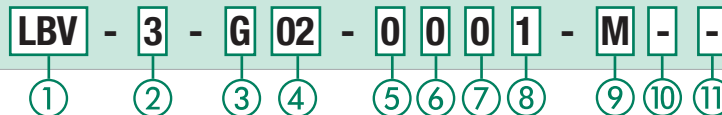


- Stop of end position:



Please see pages 120-121 for alternative porting patterns.

Order Codes



① Type

Multi-Way L-Bore Ball Valve **LBV**

② Number of Ports

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

③ Connection Style

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

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

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

Note: Stainless steel version may vary in dimensions and design.
 Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM) **0**

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

⑧ O-Ring Material

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

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

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

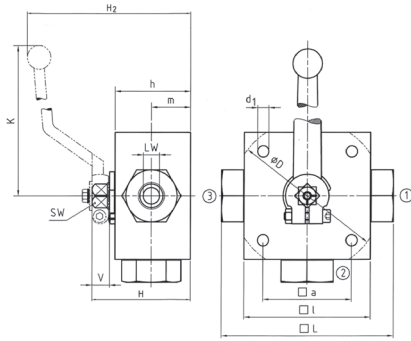
Supplied with standard lever (according to table) **—**
 Supplied without lever **0**

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

⑪ Accessories / Options

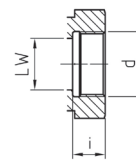
Supplied without accessories **—**
 Supplied with Locking Device LD4 **LD4**

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



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

Female BSP Thread (DIN ISO 228)



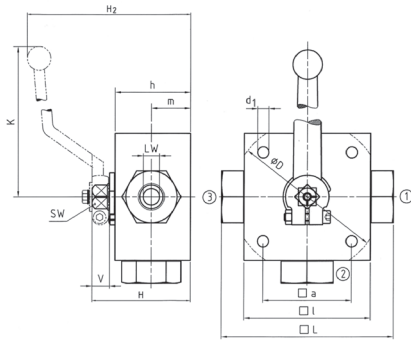
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

B

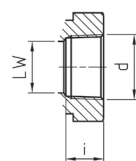
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	G 1/8 BSP	4	5	100	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	LBV-3-G02-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250		3.52
04	G 1/4 BSP	6	5	100	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	LBV-3-G04-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55	.26	3.98	7250		3.52
06	G 3/8 BSP	10	8	115	80	65	68	50	27	171	14	14	14	6,5	119	500	2,70	LBV-3-G06-0001-M	
			.31	4.53		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.55	.26	4.69	7250		5.94
08	G 1/2 BSP	13	13	136	100	80	78	60	31	171	14	14	16,3	9	129	400	4,90	LBV-3-G08-0001-M	
			.51	5.35		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.64	.35	5.08	5800		10.78
10	G 5/8 BSP	16	13	139	100	80	78	60	31	171	14	14	18	9	129	400	4,90	LBV-3-G10-0001-M	
			.51	5.47		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.71	.35	5.08	5800		10.78
12	G 3/4 BSP	20	18	154	138	113	85	88	67	36,5	306	16,5	17	18	8,5	159	315	6,70	LBV-3-G12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.05	.65	.67	.71	.33	6.26	4500	14.74	
16	G 1 BSP	25	23	172	138	119	85	103	82	47,5	306	16,5	17	20	8,5	174	315	8,30	LBV-3-G16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.79	.33	6.85	4500	18.26	
20R	G 1-1/4 BSP	25/32	23	180	138	119	85	103	82	47,5	306	16,5	17	22	8,5	174	315	8,50	LBV-3-G20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	18.70	
24R	G 1-1/2 BSP	25/40	23	180	138	119	85	103	82	47,5	306	16,5	17	24	8,5	174	250	8,50	LBV-3-G24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.94	.33	6.85	3600	18.70	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



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

Female NPT Thread (ANSI B1.20.1)



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

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

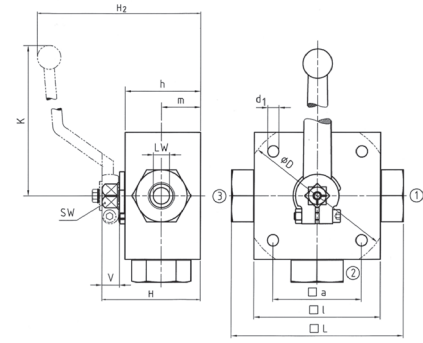
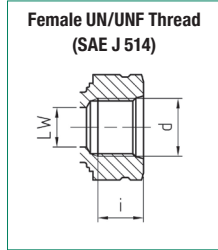
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	1/8 NPT	4	5	100	70	55	58	40	22	160	14	12	10,5	6,5	101	500	1,60	LBV-3-N02-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.41	.26	3.98	7250		3.52
04	1/4 NPT	6	5	100	70	55	58	40	22	160	14	12	13,7	6,5	101	500	1,60	LBV-3-N04-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.54	.26	3.98	7250		3.52
06	3/8 NPT	10	8	115	80	65	68	50	27	171	14	14	13,5	6,5	119	500	2,80	LBV-3-N06-0001-M	
			.31	4.53		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.53	.26	4.69	7250		6.16
08	1/2 NPT	13	13	136	100	80	78	60	31	171	14	14	17	9	129	400	5,20	LBV-3-N08-0001-M	
			.51	5.35		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.67	.35	5.08	5800		11.44
12	3/4 NPT	20	18	154	138	113	85	88	67	36,5	306	16,5	17	18,3	8,5	159	315	6,80	LBV-3-N12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.05	.65	.67	.72	.33	6.26	4500	14.96	
16	1 NPT	25	23	172	138	119	85	103	82	47,5	306	16,5	17	21,6	8,5	174	315	8,50	LBV-3-N16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.85	.33	6.85	4500	18.70	
20R	1-1/4 NPT	25/32	23	180	138	119	85	103	82	47,5	306	16,5	17	22,1	8,5	174	315	8,80	LBV-3-N20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	19.36	
24R	1-1/2 NPT	25/40	23	180	138	119	85	103	82	47,5	306	16,5	17	22,1	8,5	174	250	8,80	LBV-3-N24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	3600	19.36	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

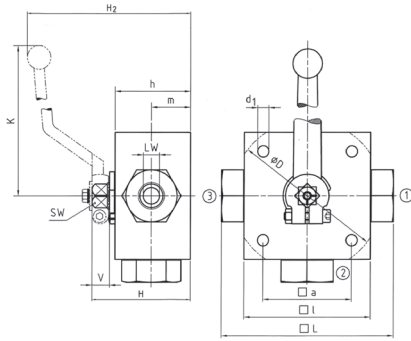
When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Size 04)
Carbon Steel (STAUFF Sizes 06 and 24R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)



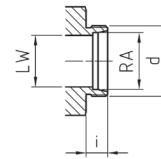
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)																Nom. Pressure (^{bar} /PSI)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2					
04	7/16-20 UNF (1/4" SAE)	6	5	100	/	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	LBV-3-U04-0001-M		
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55	.26	3.98	7250	3.52			
06	9/16-18 UNF (3/4" SAE)	10	8	115	/	80	65	68	50	27	171	14	14	14	6,5	119	500	2,80	LBV-3-U06-0001-M		
			.31	4.53		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.55	.26	4.69	7250	6.16			
08	3/4-16 UNF (1/2" SAE)	13	13	144	/	100	80	78	60	31	171	14	14	14	16,3	9	129	400	5,20	LBV-3-U08-0001-M	
			.51	5.67		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.64	.35	5.08	5800	11.44			
12	1-1/16-12 UN (3/4" SAE)	20	18	164	138	113	85	88	67	36,5	306	16,5	17	18	8,5	159	315	6,80	LBV-3-U12-0001-M		
			.71	6.46	5.43	4.45	3.35	3.46	2.64	1.44	12.05	.65	.67	.71	.33	6.26	4500	14.96			
16	1-5/16-12 UN (1" SAE)	25	23	180	138	119	85	103	82	47,5	306	16,5	17	20	8,5	174	315	8,50	LBV-3-U16-0001-M		
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.79	.33	6.85	4500	18.70			

Please note the pressure ratings of the tube connections.
 Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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



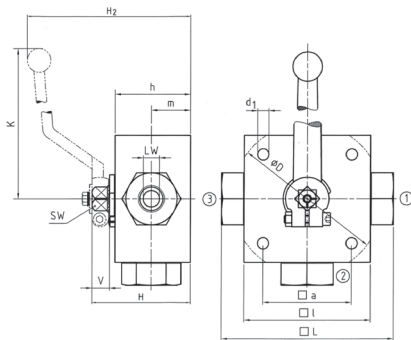
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

B

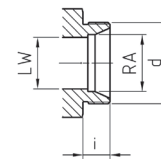
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	06L / M12 x 1,5	4	6	5	105	/	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	LBV-3-06L-0001-M
			.24	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250	3.52	
04	08L / M14 x 1,5	6	8	5	105	/	70	55	58	40	22	160	14	12	10	6,5	101	500	1,80	LBV-3-08L-0001-M
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250	3.96	
05	10L / M16 x 1,5	8	10	8	114	/	80	65	68	50	27	171	14	14	11	6,5	119	500	2,60	LBV-3-10L-0001-M
			.39	.31	4.49		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.43	.26	4.69	7250	5.72	
06	12L / M18 x 1,5	10	12	8	114	/	80	65	68	50	27	171	14	14	11	6,5	119	500	2,60	LBV-3-12L-0001-M
			.47	.31	4.49		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.43	.26	4.69	7250	5.72	
08	15L / M22 x 1,5	13	15	13	137	/	100	80	78	60	31	171	14	14	12	9	129	400	4,70	LBV-3-15L-0001-M
			.59	.51	5.39		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.47	.35	5.08	5800	10.34	
10	18L / M26 x 1,5	16	18	18	137	/	113	85	88	67	36,5	171	16,5	17	12	8,5	129	400	4,70	LBV-3-18LDN16-0001-M
			.71	.71	5.39		4.45	3.35	3.46	2.64	1.44	6.73	.65	.67	.47	.33	5.08	5800	10.34	
12	22L / M30 x 2	20	22	23	152	138	119	85	103	82	47,5	306	16,5	17	14	8,5	159	315	6,60	LBV-3-22L-0001-M
			.87	.91	5.98	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.55	.33	6.26	4500	14.52	
16	28L / M36 x 2	25	28	23	166	138	119	85	103	82	47,5	306	16,5	17	14	8,5	174	315	8,00	LBV-3-28L-0001-M
			1.10	.91	6.54	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.55	.33	6.85	4500	17.60	
20R	35L / M45 x 2	25/32	35	23	170	138	119	85	103	82	47,5	306	16,5	17	16	8,5	174	315	8,12	LBV-3-35LDN25-0001-M
			1.38	.91	6.69	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.63	.33	6.85	4500	17.86	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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



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

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

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	08S / M16 x 1,5	4	8	5	105	/	70	55	58	40	22	160	14	12	12	6,5	101	500	1,60	LBV-3-08S-0001-M
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	3.98	7250	3.52	
04	10S / M18 x 1,5	6	10	5	105	/	70	55	58	40	22	160	14	12	12	6,5	101	500	1,80	LBV-3-10S-0001-M
			.39	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	3.98	7250	3.96	
05	12S / M20 x 1,5	8	12	8	116	/	80	65	68	50	27	171	14	14	12	6,5	119	500	2,60	LBV-3-12S-0001-M
			.47	.31	4.57		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.47	.26	4.69	7250	5.72	
06	14S / M22 x 1,5	10	14	8	120	/	80	65	68	50	27	171	14	14	14	6,5	119	500	2,60	LBV-3-14S-0001-M
			.55	.31	4.72		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.55	.26	4.69	7250	5.72	
08	16S / M24 x 1,5	13	16	13	141	/	100	80	78	60	31	171	14	14	14	9	129	400	4,70	LBV-3-16S-0001-M
			.63	.51	5.55		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.55	.35	5.08	5800	10.34	
10	20S / M30 x 2	16	20	18	145	/	113	80	88	67	36,5	171	16,5	17	16	8,5	129	400	4,70	LBV-3-20S-0001-M
			.79	.71	5.71		4.45	3.15	3.46	2.64	1.44	6.73	.65	.67	.63	.33	5.08	5800	10.34	
12	25S / M36 x 2	20	25	23	160	138	119	80	103	82	47,5	306	16,5	17	18	8,5	159	315	6,60	LBV-3-25S-0001-M
			.98	.91	6.30	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.71	.33	6.26	4500	14.52	
16	30S / M42 x 2	25	30	23	176	138	119	80	103	82	47,5	306	16,5	17	20	8,5	174	315	8,00	LBV-3-30S-0001-M
			1.18	.91	6.93	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.79	.33	6.85	4500	17.60	
20R	38S / M52 x 2	25/32	38	23	180	138	119	80	103	82	47,5	306	16,5	17	22	8,5	174	315	8,12	LBV-3-38SDN25-0001-M
			1.50	.91	7.09	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	17.86	

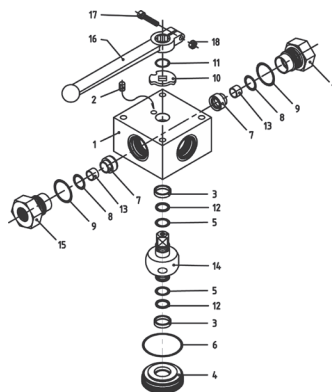
Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

B



Pressure inlet possible from all ports!



List of Components

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

Characteristics

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

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 06 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 NPT
- Female UN/UNF thread (SAE J 514) >1-5/16-12 UN (1" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure loaded seats at all ports!

Pressure Range

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

Temperature Range

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

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Porting Pattern

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

P02

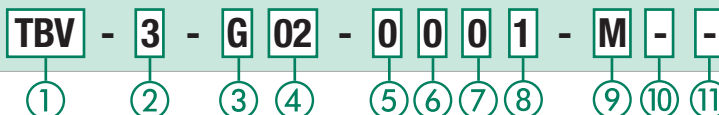


- Stop of end position:



Please see pages 120-121 for alternative porting patterns.

Order Codes



① Type

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

② Number of Ports

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

③ Connection Style

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

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

Carbon Steel, zinc/iron-plated **0**
 Stainless Steel V4A (AISI 316Ti) **1**
 Note: Stainless steel version may vary in dimensions and design.
 Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM) **0**

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

⑧ O-Ring Material

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

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

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

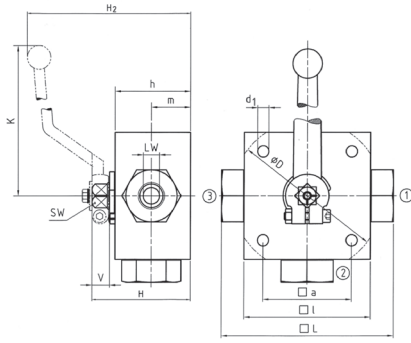
Supplied with standard lever (according to table) **—**
 Supplied without lever **0**

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

⑪ Accessories / Options

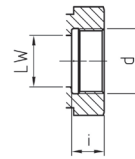
Supplied without accessories **—**
 Supplied with Locking Device LD4 **LD4**

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



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

Female BSP Thread (DIN ISO 228)



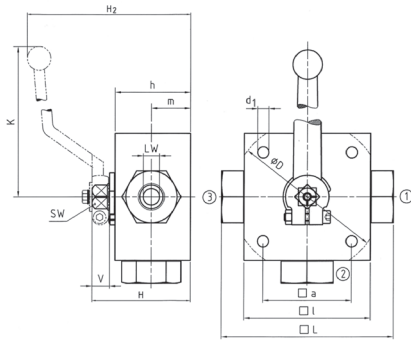
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

B

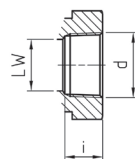
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1				H2
02	G 1/8 BSP	4	5	100	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	TBV-3-G02-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250		3.52
04	G 1/4 BSP	6	5	100	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	TBV-3-G04-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55	.26	3.98	7250		3.52
06	G 3/8 BSP	10	8	115	80	65	68	50	27	171	14	14	14	6,5	119	500	2,70	TBV-3-G06-0001-M	
			.31	4.53		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.55	.26	4.69	7250		5.94
08	G 1/2 BSP	13	13	136	100	80	78	60	31	171	14	14	16,3	9	129	400	4,90	TBV-3-G08-0001-M	
			.51	5.35		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.64	.35	5.08	5800		10.78
10	G 5/8 BSP	16	13	139	100	80	78	60	31	171	14	14	18	9	129	400	4,90	TBV-3-G10-0001-M	
			.51	5.47		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.71	.35	5.08	5800		10.78
12	G 3/4 BSP	20	18	154	138	113	85	88	67	36,5	306	16,5	17	18	8,5	159	315	6,70	TBV-3-G12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.05	.65	.67	.71	.33	6.26	4500	14.74	
16	G 1 BSP	25	23	172	138	119	85	103	82	47,5	306	16,5	17	20	8,5	174	315	8,30	TBV-3-G16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.79	.33	6.85	4500	18.26	
20R	G 1-1/4 BSP	25/32	23	180	138	119	85	103	82	47,5	306	16,5	17	22	8,5	174	315	8,50	TBV-3-G20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	18.70	
24R	G 1-1/2 BSP	25/40	23	180	138	119	85	103	82	47,5	306	16,5	17	24	8,5	174	250	8,50	TBV-3-G24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.94	.33	6.85	3600	18.70	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



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

Female NPT Thread (ANSI B1.20.1)



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

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 06 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	D	l	a	H	h	m	K	V	SW	i	d1				H2
02	1/8 NPT	4	5	100	70	55	58	40	22	160	14	12	10,5	6,5	101	500	1,60	TBV-3-N02-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.41	.26	3.98	7250		3.52
04	1/4 NPT	6	5	100	70	55	58	40	22	160	14	12	13,7	6,5	101	500	1,60	TBV-3-N04-0001-M	
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.54	.26	3.98	7250		3.52
06	3/8 NPT	10	8	115	80	65	68	50	27	171	14	14	13,5	6,5	119	500	2,80	TBV-3-N06-0001-M	
			.31	4.53		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.53	.26	4.69	7250		6.16
08	1/2 NPT	13	13	136	100	80	78	60	31	171	14	14	17	9	129	400	5,20	TBV-3-N08-0001-M	
			.51	5.35		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.67	.35	5.08	5800		11.44
12	3/4 NPT	20	18	154	138	113	85	88	67	36,5	306	16,5	17	18,3	8,5	159	315	6,80	TBV-3-N12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.05	.65	.67	.72	.33	6.26	4500	14.96	
16	1 NPT	25	23	172	138	119	85	103	82	47,5	306	16,5	17	21,6	8,5	174	315	8,50	TBV-3-N16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.85	.33	6.85	4500	18.70	
20R	1-1/4 NPT	25/32	23	180	138	119	85	103	82	47,5	306	16,5	17	22,1	8,5	174	315	8,80	TBV-3-N20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	19.36	
24R	1-1/2 NPT	25/40	23	180	138	119	85	103	82	47,5	306	16,5	17	22,1	8,5	174	250	8,80	TBV-3-N24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	3600	19.36	

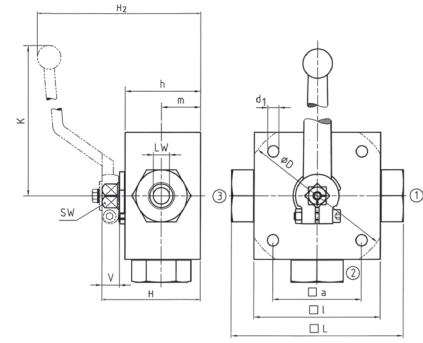
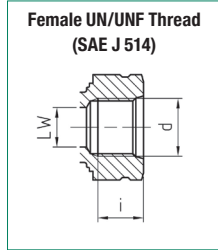
Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

B

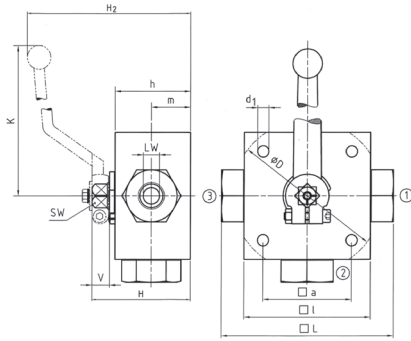
When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Size 04)
Carbon Steel (STAUFF Sizes 06 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

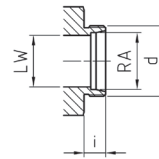


STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)			Dimensions (mm)											Nom. Pressure (^{bar} /PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2				
04	7/16-20 UNF (1/4" SAE)	6	5	100	/	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	TBV-3-U04-0001-M	
			0,20	3,94		2,76	2,17	2,28	1,57	0,87	6,30	0,55	0,47	0,55	0,26	3,98	7250	3,52		
06	9/16-18 UNF (3/8" SAE)	10	8	115	/	80	65	68	50	27	171	14	14	14	6,5	119	500	2,80	TBV-3-U06-0001-M	
			0,31	4,53		3,15	2,56	2,68	1,97	1,06	6,73	0,55	0,55	0,55	0,26	4,69	7250	6,16		
08	3/4-16 UNF (1/2" SAE)	13	13	144	/	100	80	78	60	31	171	14	14	14	16,3	9	129	400	5,20	TBV-3-U08-0001-M
			0,51	5,67		3,94	3,15	3,07	2,36	1,22	6,73	0,55	0,55	0,64	0,35	5,08	5800	11,44		
12	1-1/16-12 UN (3/4" SAE)	20	18	164	138	113	85	88	67	36,5	306	16,5	17	18	8,5	159	315	6,80	TBV-3-U12-0001-M	
			0,71	6,46	5,43	4,45	3,35	3,46	2,64	1,44	12,05	0,65	0,67	0,71	0,33	6,26	4500	14,96		
16	1-5/16-12 UN (1" SAE)	25	23	180	138	119	85	103	82	47,5	306	16,5	17	20	8,5	174	315	8,50	TBV-3-U16-0001-M	
			0,91	7,09	5,43	4,69	3,35	4,06	3,23	1,87	12,05	0,65	0,67	0,79	0,33	6,85	4500	18,70		

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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


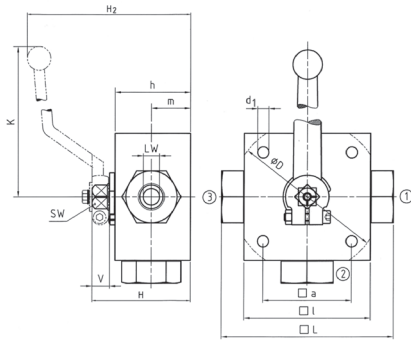
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

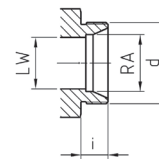
B

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	06L / M12 x 1,5	4	6	5	105	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	TBV-3-06L-0001-M	
			.24	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250		3.52
04	08L / M14 x 1,5	6	8	5	105	70	55	58	40	22	160	14	12	10	6,5	101	500	1,80	TBV-3-08L-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250		3.96
05	10L / M16 x 1,5	8	10	8	114	80	65	68	50	27	171	14	14	11	6,5	119	500	2,60	TBV-3-10L-0001-M	
			.39	.31	4.49		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.43	.26	4.69	7250		5.72
06	12L / M18 x 1,5	10	12	8	114	80	65	68	50	27	171	14	14	11	6,5	119	500	2,60	TBV-3-12L-0001-M	
			.47	.31	4.49		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.43	.26	4.69	7250		5.72
08	15L / M22 x 1,5	13	15	13	137	100	80	78	60	31	171	14	14	12	9	129	400	4,70	TBV-3-15L-0001-M	
			.59	.51	5.39		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.47	.35	5.08	5800		10.34
10	18L / M26 x 1,5	16	18	18	137	113	85	88	67	36,5	171	16,5	17	12	8,5	129	400	4,70	TBV-3-18LDN16-0001-M	
			.71	.71	5.39		4.45	3.35	3.46	2.64	1.44	6.73	.65	.67	.47	.33	5.08	5800		10.34
12	22L / M30 x 2	20	22	23	152	138	119	85	103	82	47,5	306	16,5	17	14	8,5	159	315	6,60	TBV-3-22L-0001-M
			.87	.91	5.98	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.55	.33	6.26	4500	14.52	
16	28L / M36 x 2	25	28	23	166	138	119	85	103	82	47,5	306	16,5	17	14	8,5	174	315	8,00	TBV-3-28L-0001-M
			1.10	.91	6.54	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.55	.33	6.85	4500	17.60	
20R	35L / M45 x 2	25/32	35	23	170	138	119	85	103	82	47,5	306	16,5	17	16	8,5	174	315	8,12	TBV-3-35LDN25-0001-M
			1.38	.91	6.69	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.63	.33	6.85	4500	17.86	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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


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

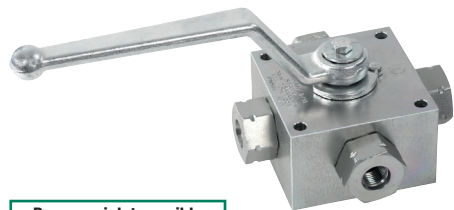
- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 05 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	08S / M16 x 1,5	4	8	5	105	70	55	58	40	22	160	14	12	12	6,5	101	500	1,60	TBV-3-08S-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	3.98	7250		3.52
04	10S / M18 x 1,5	6	10	5	105	70	55	58	40	22	160	14	12	12	6,5	101	500	1,80	TBV-3-10S-0001-M	
			.39	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	3.98	7250		3.96
05	12S / M20 x 1,5	8	12	8	116	80	65	68	50	27	171	14	14	12	6,5	119	500	2,60	TBV-3-12S-0001-M	
			.47	.31	4.57		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.47	.26	4.69	7250		5.72
06	14S / M22 x 1,5	10	14	8	120	80	65	68	50	27	171	14	14	14	6,5	119	500	2,60	TBV-3-14S-0001-M	
			.55	.31	4.72		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.55	.26	4.69	7250		5.72
08	16S / M24 x 1,5	13	16	13	141	100	80	78	60	31	171	14	14	14	9	129	400	4,70	TBV-3-16S-0001-M	
			.63	.51	5.55		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.55	.35	5.08	5800		10.34
10	20S / M30 x 2	16	20	18	145	113	80	88	67	36,5	171	16,5	17	16	8,5	129	400	4,70	TBV-3-20S-0001-M	
			.79	.71	5.71		4.45	3.15	3.46	2.64	1.44	6.73	.65	.67	.63	.33	5.08	5800		10.34
12	25S / M36 x 2	20	25	23	160	138	119	80	103	82	47,5	306	16,5	17	18	8,5	159	315	6,60	TBV-3-25S-0001-M
			.98	.91	6.30	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.71	.33	6.26	4500	14.52	
16	30S / M42 x 2	25	30	23	176	138	119	80	103	82	47,5	306	16,5	17	20	8,5	174	315	8,00	TBV-3-30S-0001-M
			1.18	.91	6.93	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.79	.33	6.85	4500	17.60	
20R	38S / M52 x 2	25/32	38	23	180	138	119	80	103	82	47,5	306	16,5	17	22	8,5	174	315	8,12	TBV-3-38SDN25-0001-M
			1.50	.91	7.09	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	17.86	

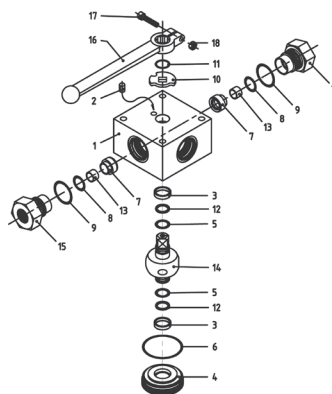
Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

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

B



Pressure inlet possible from all ports!



List of Components

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

Characteristics

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

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 06 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 NPT
- Female UN/UNF thread (SAE J 514) >1-5/16-12 UN (1" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure loaded seats at all ports!

Pressure Range

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

Temperature Range

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

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Porting Pattern

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

P13

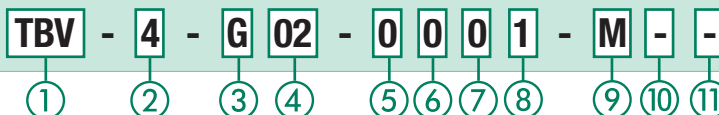


- Stop of end position:



Please see pages 120-121 for alternative porting patterns.

Order Codes



① Type

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

② Number of Ports

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

③ Connection Style

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

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

Carbon Steel, zinc/iron-plated **0**
 Stainless Steel V4A (AISI 316Ti) **1**
 Note: Stainless steel version may vary in dimensions and design.
 Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM) **0**

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

⑧ O-Ring Material

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

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

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

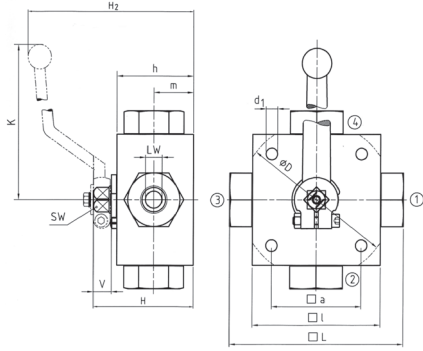
Supplied with standard lever (according to table) **—**
 Supplied without lever **0**

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

⑪ Accessories / Options

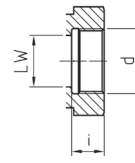
Supplied without accessories **—**
 Supplied with Locking Device LD4 **LD4**

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



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

Female BSP Thread (DIN ISO 228)



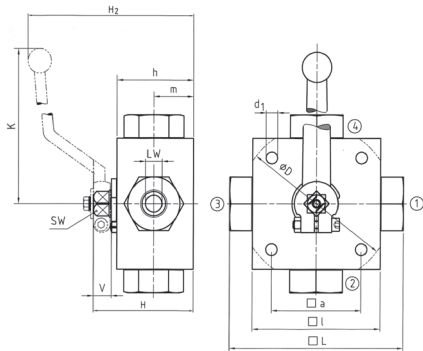
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

B

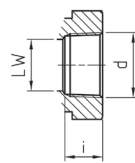
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1				H2
02	G 1/8 BSP	4	5	100		70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	TBV-4-G02-0001-M
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250	3.52	
04	G 1/4 BSP	6	5	100		70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	TBV-4-G04-0001-M
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55	.26	3.98	7250	3.52	
06	G 3/8 BSP	10	8	115		80	65	68	50	27	171	14	14	14	6,5	119	500	2,80	TBV-4-G06-0001-M
			.31	4.53		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.55	.26	4.69	7250	6.16	
08	G 1/2 BSP	13	13	136		100	80	78	60	31	171	14	14	16,3	9	129	400	4,90	TBV-4-G08-0001-M
			.51	5.35		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.64	.35	5.08	5800	10.78	
10	G 5/8 BSP	16	13	139		100	80	78	60	31	171	14	14	18	9	129	400	4,90	TBV-4-G10-0001-M
			.51	5.47		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.71	.35	5.08	5800	10.78	
12	G 3/4 BSP	20	18	154	138	113	85	88	67	36,5	306	16,5	17	18	8,5	159	315	6,80	TBV-4-G12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.05	.65	.67	.71	.33	6.26	4500	14.96	
16	G 1 BSP	25	23	172	138	119	85	103	82	47,5	306	16,5	17	20	8,5	174	315	8,50	TBV-4-G16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.79	.33	6.85	4500	18.70	
20R	G 1-1/4 BSP	25/32	23	180	138	119	85	103	82	47,5	306	16,5	17	22	8,5	174	315	8,80	TBV-4-G20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	19.36	
24R	G 1-1/2 BSP	25/40	23	180	138	119	85	103	82	47,5	306	16,5	17	24	8,5	174	250	8,80	TBV-4-G24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.94	.33	6.85	3600	19.36	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



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

Female NPT Thread (ANSI B1.20.1)



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

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

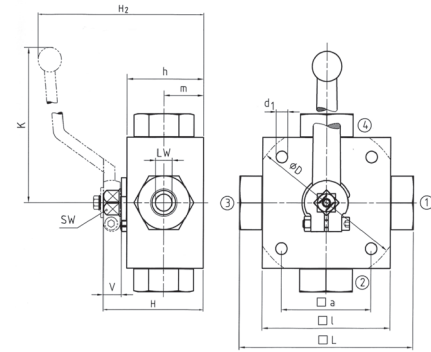
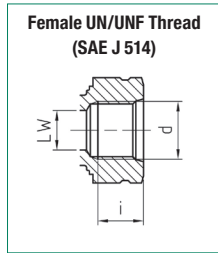
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (bar/PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1				H2
02	1/8 NPT	4	5	100		70	55	58	40	22	160	14	12	10,5	6,5	101	500	1,60	TBV-4-N02-0001-M
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.41	.26	3.98	7250	3.52	
04	1/4 NPT	6	5	100		70	55	58	40	22	160	14	12	13,7	6,5	101	500	1,60	TBV-4-N04-0001-M
			.20	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.54	.26	3.98	7250	3.52	
06	3/8 NPT	10	8	115		80	65	68	50	27	171	14	14	13,5	6,5	119	500	2,80	TBV-4-N06-0001-M
			.31	4.53		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.53	.26	4.69	7250	6.16	
08	1/2 NPT	13	13	136		100	80	78	60	31	171	14	14	17	9	129	400	4,90	TBV-4-N08-0001-M
			.51	5.35		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.67	.35	5.08	5800	10.78	
12	3/4 NPT	20	18	154	138	113	85	88	67	36,5	306	16,5	17	18,3	8,5	159	315	6,80	TBV-4-N12-0001-M
			.71	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.05	.65	.67	.72	.33	6.26	4500	14.96	
16	1 NPT	25	23	172	138	119	85	103	82	47,5	306	16,5	17	21,6	8,5	174	315	8,50	TBV-4-N16-0001-M
			.91	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.85	.33	6.85	4500	18.70	
20R	1-1/4 NPT	25/32	23	180	138	119	85	103	82	47,5	306	16,5	17	22,1	8,5	174	315	8,80	TBV-4-N20R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	19.36	
24R	1-1/2 NPT	25/40	23	180	138	119	85	103	82	47,5	306	16,5	17	22,1	8,5	174	250	8,80	TBV-4-N24R-0001-M
			.91	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	3600	19.36	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

**High-Pressure Block Body Ball Valve - Type TBV-4
T-Bore Four-Way Selector - Female UN/UNF Thread (SAE J 514)**

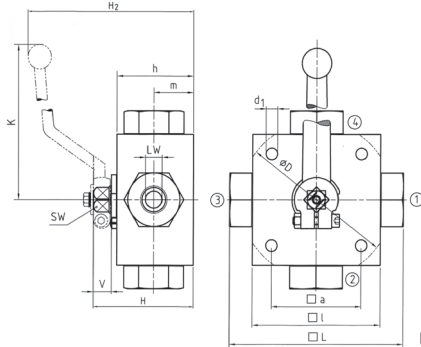
When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Size 04)
Carbon Steel (STAUFF Sizes 06 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

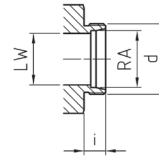


STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (^{bar} /PSI)	Weight (kg/lbs)	Order Codes (Standard Option)	
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1				H2
04	7/16-20 UNF (1/4" SAE)	6	5	100	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	TBV-4-U04-0001-M	
			0,20	3,94		2,76	2,17	2,28	1,57	0,87	6,30	0,55	0,47	0,55	0,26	3,98	7250		3,52
06	9/16-18 UNF (3/8" SAE)	10	8	115	80	65	68	50	27	171	14	14	14	6,5	119	500	2,80	TBV-4-U06-0001-M	
			0,31	4,53		3,15	2,56	2,68	1,97	1,06	6,73	0,55	0,55	0,55	0,26	4,69	7250		6,16
08	3/4-16 UNF (1/2" SAE)	13	13	144	100	80	78	60	31	171	14	14	14	16,3	9	129	400	5,20	TBV-4-U08-0001-M
			0,51	5,67		3,94	3,15	3,07	2,36	1,22	6,73	0,55	0,55	0,64	0,35	5,08	5800	11,44	
12	1-1/16-12 UN (3/4" SAE)	20	18	164	138	113	85	88	67	36,5	306	16,5	17	18	8,5	159	315	6,80	TBV-4-U12-0001-M
			0,71	6,46	5,43	4,45	3,35	3,46	2,64	1,44	12,05	0,65	0,67	0,71	0,33	6,26	4500	14,96	
16	1-5/16-12 UN (1" SAE)	25	23	180	138	119	85	103	82	47,5	306	16,5	17	20	8,5	174	315	8,50	TBV-4-U16-0001-M
			0,91	7,09	5,43	4,69	3,35	4,06	3,23	1,87	12,05	0,65	0,67	0,79	0,33	6,85	4500	18,70	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

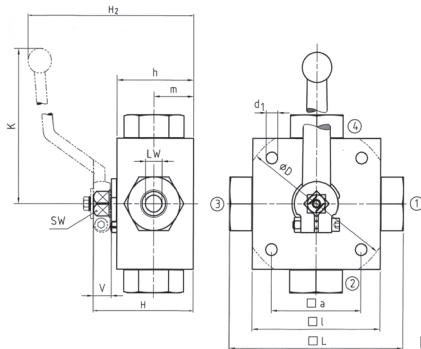
**24° Cone Connection
(DIN 2353 / ISO 8434-1)**


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

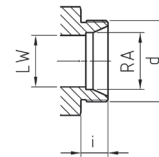
- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 05 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

B

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/m)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	06L / M12 x 1,5	4	6	5	105	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	TBV-4-06L-0001-M	
			.24	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250		3.52
04	08L / M14 x 1,5	6	8	5	105	70	55	58	40	22	160	14	12	10	6,5	101	500	1,80	TBV-4-08L-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250		3.96
05	10L / M16 x 1,5	8	10	8	114	80	65	68	50	27	171	14	14	11	6,5	119	500	2,60	TBV-4-10L-0001-M	
			.39	.31	4.49		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.43	.26	4.69	7250		5.72
06	12L / M18 x 1,5	10	12	8	114	80	65	68	50	27	171	14	14	11	6,5	119	500	2,60	TBV-4-12L-0001-M	
			.47	.31	4.49		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.43	.26	4.69	7250		5.72
08	15L / M22 x 1,5	13	15	13	137	100	80	78	60	31	171	14	14	12	9	129	400	4,70	TBV-4-15L-0001-M	
			.59	.51	5.39		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.47	.35	5.08	5800		10.34
10	18L / M26 x 1,5	16	18	18	137	113	85	88	67	36,5	171	16,5	17	12	8,5	129	400	4,70	TBV-4-18LDN16-0001-M	
			.71	.71	5.39		4.45	3.35	3.46	2.64	1.44	6.73	.65	.67	.47	.33	5.08	5800		10.34
12	22L / M30 x 2	20	22	23	152	138	119	85	103	82	47,5	306	16,5	17	14	8,5	159	315	6,60	TBV-4-22L-0001-M
			.87	.91	5.98	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.55	.33	6.26	4500	14.52	
16	28L / M36 x 2	25	28	23	166	138	119	85	103	82	47,5	306	16,5	17	14	8,5	174	315	8,00	TBV-4-28L-0001-M
			1.10	.91	6.54	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.55	.33	6.85	4500	17.60	
20R	35L / M45 x 2	25/32	35	23	170	138	119	85	103	82	47,5	306	16,5	17	16	8,5	174	315	8,12	TBV-4-35LDN25-0001-M
			1.38	.91	6.69	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.63	.33	6.85	4500	17.86	

 Please note the pressure ratings of the tube connections.
 Dimensions and design for stainless steel may vary.


Union nuts and cutting rings are not included in delivery.

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


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

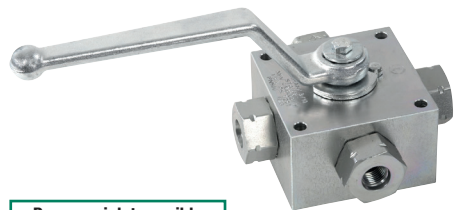
- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 05 to 20R)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)

STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/m)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	08S / M16 x 1,5	4	8	5	105	70	55	58	40	22	160	14	12	12	6,5	101	500	1,60	TBV-4-08S-0001-M	
			.31	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	3.98	7250		3.52
04	10S / M18 x 1,5	6	10	5	105	70	55	58	40	22	160	14	12	12	6,5	101	500	1,80	TBV-4-10S-0001-M	
			.39	.20	4.13		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	3.98	7250		3.96
05	12S / M20 x 1,5	8	12	8	116	80	65	68	50	27	171	14	14	12	6,5	119	500	2,60	TBV-4-12S-0001-M	
			.47	.31	4.57		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.47	.26	4.69	7250		5.72
06	14S / M22 x 1,5	10	14	8	120	80	65	68	50	27	171	14	14	14	6,5	119	500	2,60	TBV-4-14S-0001-M	
			.55	.31	4.72		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.55	.26	4.69	7250		5.72
08	16S / M24 x 1,5	13	16	13	141	100	80	78	60	31	171	14	14	14	9	129	400	4,70	TBV-4-16S-0001-M	
			.63	.51	5.55		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.55	.35	5.08	5800		10.34
10	20S / M30 x 2	16	20	18	145	113	80	88	67	36,5	171	16,5	17	16	8,5	129	400	4,70	TBV-4-20S-0001-M	
			.79	.71	5.71		4.45	3.15	3.46	2.64	1.44	6.73	.65	.67	.63	.33	5.08	5800		10.34
12	25S / M36 x 2	20	25	23	160	138	119	80	103	82	47,5	306	16,5	17	18	8,5	159	315	6,60	TBV-4-25S-0001-M
			.98	.91	6.30	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.71	.33	6.26	4500	14.52	
16	30S / M42 x 2	25	30	23	176	138	119	80	103	82	47,5	306	16,5	17	20	8,5	174	315	8,00	TBV-4-30S-0001-M
			1.18	.91	6.93	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.79	.33	6.85	4500	17.60	
20R	38S / M52 x 2	25/32	38	23	180	138	119	80	103	82	47,5	306	16,5	17	22	8,5	174	315	8,12	TBV-4-38SDN25-0001-M
			1.50	.91	7.09	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	17.86	

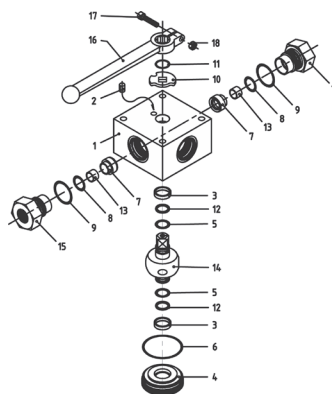
 Please note the pressure ratings of the tube connections.
 Dimensions and design for stainless steel may vary.

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

B



Pressure inlet possible from all ports!



List of Components

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

Characteristics

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

Standard Construction

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

Standard Materials

- Body: Carbon Steel, zinc/iron-plated
- Ball: Carbon Steel, hard chrome-plated
- Stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 06 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 NPT
- Female UN/UNF thread (SAE J 514) >1-5/16-12 UN (1" SAE)
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >35L
- 24° Cone Connection (DIN 2353 / ISO 8434-1) >38S

Pressure loaded seats at all ports!

Pressure Range

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

Temperature Range

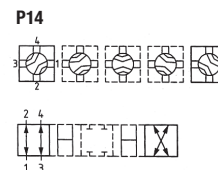
- Operating temperature range: -20 °C ... +100 °C / -4 °F ... + 212 °F

Options / Accessories

- Alternative lever designs/materials (see page 114)
- Locking devices (see pages 115-117)
- Actuator packages (see page 118)
- Limit switches (see page 118)
- Stainless Steel body
- Stainless Steel ball and stem
- Special ball seat and O-ring materials available for lower/higher temperatures and more aggressive media
- Seal kits (including items marked by * in the above list)

Porting Pattern

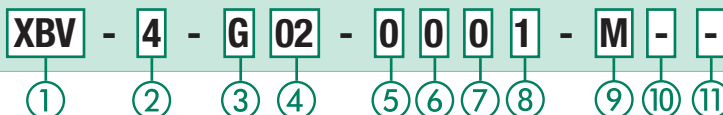
- Symbol : X
- Overlap: negative
- Operating: 90° with closed position



- Stop of end position:

Please see pages 120-121 for alternative porting patterns.

Order Codes



① Type

Multi-Way Double L-Bore Ball Valve **XBV**

② Number of Ports

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

③ Connection Style

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

Please contact STAUFF for alternative connection styles.

④ Connection Size

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

Please contact STAUFF for alternative connection sizes.

⑤ Body Material / Surface Finishing

Carbon Steel, zinc/iron-plated **0**
 Stainless Steel V4A (AISI 316Ti) **1**
 Note: Stainless steel version may vary in dimensions and design.
 Alternative materials / surface finishings are available upon request. Contact STAUFF for further information.

⑥ Ball / Stem Material

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

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

⑦ Ball Seat Material

Delrin® (POM) **0**

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

⑧ O-Ring Material

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

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

⑨ Manufacturing Code

Manufacturing code for all connection styles **M**

⑩ Lever Options

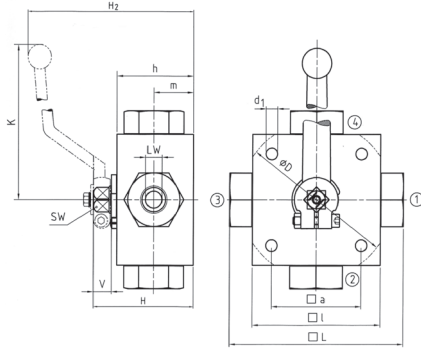
Supplied with standard lever (according to table) **—**
 Supplied without lever **0**

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

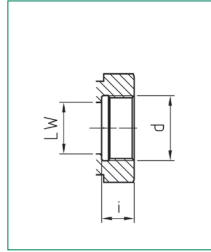
⑪ Accessories / Options

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

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



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



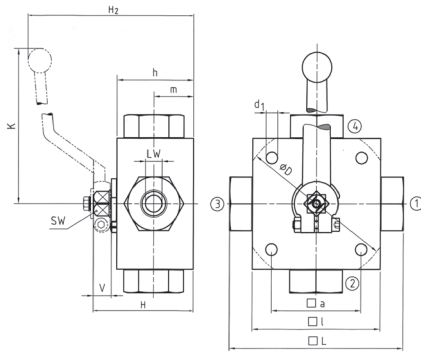
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

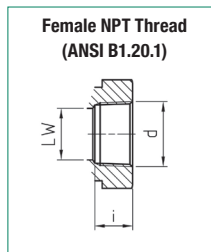
B

STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	G 1/8 BSP	4	4	100	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	XBV-4-G02-0001-M	
			.16	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250		3.52
04	G 1/4 BSP	6	4	100	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	XBV-4-G04-0001-M	
			.16	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.55	.26	3.98	7250		3.52
06	G 3/8 BSP	10	7	115	80	65	68	50	27	171	14	14	14	6,5	119	500	2,80	XBV-4-G06-0001-M	
			.28	4.53		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.55	.26	4.69	7250		6.16
08	G 1/2 BSP	13	10	136	100	80	78	60	31	171	14	14	16,3	9	129	400	4,90	XBV-4-G08-0001-M	
			.39	5.35		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.64	.35	5.08	5800		10.78
10	G 5/8 BSP	16	10	139	100	80	78	60	31	171	14	14	18	9	129	400	4,90	XBV-4-G10-0001-M	
			.39	5.47		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.71	.35	5.08	5800		10.78
12	G 3/4 BSP	20	14	154	138	113	85	88	67	36,5	306	16,5	17	18	8,5	159	315	6,80	XBV-4-G12-0001-M
			.55	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.05	.65	.67	.71	.33	6.26	4500	14.96	
16	G 1 BSP	25	17	172	138	119	85	103	82	47,5	306	16,5	17	20	8,5	174	315	8,50	XBV-4-G16-0001-M
			.67	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.79	.33	6.85	4500	18.70	
20R	G 1-1/4 BSP	25/32	17	180	138	119	85	103	82	47,5	306	16,5	17	22	8,5	174	315	8,80	XBV-4-G20R-0001-M
			.67	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	19.36	
24R	G 1-1/2 BSP	25/40	17	180	138	119	85	103	82	47,5	306	16,5	17	24	8,5	174	250	8,80	XBV-4-G24R-0001-M
			.67	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.94	.33	6.85	3600	19.36	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



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



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

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 06 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	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	1/8 NPT	4	4	100	70	55	58	40	22	160	14	12	10,5	6,5	101	500	1,60	XBV-4-N02-0001-M	
			.16	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.41	.26	3.98	7250		3.52
04	1/4 NPT	6	4	100	70	55	58	40	22	160	14	12	13,7	6,5	101	500	1,60	XBV-4-N04-0001-M	
			.16	3.94		2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.54	.26	3.98	7250		3.52
06	3/8 NPT	10	7	115	80	65	68	50	27	171	14	14	13,5	6,5	119	500	2,80	XBV-4-N06-0001-M	
			.28	4.53		3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.53	.26	4.69	7250		6.16
08	1/2 NPT	13	10	136	100	80	78	60	31	171	14	14	17	9	129	400	4,90	XBV-4-N08-0001-M	
			.39	5.35		3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.67	.35	5.08	5800		10.78
12	3/4 NPT	20	14	154	138	113	85	88	67	36,5	306	16,5	17	18,3	8,5	159	315	6,80	XBV-4-N12-0001-M
			.55	6.06	5.43	4.45	3.35	3.46	2.64	1.44	12.05	.65	.67	.72	.33	6.26	4500	14.96	
16	1 NPT	25	17	172	138	119	85	103	82	47,5	306	16,5	17	21,6	8,5	174	315	8,50	XBV-4-N16-0001-M
			.67	6.77	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.85	.33	6.85	4500	18.70	
20R	1-1/4 NPT	25/32	17	180	138	119	85	103	82	47,5	306	16,5	17	22,1	8,5	174	315	8,80	XBV-4-N20R-0001-M
			.67	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	19.36	
24R	1-1/2 NPT	25/40	17	180	138	119	85	103	82	47,5	306	16,5	17	22,1	8,5	174	250	8,80	XBV-4-N24R-0001-M
			.67	7.09	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	3600	19.36	

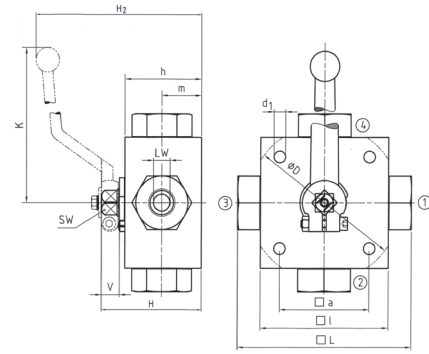
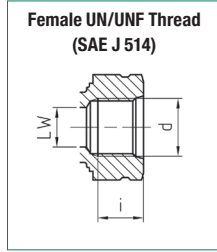
Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.

High-Pressure Block Body Ball Valve - Type XBV-4
Double L-Bore Four-Way Selector - Female UN/UNF Thread (SAE J 514)

B

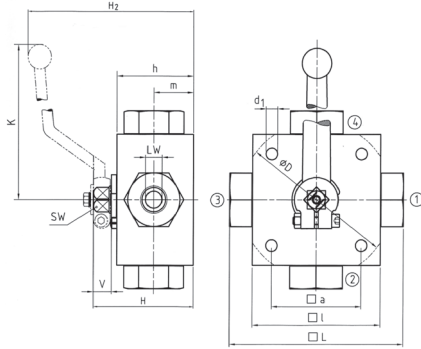
When ordering the standard option as indicated in the table below, the following materials will be supplied:

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Size 04)
Carbon Steel (STAUFF Sizes 06 and 16)
- Ball seat: Delrin® (POM)
- O-rings: FKM (Viton®)



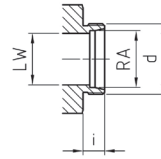
STAUFF Size	Thread Size d	Nominal Size DN	Dimensions (mm/in)													Nom. Pressure (^{bar} /PSI)	Weight (kg/lbs)	Order Codes (Standard Option)		
			LW	L	D	l	a	H	h	m	K	V	SW	i	d1				H2	
04	7/16-20 UNF (1/4" SAE)	6	4	100	/	70	55	58	40	22	160	14	12	14	6,5	101	500	1,60	XBV-4-U04-0001-M	
			.16	3,94		2,76	2,17	2,28	1,57	0,87	6,30	0,55	0,47	0,55	0,26	3,98	7250	3,52		
06	9/16-18 UNF (3/8" SAE)	10	7	115	/	80	65	68	50	27	171	14	14	14	6,5	119	500	2,80	XBV-4-U06-0001-M	
			.28	4,53		3,15	2,56	2,68	1,97	1,06	6,73	0,55	0,55	0,55	0,26	4,69	7250	6,16		
08	3/4-16 UNF (1/2" SAE)	13	10	144	/	100	80	78	60	31	171	14	14	14	16,3	9	129	400	5,20	XBV-4-U08-0001-M
			.39	5,67		3,94	3,15	3,07	2,36	1,22	6,73	0,55	0,55	0,64	0,35	5,08	5800	11,44		
12	1-1/16-12 UN (3/4" SAE)	20	14	164	138	113	85	88	67	36,5	306	16,5	17	18	8,5	159	315	6,80	XBV-4-U12-0001-M	
			.55	6,46	5,43	4,45	3,35	3,46	2,64	1,44	12,05	0,65	0,67	0,71	0,33	6,26	4500	14,96		
16	1-5/16-12 UN (1" SAE)	25	17	180	138	119	85	103	82	47,5	306	16,5	17	20	8,5	174	315	8,50	XBV-4-U16-0001-M	
			.67	7,09	5,43	4,69	3,35	4,06	3,23	1,87	12,05	0,65	0,67	0,79	0,33	6,85	4500	18,70		

Please note the pressure ratings of the tube connections.
 Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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



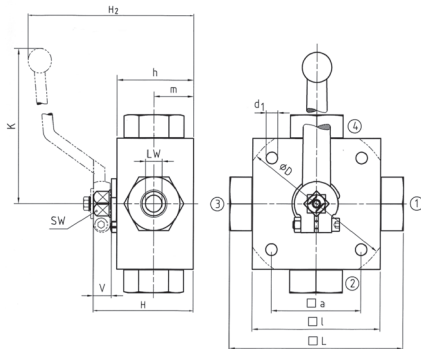
When ordering the standard option as indicated in the table below, the following materials will be supplied:

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

B

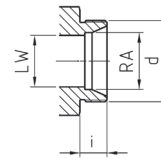
STAUFF Size	Tube/Thread Size d	Nominal Size DN	Dimensions (mm/in)														Nom. Pressure (bar/psi)	Weight (kg/lbs)	Order Codes (Standard Option)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	06L / M12 x 1,5	4	6	4	105	70	55	58	40	22	160	14	12	10	6,5	101	500	1,60	XBV-4-06L-0001-M	
			.24	.16	4.13	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250	3.52		
04	08L / M14 x 1,5	6	8	4	105	70	55	58	40	22	160	14	12	10	6,5	101	500	1,80	XBV-4-08L-0001-M	
			.31	.16	4.13	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.39	.26	3.98	7250	3.96		
05	10L / M16 x 1,5	8	10	7	114	80	65	68	50	27	171	14	14	11	6,5	119	500	2,60	XBV-4-10L-0001-M	
			.39	.28	4.49	3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.43	.26	4.69	7250	5.72		
06	12L / M18 x 1,5	10	12	7	114	80	65	68	50	27	171	14	14	11	6,5	119	500	2,60	XBV-4-12L-0001-M	
			.47	.28	4.49	3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.43	.26	4.69	7250	5.72		
08	15L / M22 x 1,5	13	15	10	137	100	80	78	60	31	171	14	14	12	9	129	400	4,70	XBV-4-15L-0001-M	
			.59	.39	5.39	3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.47	.35	5.08	5800	10.34		
10	18L / M26 x 1,5	16	18	10	137	113	85	88	67	36,5	171	16,5	17	12	8,5	129	400	4,70	XBV-4-18LDN16-0001-M	
			.71	.39	5.39	4.45	3.35	3.46	2.64	1.44	6.73	.65	.67	.47	.33	5.08	5800	10.34		
12	22L / M30 x 2	20	22	14	152	138	119	85	103	82	47,5	306	16,5	17	14	8,5	159	315	6,60	XBV-4-22L-0001-M
			.87	.55	5.98	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.55	.33	6.26	4500	14.52	
16	28L / M36 x 2	25	28	17	166	138	119	85	103	82	47,5	306	16,5	17	14	8,5	174	315	8,00	XBV-4-28L-0001-M
			1.10	.67	6.54	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.55	.33	6.85	4500	17.60	
20R	35L / M45 x 2	25/32	35	17	170	138	119	85	103	82	47,5	306	16,5	17	16	8,5	174	315	8,12	XBV-4-35LDN25-0001-M
			1.38	.67	6.69	5.43	4.69	3.35	4.06	3.23	1.87	12.05	.65	.67	.63	.33	6.85	4500	17.86	

Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



Union nuts and cutting rings are not included in delivery.

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



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

- Body, ball and stem: Carbon Steel
- Lever: Aluminium (STAUFF Sizes 02 and 04)
Carbon Steel (STAUFF Sizes 05 to 20R)
- 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)	
			RA	LW	L	D	l	a	H	h	m	K	V	SW	i	d1	H2			
02	08S / M16 x 1,5	4	8	4	105	70	55	58	40	22	160	14	12	12	6,5	101	500	1,60	XBV-4-08S-0001-M	
			.31	.16	4.13	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	3.98	7250	3.52		
04	10S / M18 x 1,5	6	10	4	105	70	55	58	40	22	160	14	12	12	6,5	101	500	1,80	XBV-4-10S-0001-M	
			.39	.16	4.13	2.76	2.17	2.28	1.57	.87	6.30	.55	.47	.47	.26	3.98	7250	3.96		
05	12S / M20 x 1,5	8	12	7	116	80	65	68	50	27	171	14	14	12	6,5	119	500	2,60	XBV-4-12S-0001-M	
			.47	.28	4.57	3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.47	.26	4.69	7250	5.72		
06	14S / M22 x 1,5	10	14	7	120	80	65	68	50	27	171	14	14	14	6,5	119	500	2,60	XBV-4-14S-0001-M	
			.55	.28	4.72	3.15	2.56	2.68	1.97	1.06	6.73	.55	.55	.55	.26	4.69	7250	5.72		
08	16S / M24 x 1,5	13	16	10	141	100	80	78	60	31	171	14	14	14	9	129	400	4,70	XBV-4-16S-0001-M	
			.63	.39	5.55	3.94	3.15	3.07	2.36	1.22	6.73	.55	.55	.55	.35	5.08	5800	10.34		
10	20S / M30 x 2	16	20	10	145	113	80	88	67	36,5	171	16,5	17	16	8,5	129	400	4,70	XBV-4-20S-0001-M	
			.79	.39	5.71	4.45	3.15	3.46	2.64	1.44	6.73	.65	.67	.63	.33	5.08	5800	10.34		
12	25S / M36 x 2	20	25	14	160	138	119	80	103	82	47,5	306	16,5	17	18	8,5	159	315	6,60	XBV-4-25S-0001-M
			.98	.55	6.30	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.71	.33	6.26	4500	14.52	
16	30S / M42 x 2	25	30	17	176	138	119	80	103	82	47,5	306	16,5	17	20	8,5	174	315	8,00	XBV-4-30S-0001-M
			1.18	.67	6.93	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.79	.33	6.85	4500	17.60	
20R	38S / M52 x 2	25/32	38	17	180	138	119	80	103	82	47,5	306	16,5	17	22	8,5	174	315	8,12	XBV-4-38SDN25-0001-M
			1.50	.67	7.09	5.43	4.69	3.15	4.06	3.23	1.87	12.05	.65	.67	.87	.33	6.85	4500	17.86	

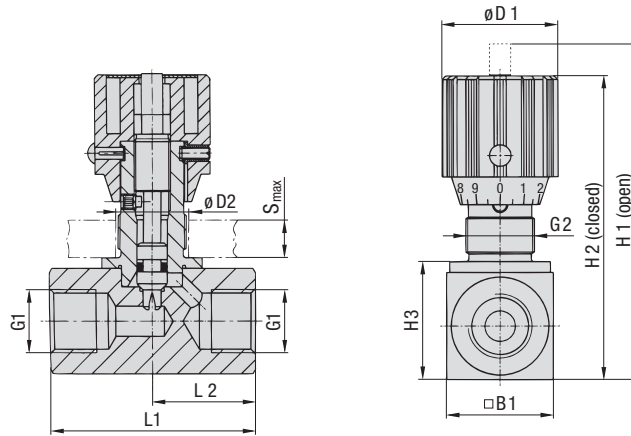
Please note the pressure ratings of the tube connections.
Dimensions and design for stainless steel may vary.



	Throttle and Shut-Off Valve (In-Line Assembly) DV	92
	Flow Control Valve (In-Line Assembly) DRV	93
	Throttle and Shut-Off Valve (Manifold Assembly) DVP	94
	Flow Control Valve (Manifold Assembly) DRVP	95
	Throttle and Shut-Off Valve (Cartridge Assembly) DVE	96
	Pressure Compensated Flow Control Valve (In-Line Assembly) PNDRV	97
	Heavy-Duty Check Valve (In-Line Assembly) RV	98
	Medium-Duty Check Valve (In-Line Assembly) RVM	99
	Flow Characteristics	100

C

Throttle and Shut-Off Valve - Type DV (In-Line Assembly)



Characteristics

Throttle and shut-off the flow of liquid media in both directions

Features

- Designed for in-line assembly with female BSP, NPT and SAE threaded connections
- Panel mounting nuts available on request
- Graduated turning knob and coded spindle to accurately control flow
- Set-screw located on side of turning knob to lock valve in position

Media Compatibility

- Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

Please contact STAUFF before using with other media.

Materials

- Body and spindle made of Steel (1.0715), zinc/iron-plated (Fe/Zn Fe Co 8 C) and free of hexavalent chromium CrVI (standard option); Stainless Steel (1.4571) version available
- Turning knob made of Polyamide (PA)
- O-rings made of NBR (Buna-N®); FKM (Viton®) and EPDM sealed version available

Contact STAUFF for alternative materials.

Technical Data

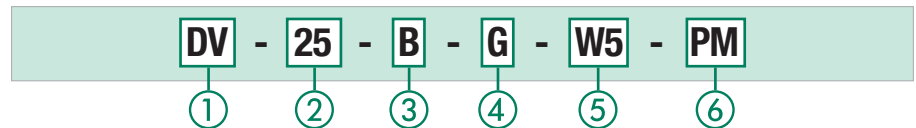
- Maximum working pressure: 350 bar / 5000 PSI (for all sizes)
- Operating temperature range: -20°C ... +100 °C / -4 °F ... +212 °F

Please see page 100 for detailed flow characteristics.

Dimensions

Type + Nominal Size	Thread Options G1	Dimensions (mm/in)	Dimensions (mm/in)										Weight (kg/lbs)
			G2	H1	H2	H3	B1	ØD1	ØD2	S (Max.)	L1	L2	
DV-06	G1/8 BSP 1/8 NPT	PG 7	64	59	18	16	24	13	4	38	19	0,12	
			2.52	2.32	.71	.63	.94	.51	.16	1.50	.75	.26	
DV-08	G1/4 BSP 1/4 NPT 7/16-20UNF (1/4" SAE)	PG 11	83,5	77,5	27	25	29	19	7	48	24	0,25	
			3.29	3.05	1.06	.98	1.14	.75	.28	1.89	.94	.55	
DV-10	G3/8 BSP 3/8 NPT 9/16-18UNF (3/8" SAE)	PG 11	90	83	32	30	29	19	7	58	29	0,40	
			3.54	3.27	1.26	1.18	1.14	.75	.28	2.28	1.14	.88	
DV-12	G1/2 BSP 1/2 NPT 3/4-16UNF (1/2" SAE)	PG 16	109,5	99,5	38,5	35	38	23	7	68	34	0,60	
			4.31	3.92	1.51	1.38	1.50	.91	.28	2.68	1.34	1.32	
DV-16	G3/4 BSP 3/4 NPT 1-1/16-12UN (3/4" SAE)	PG 16	128,5	118,5	48,5	45	38	23	7	78	39	1,10	
			5.06	4.67	1.90	1.77	1.50	.91	.28	3.07	1.54	2.43	
DV-20	G1 BSP 1 NPT 1-5/16-12UN (1" SAE)	PG 29	159	146	55	50	49	38	10	108	54	2,40	
			6.26	5.75	2.17	1.97	1.93	1.50	.39	4.25	2.13	5.29	
DV-25	G1-1/4 BSP 1-1/4 NPT 1-5/8-12UN (1-1/4" SAE)	PG 29	169	156	65	60	49	38	10	108	54	2,80	
			6.65	6.14	2.56	2.36	1.93	1.50	.39	4.25	2.13	6.17	
DV-30	G1-1/2 BSP 1-1/2 NPT 1-7/8-12UN (1-1/2" SAE)	PG 29	179	166	75	70	49	38	10	108	54	3,50	
			7.04	6.54	2.95	2.76	1.93	1.50	.39	4.25	2.13	7.72	
DV-40	G2 BSP 2 NPT 2-1/2-12UN (2" SAE)	PG 29	199	186	95	90	49	38	10	120	60	6,30	
			7.83	7.32	3.74	3.54	1.93	1.50	.39	4.72	2.36	13.89	

Order Codes



① Type

Throttle and Shut-Off Valve (In-Line Assembly) **DV**

② Nominal Size DN

06 08 10 12 16 20 25 30 40

③ Sealing Material

NBR (Buna-N®) (standard option) **B**
FKM (Viton®) **V**
EPDM **E**

④ Connection

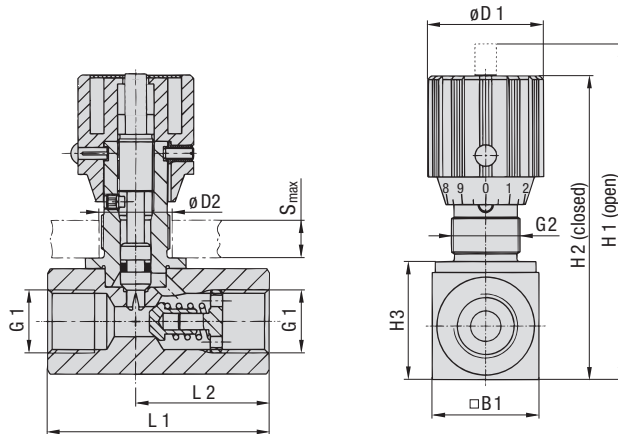
Female BSP threads (ISO 228) **G**
Female NPT threads (ANSI B1.20.1) **N**
Female UN/UNF thread (SAE J514) **U**

⑤ Body / Spindle Material

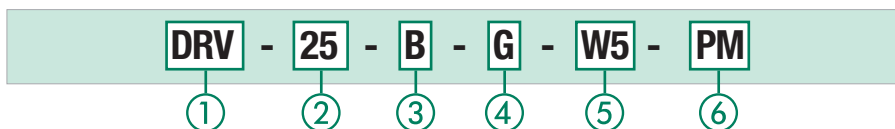
Steel, zinc/iron-plated (standard option) **—**
Stainless Steel **W5**

⑥ Panel Mounting Nut

Without panel mounting nut (standard option) **—**
With panel mounting nut **PM**

**Flow Control Valve - Type DRV
(In-Line Assembly)**

Dimensions

Type + Nominal Size	Thread Options G1	Dimensions (mm/in)										Weight (kg/lbs)
		G2	H1	H2	H3	B1	ØD1	ØD2	S (Max.)	L1	L2	
DRV-06	G1/8 BSP 1/8 NPT	PG 7	64	59	18	16	24	13	4	45	26	0,10
			2.52	2.32	.71	.63	.94	.51	.16	1.77	1.02	.22
DRV-08	G1/4 BSP 1/4 NPT 7/16-20UNF (1/4" SAE)	PG 11	83,5	77,5	27	25	29	19	7	55	33,5	0,30
			3.29	3.05	1.06	.98	1.14	.75	.28	2.17	1.32	.66
DRV-10	G3/8 BSP 3/8 NPT 9/16-18UNF (3/8" SAE)	PG 11	90	83	32	30	29	19	7	65	41	0,45
			3.54	3.27	1.26	1.18	1.14	.75	.28	2.56	1.61	.99
DRV-12	G1/2 BSP 1/2 NPT 3/4-16UNF (1/2" SAE)	PG 16	109,5	99,5	38,5	35	38	23	7	73	44	0,70
			4.31	3.92	1.51	1.38	1.50	.91	.28	2.87	1.73	1.54
DRV-16	G3/4 BSP 3/4 NPT 1-1/16-12UN (3/4" SAE)	PG 16	128,5	118,5	48,5	45	38	23	7	88	57	1,26
			5.06	4.67	1.90	1.77	1.50	.91	.28	3.46	2.24	2.78
DRV-20	G1 BSP 1 NPT 1-5/16-12UN (1" SAE)	PG 29	159	146	55	50	49	38	10	127	77	2,60
			6.26	5.75	2.17	1.97	1.93	1.50	.39	5.00	3.03	5.73
DRV-25	G1-1/4 BSP 1-1/4 NPT 1-5/8-12UN (1-1/4" SAE)	PG 29	169	156	65	60	49	38	10	143	93	3,70
			6.65	6.14	2.56	2.36	1.93	1.50	.39	5.63	3.66	8.16
DRV-30	G1-1/2 BSP 1-1/2 NPT 1-7/8-12UN (1-1/2" SAE)	PG 29	179	166	75	70	49	38	10	143	91	4,76
			7.04	6.54	2.95	2.76	1.93	1.50	.39	5.63	3.58	10.49
DRV-40	G2 BSP 2 NPT 2-1/2-12UN (2" SAE)	PG 29	199	186	95	90	49	38	10	165	111	8,52
			7.83	7.32	3.74	3.54	1.93	1.50	.39	6.50	4.37	18.78

Order Codes

1 Type

 Flow Control Valve (In-Line Assembly) **DRV**
2 Nominal Size DN
06 08 10 12 16 20 25 30 40
3 Sealing Material

 NBR (Buna-N®) (standard option) **B**
 FKM (Viton®) **V**
 EPDM **E**
4 Connection

 Female BSP threads (ISO 228) **G**
 Female NPT threads (ANSI B1.20.1) **N**
 Female UN/UNF thread (SAE J514) **U**
5 Body / Spindle Material

 Steel, zinc/iron-plated (standard option) **—**
 Stainless Steel **W5**
6 Panel Mounting Nut

 Without panel mounting nut (standard option) **—**
 With panel mounting nut **PM**
Characteristics
Throttle and shut-off the flow of liquid media in direction A-B (free flow in reverse direction)
Features

- Designed for in-line assembly with female BSP, NPT and SAE threaded connections
- Panel mounting nuts available on request
- Graduated turning knob and coded spindle to accurately control flow
- Set-screw located on side of turning knob to lock valve in position

Media Compatibility

- Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

Please contact STAUFF before using with other media.

Materials

- Body and spindle made of Steel (1.0715), zinc/iron-plated (Fe/Zn Fe Co 8 C) and free of hexavalent chromium CrVI (standard option); Stainless Steel (1.4571) version available
- Turning knob made of Polyamide (PA)
- O-rings made of NBR (Buna-N®); FKM (Viton®) and EPDM sealed version available

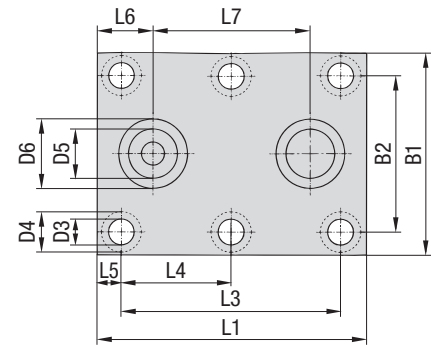
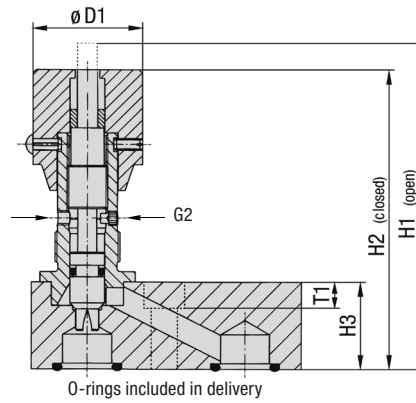
Contact STAUFF for alternative materials.

Technical Data

- Opening pressure: 0,5 bar / 7 PSI (4,5 bar / 65 PSI available on request)
- Maximum working pressure: 350 bar / 5000 PSI (for all sizes)
- Operating temperature range: -20 °C ... +100 °C / -4 °F ... +212 °F

Please see page 100 for detailed flow characteristics.

Throttle and Shut-Off Valve - Type DVP (Manifold Assembly)



Characteristics

Throttle and shut-off the flow of liquid media in both directions

Features

- Designed for manifold mounting
- Panel mounting nuts available on request
- Graduated turning knob and coded spindle to accurately control flow
- Set-screw located on side of turning knob to lock valve in position

Media Compatibility

- Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

Please contact STAUFF before using with other media.

Materials

- Body and spindle made of Steel (1.0715), zinc/iron-plated (Fe/Zn Fe Co 8 C) and free of hexavalent chromium CrVI (standard option); Stainless Steel (1.4571) version available
- Turning knob made of Polyamide (PA)
- O-rings made of FKM (Viton®); NBR (Buna-N®) and EPDM sealed version available

Contact STAUFF for alternative materials.

Technical Data

- Maximum working pressure: 350 bar / 5000 PSI (for all sizes)
- Operating temperature range: -20°C ... +100°C / -4°F ... +212°F

Please see page 100 for detailed flow characteristics.

Recommended Bolts / Tightening Torques

Valve Type	Socket cap screws according to ISO 4762 or ANSI / ASME B18.3 recommended for installation (not included in delivery):
DVP-06	M6 x 20 - 8.8 (9 N·m) 1/4-20 UNC x 3/4 - Gr. 5 (10 ft·lb)
DVP-08	M6 x 25 - 8.8 (9 N·m) 1/4-20 UNC x 1 - Gr. 5 (10 ft·lb)
DVP-10	M6 x 30 - 10.9 (12 N·m) 1/4-20 UNC x 1-1/4 - Gr. 8 (12 ft·lb)
DVP-12	M6 x 30 - 12.9 (15 N·m) 1/4-20 UNC x 1-1/4 - Gr. 10 (14 ft·lb)
DVP-16	M8 x 35 - 10.9 (30 N·m) 5/16-18 UNC x 1-1/2 - Gr. 8 (24 ft·lb)
DVP-20	M8 x 50 - 12.9 (35 N·m) 5/16-18 UNC x 2 - Gr. 10 (29 ft·lb)
DVP-25	M10 x 50 - 12.9 (70 N·m) 3/8-16 UNC x 2 - Gr. 10 (58 ft·lb)
DVP-30	M12 x 60 - 10.9 (100 N·m) 7/16-14 UNC x 2-1/2 - Gr. 8 (63 ft·lb)

Dimensions

For panel mounting, please see dimensions G2, D2 and S (Max.) on page 92.

Type + Nom. Size	Dimensions (mm/in)															Weight (kg/lbs)				
	G2	ØD1	ØD3	ØD4	ØD5	ØD6	L1	L3	L4	L5	L6	L7	B1	B2	T1	H1	H2	H3	O-ring	
DVP-06 PG 7	24	6,5	10,5	5	9,8	35	19		8	9,5	16	41,5	28,5	6,8	64	59	16	6,35 x 1,78	0,20	
	.94	.26	.41	.20	.39	1.38	.75		.31	.37	.63	1.63	1.12	.27	2.52	2.32	.63		.44	
DVP-08 PG 11	29	6,5	10,5	7	12,4	47,5	35		6,5	11	25,5	46	33,5	6,8	79	72	20	8,5 x 2	0,40	
	1.14	.26	.41	.28	.49	1.87	1.38		.26	.43	1.00	1.81	1.32	.27	3.11	2.83	.79		.88	
DVP-10 PG 11	29	6,5	10,5	10	15,7	51	33,5		8,5	12,7	25,5	51	38	6,8	84	78	25	12 x 2	0,60	
	1.14	.26	.41	.39	.62	2.01	1.32		.33	.50	1.00	2.01	1.50	.27	3.31	3.07	.98		1.32	
DVP-12 PG 16	38	6,5	10,5	13	18,7	75	38		18,5	22,5	30	57,5	44,5	6,8	100	89	25	15 x 2	1,00	
	1.50	.26	.41	.51	.74	2.95	1.50		.73	.89	1.18	2.26	1.75	.27	3.94	3.50	.98		2.20	
DVP-16 PG 16	38	8,5	13,5	17	23,9	93,5	76	38	8,5	19,5	54	70	54	9	113	103	30	19 x 2,5	1,50	
	1.50	.33	.53	.67	.94	3.68	2.99	1.50	.33	.77	2.13	2.76	2.13	.35	4.45	4.06	1.18		3.31	
DVP-20 PG 29	49	8,5	13,5	22	30,5	111	95	47,5	8	27	57	76,5	60	9	154	142	45	25 x 3	3,40	
	1.93	.33	.53	.87	1.20	4.37	3.74	1.87	.31	1.06	2.24	3.01	2.36	.35	6.06	5.59	1.77		7.50	
DVP-25 PG 29	49	10,5	16,5	28,5	37,5	143	120	60	11	32	79,5	100	76	11	154	142	45	32 x 3	5,15	
	1.93	.41	.65	1.12	1.48	5.63	4.72	2.36	.43	1.26	3.13	3.94	2.99	.43	6.06	5.59	1.77		11.35	
DVP-30 PG 29	49	13	19	35	43,5	171	143	71,5	15	39	95	115	92	13	159	147	50	38 x 3	7,50	
	1.93	.51	.75	1.38	1.71	6.73	5.63	2.81	.59	1.54	3.74	4.53	3.62	.51	6.26	5.79	1.97		16.53	

Order Codes

DVP -
 25 -
 V -
 W5 -
 PM

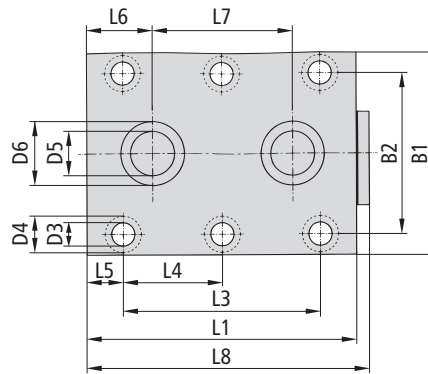
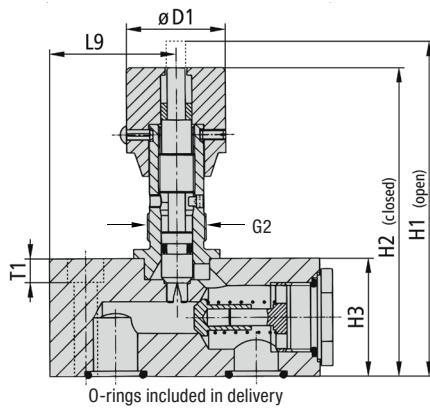
① **Type**
Throttle and Shut-Off Valve (Manifold Assembly) **DVP**

② **Nominal Size DN**
06 08 10 12 16 20 25 30

③ **Sealing Material**
FKM (Viton®) (standard option) **V**
NBR (Buna-N®) **B**
EPDM **E**

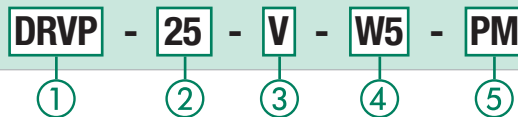
⑤ **Body / Spindle Material**
Steel, zinc/iron-plated (standard option) **—**
Stainless Steel **W5**

⑤ **Panel Mounting Nut**
Without panel mounting nut (standard option) **—**
With panel mounting nut **PM**

**Flow Control Valve - Type DRVP
(Manifold Assembly)**

Dimensions

For panel mounting, please see dimensions G2, D2 and S (Max.) on page 93.

Type + Nom. Size	Dimensions (mm/in)	Weight (kg/lbs)
DRVP-06 PG 7	24 6,5 10,5 5 9,8 41,5 19 .94 .26 .41 .20 .39 1.63 .75	6,35 x 1,78 0,26 .57
	29 6,5 10,5 7 12,4 63,5 35 1.14 .26 .41 .28 .49 2.50 1.38	8,5 x 2 0,50 1.10
DRVP-08 PG 11	29 6,5 10,5 10 15,7 70 33,5 1.14 .26 .41 .39 .62 2.76 1.32	12 x 2 0,80 1.76
	38 6,5 10,5 13 18,7 80 38 1.50 .26 .41 .51 .74 3.15 1.50	15 x 2 1,20 2.65
DRVP-12 PG 16	38 8,5 13,5 17 23,9 104 76 38 1.50 .33 .53 .67 .94 4.09 2.99 1.50 .55	19 x 2,5 2,50 5.51
	49 8,5 13,5 22 30,5 127 95 47,5 16 1.93 .33 .53 .87 1.20 5.00 3.74 1.87 .63	25 x 3 3,90 8.60
DRVP-16 PG 16	49 10,5 16,5 28,5 37,5 165 120 60 15 1.40 3.13 6.73 3.03 3.94 2.99 .43 6.46 5.98 2.17	32 x 3 6,70 14.77
	49 13 19 35 43,5 186 143 71,5 15 1.53 3.74 7.56 3.35 4.53 3.62 .51 7.24 6.77 2.95	38 x 3 11,00 24.25
DRVP-20 PG 29	49 13 19 47,5 57,5 192 133,5 67,5 16 1.63 3.50 7.76 2.52 5.51 4.37 .51 8.23 7.76 3.94	52 x 3 18,80 41.45
	49 13 19 47,5 57,5 192 133,5 67,5 16 1.63 3.50 7.76 2.52 5.51 4.37 .51 8.23 7.76 3.94	52 x 3 18,80 41.45

Order Codes

1 Type

 Flow Control Valve (Manifold Assembly) **DRVP**
2 Nominal Size DN
06 08 10 12 16 20 25 30 40
3 Sealing Material

 FKM (Viton®) (standard option) **V**
 NBR (Buna-N®) **B**
 EPDM **E**
4 Body / Spindle Material

 Steel, zinc/iron-plated (standard option) **—**
 Stainless Steel **W5**
5 Panel Mounting Nut

 Without panel mounting nut (standard option) **—**
 With panel mounting nut **PM**
Characteristics
Throttle and shut-off the flow of liquid media in direction A-B (free flow in reverse direction)
Features

- Designed for manifold mounting
- Panel mounting nuts available on request
- Graduated turning knob and coded spindle to accurately control flow
- Set-screw located on side of turning knob to lock valve in position

Media Compatibility

- Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

Please contact STAUFF before using with other media.

Materials

- Body and spindle made of Steel (1.0715), zinc/iron-plated (Fe/Zn Fe Co 8 C) and free of hexavalent chromium CrVI (standard option); Stainless Steel (1.4571) version available
- Turning knob made of Polyamide (PA)
- O-rings made of FKM (Viton®); NBR (Buna-N®) and EPDM sealed version available

Contact STAUFF for alternative materials.

Technical Data

- Opening pressure: 0,5 bar / 7 PSI (4,5 bar / 65 PSI available on request)
- Maximum working pressure: 350 bar / 5000 PSI (for all sizes)
- Operating temperature range: -20 °C ... +100 °C / -4 °F ... +212 °F

Please see page 100 for detailed flow characteristics.

Recommended Bolts / Tightening Torques

- Socket cap screws according to ISO 4762 or ANSI / ASME B18.3 recommended for installation (not included in delivery):

DRVP-06 M6 x 20 - 8.8 (9 N-m)
 1/4-20 UNC x 3/4 - Gr. 5 (10 ft-lb)

DRVP-08 M6 x 25 - 8.8 (9 N-m)
 1/4-20 UNC x 1 - Gr. 5 (10 ft-lb)

DRVP-10 M6 x 30 - 10.9 (12 N-m)
 1/4-20 UNC x 1-1/4 - Gr. 8 (12 ft-lb)

DRVP-12 M6 x 35 - 12.9 (15 N-m)
 1/4-20 UNC x 1-1/2 - Gr. 10 (14 ft-lb)

DRVP-16 M8 x 50 - 10.9 (30 N-m)
 5/16-18 UNC x 2 - Gr. 8 (24 ft-lb)

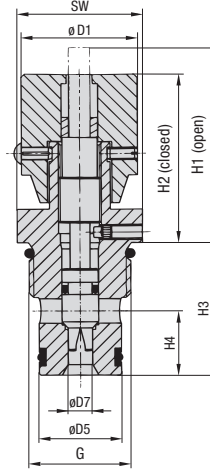
DRVP-20 M8 x 55 - 12.9 (35 N-m)
 5/16-18 UNC x 2-1/4 - Gr. 10 (29 ft-lb)

DRVP-25 M10 x 60 - 12.9 (70 N-m)
 3/8-16 UNC x 2-1/2 - Gr. 10 (58 ft-lb)

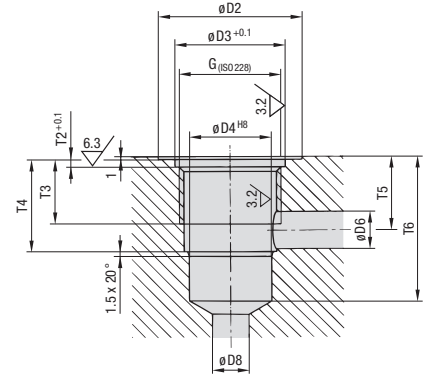
DRVP-30 M12 x 85 - 10.9 (100 N-m)
 7/16-14 x 3-1/2 - Gr. 8 (63 ft-lb)

DRVP-40 M12 x 100 - 12.9 (130 N-m)
 7/16-14 x 4 - Gr. 10 (70 ft-lb)

Throttle and Shut-Off Valve - Type DVE (Cartridge Assembly)



Installation Details



Characteristics

Throttle and shut-off the flow of liquid media in both directions

Features

- Designed for direct installation into hydraulic manifolds with male BSP threaded stud
- Graduated turning knob and coded spindle to accurately control flow
- Set-screw located on side of turning knob to lock valve in position

Media Compatibility

- Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

Please contact STAUFF before using with other media.

Materials

- Body and spindle made of Steel (1.0715), zinc/iron-plated (Fe/Zn Fe Co 8 C) and free of hexavalent chromium CrVI (standard option); Stainless Steel (1.4571) version available
- Turning knob made of Polyamide (PA)
- O-rings made of NBR (Buna-N®); FKM (Viton®) and EPDM sealed version available

Contact STAUFF for alternative materials.

Technical Data

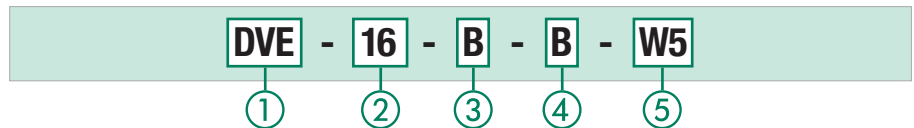
- Maximum working pressure: 350 bar / 5000 PSI (for all sizes)
- Operating temperature range: -20°C ... +100°C / -4°F ... +212°F

Please see page 100 for detailed flow characteristics.

Dimensions

Type + Nom. Size	Thread Options G	Dimensions (mm/in)																Weight (kg/lbs)		
		H1	H2	H3	H4	ØD1	ØD2	ØD3	ØD4	ØD5	ØD6	ØD7	ØD8	SW	T2	T3	T4		T5	T6
DVE-08	G1/2BSP	47	41	28	12,0	29	32	24	14	14	5	5	5	27	1,9	14	17,5	15	29	0,15
		1.85	1.61	1.08	.47	1.14	1.26	.94	.55	.20	.20	.20	1.06	.07	.55	.69	.59	1.14	.33	
DVE-10	G1/2BSP	64	54	31	14,5	38	32	24	16	16	8	6	8	27	1,9	14	20,5	17	33	0,25
		2.52	2.13	1.21	.57	1.50	1.26	.94	.63	.63	.31	.24	.31	1.06	.07	.55	.81	.67	1.30	.55
DVE-12	G3/4BSP	65	55	40	17,5	38	37	30	19	19	10	8	10	32	1,9	21	29,0	24	43	0,50
		2.56	2.17	1.57	.69	1.50	1.46	1.18	.75	.75	.39	.31	.39	1.26	.07	.83	1.14	.94	1.69	1.10
DVE-16	G1 BSP	65	55	44	21,1	38	47	36	27	27	12	8	12	41	1,9	21	30,0	24	47	0,70
		2.56	2.17	1.71	.83	1.50	1.85	1.42	1.06	1.06	.47	.31	.47	1.61	.07	.83	1.18	.94	1.85	1.54

Order Codes



① Type

Throttle and Shut-Off Valve (Cartridge Assembly) **DVE**

② Nominal Size DN

08 **10** **12** **16**

③ Sealing Material

NBR (Buna-N®) (standard option) **B**
 FKM (Viton®) **V**
 EPDM **E**

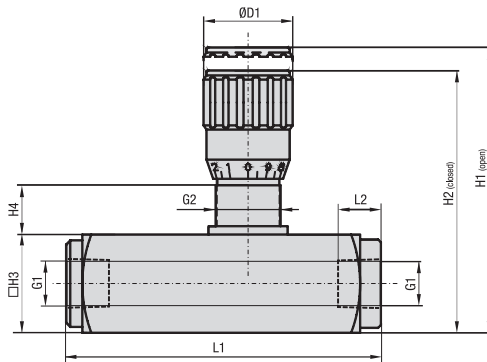
④ Connection

Male BSP thread (ISO 228) **B**

⑤ Body / Spindle Material

Steel, zinc/iron-plated (standard option) **—**
 Stainless Steel **W5**

Pressure Compensated Flow Control Valve - Type PNDRV (In-Line Assembly)

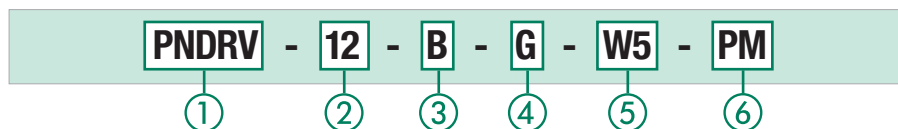


Dimensions

Type + Nominal Size	Thread Options G1	Dimensions (mm/in)						G2	Weight (kg/lbs)
		L1	L2	H1	H2	H3	H4		
PNDRV-08	G1/4 BSP	94	12,5	88,5	81,5	30	15	M20 x 1	0,58
	1/4 NPT								
PNDRV-10	7/16-20 UNF (1/4" SAE)	3.70	.49	3.48	3.21	1.18	.59	M25 x 1,5	.77
	G3/8 BSP	110,5	13	103	94,5	35	17		
PNDRV-12	3/8 NPT							M25 x 1,5	2.09
	9/16-18 UNF (3/8" SAE)	4.35	.51	4.06	3.72	1.38	.67		
PNDRV-16	G1/2 BSP	137	15,5	122	112	45	18	M30 x 1,5*	1,83
	1/2 NPT								
PNDRV-16	3/4-16 UNF (1/2" SAE)	5.39	.61	4.80	4.41	1.77	.71	M40 x 1,5	4.07
	3/4 NPT	163	17	150	138	55	24		
PNDRV-16	G3/4 BSP							M40 x 1,5	3,35
	1-1/16-12 UN (3/4" SAE)	6.42	.67	5.91	5.43	2.17	.94		

* M25 x 1,5 for version with female UN/UNF thread (SAE J514)

Order Codes



① Type

Pressure Compensated Flow Control Valve (In-Line Assembly) **PNDRV**

② Nominal Size DN

08 10 12 16

③ Sealing Material

NBR (Buna-N®) (standard option) **B**
FKM (Viton®) **V**

④ Connection

Female BSP thread (ISO 228) **G**
Female NPT thread (ANSI B1.20.1) **N**
Female UN/UNF thread (SAE J514) **U**

⑤ Body Material

Steel, phosphated (standard option) **-**
Stainless Steel **W5**

⑥ Panel Mounting Nut

Without panel mounting nut (standard option) **-**
With panel mounting nut **PM**

Characteristics

Throttle and shut-off the flow of liquid media in direction A-B (free flow in reverse direction) with pressure compensating feature via built-in compensating piston

Features

- Designed for in-line assembly with female BSP, NPT and SAE threaded connections
- Panel mounting nuts available on request
- Graduated turning knob to accurately control flow
- Set-screw located on side of turning knob to lock valve in position

Media Compatibility

- Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

Please contact STAUFF before using with other media.

Materials

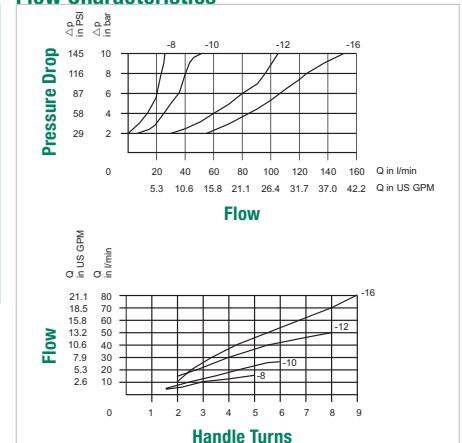
- Body made of Steel, phosphated
- Internal components made of Stainless Steel
- Turning knob made of Aluminium
- O-rings made of NBR (Buna-N®)
- Anti-extrusion ring made of PTFE

Contact STAUFF for alternative materials.

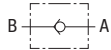
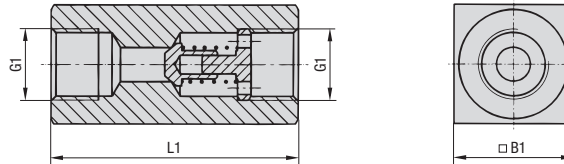
Technical Data

- Maximum working pressure: 210 bar / 3000 PSI (for all sizes)
- Operating temperature range: -20 °C ... +120 °C / -4 °F ... +248 °F
- Minimum filtration grade: 25 µm (absolute) to ensure the correct functioning, reduce wear and tear and increase the service life of the valve

Flow Characteristics



Heavy-Duty Check Valve - Type RV (In-Line Assembly)



Characteristics

Allows a single-directional flow only

Features

- Designed for in-line assembly with female BSP, NPT and SAE threaded connections
- Metal-to-metal seat

Media Compatibility

- Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

Please contact STAUFF before using with other media.

Materials

- Body made of Steel (1.0715), zinc/iron-plated (Fe/Zn Fe Co 8 C) and free of hexavalent chromium CrVI (standard option); Stainless Steel (1.4571) version available

Technical Data

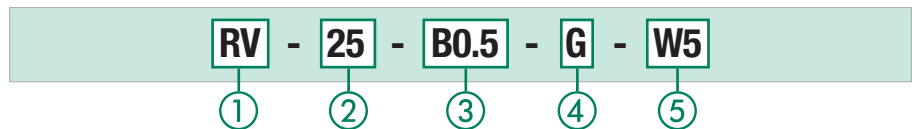
- Opening pressure: 0,5 bar / 7 PSI (4,5 bar / 65 PSI available on request)
- Maximum working pressure: 500 bar / 7250 PSI (depending on size)
- Operating temperature range: -20 °C ... +100 °C / -4 °F ... +212 °F

Please see page 100 for detailed flow characteristics.

Dimensions

Typ + Nominal Size	Thread Options G1	Dimensions (mm/in)			Working Pressure PN (bar/PSI)		Weight (kg/lbs)
		L1 only BSP / NPT	L1 only SAE	B1	Carbon Steel	Stainless Steel	
RV-06	G1/8 BSP 1/8 NPT	45	/	16	500	350	0,10
		1.77		.63	7250	5076	.22
RV-08	G1/4 BSP 1/4 NPT 7/16-20 UNF (1/4" SAE)	55	54,5	25	500	350	0,20
		2.17	2.15	.98	7250	5076	.44
RV-10	G3/8 BSP 3/8 NPT 9/16-18 UNF (3/8" SAE)	65	65	30	500	350	0,40
		2.56	2.56	1.18	7250	5076	.88
RV-12	G1/2 BSP 1/2 NPT 3/4-16 UNF (1/2" SAE)	73	73	35	500	350	0,70
		2.87	2.87	1.38	7250	5076	1.54
RV-16	G3/4 BSP 3/4 NPT 1-1/16-12 UN (3/4" SAE)	88	97,5	45	500	350	1,20
		3.46	3.84	1.77	7250	5076	2.64
RV-20	G1 BSP 1 NPT 1-5/16-12 UN (1" SAE)	127	127,5	50	500	350	2,00
		5.00	5.02	1.97	7250	5076	4.40
RV-25	G1-1/4 BSP 1-1/4 NPT 1-5/8-12 UN (1-1/4" SAE)	143	141,5	60	400	350	3,30
		5.63	5.57	2.36	5800	5076	7.26
RV-30	G1-1/2 BSP 1-1/2 NPT 1-7/8-12 UN (1-1/2" SAE)	143	139,5	70	350	350	4,20
		5.63	54.92	2.75	5000	5076	9.24
RV-40	G2 BSP 2 NPT 2-1/2-12 UN (2" SAE)	165	165	90	350	350	7,20
		6.49	6.50	3.54	5000	5076	15.84

Order Codes



① Type

Heavy-Duty Check Valve (In-Line Assembly) **RV**

② Nominal Size DN

06 08 10 12 16 20 25 30 40

③ Opening Pressure

0,5 bar / 7 PSI (standard option) **B0.5**
4,5 bar / 65 PSI **B4.5**

④ Connection

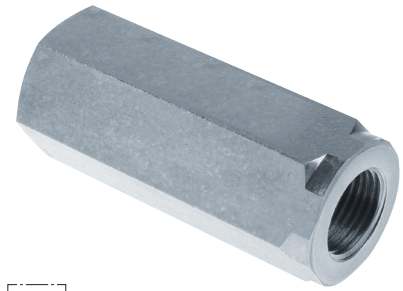
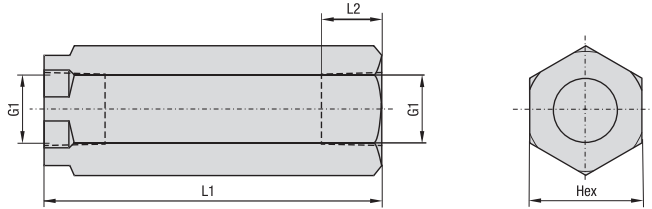
Female BSP thread (ISO 228) **G**
Female NPT thread (ANSI B1.20.1) **N**
Female UN/UNF thread (SAE J514) **U**

⑤ Body Material

Steel, zinc/iron-plated (standard option) **-**
Stainless Steel **W5**

Contact STAUFF for alternative opening pressures.

Medium-Duty Check Valve - Type RVM (In-Line Assembly)



Dimensions

Type + Nominal Size	Thread Options G1	Dimensions (mm/in)			Working Pressure PN (bar/PSI)	Weight (kg/lbs)
		L1	L2	Hex		
RVM-08	G1/4 BSP 1/4 NPT	63,0	12,5	22	400	0,17
		2.48	.49	.87	5800	.38
RVM-10	G3/8 BSP 3/8 NPT	69,0	12,5	27	400	0,26
		2.72	.49	1.06	5800	.58
RVM-12	G1/2 BSP 1/2 NPT	80,5	15,5	32	400	0,42
		3.17	.61	1.26	5800	.93
RVM-16	G3/4 BSP 3/4 NPT	99,5	17,0	36	400	0,61
		3.92	.67	1.42	5800	1.36

Characteristics

Allows a single-directional flow only

Features

- Designed for in-line assembly with female BSP and NPT threaded connections
- Ideal for medium-duty applications
- Metal-to-metal seat

Media Compatibility

- Suitable for use with mineral and petroleum based hydraulic fluids (HL and HLP)

Please contact STAUFF before using with other media.

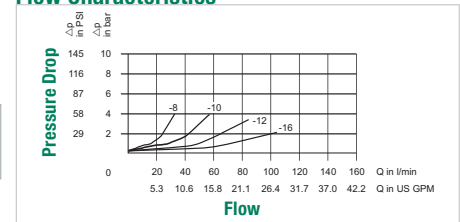
Materials

- Body made of Steel, zinc-plated
- Ball made of Stainless Steel

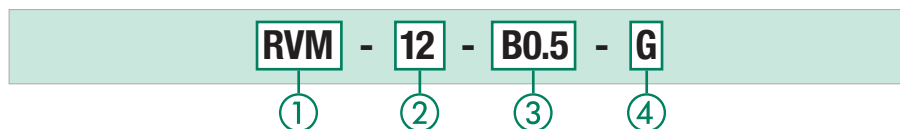
Technical Data

- Opening pressure: 0,5 bar / 7 PSI
- Field replaceable springs with a pressure setting of 2 bar / 30 PSI or 4 bar / 60 PSI
- Maximum working pressure: 400 bar / 5800 PSI (for all sizes)
- Operating temperature range: -20 °C ... +100 °C / -4 °F ... +212 °F

Flow Characteristics



Order Codes



① Type

Medium-Duty Check Valve (In-Line Assembly) **RVM**

② Nominal Size DN

08 **10** **12** **16**

③ Opening Pressure

0,5 bar / 7 PSI (standard option) **B0.5**
 2 bar / 30 PSI **B2.0**
 4 bar / 60 PSI **B4.0**

Contact STAUFF for alternative opening pressures.

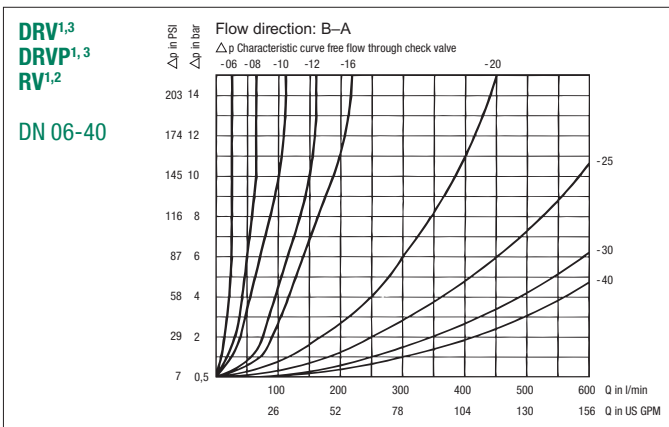
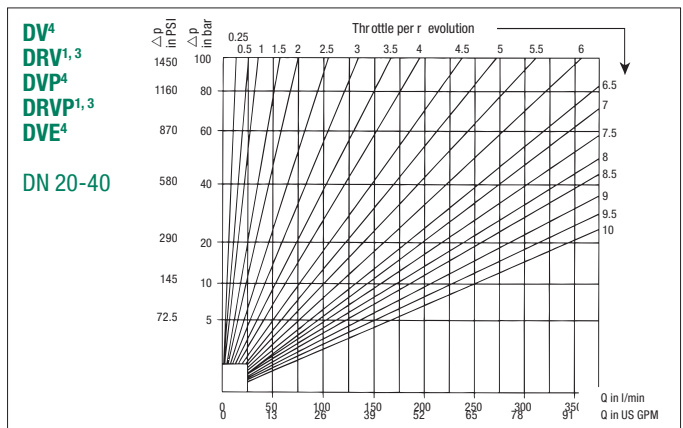
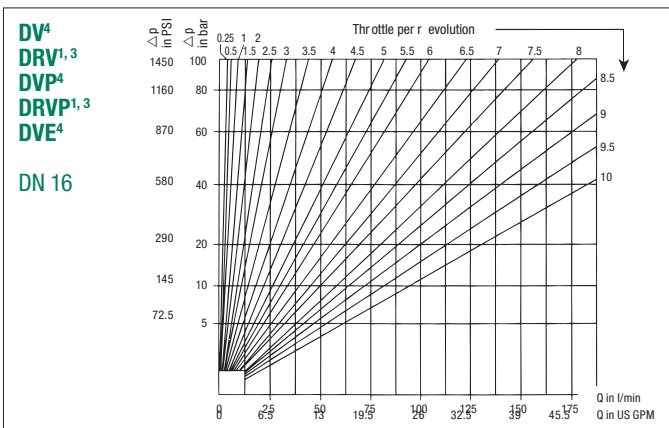
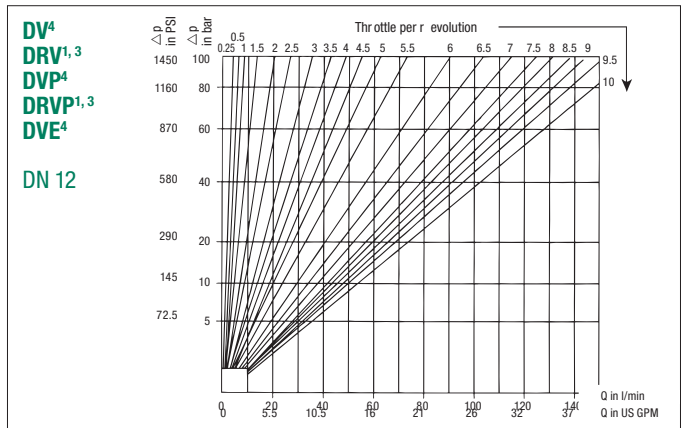
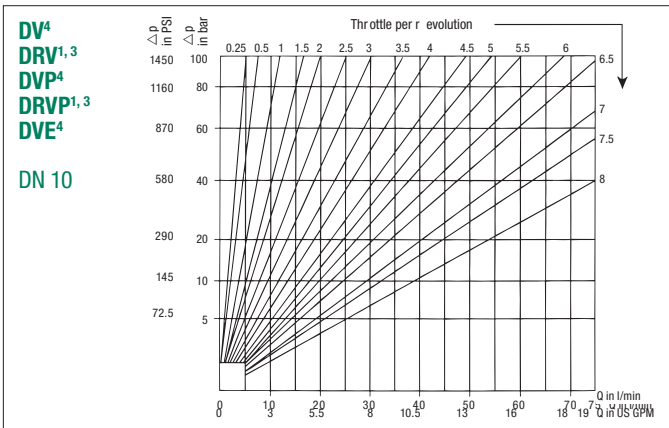
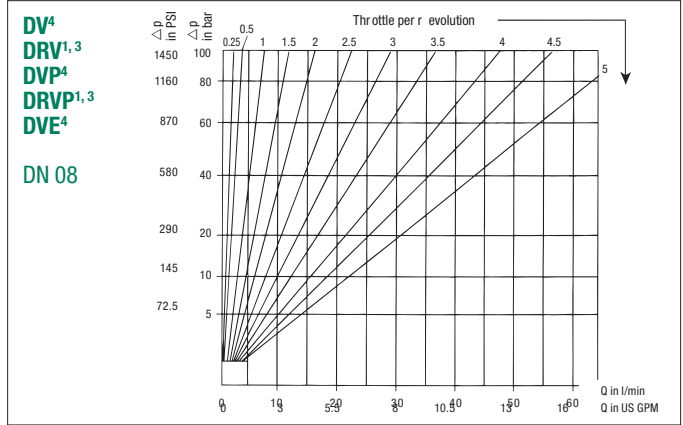
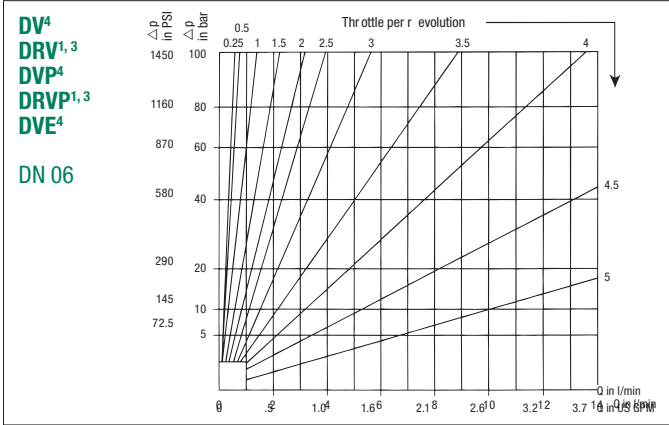
④ Connection

Female BSP thread (ISO 228) **G**
 Female NPT thread (ANSI B1.20.1) **N**

Contact STAUFF for alternative pressure settings.

Flow Characteristics

C



Please note:

The flow characteristics displayed on this page are valid for mineral oils with a density of 0,86 kg/dm³ and the kinematic viscosity of 35 mm²/s (35 cSt).

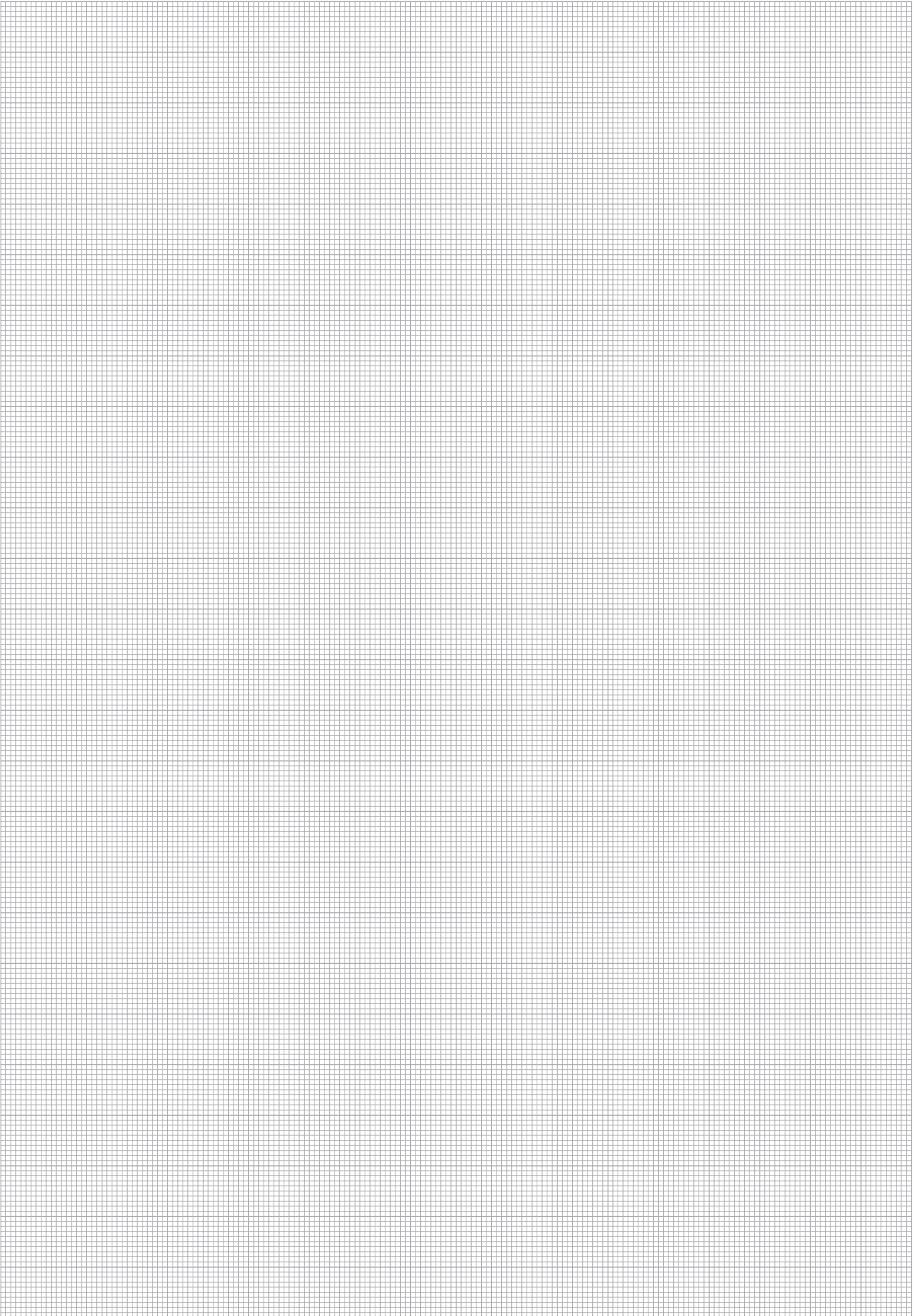
The characteristics have been determined in accordance to ISO 3968.

¹Due to spring and manufacturing tolerances cracking pressures may deviate by ± 30%

²Leakage rate of check valve DIN EN 12266 - leakage rate C-D (test medium water)

³Flow control valves should not be used as shut-off device. Small leakage rates may occur in fully closed position. (DIN EN 12266 - leakage rate A-B - test medium water) Leakage rate of check valve - DIN EN 12266 - leakage rate C-D

⁴Flow control valves should not be used as shut-off device. Small leakage rates may occur in fully closed position. (DIN EN 12266 - leakage rate A-B - test medium water)



C