

BKH HIGH PRESSURE BALL VALVE (400 BAR/-45 °C~+200 °C)

I) BKH High Pressure Ball Valve (DN4~25 mm)

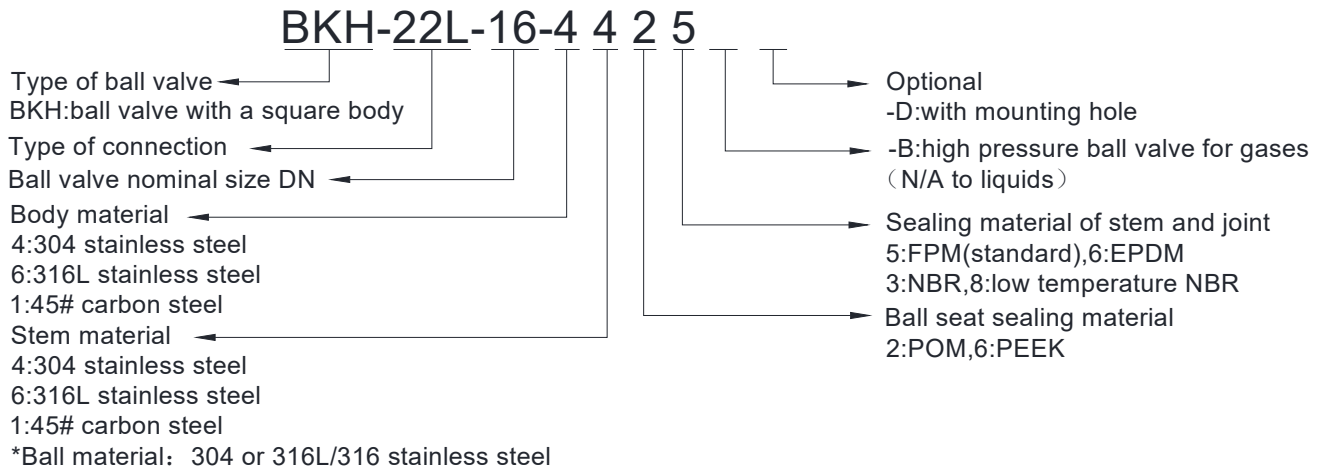
Features: high pressure rating and high safety; carbon steel and 304/316L stainless steel ball valves can all be provided with a stainless steel handle; pressure rating (max. working pressure) up to 400 bar.

II) BKH-B High Pressure Ball Valve for Gases

Features: special seal design; all ball valves have undergone low and high pressure gas tests.



Ordering Information



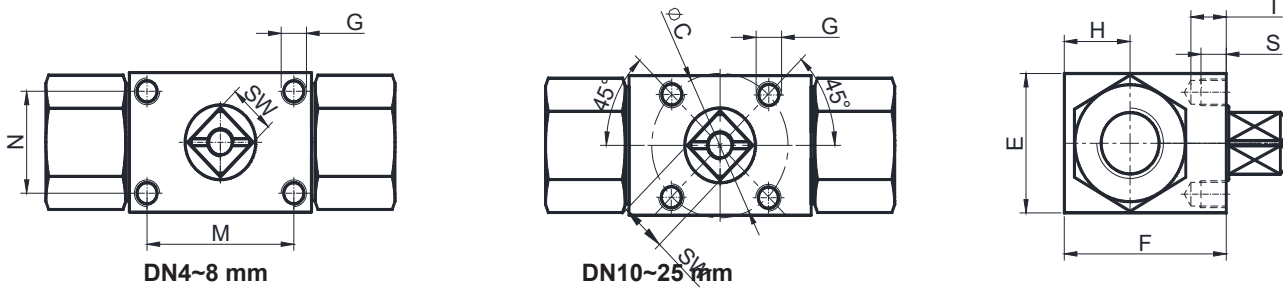
BKH Ball Valve Sealing Materials

Type	Material	Uses
Metal Material	304 stainless steel	Intended for water, air and slightly corrosive media; temperature: -196°C~+400°C
	316L stainless steel	Intended for weak acids, alkalis and other corrosive media; temperature: -196°C~+500°C
	45# carbon steel	Common oil hydraulic systems without special material requirements, etc.; surface galvanized; temperature: -45°C~+250°C
Ball Seat Seal	POM	Mainly used for non-corrosive oils, water and gases; temperature: -30°C~+100°C
	PEEK	Relatively good corrosion resistance; wide temperature range: -60°C~+250°C
O-ring	NBR	Intended for oils, water, air and other non-corrosive media; temperature: -35°C~+100°C
	Low temperature NBR	Intended for oils, water, air and other media at low ambient temperature; temperature: -45°C~+100°C
	FPM	Good chemical adaptability; especially suitable for oils and concentrated acids; temperature: -25°C~+200°C
	EPDM	Intended for ammonia, steam, formaldehyde and ethylene glycol; mineral oil intolerant; temperature: -50°C~+130°C

Common Material Combinations of BKH Ball Valves

Material	Combination Code	Ordering Number (example)	Body	Ball Seat Seal	Stem Seal	Applicable Media
Stainless Steel Ball Valve	4425	BKH-G3/4-20-4425	304	POM	FPM	Water, oil and other neutral media; -25°C~+100°C
	4423-B	BKH-G3/4-20-4423-B	304	POM	NBR	Air or nitrogen and other neutral gas, -30°C~+100°C
	6665	BKH-G3/4-20-6665	316L	PEEK	FPM	Applicable to high-temperature or corrosive media; -25°C~+200°C
Carbon Steel Ball Valve	1123	BKH-G3/4-20-1123	45#	POM	NBR	Oils; -25°C~+100°C
	1168	BKH-G3/4-20-1168	45#	PEEK	Low temperature NBR	Oils at low ambient temperature; -45°C~+100°C

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Body Dimensions, Mounting Hole Dimensions and Max. Working Pressures [mm]

Nominal Size DN	Max. Working Pressure [bar]	SW	E	F	H	G	C	M	N	S	T	Mounting Hole Code
4-8	400	9	26	32	13.0	M5	-	29	19	5	7	-
10	400	9	32	38	16.5	M5	36	-	-	7	9	F03
13	400	9	35	40	17.5	M5	36	-	-	7	9	F03
16	350	12	39	47	20.0	M5	42	-	-	7	9	F04
20	350	14	49	58	24.5	M6	50	-	-	8	11	F05
25	315	14	55	63	28.0	M6	50	-	-	8	11	F05

If ball valves with mounting hole are required, add "-D" to the end of the ordering number, for example: **BKH-G1-25-4425-D**.

Table of Technical Data of Ball Valves [mm]

Diagram	Stainless Steel Ball Valve Ordering Number	Carbon Steel Ball Valve Ordering Number	DN	D	L	A	B	Pressure Rating [bar]
<p>G Female Thread</p>	BKH-G1/8-04-4425	BKH-G1/8-04-1123	4	G1/8	69	55.5	107	400
	BKH-G1/4-06-4425	BKH-G1/4-06-1123	6	G1/4	69	55.5	107	400
	BKH-G3/8-08-4425	BKH-G3/8-08-1123	8	G3/8	69	55.5	107	400
	BKH-G3/8-10-4425	BKH-G3/8-10-1123	10	G3/8	73	58.0	107	400
	BKH-G1/2-13-4425	BKH-G1/2-13-1123	13	G1/2	85	59.0	107	400
	BKH-G3/4-20-4425	BKH-G3/4-20-1123	20	G3/4	96	78.0	160	350
	BKH-G1-25-4425	BKH-G1-25-1123	25	G1	115	79.5	160	315
<p>NPT Female Thread</p>	BKH-1/8NPT-04-4425	BKH-1/8NPT-04-1123	4	1/8NPT	69	55.5	107	400
	BKH-1/4NPT-06-4425	BKH-1/4NPT-06-1123	6	1/4NPT	69	55.5	107	400
	BKH-3/8NPT-10-4425	BKH-3/8NPT-10-1123	10	3/8NPT	73	58.0	107	400
	BKH-1/2NPT-13-4425	BKH-1/2NPT-13-1123	13	1/2NPT	85	59.0	107	400
	BKH-3/4NPT-20-4425	BKH-3/4NPT-20-1123	20	3/4NPT	97	78.0	160	350
	BKH-1NPT-25-4425	BKH-1NPT-25-1123	25	1NPT	114	79.5	160	315

BKH HIGH PRESSURE BALL VALVE (400 BAR/-45 °C~+200 °C)

Diagram	Stainless Steel Ball Valve Ordering Number	Carbon Steel Ball Valve Ordering Number	DN	d	L	A	B	Pressure Rating [bar]
Compression Fitting DIN2353 "L" Series 	E-BKH-06L-04-4425	C-BKH-06L-04-1123	4	6	83	55.5	107	315
	E-BKH-08L-06-4425	C-BKH-08L-06-1123	6	8	83	55.5	107	315
	E-BKH-10L-08-4425	C-BKH-10L-08-1123	8	10	86	55.5	107	315
	E-BKH-12L-10-4425	C-BKH-12L-10-1123	10	12	91	58.0	107	315
	E-BKH-15L-13-4425	C-BKH-15L-13-1123	13	15	102	59.0	107	315
	E-BKH-18L-13-4425	C-BKH-18L-13-1123	13	18	106	59.0	107	315
	E-BKH-22L-16-4425	C-BKH-22L-16-1123	16	22	112	82.0	152	250
	E-BKH-28L-20-4425	C-BKH-28L-20-1123	20	28	128	78.0	160	250
	E-BKH-35L-25-4425	C-BKH-35L-25-1123	25	35	140	79.5	160	250
Compression Fitting DIN2353 "S" Series 	E-BKH-12S-08-4425	C-BKH-12S-08-1123	8	12	94	55.5	107	400
	E-BKH-14S-10-4425	C-BKH-14S-10-1123	10	14	104	58.0	107	400
	E-BKH-16S-13-4425	C-BKH-16S-13-1123	13	16	109	59.0	107	400
	E-BKH-20S-16-4425	C-BKH-20S-16-1123	16	20	115	82.0	152	350
	E-BKH-25S-20-4425	C-BKH-25S-20-1123	20	25	138	78.0	160	350
	E-BKH-30S-25-4425	C-BKH-30S-25-1123	25	30	154	79.5	160	315

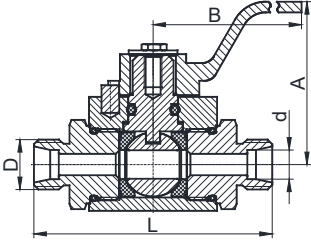
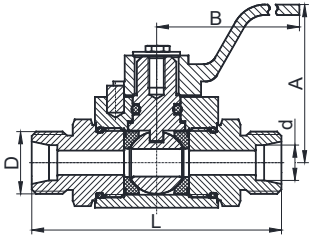
Note: If ferrules without O-ring are required, change "E-" to "C-", for example: C-BKH-16S-13-4425.

Diagram	Stainless Steel Ball Valve Ordering Number	Carbon Steel Ball Valve Ordering Number	DN	S *	d	L	A	B	Pressure Rating [bar]
Weld Fitting DIN2353 "L" Series 	W-BKH-06L-04-4425	W-BKH-06L-04-1123	4	1.5	6	116	55.5	107	315
	W-BKH-08L-06-4425	W-BKH-08L-06-1123	6	1.5	8	116	55.5	107	315
	W-BKH-10L-08-4425	W-BKH-10L-08-1123	8	1.5	10	122	55.5	107	315
	W-BKH-12L-10-4425	W-BKH-12L-10-1123	10	1.5	12	126	58.0	107	315
	W-BKH-15L-13-4425	W-BKH-15L-13-1123	13	2.0	15	144	59.0	107	315
	W-BKH-18L-13-4425	W-BKH-18L-13-1123	13	2.5	18	148	59.0	107	315
	W-BKH-22L-16-4425	W-BKH-22L-16-1123	16	3.0	22	155	82.0	152	250
	W-BKH-28L-20-4425	W-BKH-28L-20-1123	20	4.0	28	178	78.0	160	250
	W-BKH-35L-25-4425	W-BKH-35L-25-1123	25	4.0	35	190	79.5	160	250
Weld Fitting DIN2353 "S" Series 	W-BKH-12S-08-4425	W-BKH-12S-08-1123	8	2.0	12	128	55.5	107	400
	W-BKH-14S-10-4425	W-BKH-14S-10-1123	10	2.0	14	147	58.0	107	400
	W-BKH-16S-13-4425	W-BKH-16S-13-1123	13	2.5	16	150	59.0	107	400
	W-BKH-20S-16-4425	W-BKH-20S-16-1123	16	3.0	20	164	82.0	152	350
	W-BKH-25S-20-4425	W-BKH-25S-20-1123	20	4.0	25	190	78.0	160	350
	W-BKH-30S-25-4425	W-BKH-30S-25-1123	25	4.0	30	210	79.5	160	315

* If there is a high deviation of weld nipple wall thickness, specify when placing an order, for example: W-BKH-22L*4-16-

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4425, where “*4” indicates the weld nipple wall thickness S is 4.

Diagram	Stainless Steel Ball Valve Ordering Number	Carbon Steel Ball Valve Ordering Number	DN	D	d	L	A	B	Pressure Rating [bar]
 <p>Metric Thread 24° Cone DIN2353 “L” Series</p>	BKH-06L-04-4425	BKH-06L-04-1123	4	M12*1.5	6	67.0	55.5	107	400
	BKH-08L-06-4425	BKH-08L-06-1123	6	M14*1.5	8	67.0	55.5	107	400
	BKH-10L-08-4425	BKH-10L-08-1123	8	M16*1.5	10	71.0	55.5	107	400
	BKH-12L-10-4425	BKH-12L-10-1123	10	M18*1.5	12	75.0	58.0	107	315
	BKH-15L-13-4425	BKH-15L-13-1123	13	M22*1.5	15	84.0	59.0	107	315
	BKH-18L-13-4425	BKH-18L-13-1123	13	M26*1.5	18	84.0	59.0	107	315
	BKH-22L-16-4425	BKH-22L-16-1123	16	M30*2	22	90.0	82.0	152	250
	BKH-28L-20-4425	BKH-28L-20-1123	20	M36*2	28	106.0	78.0	160	250
	BKH-35L-25-4425	BKH-35L-25-1123	25	M45*2	35	116.0	79.5	160	250
 <p>Metric Thread 24° Cone DIN2353 “S” Series</p>	BKH-08S-04-4425	BKH-08S-04-1123	4	M16*1.5	8	73.0	55.5	107	400
	BKH-10S-06-4425	BKH-10S-06-1123	6	M18*1.5	10	73.0	55.5	107	400
	BKH-12S-08-4425	BKH-12S-08-1123	8	M20*1.5	12	77.0	55.5	107	400
	BKH-14S-10-4425	BKH-14S-10-1123	10	M22*1.5	14	84.0	58.0	107	400
	BKH-16S-13-4425	BKH-16S-13-1123	13	M24*1.5	16	87.0	59.0	107	400
	BKH-20S-16-4425	BKH-20S-16-1123	16	M30*2	20	94.0	82.0	152	350
	BKH-25S-20-4425	BKH-25S-20-1123	20	M36*2	25	110.0	78.0	160	350
	BKH-30S-25-4425	BKH-30S-25-1123	25	M42*2	30	125.0	79.5	160	315

Torque Curves

The working torque of ball valves depends on the pressure and ball seat sealing material. In the diagram, the working medium is oil, the seal is POM and (supposing water*1.2, air*1.4 and granular powder*1.6) actuator torque = 1.2*Torque (where: 1.2 is the safety factor).

Ball Valves with Lock

BKH series ball valves offered by EAGLE can all be provided with a structure for lock, thereby protecting the open/closed status of critical ball valves. The lock needs to be separately purchased by customers.

Please add “AV” to the end of the ordering number when placing an order, for example: **BKH-G1-25-4425-AV**.

