



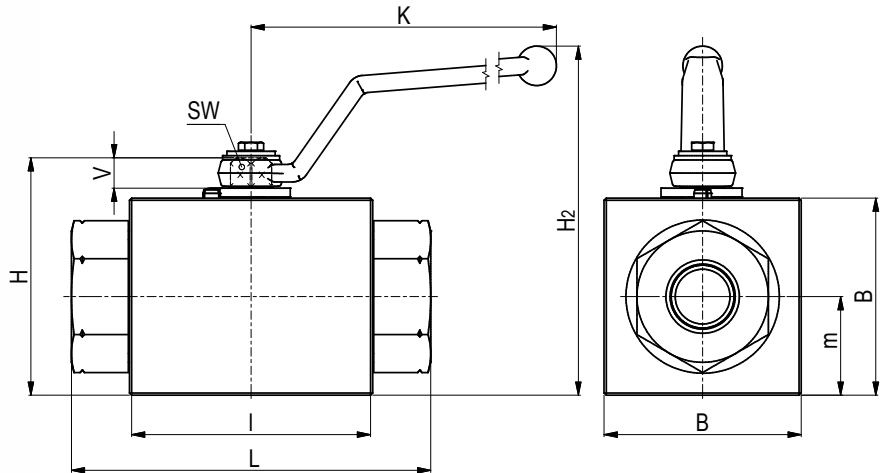
1945 - 2020



**MHA ZENTGRAF**  
FlowControlTechnology



CATALOG



## AVAILABLE SIZES

DN4 - DN25 (1/8" to 1")

## CONNECTIONS

DIN 2353/ISO 8434-1 Heavy series, ANSI B1.20.1 NPT Female thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes on request
- Position switches on request
- Combinations on request
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	81bA	81b8
Body	Steel	Steel
Ball	Steel	Steel
Stem	Steel	Steel
Ball seats	POM	POM
O-rings	NBR	FPM
Tmin /Tmax	-20°C / 100°C	-20°C / 100°C

## GENERAL DIMENSIONS

Type	L	B	H	m	V	SW	K	H <sub>2</sub>	Lever
BKHP800-DN4	76	50	64	25	11	9	115	101	St
BKHP800-DN6	76	50	64	25	11	9	115	101	St
BKHP800-DN8	76	50	64	25	11	9	115	101	St
BKHP800-DN10	76	50	64	25	11	9	115	101	St
BKHP800-DN13	76	50	64	25	11	9	115	101	St
BKHP800-DN20	111	90	108	45	14	14	171	159	St
BKHP800-DN25	111	90	108	45	14	14	171	159	St

Application-specific



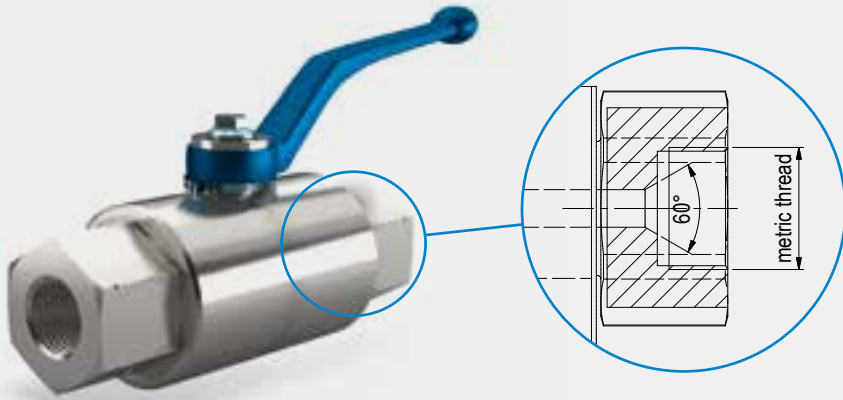
CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION		
DIN 2353/ISO 8434-1 HEAVY SERIES	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	81bA	81b8
	BKHP800-DN4-8S	5	8	110	7	M 16x1,5	1,60	800	59607	59613
	BKHP800-DN6-10S	6	10	114	7,5	M 18x1,5	1,60	800	59608	59614
	BKHP800-DN8-12S	8	12	114	7,5	M 20x1,5	1,64	800	59609	59615
	BKHP800-DN10-14S	13	14	114	8	M 22x1,5	1,56	800	59610	59616
	BKHP800-DN13-16S	13	16	114	8,5	M 24x1,5	1,58	800	59611	59617
	BKHP800-DN13-20S	13	20	118	10,5	M 30x2	1,63	800	59612	59618
	BKHP800-DN20-25S	20	25	162	12	M 36x2	7,31	800	27019	59619
	BKHP800-DN25-30S	25	30	166	13,5	M 42x2	7,40	800	54861	51182

ANSI B1.20.1 NPT FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	81bA	81b8
	BKHP800-DN6-1/4"NPT	6	130	13,7	1/4" NPT	1,92	800	59620	59623
	BKHP800-DN10-3/8"NPT	13	130	13,5	3/8" NPT	1,85	800	59621	59624
	BKHP800-DN13-1/2"NPT	13	130	17	1/2" NPT	1,79	800	59622	59625
	BKHP800-DN20-3/4"NPT	20	161	18,3	3/4" NPT	7,83	800	48989	51181
	BKHP800-DN25-1"NPT	25	164	21,6	1" NPT	7,68	800	30785	30164

Application-specific

Please note the pressure ratings of the tube connections!

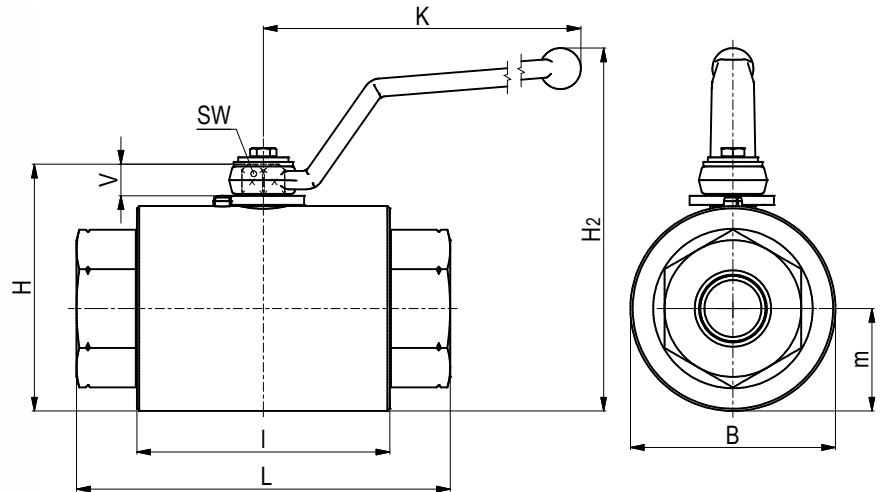
## Available up to 2000 bar!



**MHA ZENTGRAF** can offer high pressure valves up to 2.000 bar (30.000 psi). Equipped with special high pressure connectors these valves are suitable for the most demanding applications.

# Highest-pressure ball valve Stainless Steel

## MKHP800



### AVAILABLE SIZES

DN4 - DN25 (1/8" to 1")

### CONNECTIONS

DIN 2353/ISO 8434-1 Heavy series, ANSI B1.20.1 NPT Female thread, others on request

### ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Position switches on request
- Combinations on request

### MATERIAL CODE DESCRIPTION

Materials	44bA	44b8
Body	Stainless Steel	Stainless Steel
Ball	Stainless Steel	Stainless Steel
Stem	Stainless Steel	Stainless Steel
Ball seats	POM	POM
O-rings	NBR	FPM
Tmin /Tmax	-30°C / 100°C	-20°C / 100°C

### GENERAL DIMENSIONS

Type	L	B	H	m	V	SW	K	H <sub>2</sub>	Lever
MKHP800-DN4	76	50	64	25	11	9	115	101	St
MKHP800-DN6	76	50	64	25	11	9	115	101	St
MKHP800-DN8	76	50	64	25	11	9	115	101	St
MKHP800-DN10	76	50	64	25	11	9	115	101	St
MKHP800-DN13	76	50	64	25	11	9	115	101	St
MKHP800-DN20	111	90	108	45	14	14	171	159	St
MKHP800-DN25	111	90	108	45	14	14	171	159	St

Application-specific

# Highest-pressure ball valve Stainless Steel

## MKHP800



CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION		
DIN 2353/ISO 8434-1 HEAVY SERIES	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	44bA	44b8
	MKHP800-DN4-8S	5	8	110	7	M 16x1,5	1,23	800	59626	59627
	MKHP800-DN6-10S	6	10	114	7,5	M 18x1,5	1,34	800	59628	59629
	MKHP800-DN8-12S	8	12	114	7,5	M 20x1,5	1,35	800	59630	59631
	MKHP800-DN10-14S	13	14	114	8	M 22x1,5	1,28	800	59632	59633
	MKHP800-DN13-16S	13	16	114	8,5	M 24x1,5	1,27	800	59634	59636
	MKHP800-DN13-20S	13	20	118	10,5	M 30x2	1,30	800	59635	59637
	MKHP800-DN20-25S	20	25	162	12	M 36x2	5,80	800	59638	59639
	MKHP800-DN25-30S	25	30	166	13,5	M 42x2	5,80	800	59640	59641

ANSI B1.20.1 NPT FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44bA	44b8
	MKHP800-DN6-1/4"NPT	6	130	13,7	1/4" NPT	1,71	800	42144	59643
	MKHP800-DN10-3/8"NPT	13	130	13,5	3/8" NPT	1,55	800	59644	59645
	MKHP800-DN13-1/2"NPT	13	130	17	1/2" NPT	1,48	800	42143	59647
	MKHP800-DN20-3/4"NPT	20	161	18,3	3/4" NPT	6,42	800	54714	59649
	MKHP800-DN25-1"NPT	25	164	21,6	1" NPT	6,40	800	28804	59650

Application-specific

Please note the pressure ratings of the tube connections!

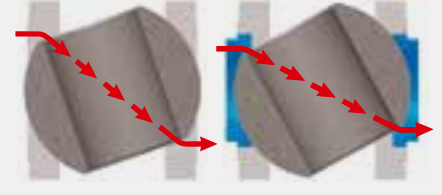


eroded ball seat

## Ball seat design for gas applications

During opening gas can cause significant damage to standard ball seats through increased flow rates.

The **MHA ZENTGRAF** seat design with an inner metal ring protects the ball seat from erosion and increases the lifetime of the ball valve significantly.

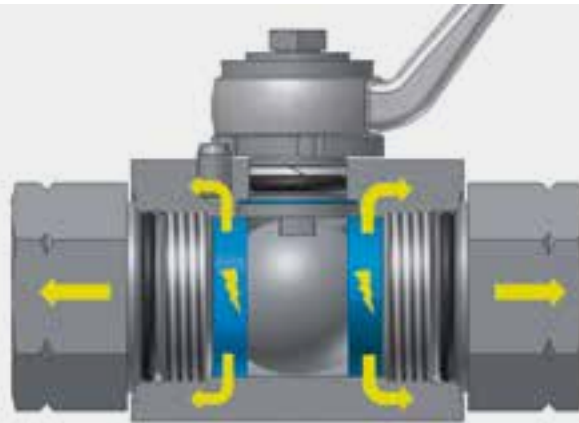
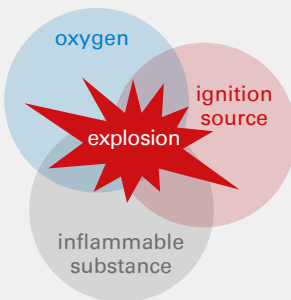


standard seat design

**MHA ZENTGRAF** gas seat design

## ATEX ball valves

Application-specific



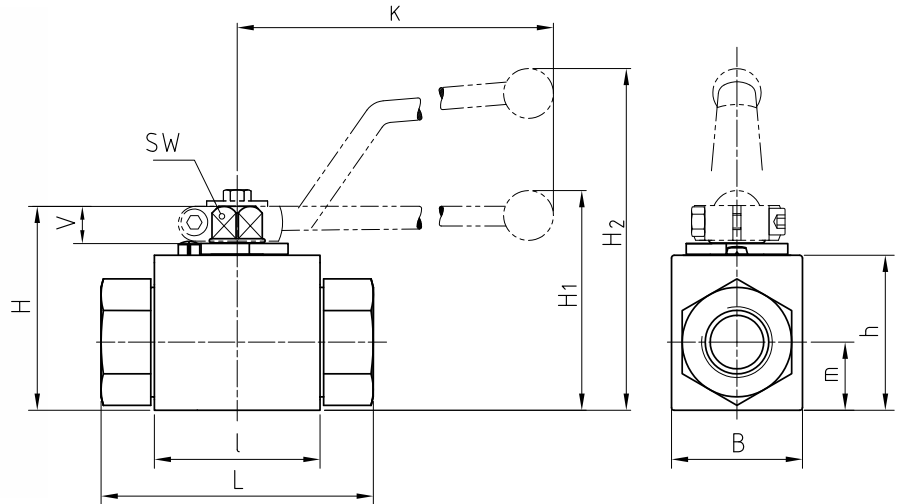
Explosions can cause loss of life and serious injuries as well as significant damage. The aim of the ATEX directive is both to apply a single level for health and safety requirements and to overcome trade barriers.

The main purpose of the ATEX directive is to minimize or completely eliminate the risk of ignition in explosive areas and to limit the harmful effects in case of an explosion. Explosive atmospheres (Ex areas) can be found where a mixture of air, flammable gases, vapors, mists or dusts are being produced, transformed or stored in the presence of oxygen. This may, for example, be the case in power plants, refineries, chemical facilities, paint facilities, air- and seaport storage tanks.

The new ATEX directive 2014/34/EU specifies some changes regarding ball valves classification.

According to that regulation ball valves are not allowed to be marked with the Ex-Symbol as they are not classified as "fast acting/shifting valves". Therefore they are said not to be affected by the ATEX directive.

Nevertheless **MHA ZENTGRAF** did a risk analysis in the past and found out that there is a risk of electrical current emerging inside the valve. Therefore **MHA ZENTGRAF** highly recommends special electrically discharging ball seats to be used for potentially explosive areas.



## AVAILABLE SIZES

DN4 - DN25 (1/8" to 1")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes 19
- Position switches 236 - 237
- Combinations 192 - 194
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	24HA	24aA
Body	Steel	Steel
Ball	Stainless Steel	Stainless Steel
Stem	Stainless Steel	Stainless Steel
Ball seats	POM*	PEEK-ATEX*
O-rings	NBR	NBR
Tmin / Tmax	-30°C / 100°C	-30°C / 100°C

\*with inner protection ring

## GENERAL DIMENSIONS

Type	l	B	H	h	m	V	SW	K	H <sub>1</sub>	H <sub>2</sub>	Lever
BKH-DN4	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN6	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN8	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN10	43	32	52	38	17,5	11	9	115	-	86	Zn
BKH-DN13	48	35	54	40	19	11	9	115	-	89	Zn
BKH-DN16	48	38	63	46	19	13	12	160	-	106	Al
BKH-DN20	62	49	75	57	24,5	14	14	200	79	-	Zn
BKH-DN25	66	58	83	65	29,5	14	14	200	87	-	Zn
BKH-DN25/32	66	58	83	65	29,5	14	14	200	87	-	Zn
BKH-DN25/40	66	58	83	65	29,5	14	14	200	87	-	Zn

Application-specific




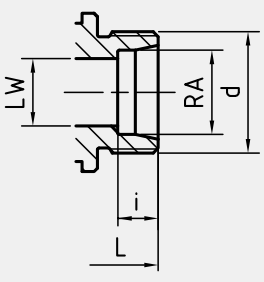
CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION			
DIN ISO 228 FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	24HA	24aA	
	BKH-DN4-G1/8	5	69	10	G1/8	0,41	500	39736*	39747	
	BKH-DN6-G1/4	6	69	14	G1/4	0,40	500	31410*	39748	
	BKH-DN10-G3/8	10	72	14	G3/8	0,54	500	32446*	39749	
	BKH-DN13-G1/2	13	83	16,3	G1/2	0,65	500	30191*	39750	
	BKH-DN16-G5/8	15	83	16	G5/8	0,70	400	39742*	39753	
	BKH-DN20-G3/4	20	95	18	G3/4	1,50	350	32493*	39754	
	BKH-DN25-G1	25	113	20	G1	2,20	350	32328*	39755	
	BKH-DN25/32-G1 1/4	25	120	22	G1 1/4	2,30	350	39745*	39756	
	BKH-DN25/40-G1 1/2	25	130	24	G1 1/2	2,60	350	39746*	39757	
ANSI B1.20.1 NPT FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	24HA	24aA	
	BKH-DN4-1/8"NPT	5	69	10,5	1/8"NPT	0,30	500	39774*	39782	
	BKH-DN6-1/4"NPT	6	69	13,7	1/4"NPT	0,40	500	32161*	39783	
	BKH-DN10-3/8"NPT	10	72	13,5	3/8"NPT	0,55	500	39776*	39784	
	BKH-DN13-1/2"NPT	13	83	17	1/2"NPT	0,75	500	33235*	39785	
	BKH-DN20-3/4"NPT	20	95	18,3	3/4"NPT	1,63	350	39778*	39786	
	BKH-DN25-1"NPT	25	113	21,6	1"NPT	2,30	350	34052*	39787	
	BKH-DN25/32-1 1/4"NPT	25	120	22,1	1 1/4"NPT	2,51	350	39780*	39788	
	BKH-DN25/40-1 1/2"NPT	25	130	22,1	1 1/2"NPT	2,70	250	39781*	39789	
	DIN 2353 / ISO 8434-1 LIGHT SERIES	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	24HA
	BKH-DN4-6L	5	6	67	7	M 12x1,5	0,36	500	32290*	39413
	BKH-DN6-8L	6	8	67	7	M 14x1,5	0,37	500	39402*	39414
	BKH-DN8-10L	8	10	74	7	M 16x1,5	0,38	500	33257*	39415
	BKH-DN10-12L	10	12	74	7	M 18x1,5	0,50	500	31729*	39416
	BKH-DN13-15L	13	15	82	7	M 22x1,5	0,61	500	39405*	39417
	BKH-DN13-18L	13	18	82	7,5	M 26x1,5	0,60	500	39407*	39419
	BKH-DN16-18L	15	18	82	7,5	M 26x1,5	0,75	400	39408*	39420
	BKH-DN20-22L	20	22	101	7,5	M 30x2	1,49	350	31746*	39421
	BKH-DN25-28L	25	28	108	7,5	M 36x2	2,00	350	39410*	39422
	BKH-DN25/32-35L	25	35	112	10,5	M 45x2	2,12	350	39411*	39423
	BKH-DN25/40-42L	25	42	112	11	M 52x2	2,27	315	39412*	39424


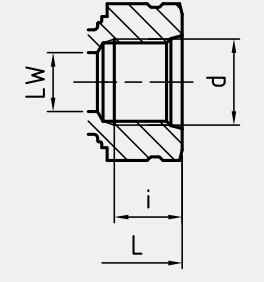
Application-specific

Please note the pressure ratings of the tube connections!

\*Article usually in stock.



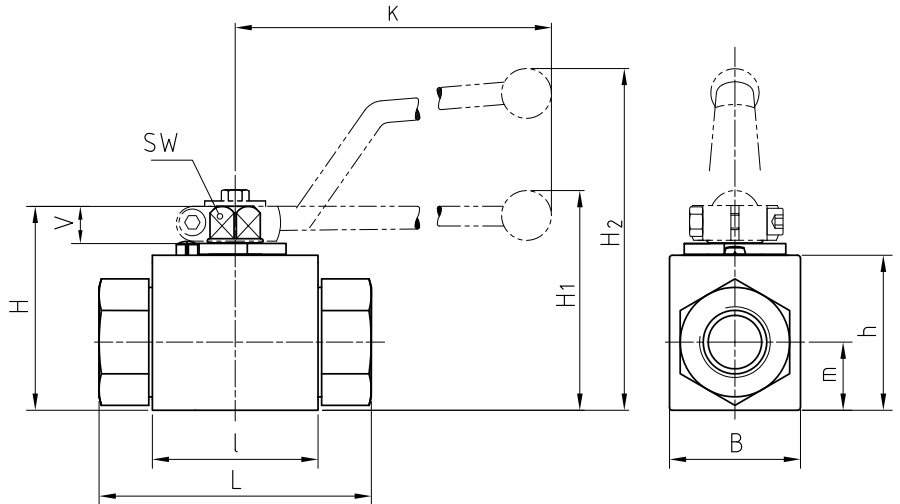
CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION		
	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	24HA	24aA 
<b>DIN 2353 / ISO 8434-1 HEAVY SERIES</b>  	BKH-DN4-8S	5	8	73	7	M 16x1,5	0,38	500	32201*	39703
	BKH-DN6-10S	6	10	73	7,5	M 18x1,5	0,39	500	39693*	39704
	BKH-DN8-12S	8	12	76	7,5	M 20x1,5	0,39	500	27199*	39705
	BKH-DN10-14S	10	14	80	8	M 22x1,5	0,50	500	39695*	39706
	BKH-DN13-16S	13	16	86	8,5	M 24x1,5	0,60	500	39696*	39707
	BKH-DN13-20S	13	20	90	10,5	M 30x2	0,60	500	39698*	39709
	BKH-DN16-20S	15	20	90	10,5	M 30x2	0,80	400	28960*	39710
	BKH-DN20-25S	20	25	109	12	M 36x2	1,55	350	39700*	39711
	BKH-DN25-30S	25	30	120	13,5	M 42x2	2,10	350	39701*	39712
	BKH-DN25/32-38S	25	38	124	16	M 52x2	2,30	315	39702*	39713

CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	24HA	24aA 
<b>SAE J514/ISO/DIS11926-1 FEMALE THREAD</b>  	BKH-DN6-7/16" UNF	5	69	12	7/16"-20 UNF	0,39	500	39800*	39805
	BKH-DN10-9/16" UNF	10	72	13	9/16"-18 UNF	0,54	500	39801*	39806
	BKH-DN13-3/4" UNF	13	83	15	3/4"-16 UNF	0,82	500	39802*	39807
	BKH-DN20-1 1/16" UN	20	95	20	1 1/16"-12 UN	1,57	350	39803*	39808
	BKH-DN25-1 5/16" UN	25	113	20	1 5/16"-12 UN	2,30	350	39804*	39809

Please note the pressure ratings of the tube connections!

\*Article usually in stock.

Application-specific



## AVAILABLE SIZES

DN4 - DN25 (1/8" to 1")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes 23
- Position switches 236 - 237
- Combinations 192 - 194
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	44HA	44aA
Body	Stainless Steel	Stainless Steel
Ball	Stainless Steel	Stainless Steel
Stem	Stainless Steel	Stainless Steel
Ball seats	POM*	PEEK-ATEX*
O-rings	NBR	NBR
Tmin / Tmax	-30°C / 100°C	-30°C / 100°C

\*with inner protection ring

## GENERAL DIMENSIONS

Type	l	B	H	h	m	V	SW	K	H <sub>1</sub>	H <sub>2</sub>	Lever
BKH-DN4	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN6	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN8	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN10	43	32	52	38	17,5	11	9	115	-	86	Zn
BKH-DN13	48	35	54	40	19	11	9	115	-	89	Zn
BKH-DN16	48	38	63	46	19	13	12	160	-	106	Al
BKH-DN20	62	49	75	57	24,5	14	14	200	79	-	Zn
BKHP500-DN20	82	58	83	65	32,5	14	14	200	87	-	Zn
BKH-DN25	66	58	83	65	29,5	14	14	200	87	-	Zn
BKHP500-DN25	84	70	88	70	34,5	14	14	200	92	-	Zn
BKH-DN25/32	66	58	83	65	29,5	14	14	200	87	-	Zn
BKH-DN25/40	66	58	83	65	29,5	14	14	200	87	-	Zn

# Ball valve for gas Stainless Steel

# BKH



CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
DIN ISO 228 FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA
	BKH-DN4-G1/8	5	69	10	G1/8	0,41	500	39856*	39867
	BKH-DN6-G1/4	6	69	14	G1/4	0,40	500	27721*	39868
	BKH-DN10-G3/8	10	72	14	G3/8	0,56	500	35106*	39869
	BKH-DN13-G1/2	13	83	16,3	G1/2	0,67	500	32198*	39870
	BKH-DN16-G5/8	15	83	16	G5/8	0,83	400	39862*	39873
	BKH-DN20-G3/4	20	95	18	G3/4	1,64	350	33236*	39874
	BKHP500-DN20-G3/4	20	107	18	G3/4	2,60	500	56104	56105
	BKH-DN25-G1	25	113	20	G1	2,37	350	31416*	39875
	BKHP500-DN25-G1	25	131	20	G1	3,94	500	56107	56108
	BKH-DN25/32-G1 1/4	25	120	22	G1 1/4	2,30	350	39865*	39876
	BKH-DN25/40-G1 1/2	25	130	24	G1 1/2	2,65	250	39866*	39877

ANSI B1.20.1 NPT FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA
	BKH-DN4-1/8"NPT	5	69	10,5	1/8"NPT	0,30	500	39878*	39886
	BKH-DN6-1/4"NPT	6	69	13,7	1/4"NPT	0,41	500	33226*	39887
	BKH-DN10-3/8"NPT	10	72	13,5	3/8"NPT	0,56	500	39880*	39888
	BKH-DN13-1/2"NPT	13	83	17	1/2"NPT	0,68	500	34057*	39889
	BKH-DN20-3/4"NPT	20	95	18,3	3/4"NPT	1,68	350	30533*	39890
	BKHP500-DN20-3/4"NPT	20	107	18,3	3/4"NPT	2,58	500	56110	56111
	BKH-DN25-1"NPT	25	113	21,6	1"NPT	2,37	350	39883*	39891
	BKHP500-DN25-1"NPT	25	131	21,6	1"NPT	3,95	500	56113	56114
	BKH-DN25/32-1 1/4"NPT	25	120	22,1	1 1/4"NPT	2,51	350	39884*	39892
	BKH-DN25/40-1 1/2"NPT	25	130	22,1	1 1/2"NPT	2,70	250	39885*	39893

DIN 2353 / ISO 8434-1 LIGHT SERIES	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA
	BKH-DN4-6L	5	6	67	7	M 12x1,5	0,36	500	39810*	39822
	BKH-DN6-8L	6	8	67	7	M 14x1,5	0,38	500	31028*	39823
	BKH-DN8-10L	8	10	74	7	M 16x1,5	0,38	500	36728*	39824
	BKH-DN10-12L	10	12	74	7	M 18x1,5	0,51	500	39813*	39825
	BKH-DN13-15L	13	15	82	7	M 22x1,5	0,61	500	39814*	39826
	BKH-DN13-18L	13	18	82	7,5	M 26x1,5	0,60	500	39816*	39828
	BKH-DN16-18L	15	18	82	7,5	M 26x1,5	0,75	400	39817*	39829
	BKH-DN20-22L	20	22	101	7,5	M 30x2	1,41	350	39818*	39830
	BKH-DN25-28L	25	28	108	7,5	M 36x2	2,00	350	39819*	39831
	BKH-DN25/32-35L	25	35	112	10,5	M 45x2	2,12	350	39820*	39832
	BKH-DN25/40-42L	25	42	112	11	M 52x2	2,27	350	39821*	39833

Please note the pressure ratings of the tube connections!


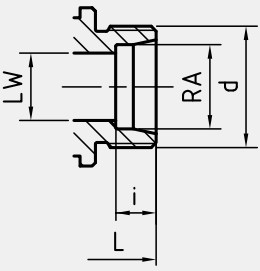
\*Article usually in stock.


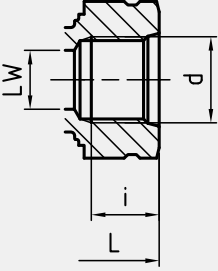
Application-specific

# Ball valve for gas Stainless Steel

# BKH



CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION		
	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA 
<b>DIN 2353 / ISO 8434-1 HEAVY SERIES</b>  	BKH-DN4-8S	5	8	73	7	M 16x1,5	0,39	500	33224*	39845
	BKH-DN6-10S	6	10	73	7,5	M 18x1,5	0,39	500	39835*	39846
	BKH-DN8-12S	8	12	76	7,5	M 20x1,5	0,39	500	32496*	39847
	BKH-DN10-14S	10	14	80	8	M 22x1,5	0,50	500	39837*	39848
	BKH-DN13-16S	13	16	86	8,5	M 24x1,5	0,63	500	29154*	39849
	BKH-DN13-20S	13	20	90	10,5	M 30x2	0,60	500	39840*	39851
	BKH-DN16-20S	15	20	90	10,5	M 30x2	0,80	400	29155*	39852
	BKH-DN20-25S	20	25	109	12	M 36x2	1,59	350	39842*	39853
	BKHP500-DN20-25S	20	25	129	12	M 36x2	2,53	500	56116	56117
	BKH-DN25-30S	25	30	120	13,5	M 42x2	2,22	350	39843*	39854
	BKHP500-DN25-30S	25	30	138	13,5	M 42x2	4,10	500	56119	56120
	BKH-DN25/32-38S	25	38	124	16	M 52x2	2,30	350	39844*	39855

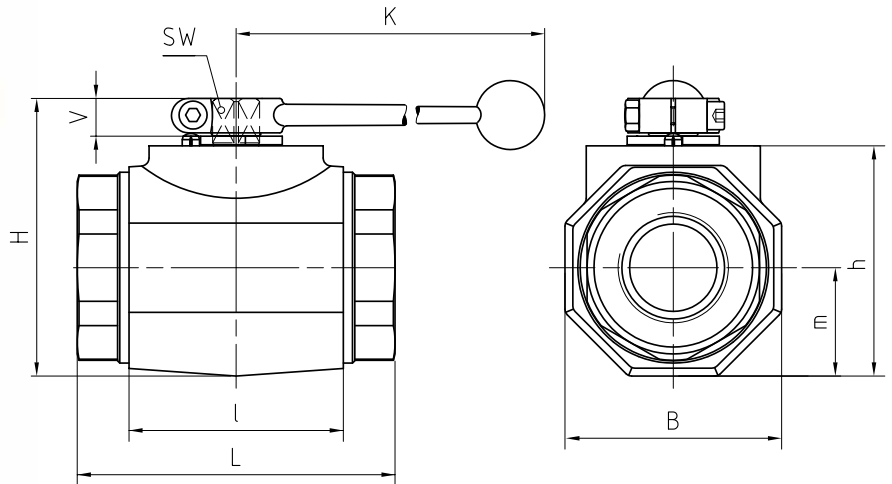
CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA 
<b>SAE J514/ISO/DIS11926-1 FEMALE THREAD</b>  	BKH-DN6-7/16"UNF	5	69	12	7/16"-20 UNF	0,39	500	39894*	39899
	BKH-DN10-9/16"UNF	10	72	13	9/16"-18 UNF	0,54	500	31925*	39900
	BKH-DN13-3/4"UNF	13	83	15	3/4"-16 UNF	0,82	500	39896*	39901
	BKH-DN20-1 1/16"UN	20	95	20	1 1/16"-12 UN	1,57	350	39897*	39902
	BKHP500-DN20-1 1/16"UN	20	108	20	1 1/16"-12 UN	2,60	500	56122	56123
	BKH-DN25-1 5/16"UN	25	113	20	1 5/16"-12 UN	2,30	350	39898*	39903
	BKHP500-DN25-1 5/16"UN	25	131	20	1 5/16"-12 UN	4,10	500	56125	56127

Application-specific

Please note the pressure ratings of the tube connections!

\*Article usually in stock.





## AVAILABLE SIZES

DN32 - DN50 (1 1/4" to 2")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes 26
- Position switches 236 - 237
- Combinations 196 - 197
- Detent on request

## MATERIAL CODE DESCRIPTION

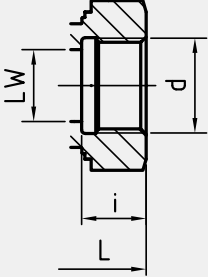

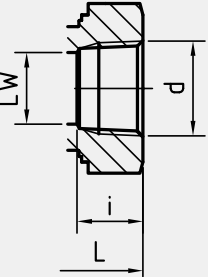

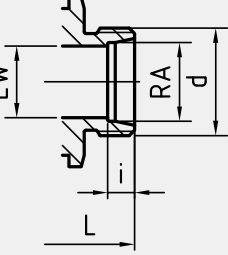

Materials	24HA	24aA
Body	Steel	Steel
Ball	Stainless Steel	Stainless Steel
Stem	Stainless Steel	Stainless Steel
Ball seats	POM*	PEEK-ATEX*
O-rings	NBR	NBR
Tmin / Tmax	-30°C / 100°C	-30°C / 100°C

\*with inner protection ring

## GENERAL DIMENSIONS

Type	l	B 8Kt	H	h	m	V	SW	K	Lever
MKHP-DN32	80	81	107	86	40,5	16,5	17	320	Al
MKHP-DN40	85	100	124	103	50	16,5	17	320	Al
MKHP-DN50	100	118	138	117	59	16,5	17	320	Al

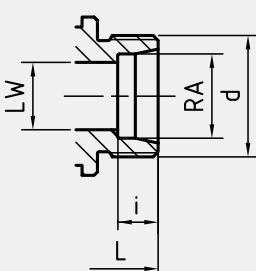

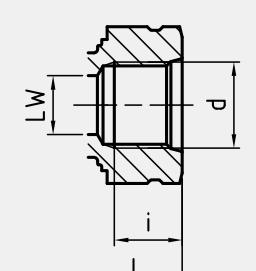



CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION			
<b>DIN ISO 228 FEMALE THREAD</b>  	Type	LW	L	i	d	Weight [Kg]	PN [bar]	24HA	24aA 	
	MKHP-DN32-G1 1/4	32	111	22	G1 1/4	3,47	350	46219	39916	
	MKHP-DN40-G1 1/2	38	130	24	G1 1/2	5,67	350	46220	39917	
	MKHP-DN50-G2	48	140	26	G2	8,14	350	46221	39918	
<b>ANSI B1.20.1 NPT FEMALE THREAD</b>  	Type	LW	L	i	d	Weight [Kg]	PN [bar]	24HA	24aA 	
	MKHP-DN32-1 1/4"NPT	32	120	22,1	1 1/4"NPT	3,52	350	39924	39927	
	MKHP-DN40-1 1/2"NPT	38	130	22,1	1 1/2"NPT	5,69	350	39925	39928	
	MKHP-DN50-2"NPT	48	150	30,3	2"NPT	8,14	350	39926	39929	
<b>DIN 2353 / ISO 8434-1 LIGHT SERIES</b>  	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	24HA	24aA 
	MKHP-DN32-35L	32	35	136	10,5	M 45x2	3,58	350	39904	39906
	MKHP-DN40-42L	38	42	147	11	M 52x2	5,54	350	39905	39907

Application-specific

Please note the pressure ratings of the tube connections!

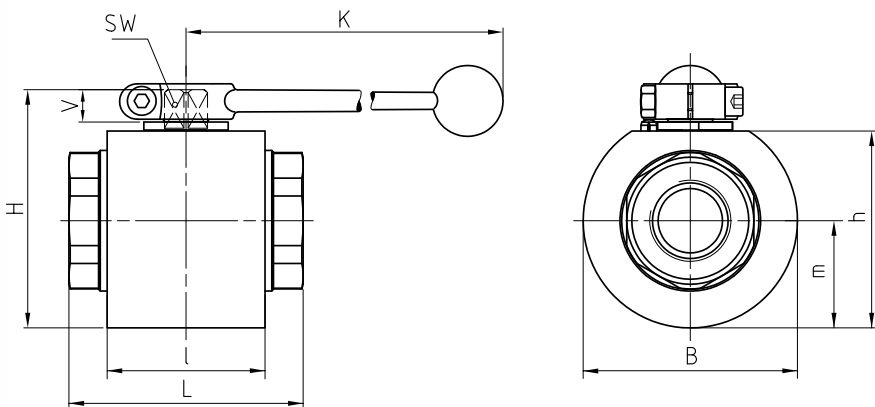


CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION		
<b>DIN 2353 / ISO 8434-1 HEAVY SERIES</b>  	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	24HA	24aA 
	MKHP-DN32-38S	32	38	148	16	M 52x2	3,77	350	46222	39913
<b>SAE J514/ISO/DIS11926-1 FEMALE THREAD</b>  	Type	LW	L	i	d	Weight [Kg]	PN [bar]	24HA	24aA 	
	MKHP-DN32-1 5/8" UN	30	111	20	1 5/8"-12 UN	3,52	350	39936	39939	
	MKHP-DN40-1 7/8" UN	38	130	20	1 7/8"-12 UN	5,69	350	39937	39940	
	MKHP-DN50-2-1/2" UN	45	140	20	2 1/2"-12 UN	7,99	350	39938	39941	

Application-specific

Please note the pressure ratings of the tube connections!





## AVAILABLE SIZES

DN32 - DN50 (1 1/4" to 2")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes 30
- Position switches 236 - 237
- Combinations on request
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	44HA	44aA
Body	Stainless Steel	Stainless Steel
Ball	Stainless Steel	Stainless Steel
Stem	Stainless Steel	Stainless Steel
Ball seats	POM*	PEEK-ATEX*
O-rings	NBR	NBR
Tmin / Tmax	-30°C / 100°C	-30°C / 100°C

\*with inner protection ring

## GENERAL DIMENSIONS

Type	l	B	H	h	m	V	SW	K	Lever
MKHP-DN32	80	109	121	100	54,5	16,5	17	320	Al
MKHP-DN40	85	124	136	115	62	16,5	17	320	Al
MKHP-DN50	101	132	145	124	66	16,5	17	320	Al

Application-specific



CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
DIN ISO 228 FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA
	MKHP-DN32-G1 1/4	32	111	22	G1 1/4	5,92	350	39919	39922
	MKHP-DN40-G1 1/2	38	130	24	G1 1/2	8,21	350	36150	39923
	MKHP-DN50- G2	48	140	26	G2	10,50	350	39920	39921

ANSI B1.20.1 NPT FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA
	MKHP-DN32-1 1/4"NPT	32	120	22,1	1 1/4"NPT	5,94	350	39930	39933
	MKHP-DN40-1 1/2"NPT	38	130	22,1	1 1/2"NPT	8,25	350	39931	39934
	MKHP-DN50-2"NPT	48	150	30,3	2"NPT	10,37	350	39932	39935

DIN 2353 / ISO 8434-1 LIGHT SERIES	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA
	MKHP-DN32-35L	32	35	136	10,5	M 45x2	5,82	350	39908	39910
	MKHP-DN40-42L	38	42	147	11	M 52x2	8,40	350	39909	39911

Application-specific



CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION		
DIN 2353 / ISO 8434-1 HEAVY SERIES	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA
	MKHP-DN32-38S	32	38	148	16	M 52x2	6,13	350	39914	39915

CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
SAE J514/ISO/DIS11926-1 FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44HA	44aA
	MKHP-DN32-1 5/8" UN	30	111	20	1 5/8"-12 UN	5,72	350	39942	39945
	MKHP-DN40-1 7/8" UN	38	130	20	1 7/8"-12 UN	8,17	350	39943	39946
	MKHP-DN50-2 1/2" UN	45	140	20	2 1/2"-12 UN	9,47	350	39944	39947

Application-specific

Please note the pressure ratings of the tube connections!

# Ball valves for the automotive industry (paints, lacquers, isocyanate ...)



## Sealing, Gluing

e.g. sheet metal overlapping for corrosion protection, windscreen, ceiling

### Typical media:

- Polyurethane
- Thermoplastics (PVC, PA, PET)
- PVC, rubber

## Painting

### Typical requirement:

LABS-free (the valves can be specially cleaned to remove paint wetting disruptive substances)

## Protection / damping

e.g. noise protection, protective undercoating

### Typical media:

- Polyurethane
- Plastisol
- Mastic (protective undercoating)

## PUR-processing

e.g. seat padding

### Typical media:

- Isocyanate (MDI, TDI)

Application-specific

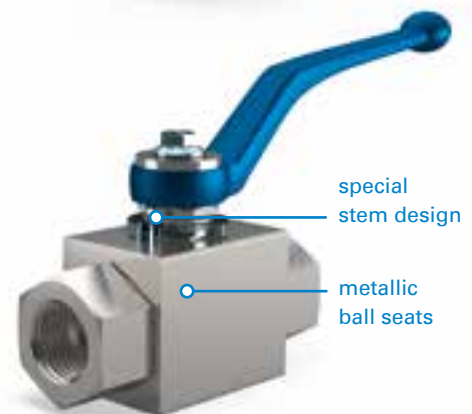
**MHA ZENTGRAF** offers a wide range of suitable valve setups for different automotive industry processes. In many cases highly viscous or abrasive fluids are used which provide major challenges for valve seat materials. For those media **MHA ZENTGRAF** uses metallic ball seats with a specially hardened ball to ensure a long lifetime in the process.

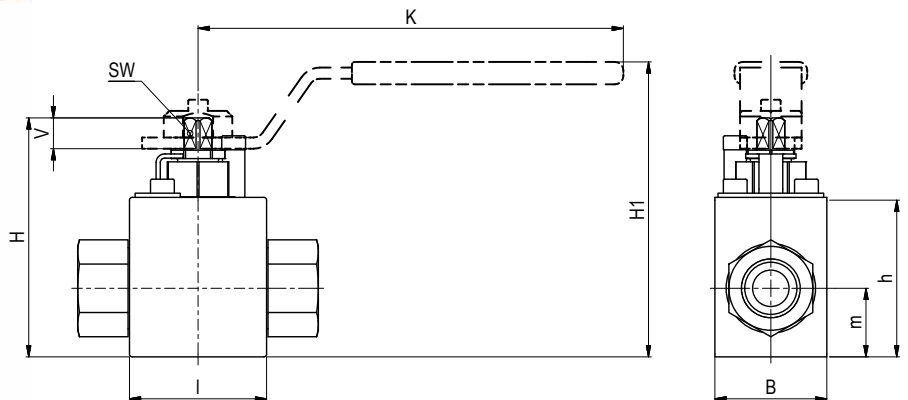
**MHA ZENTGRAF** ball valves are also available with heating devices and temperature sensors in order to keep the temperature regulated during the manufacturing process. On request the valves can be specially cleaned to remove paint wetting disruptive substances (LABS-free). Equipped with actuators and limit switches our ball valves can be integrated into any automation concept.

## Ball valves for isocyanates and abrasive media

Isocyanates require a special seat setup as they react with humidity and develop crystalline particles. To prevent the fluid from coming into contact with environmental humidity, the ball valves have to be leakproof. This is ensured through a special stem setup.

Furthermore, some isocyanate types would damage standard plastic ball seats. That's why metallic ball seats are used for this application to increase the lifetime of the ball valves.





## AVAILABLE SIZES

DN8 (3/8"), DN13 (1/2"), DN25 (1")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, SAE J514/ISO/DIS11926-1 Female thread, DIN 2353 / ISO 8343-1 Heavy series, others on request

## ACCESSORIES ON REQUEST

- Locking devices
- Actuators
- Mounting holes
- Position switches
- Combinations
- Detent

## MATERIAL CODE DESCRIPTION

Materials	44g8
Body	1.4571
Ball	1.4571 / Nitronic-50®
Stem	Nitronic-50®
Ball seats	PEEK
Body and stem sealing	FKM / PTFE*
Tmin / Tmax	-40°C / +85°C*

\*Others on request.

## CERTIFICATION

ATEX IIC (H2), Ex-zone 1, 2G

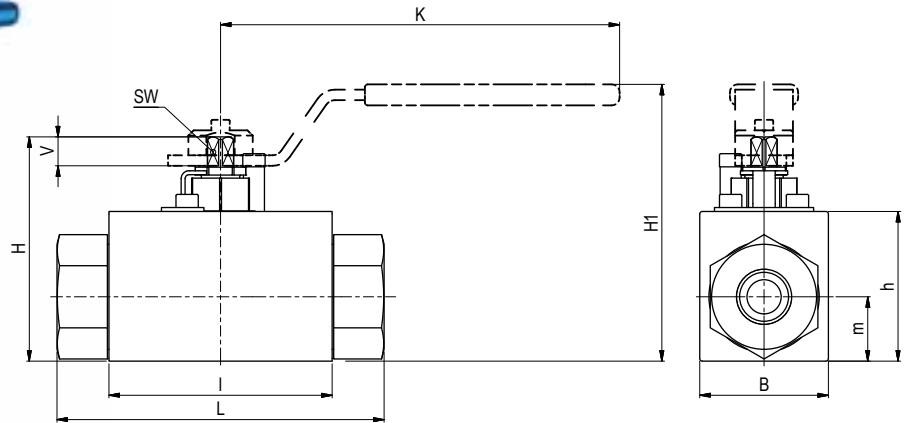
## GENERAL DIMENSIONS

Type	I	B	H	h	m	Vmin	SW	K	H1	Lever
HFKH500-DN8	42	38	74,5	46	16,5	11	8	152	94,5	St
HFKH500-DN13	49	40	85,5	57	24,5	11	8	152	105,5	St
HFKH500-DN25	83,5	70	124	93	35	13,5	12	202	146,5	St

CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
DIN ISO 228 FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44g8	
	HFKH500-DN8-G 1/4	8	69,6	14	G 1/4	0,67	500	on request	
	HFKH500-DN13-G 1/2	13	86	16,3	G 1/2	1,15	500	on request	
	HFKH500-DN25-G 1	25	130,7	20	G 1	5,16	500	on request	
ANSI B1.20.1 NPT FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44g8	
	HFKH500-DN8-1/4" NPT	8	71,6	13,7	1/4" NPT	0,67	500	on request	
	HFKH500-DN13-1/2" NPT	13	86	17	1/2" NPT	1,16	500	on request	
	HFKH500-DN25-1" NPT	25	130,7	21,6	1" NPT	5,18	500	on request	
SAE J514/ISO/DIS11926-1 FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44g8	
	HFKH500-DN8-9/16" UNF	8	75,6	13	9/16"-18 UNF	0,73	500	on request	
	HFKH500-DN13-3/4" UNF	13	86	15	3/4"-16 UNF	1,16	500	on request	
	HFKH500-DN25-1 5/16" UN	25	130,7	20	1 5/16"-12 UN	5,13	500	on request	
DIN 2353 / ISO 8343-1 HEAVY SERIES	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	44g8
	HFKH500-DN8-12S	8	12	78,6	7,5	M 20x1,5	0,67	500	on request
	HFKH500-DN13-16S	13	16	89,6	8,5	M 30x2	1,12	500	on request
	HFKH500-DN25-30S	25	30	137,9	13,5	M 42x2	4,77	500	on request

Application-specific

Please note the pressure ratings of the tube connections!



## AVAILABLE SIZES

DN8 (3/8"), DN13 (1/2"), DN25 (1")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, SAE J514/ISO/DIS11926-1 Female thread, DIN 2353 / ISO 8343-1 Heavy series, C&T medium Pressure, others on request

## ACCESSORIES ON REQUEST

- Locking devices
- Actuators
- Mounting holes
- Position switches
- Combinations
- Detent

## MATERIAL CODE DESCRIPTION

Materials	44g8
Body	1.4571
Ball	1.4571 / Nitronic-50®
Stem	Nitronic-50®
Ball seats	PEEK
Body and stem sealing	FKM / PTFE*
Tmin / Tmax	-40°C / +85°C*

\*Others on request.

## CERTIFICATION

- ATEX IIC (H2), Ex-zone 1, 2G
- Fire-safe DIN EN ISO 10497
- TPED DIN EN ISO 23826

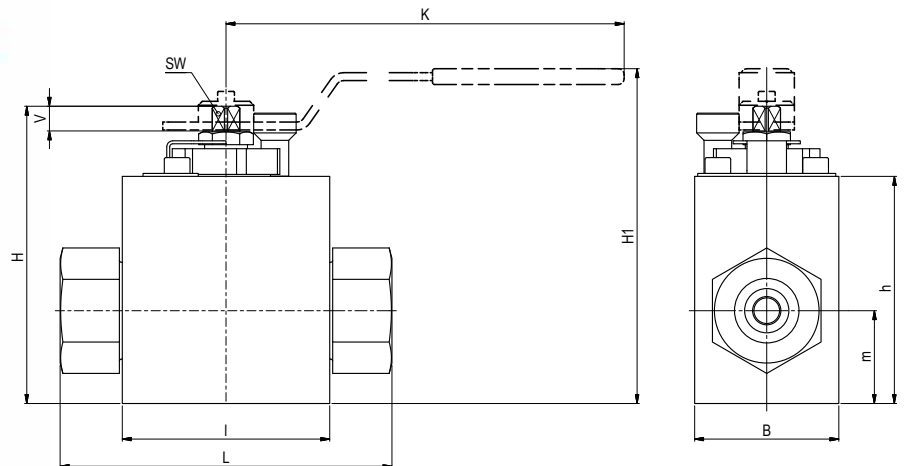
## GENERAL DIMENSIONS

Type	l	B	H	h	m	Vmin	SW	K	H1	Lever
HFKH650-DN8	75,5	38	74,5	46	16,5	11	8	152	94,5	St
HFKH650-DN13	85	49	85,5	57	24,5	11	8	152	105,5	St
HFKH650-DN25	120	78	128,5	97	39	13,5	12	202	151,1	St

CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION			
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44g8			
	HFKH650-DN8-G 1/4	8	105,1	14	G 1/4	1,34	650	on request			
	HFKH650-DN13-G 1/2	13	124,6	16,3	G 1/2	2,35	650	on request			
	HFKH650-DN25-G 1	25	159,6	20	G 1	7,83	650	on request			
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44g8			
	HFKH650-DN8-1/4" NPT	8	105,1	13,7	1/4" NPT	1,34	650	on request			
	HFKH650-DN13-1/2" NPT	13	124,6	17	1/2" NPT	2,36	650	on request			
	HFKH650-DN25-1" NPT	25	159,6	21,6	1" NPT	7,85	650	on request			
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44g8			
	HFKH650-DN8-9/16" UNF	8	105,1	13	9/16"-18 UNF	1,33	650	on request			
	HFKH650-DN13-3/4" UNF	13	124,6	15	3/4"-16 UNF	2,36	650	on request			
	HFKH650-DN25-1 5/16" UN	25	159,6	20	1 5/16"-12 UN	7,81	650	on request			
	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	44g8		
	HFKH650-DN8-12S	8	12	113,1	7,5	M 20x1,5	1,29	650	on request		
	HFKH650-DN13-16S	13	16	128,6	8,5	M 30x2	2,19	650	on request		
	HFKH650-DN25-30S	25	30	179,6	13,5	M 42x2	7,71	650	on request		
	Type	LW	L	i	d	d1	d2	l	Weight [Kg]	PN [bar]	44g8
	HFKH650-DN8-9/16" C&T	8	121,1	11,2	13/16-16UN	12,7	7,8	19,1	1,37	650	on request
	HFKH650-DN13-1" C&T	13	164,6	20,6	1 3/8-12UNF	22,4	14,3	33,3	2,65	650	on request
	HFKH650-DN25-1 1/2" C&T	25	219,6	25,4	1 7/8-12UNF	35	23,8	40,5	9,30	650	on request

Application-specific

Please note the pressure ratings of the tube connections!



## AVAILABLE SIZES

DN8 (3/8"), DN13 (1/2")

## CONNECTIONS

C&T medium Pressure, others on request

## ACCESSORIES ON REQUEST

- Locking devices
- Actuators
- Mounting holes
- Position switches
- Combinations
- Detent

## MATERIAL CODE DESCRIPTION

Materials	44m8
Body	1.4571
Trunnion	Nitronic-50®
Ball seats	PEEK
Body and stem sealing	FKM / PTFE*
Tmin / Tmax	-40°C / +85°C*

\*Others on request.

## CERTIFICATION

ATEX IIC (H2), Ex-zone 1, 2G

## GENERAL DIMENSIONS

Type	l	B	H	h	m	Vmin	SW	K	H1	Lever
HFKH1000-DN8	88	65	148	110	45	12,5	9	202	167	St
HFKH1000-DN13	105	73	150,5	115	47	12,5	11	202	169,5	St

## CONNECTION TYPE

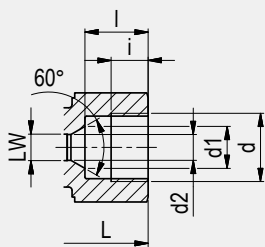
## DIMENSIONS

## ORDER CODE PER MATERIAL COMBINATION

C&T MEDIUM PRESSURE

Type	LW	L	i	d	d1	d2	l	Weight [Kg]
HFKH1000-DN8-9/16" C&T	8	131	11,2	13/16-16UN	7,8	12,7	19,1	6,08
HFKH1000-DN13-1" C&T	13	168	20,6	1 3/8-12UNF	14,3	22,4	33,3	8,37

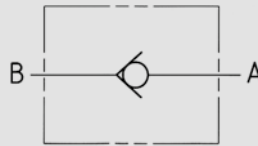
PN [bar]	44m8
1034	on request
1034	on request



Please note the pressure ratings of the tube connections!



## PORTING PATTERN



## CERTIFICATION

ATEX IIC (H2), Ex-zone 1, 2G



## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, SAE J514/ISO/DIS11926-1 Female thread, DIN 2353 / ISO 8343-1 Heavy series, C&T medium Pressure, others on request



## AVAILABLE SIZES

DN8 (3/8"), DN13 (1/2")



## MATERIAL

Body	1.4571
Seats	PEEK
Tmin /Tmax	-40°C / +85°C
Cracking pressure	as required



## PRESSURE RATING

PN 1034 bar



Application-specific

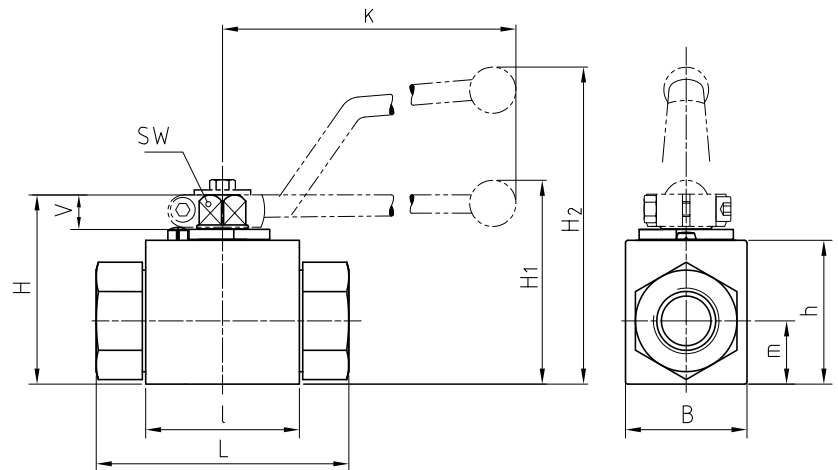
# Ball valve accessories

## HFKH500, HFKH650 and HFKH1000

Wide range of accessories available

- Actuators – pneumatic, electric, hydraulic
- Position indicators
- Mounting holes
- Locking devices
- Detents
- Manifold integration





## AVAILABLE SIZES

DN4 - DN25 (1/8" to 1")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes 19
- Position switches 236 - 237
- Combinations 192 - 194
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	11H8	12f8	1178
Body	Steel	Steel	Steel
Ball	Steel	Stainless Steel	Steel
Stem	Steel	Steel	Steel
Ball seats	POM	Cast iron	PTFE Teflon <sup>(1)</sup>
O-rings	FPM	FPM	FPM
Tmin / Tmax	-20°C / 100°C	-20°C / 100°C	-20°C / 100°C

## GENERAL DIMENSIONS

Type	l	B	H	h	m	V	SW	K	H <sub>1</sub>	H <sub>2</sub>	Lever
BKH-DN4	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN6	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN8	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN10	43	32	52	38	17,5	11	9	115	-	86	Zn
BKH-DN13	48	35	54	40	19	11	9	115	-	89	Zn
BKH-DN16	48	38	63	46	19	13	12	160	-	106	Al
BKH-DN20	62	49	75	57	24,5	14	14	200	79	-	Zn
BKH-DN25	66	58	83	65	29,5	14	14	200	87	-	Zn
BKH-DN25/32	66	58	83	65	29,5	14	14	200	87	-	Zn
BKH-DN25/40	66	58	83	65	29,5	14	14	200	87	-	Zn

<sup>(1)</sup> Please consider pressure reduction at higher temperatures (see technical annex page 255)

Application-specific



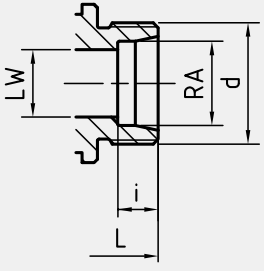
CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION					
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	11H8	12f8	PN [bar]	1178	
	BKH-DN4-G1/8	5	69	10	G1/8	0,41	500	39863*	39987	315	39981*	
	BKH-DN6-G1/4	6	69	14	G1/4	0,40	500	30437*	39988	315	33986*	
	BKH-DN10-G3/8	10	72	14	G3/8	0,54	500	39864*	13338	315	32917*	
	BKH-DN13-G1/2	13	83	16,3	G1/2	0,65	500	39879*	15799	250	29580*	
	BKH-DN16-G5/8	15	83	16	G5/8	0,70	400	39895*	39991	175	39984*	
	BKH-DN20-G3/4	20	95	18	G3/4	1,50	350	39978*	29260	175	21585*	
	BKH-DN25-G1	25	113	20	G1	2,20	350	39979*	35557	175	22765*	
	BKH-DN25/32-G1 1/4	25	120	22	G1 1/4	2,30	350	39980*	39992	175	39985*	
	BKH-DN25/40-G1 1/2	25	130	24	G1 1/2	2,60	350	31323*	39993	175	39986*	
		BKH-DN4-1/8"NPT	5	69	10,5	1/8"NPT	0,30	500	39994*	40007	315	40002*
BKH-DN6-1/4"NPT		6	69	13,7	1/4"NPT	0,40	500	39995*	23028	315	24676*	
BKH-DN10-3/8"NPT		10	72	13,5	3/8"NPT	0,55	500	39996*	18879	315	40003*	
BKH-DN13-1/2"NPT		13	83	17	1/2"NPT	0,75	500	39997*	40008	250	24677*	
BKH-DN20-3/4"NPT		20	95	18,3	3/4"NPT	1,63	350	39998*	17876	175	40004*	
BKH-DN25-1"NPT		25	113	21,6	1"NPT	2,30	350	39999*	17877	175	27977*	
BKH-DN25/32-1 1/4"NPT		25	120	22,1	1 1/4"NPT	2,51	350	40000*	40009	175	40005*	
BKH-DN25/40-1 1/2"NPT		25	130	22,1	1 1/2"NPT	2,70	250	40001*	40010	175	40006*	
	BKH-DN4-6L	5	6	67	7	M 12x1,5	0,36	500	39951*	39968	315	39948*
	BKH-DN6-8L	6	8	67	7	M 14x1,5	0,37	500	39952*	39969	315	39949*
	BKH-DN8-10L	8	10	74	7	M 16x1,5	0,38	500	39953*	12727	315	39950*
	BKH-DN10-12L	10	12	74	7	M 18x1,5	0,50	500	39954*	39970	315	39963*
	BKH-DN13-15L	13	15	82	7	M 22x1,5	0,61	500	39955*	12728	250	39964*
	BKH-DN13-18L	13	18	82	7,5	M 26x1,5	0,60	500	39957*	39972	250	39966*
	BKH-DN16-18L	15	18	82	7,5	M 26x1,5	0,75	400	39958*	39973	175	34383*
	BKH-DN20-22L	20	22	101	7,5	M 30x2	1,49	350	39959*	39974	175	34384*
	BKH-DN25-28L	25	28	108	7,5	M 36x2	2,00	350	39960*	39975	175	34588*
	BKH-DN25/32-35L	25	35	112	10,5	M 45x2	2,12	350	39961*	39976	175	34382*
	BKH-DN25/40-42L	25	42	112	11	M 52x2	2,27	350	39962*	39977	175	39967*

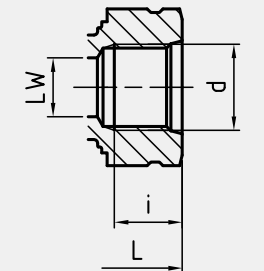
Application-specific

Please note the pressure ratings of the tube connections!

\*Article usually in stock.



CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION				
	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	11H8	12f8	PN [bar]	1178
<b>DIN 2353 / ISO 8434-1 HEAVY SERIES</b>  	BKH-DN4-8S	5	8	73	7	M 16x1,5	0,38	500	39401*	39836	315	39739*
	BKH-DN6-10S	6	10	73	7,5	M 18x1,5	0,39	500	29057*	39838	315	39740*
	BKH-DN8-12S	8	12	76	7,5	M 20x1,5	0,39	500	39403*	12730	315	24678*
	BKH-DN10-14S	10	14	80	8	M 22x1,5	0,50	500	39404*	39841	315	39743*
	BKH-DN13-16S	13	16	86	8,5	M 24x1,5	0,60	500	39409*	12729	250	39744*
	BKH-DN13-20S	13	20	90	10,5	M 30x2	0,60	500	39694*	30714	250	39777*
	BKH-DN16-20S	15	20	90	10,5	M 30x2	0,80	400	39697*	39858	175	39779*
	BKH-DN20-25S	20	25	109	12	M 36x2	1,55	350	39699*	21498	175	39811*
	BKH-DN25-30S	25	30	120	13,5	M 42x2	2,10	350	39737*	12731	175	39812*
	BKH-DN25/32-38S	25	38	124	16	M 52x2	2,30	350	39738*	39859	175	39834*

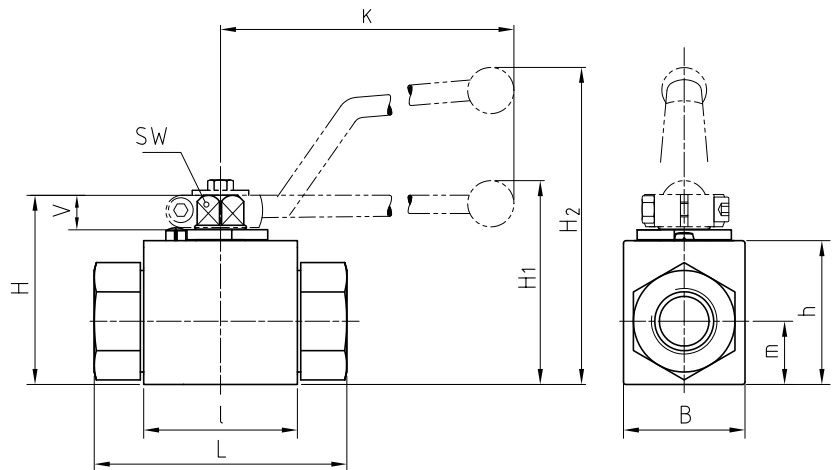
CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION				
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	11H8	12f8	PN [bar]	1178
<b>SAE J514/ISO/DIS11926-1 FEMALE THREAD</b>  	BKH-DN6-7/16" UNF	5	69	12	7/16"-20 UNF	0,39	500	40011*	40021	315	40016*
	BKH-DN10-9/16" UNF	10	72	13	9/16"-18 UNF	0,54	500	40012*	40022	315	40017*
	BKH-DN13-3/4" UNF	13	83	15	3/4"-16 UNF	0,82	500	40013*	40023	250	40018*
	BKH-DN20-1 1/16" UN	20	95	20	1 1/16"-12 UN	1,57	350	40014*	40024	175	40019*
	BKH-DN25-1 5/16" UN	25	113	20	1 5/16"-12 UN	2,30	350	40015*	40025	175	40020*

Application-specific

Please note the pressure ratings of the tube connections!

\*Article usually in stock.





## AVAILABLE SIZES

DN4 - DN25 (1/8" to 1")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes 23
- Position switches 236 - 237
- Combinations 192 - 194
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	44H8	44F8	4478
Body	Stainless Steel	Stainless Steel	Stainless Steel
Ball	Stainless Steel	Stainless Steel	Stainless Steel
Stem	Stainless Steel	Stainless Steel	Stainless Steel
Ball seats	POM	Stainless Steel	PTFE Teflon <sup>(1)</sup>
O-rings	FPM	FPM	FPM
Tmin / Tmax	-20°C / 100°C	-20°C / 200°C	-20°C / 200°C

## GENERAL DIMENSIONS

Type	l	B	H	h	m	V	SW	K	H <sub>1</sub>	H <sub>2</sub>	Lever
BKH-DN4	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN6	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN8	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN10	43	32	52	38	17,5	11	9	115	-	86	Zn
BKH-DN13	48	35	54	40	19	11	9	115	-	89	Zn
BKH-DN16	48	38	63	46	19	13	12	160	-	106	Al
BKH-DN20	62	49	75	57	24,5	14	14	200	79	-	Zn
BKH-DN25	66	58	83	65	29,5	14	14	200	87	-	Zn
BKH-DN25/32	66	58	83	65	29,5	14	14	200	87	-	Zn
BKH-DN25/40	66	58	83	65	29,5	14	14	200	87	-	Zn

<sup>(1)</sup> Please consider pressure reduction at higher temperatures (see technical annex page 267)

Application-specific

# Ball valve for paints and lacquers Stainless Steel

## BKH



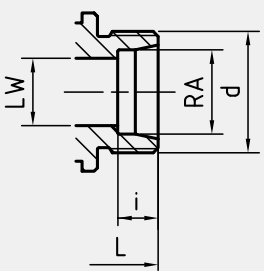
CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION						
	DIN ISO 228 FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44H8	44F8	PN [bar]	4478	
	BKH-DN4-G1/8	5	69	10	G1/8	0,41	500	40088*	40106	315	32447*		
	BKH-DN6-G1/4	6	69	14	G1/4	0,40	500	40089*	40107	315	30667*		
	BKH-DN10-G3/8	10	72	14	G3/8	0,54	500	40090*	40108	315	40098*		
	BKH-DN13-G1/2	13	83	16,3	G1/2	0,65	500	32184*	34400	250	30783*		
	BKH-DN16-G5/8	15	83	16	G5/8	0,70	400	40093*	40111	175	40101*		
	BKH-DN20-G3/4	20	95	18	G3/4	1,50	350	40094*	40112	175	40102*		
	BKH-DN25-G1	25	113	20	G1	2,20	350	40095*	40113	175	40103*		
	BKH-DN25/32-G1 1/4	25	120	22	G1 1/4	2,30	350	40096*	40114	175	40104*		
	BKH-DN25/40-G1 1/2	25	130	24	G1 1/2	2,60	250	40097*	40115	175	40105*		
	ANSI B1.20.1 NPT FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44H8	44F8	PN [bar]	4478	
	BKH-DN4-1/8"NPT	5	69	10,5	1/8"NPT	0,30	500	40116*	40126	315	40121*		
	BKH-DN6-1/4"NPT	6	69	13,7	1/4"NPT	0,40	500	40117*	40127	315	34359*		
	BKH-DN10-3/8"NPT	10	72	13,5	3/8"NPT	0,55	500	32454*	40128	315	40122*		
	BKH-DN13-1/2"NPT	13	83	17	1/2"NPT	0,75	500	32453*	40129	250	34360*		
	BKH-DN20-3/4"NPT	20	95	18,3	3/4"NPT	1,63	350	40118*	40130	175	33958*		
	BKH-DN25-1"NPT	25	113	21,6	1"NPT	2,30	350	32455*	40131	175	40123*		
	BKH-DN25/32-1 1/4"NPT	25	120	22,1	1 1/4"NPT	2,51	350	40119*	40132	175	40124*		
	BKH-DN25/40-1 1/2"NPT	25	130	22,1	1 1/2"NPT	2,70	250	40120*	40133	175	40125*		
	DIN 2353 / ISO 8434-1 LIGHT SERIES	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	44H8	44F8	PN [bar]	4478
	BKH-DN4-6L	5	6	67	7	M 12x1,5	0,36	500	40026*	40048	315	40038*	
	BKH-DN6-8L	6	8	67	7	M 14x1,5	0,37	500	40027*	40049	315	40039*	
	BKH-DN8-10L	8	10	74	7	M 16x1,5	0,38	500	40028*	40050	315	35926*	
	BKH-DN10-12L	10	12	74	7	M 18x1,5	0,50	500	40029*	40051	315	40040*	
	BKH-DN13-15L	13	15	82	7	M 22x1,5	0,61	500	40030*	40052	250	40041*	
	BKH-DN13-18L	13	18	82	7,5	M 26x1,5	0,60	500	40032*	40054	250	40043*	
	BKH-DN16-18L	15	18	82	7,5	M 26x1,5	0,75	400	40033*	40055	175	35925*	
	BKH-DN20-22L	20	22	101	7,5	M 30x2	1,49	350	40034*	40056	175	40044*	
	BKH-DN25-28L	25	28	108	7,5	M 36x2	2,00	350	40035*	40057	175	40045*	
	BKH-DN25/32-35L	25	35	112	10,5	M 45x2	2,12	350	40036*	40058	175	40046*	
	BKH-DN25/40-42L	25	42	112	11	M 52x2	2,27	350	40037*	40059	175	40047*	

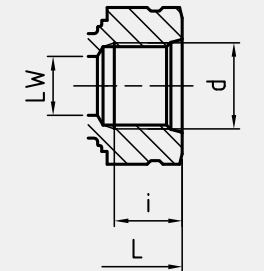
Application-specific

Please note the pressure ratings of the tube connections!

\*Article usually in stock.



CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION				
	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	44H8	44F8	PN [bar]	4478
<b>DIN 2353 / ISO 8434-1 HEAVY SERIES</b>  	BKH-DN4-8S	5	8	73	7	M 16x1,5	0,38	500	40060*	40078	315	40068*
	BKH-DN6-10S	6	10	73	7,5	M 18x1,5	0,39	500	28982*	40079	315	40069*
	BKH-DN8-12S	8	12	76	7,5	M 20x1,5	0,39	500	40061*	40080	315	31258*
	BKH-DN10-14S	10	14	80	8	M 22x1,5	0,50	500	40062*	40081	315	40070*
	BKH-DN13-16S	13	16	86	8,5	M 24x1,5	0,60	500	29056*	31643	250	40071*
	BKH-DN13-20S	13	20	90	10,5	M 30x2	0,60	500	40064*	40083	250	40073*
	BKH-DN16-20S	15	20	90	10,5	M 30x2	0,80	400	33361*	40084	175	40074*
	BKH-DN20-25S	20	25	109	12	M 36x2	1,55	350	40065*	40085	175	40075*
	BKH-DN25-30S	25	30	120	13,5	M 42x2	2,10	350	40066*	40086	175	40076*
	BKH-DN25/32-38S	25	38	124	16	M 52x2	2,30	350	40067*	40087	175	40077*

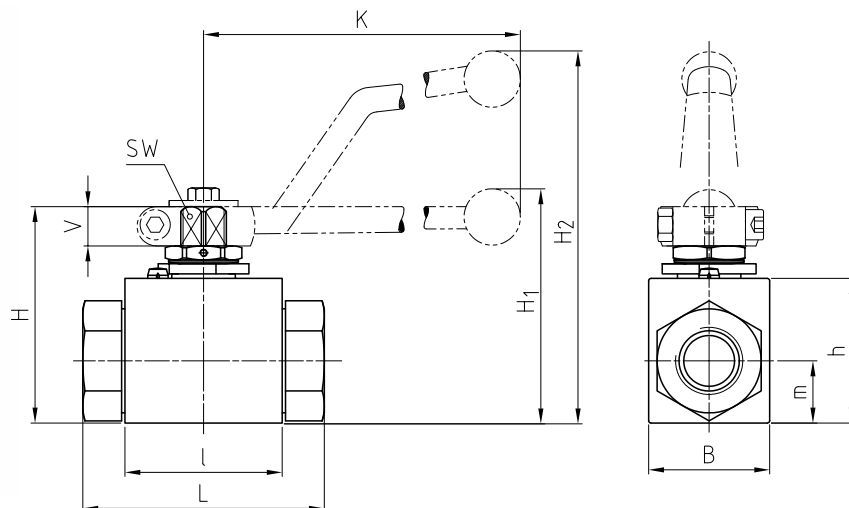
CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION				
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44H8	44F8	PN [bar]	4478
<b>SAE J514/ISO/DIS11926-1 FEMALE THREAD</b>  	BKH-DN6-7/16"UNF	5	69	12	7/16"-20 UNF	0,39	500	40134*	40144	315	40139*
	BKH-DN10-9/16"UNF	10	72	13	9/16"-18 UNF	0,54	500	40135*	40145	315	40140*
	BKH-DN13-3/4"UNF	13	83	15	3/4"-16 UNF	0,82	500	40136*	40146	250	40141*
	BKH-DN20-1 1/16"UN	20	95	20	1 1/16"-12 UN	1,57	350	40137*	40147	175	40142*
	BKH-DN25-1 5/16"UN	25	113	20	1 5/16"-12 UN	2,30	350	40138*	40148	175	40143*

Application-specific

Please note the pressure ratings of the tube connections!

\*Article usually in stock.





This ball valve is equipped with a special stem sealing.  
Due to this seal form a long service life can be guaranteed.

## AVAILABLE SIZES

DN4 - DN25 (1/8" to 1")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices on request
- Actuators page 228 - 229
- Mounting holes 19
- Position switches on request
- Combinations on request
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	12f0
Body	Steel
Ball	Stainless Steel
Stem	Steel
Ball seats	Cast iron
O-rings	FPM
Tmin / Tmax	-20°C / 100°C

## GENERAL DIMENSIONS

Type	l	B	H	h	m	V <sub>min</sub>	SW	K	H <sub>1</sub>	H <sub>2</sub>	Lever
BKHP-DN4	48	45	61	45	20,5	6,4	9	115	-	100	Zn
BKHP-DN6	48	45	61	45	20,5	6,4	9	115	-	100	Zn
BKHP-DN8	48	45	61	45	20,5	6,4	9	115	-	100	Zn
BKHP-DN10	48	45	61	45	20,5	6,4	9	115	-	100	Zn
BKH-DN13	48	35	59	40	19	8	9	115	-	96	Zn
BKH-DN16	48	38	67	46	19	8,8	12	160	-	113	Al
BKH-DN20	62	49	85	57	24,5	15,5	14	200	86	-	Zn
BKH-DN25	66	58	93	65	29,5	15,5	14	200	94	-	Zn
BKH-DN25/32	66	58	93	65	29,5	15,5	14	200	94	-	Zn
BKH-DN25/40	66	58	93	65	29,5	15,5	14	200	94	-	Zn

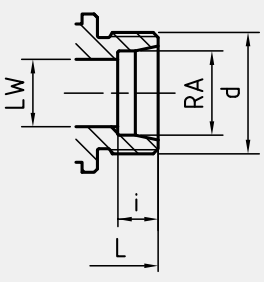
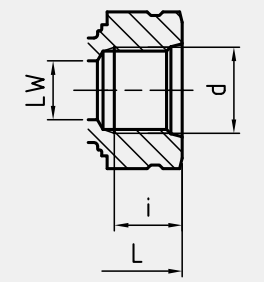


CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
<b>DIN ISO 228 FEMALE THREAD</b>  	Type	LW	L	i	d	Weight [Kg]	PN [bar]	12f0	
	BKHP-DN4-G1/8	5	77	10	G1/8	0,41	500	39042	
	BKHP-DN6-G1/4	6	77	14	G1/4	0,40	500	39043	
	BKHP-DN10-G3/8	10	77	14	G3/8	0,55	500	39044	
	BKH-DN13-G1/2	13	83	16,3	G1/2	0,65	500	19173	
	BKH-DN16-G5/8	15	83	16,3	G5/8	0,70	420	39045	
	BKH-DN20-G3/4	20	95	18	G3/4	1,50	420	12265	
	BKH-DN25-G1	25	113	20	G1	2,20	350	12222	
	BKH-DN25/32-G1 1/4	25	120	22	G1 1/4	2,30	350	12266	
	BKH-DN25/40-G1 1/2	25	130	24	G1 1/2	2,60	350	39046	
<b>ANSI B1.20.1 NPT FEMALE THREAD</b>  	Type	LW	L	i	d	Weight [Kg]	PN [bar]	12f0	
	BKHP-DN4-1/8"NPT	5	77	10,5	1/8"NPT	0,30	500	39047	
	BKHP-DN6-1/4"NPT	6	77	13,7	1/4"NPT	0,40	500	39048	
	BKHP-DN10-3/8"NPT	10	72	13,5	3/8"NPT	0,55	500	39049	
	BKH-DN13-1/2"NPT	13	83	17	1/2"NPT	0,75	500	39050	
	BKH-DN20-3/4"NPT	20	95	18,3	3/4"NPT	1,63	420	39051	
	BKH-DN25-1"NPT	25	113	21,6	1"NPT	2,30	350	39052	
	BKH-DN25/32-1 1/4"NPT	25	120	22,1	1 1/4"NPT	2,51	350	39053	
	BKH-DN25/40-1 1/2"NPT	25	130	22,1	1 1/2"NPT	2,70	250	39054	
<b>DIN 2353 / ISO 8434-1 LIGHT SERIES</b>  	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	12f0
	BKHP-DN4-6L	5	6	75	7	M 12x1,5	0,36	500	39025
	BKHP-DN6-8L	6	8	75	7	M 14x1,5	0,37	500	39026
	BKHP-DN8-10L	8	10	82	7	M 16x1,5	0,38	500	39027
	BKHP-DN10-12L	10	12	79	7	M 18x1,5	0,50	500	39028
	BKH-DN13-15L	13	15	82	7	M 22x1,5	0,61	500	39029
	BKH-DN16-18L	15	18	82	7,5	M 26x1,5	0,70	420	39030
	BKH-DN20-22L	20	22	101	7,5	M 30x2	1,49	420	39031
	BKH-DN25-28L	25	28	108	7,5	M 36x2	2,00	350	39032
	BKH-DN25/32-35L	25	35	112	10,5	M 45x2	2,12	350	39033
BKH-DN25/40-42L	25	42	112	11	M 52x2	2,27	350	39034	

Application-specific

Please note the pressure ratings of the tube connections!

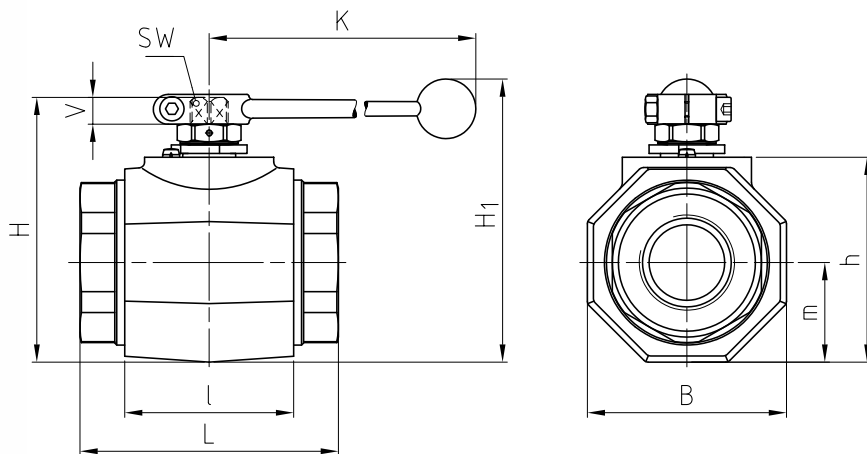


CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION	
<b>DIN 2353 / ISO 8434-1 HEAVY SERIES</b>  	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	12f0
	BKHP-DN4-8S	5	8	81	7	M 16x1,5	0,38	500	39035
	BKHP-DN6-10S	6	10	81	7,5	M 18x1,5	0,39	500	39036
	BKHP-DN8-12S	8	12	84	7,5	M 20x1,5	0,39	500	39037
	BKHP-DN10-14S	10	14	85	8	M 22x1,5	0,50	500	39038
	BKH-DN13-16S	13	16	86	8,5	M 24x1,5	0,60	500	39039
	BKH-DN16-20S	15	20	90	10,5	M 30x2	0,80	420	39040
	BKH-DN20-25S	20	25	109	12	M 36x2	1,55	420	12220
	BKH-DN25-30S	25	30	120	13,5	M 42x2	2,10	350	12556
	BKH-DN25/32-38S	25	38	124	16	M 52x2	2,30	350	39041
<b>SAE J514/ISO/DIS11926-1 FEMALE THREAD</b>  	Type	LW	L	i	d	Weight [Kg]	PN [bar]	12f0	
	BKHP-DN6-7/16" UNF	5	77	12	7/16"-20 UNF	0,39	500	39055	
	BKHP-DN10-9/16" UNF	10	77	13	9/16"-18 UNF	0,50	500	39056	
	BKH-DN13-3/4" UNF	13	83	15	3/4"-16 UNF	0,60	500	39057	
	BKH-DN20-1 1/16" UN	20	95	20	1 1/16"-12 UN	1,55	420	39058	
	BKH-DN25-1 5/16" UN	25	113	20	1 5/16"-12 UN	2,10	350	39059	

Application-specific

Please note the pressure ratings of the tube connections!





This ball valve is equipped with a special stem sealing. Due to this seal form a long service life can be guaranteed.

Application-specific

## AVAILABLE SIZES

DN32 - DN50 (1 1/4" to 2")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices on request
- Actuators page 228 - 229
- Mounting holes on request
- Position switches on request
- Combinations on request
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	14f0
Body	Steel
Ball	Stainless Steel
Stem	Stainless Steel
Ball seats	Cast iron
O-rings	FPM
Tmin /Tmax	-20°C / 100°C

## GENERAL DIMENSIONS

Type	l	B 8Kt	H	h	m	V <sub>min</sub>	SW	K	H <sub>1</sub>	Lever
MKHP420-DN32	80	81	119	86	40,5	14,4	17	320	128	Al
MKHP420-DN40	85	100	136	103	50	14,4	17	320	145	Al
MKHP420-DN50	100	118	150	117	59	14,4	17	320	159	Al

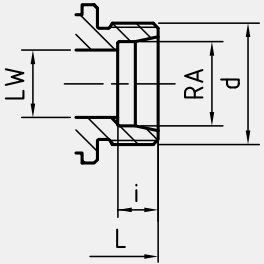
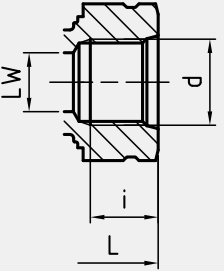


CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
<b>DIN ISO 228 FEMALE THREAD</b>  	Type	LW	L	i	d	Weight [Kg]	PN [bar]	14f0	
	MKHP420-DN32-G1 1/4	32	111	22	G1 1/4	3,42	420	39063	
	MKHP420-DN40-G1 1/2	38	130	24	G1 1/2	5,59	420	39064	
	MKHP420-DN50-G2	48	140	26	G2	8,00	420	39065	
<b>ANSI B1.20.1 NPT FEMALE THREAD</b>  	Type	LW	L	i	d	Weight [Kg]	PN [bar]	14f0	
	MKHP420-DN32-1 1/4"NPT	32	120	22,1	1 1/4"NPT	3,52	420	39066	
	MKHP420-DN40-1 1/2"NPT	38	136	22,1	1 1/2"NPT	5,69	420	39067	
	MKHP420-DN50-2"NPT	48	148	30,3	2"NPT	8,00	420	39068	
<b>DIN 2353 / ISO 8434-1 LIGHT SERIES</b>  	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	14f0
	MKHP420-DN32-35L	32	35	136	10,5	M 45x2	3,62	420	39060
	MKHP420-DN40-42L	38	42	147	11	M 52x2	5,59	420	39061

Application-specific

Please note the pressure ratings of the tube connections!

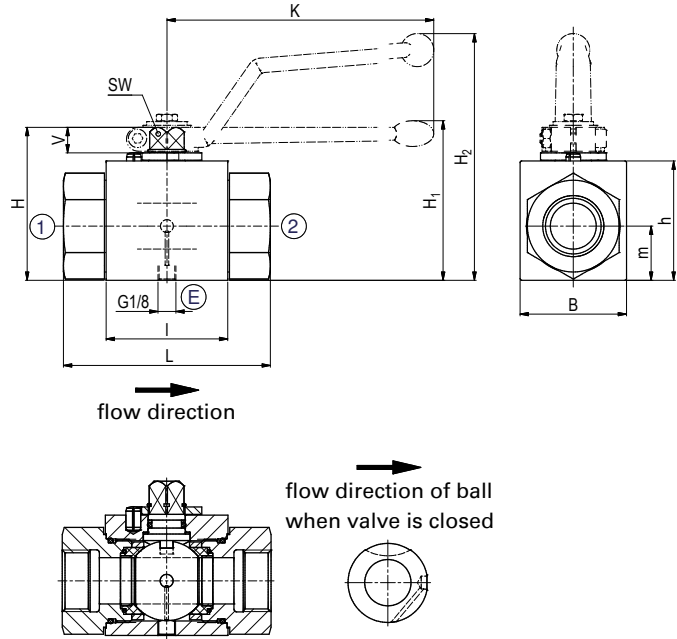


CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION	
DIN 2353 / ISO 8434-1 HEAVY SERIES  	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	14f0
	MKHP420-DN32-38S	32	38	148	16	M 52x2	3,62	420	39062
SAE J514/ISO/DIS11926-1 FEMALE THREAD  	Type	LW	L	i	d	Weight [Kg]	PN [bar]	14f0	
	MKHP420-DN32-1 5/8" UN	30	111	20	1 5/8"-12 UN	3,52	420	39069	
	MKHP420-DN40-1 7/8" UN	38	130	20	1 7/8"-12 UN	5,69	420	39070	
	MKHP420-DN50-1 1/2" UN	45	140	20	2 1/2"-12 UN	8,00	420	39071	

Application-specific

Please note the pressure ratings of the tube connections!





Application-specific

## AVAILABLE SIZES

DN4 - DN25 (1/8" to 1")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request.

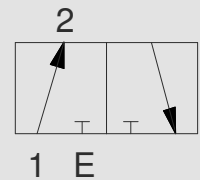
## ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes 19
- Position switches 236 - 237
- Combinations 192 - 194
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	118A	1188
Body	Steel	Steel
Ball	Steel	Steel
Stem	Steel	Steel
Ball seats	POM	POM
O-rings	NBR	FPM
Tmin / Tmax	-20°C / 100°C	-20°C / 100°C

## PORTING PATTERN



## GENERAL DIMENSIONS

Type	l	B	H	h	m	V	SW	K	H <sub>1</sub>	H <sub>2</sub>	Lever
BKH-DN4	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN6	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN8	40	26	47	33	13,5	11	9	115	-	82	Zn
BKH-DN10	43	32	52	38	17,5	11	9	115	-	86	Zn
BKH-DN13	48	35	54	40	19	11	9	115	-	89	Zn
BKH-DN20	62	49	75	57	24,5	14	14	200	79	-	Zn
BKH-DN25	66	58	83	65	29,5	14	14	200	87	-	Zn
BKH-DN25/32	66	58	83	65	29,5	14	14	200	87	-	Zn
BKH-DN25/40	66	58	83	65	29,5	14	14	200	87	-	Zn



CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	118A	1188
<b>DIN ISO 228 FEMALE THREAD</b> 	BKH-DN4-G1/8	5	69	10	G1/8	0,42	500	38974	38982
	BKH-DN6-G1/4	6	69	14	G1/4	0,42	500	38975	38983
	BKH-DN10-G3/8	10	72	14	G3/8	0,55	500	38976	38984
	BKH-DN13-G1/2	13	83	16,3	G1/2	0,66	500	38977	30389
	BKH-DN20-G3/4	20	95	18	G3/4	1,51	420	38978	30449
	BKH-DN25-G1	25	113	20	G1	2,21	315	38979	35266
	BKH-DN25/32-G1 1/4	25	120	22	G1 1/4	2,31	315	38980	38985
	BKH-DN25/40-G1 1/2	25	130	24	G1 1/2	2,61	315	38981	38986

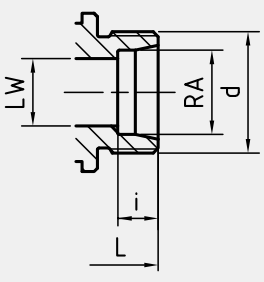
ANSI B1.20.1 NPT FEMALE THREAD	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	118A	1188
	BKH-DN4-1/8" NPT	5	69	10,5	1/8" NPT	0,31	500	38987	38995
	BKH-DN6-1/4" NPT	6	69	13,7	1/4" NPT	0,41	500	38988	38996
	BKH-DN10-3/8" NPT	10	72	13,5	3/8" NPT	0,56	500	38989	38997
	BKH-DN13-1/2" NPT	13	83	17	1/2" NPT	0,76	500	38990	38998
	BKH-DN20-3/4" NPT	20	95	18,3	3/4" NPT	1,64	420	38991	38999
	BKH-DN25-1" NPT	25	113	21,6	1" NPT	2,31	315	38992	39000
	BKH-DN25/32-1 1/4" NPT	25	120	22,1	1 1/4" NPT	2,52	315	38993	39001
	BKH-DN25/40-1 1/2" NPT	25	130	22,1	1 1/2" NPT	2,66	250	38994	39002

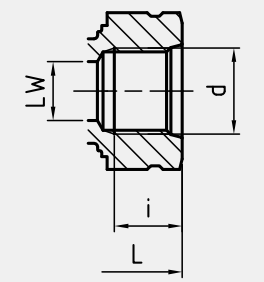
DIN 2353 / ISO 8434-1 LIGHT SERIES	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION			
	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	118A	1188
	BKH-DN4-6L	5	6	67	7	M12x1,5	0,37	500	38940	38949
	BKH-DN6-8L	6	8	67	7	M14x1,5	0,38	500	38941	38950
	BKH-DN8-10L	8	10	74	7	M16x1,5	0,39	500	38942	38951
	BKH-DN10-12L	10	12	74	7	M18x1,5	0,51	500	38943	38952
	BKH-DN13-15L	13	15	82	7	M22x1,5	0,62	500	38944	38953
	BKH-DN20-22L	20	22	101	7,5	M30x2	1,50	420	38945	38954
	BKH-DN25-28L	25	28	108	7,5	M36x2	2,10	315	38946	38955
	BKH-DN25/32-35L	25	35	112	10,5	M45x2	2,13	315	38947	38956
	BKH-DN25/40-42L	25	42	112	11	M52x2	2,28	315	38948	38957

Please note the pressure ratings of the tube connections!

Application-specific



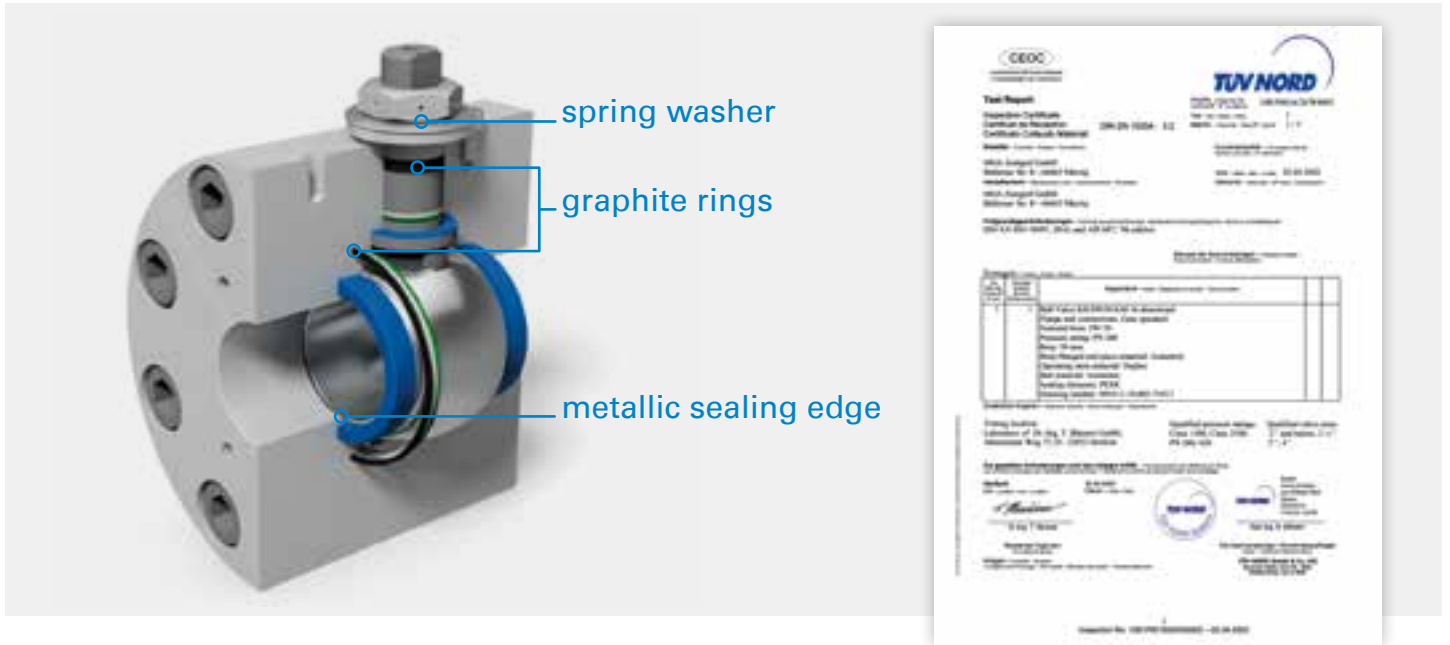
CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION		
	Type	LW	RA	L	i	d	Weight [Kg]	PN [bar]	118A	1188
<b>DIN 2353 / ISO 8434-1 HEAVY SERIES</b>  	BKH-DN4-8S	5	8	73	7	M16x1,5	0,39	500	38958	38966
	BKH-DN6-10S	6	10	73	7,5	M18x1,5	0,40	500	38959	38967
	BKH-DN8-12S	8	12	76	7,5	M20x1,5	0,40	500	38960	38968
	BKH-DN10-14S	10	14	80	8	M22x1,5	0,51	500	38961	38969
	BKH-DN13-16S	13	16	86	8,5	M24x1,5	0,61	500	38962	38970
	BKH-DN20-25S	20	25	109	12	M36x2	1,56	420	38963	38971
	BKH-DN25-30S	25	30	120	13,5	M42x2	2,11	315	38964	38972
	BKH-DN25/32-38S	25	38	124	16	M52x2	2,31	315	38965	38973

CONNECTION TYPE	DIMENSIONS							ORDER CODE PER MATERIAL COMBINATION		
	Type	LW	L	i	d	Weight [Kg]	PN [bar]	118A	1188	
<b>SAE J514/ISO/DIS11926-1 FEMALE THREAD</b>  	BKH-DN6-7/16" UNF	5	69	12	7/16"-20 UNF	0,40	500	39003	39008	
	BKH-DN10-9/16" UNF	10	72	13	9/16"-18 UNF	0,55	500	39004	39009	
	BKH-DN13-3/4" UNF	13	83	15	3/4"-16 UNF	0,66	500	39005	39010	
	BKH-DN20-1 1/16" UN	20	95	20	1 1/16"-12 UN	1,58	420	39006	39011	
	BKH-DN25-1 5/16" UN	25	113	20	1 5/16"-12 UN	2,30	315	39007	39012	

Application-specific

Please note the pressure ratings of the tube connections!

# Ball valves with fire-safe approval



When handling flammable liquids, safety must be a prime consideration. Great importance is therefore attributed to the design of “fire-safe” shut-off valves utilized in many industrial environments including:

- Chemical and petrochemical plants
- Oil drilling and refineries
- On- /offshore installations

When fire does break out, it is important that it does not spread through failures in pipe-work systems. Even under the most extreme conditions shut-off valves must provide:

- Secure operation
- Reliable sealing in shut-off position
- Reliable sealing from ambient atmosphere

Application-specific

Sizes from 1/2" to 3"

420 bar (6.000 psi)

Bi-directional usage

Certified acc. ISO 10497, API 607

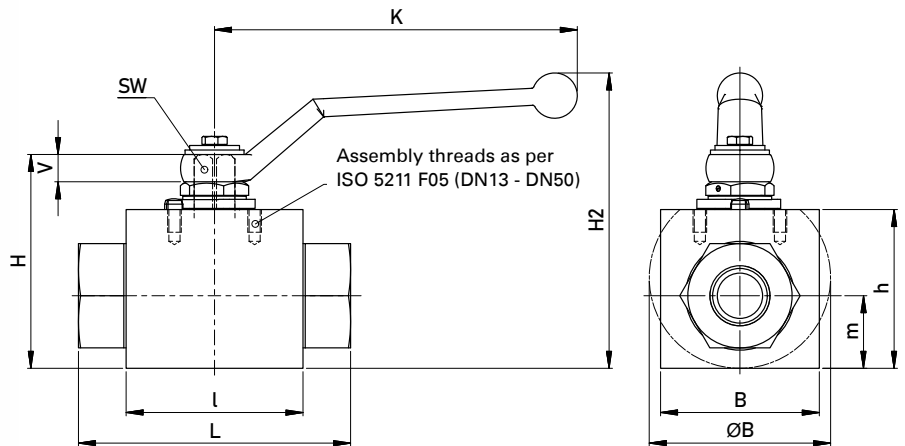
Additional tests and documentation on request (e.g. PMI, penetrant testing, gas test, ...)



- 1.4571 (AISI316Ti) body and connector material
- PEEK ball seats
- FPM o-rings (or others on request)
- Graphite secondary seats



- Threaded connections:  
ISO 228, NPT female, UN female, DIN 2353 cutting ring, ...
- Flange connections:  
ISO 6162-1/2, ISO 6164, ANSI RF, ...



## AVAILABLE SIZES

DN13 - DN50 (1/2" to 2")

## CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, ISO 7/1 Rc Female thread, ISO 8434-3 ORFS Male thread, others on request

## ACCESSORIES ON REQUEST

- Locking devices on request
- Actuators on request
- Mounting holes on request
- Position switches on request
- Combinations on request
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	44m8
Body	Stainless Steel
Ball	Stainless Steel
Stem	Stainless Steel
Primary ball seats	PEEK
Secondary ball seats	Stainless Steel
Primary body and stem sealing	FPM
Secondary body and stem sealing	Graphite
Tmin /Tmax	-20°C / 200°C

## GENERAL DIMENSIONS

Type	L	B	H	h	m	V <sub>min</sub>	SW	K	H <sub>2</sub>	Lever
< DN13 on request										
BKH-DN13	74,5	49	72	57	31,3	8	9	133	99	SS
BKH-DN20	78	70	94	70	32	9,5	14	161	127	SS
BKH-DN25	78	70	94	70	29,5	9,3	14	161	127	SS
BKH-DN32	102	Ø112	132	101,5	56	14	17	227	208	SS
BKH-DN40	97	Ø120	143	113	60	14	17	227	216	SS
BKH-DN50	101	Ø132	154,5	124	66	14,4	17	227	230	SS

Fire-safe approval as per DIN EN ISO 10497 (2016) and API 607 (7th edition)

# Block ball valve with fire-safe approval (bi-direct) Stainless Steel

BKH



CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION	
DIN ISO 228 FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44m8
	BKH-DN13-G 1/2	12	105	16,3	G 1/2	1,90	420	71018
	BKH-DN20-G 3/4	20	120	18	G 3/4	3,41	420	71019
	BKH-DN25-G 1	25	125	20	G 1	3,41	420	71022
	BKH-DN32-G 1 1/4	32	138	22	G 1 1/4	8,00	420	71670
	BKH-DN40-G 1 1/2	35	150	24	G 1 1/2	9,38	420	71673
	BKH-DN50-G 2	48	165	26	G 2	11,63	420	71676

CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION	
ANSI B1.20.1 NPT FEMALE THREAD	Type	LW	L	i	d	Weight [Kg]	PN [bar]	44m8
	BKH-DN13-1/2" NPT	12	105	17	1/2" NPT	1,90	420	71025
	BKH-DN20-3/4" NPT	20	120	18	3/4" NPT	3,41	420	71019
	BKH-DN25-1" NPT	25	125	21,6	1" NPT	3,41	420	71028
	BKH-DN32-1 1/4" NPT	32	138	22,1	1 1/4" NPT	8,00	420	71950
	BKH-DN40-1 1/2" NPT	35	150	22,1	1 1/2" NPT	9,38	420	71951
	BKH-DN50-2" NPT	48	165	30,3	2" NPT	11,63	420	71952

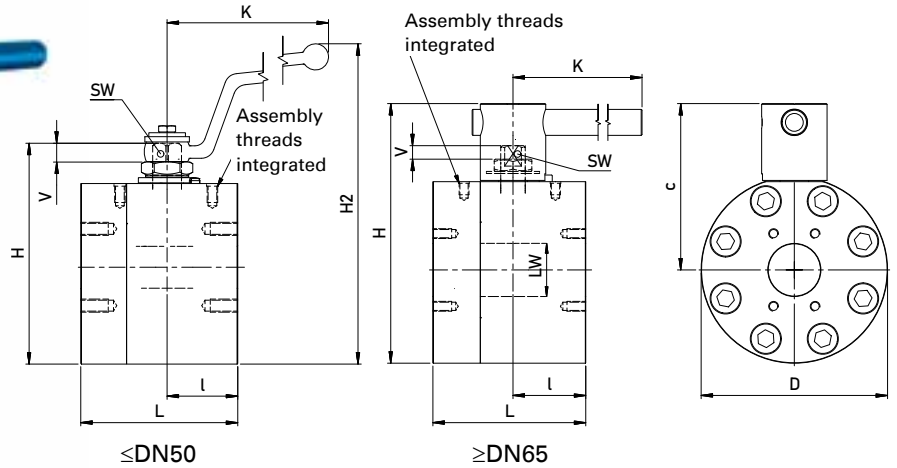
Application-specific

Assembly threads as per ISO 5211 F05 (DN13 - DN50).

Please note the pressure ratings of the tube connections!

# Flange ball valve with fire-safe approval (bi-direct) Stainless Steel

KH-SAE



## AVAILABLE SIZES

DN25 - DN100 (1" to 4")

## CONNECTIONS

ISO 6162-1, ISO 6162-2 (single flange pattern), others on request

## ACCESSORIES ON REQUEST

- Locking devices on request
- Actuators on request
- Mounting holes on request
- Position switches on request
- Combinations on request
- Detent on request

## MATERIAL CODE DESCRIPTION

Materials	44m8
Body	Stainless Steel
Ball	Stainless Steel
Stem	Stainless Steel
Primary all seats	PEEK
Secondary ball seats	Stainless Steel
Primary body and stem sealing	FPM
Secondary body and stem sealing	Graphite
Tmin /Tmax	-20°C / 200°C

## GENERAL DIMENSIONS

Type	LW	L	I	D	H	c	V <sub>min</sub>	SW	K	H <sub>2</sub>	Lever
KH-DN25	25	115	49	120	133	46	11	14	160	170	SS
KH-DN32	32	120	54	148	174	64	14	17	227	248	SS
KH-DN40	43	130	55	175	197	79	14,4	17	227	273	SS
KH-DN50	48	140	65	198	220	94	10,1	17	227	299	SS
KH-DN65	64	187	85	224	318	108	16,5	22	600	-	SS <sup>(1)</sup>
KH-DN80	76/72	200	98	280	365	128,5	19,1	22	600	-	SS <sup>(1)</sup>
KH-DN100	on request										SS <sup>(1)</sup>

Fire-safe approval as per DIN EN ISO 10497 (2016) and API 607 (7th edition)

<sup>(1)</sup> Lever must be fixed centrally during operation. In case of vibration the lever may otherwise operate the valve by itself.

# Flange ball valve with fire-safe approval (bi-direct) Stainless Steel

KH-SAE



CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
ISO 6162-1 (single flange pattern)	Type	a	b	M	t	Weight [Kg]	PN [bar]	44m8	
	KH-DN25-SAE210	52,4	26,2	M10	20	9,0	320	69713	
	KH-DN32-SAE210	30,2	58,7	M10	21	15,5	280	69716	
	KH-DN40-SAE210	35,7	69,9	M12	21	23,0	210	69709	
	KH-DN50-SAE210	42,9	77,8	M12	21	31,1	210	69707	
	KH-DN65-SAE210	50,8	88,9	M12	23	57,0	175	69732	
	KH-DN80-SAE210	61,9	106,4	M16	24	93,0	160	69735	
	KH-DN100-SAE210	on request						on request	

CONNECTION TYPE	DIMENSIONS						ORDER CODE PER MATERIAL COMBINATION		
ISO 6162-2 (single flange pattern)	Type	a	b	M	t	Weight [Kg]	PN [bar]	44m8	
	KH-DN25-SAE420	27,8	57,2	M12	20	9,0	420	69729	
	KH-DN32-SAE420	31,8	66,7	M12	21	15,5	420	69726	
	KH-DN40-SAE420	36,5	79,4	M16	27	23,0	420	69723	
	KH-DN50-SAE420	44,5	96,8	M20	28	31,1	420	69720	
	KH-DN65-SAE420	58,7	123,8	M24	41	57,0	420	69738	
	KH-DN80-SAE420	71,4	152,4	M30	47	93,0	420	69741	
	KH-DN100-SAE420	on request						on request	

Application-specific

Assembly threads integrated.

Please note the pressure ratings of the connection flanges!