

# Metallisch Dichtende

Hochleistungs-Kugelhähne

# Metal Seated

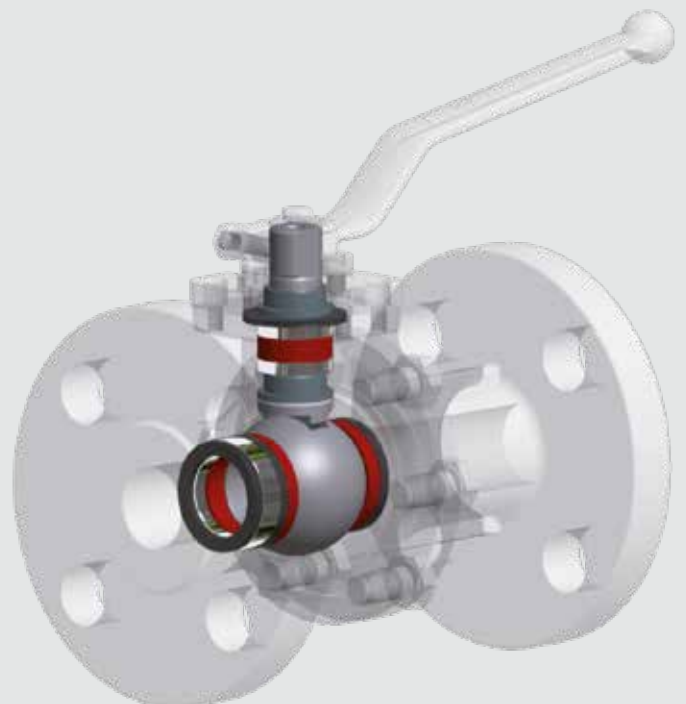
High Performance Ball Valves

## TYP KHF 710

- 1/2" - 12", ANSI Class 150-600
- **Flansche & Baulängen:**  
ASME B 16.5, B 16.10
- **Werkstoffe:**  
1.4408 (CF8M)  
1.0619 (WCB)  
Sonderwerkstoffe (Duplex,  
Hastelloy C4...etc.) auf Anfrage
- **Temperaturbereich:**  
-50°C bis +400°C, bis +650°C auf Anfrage  
-58°F bis +752°F, bis 1200°F auf Anfrage

## TYPE KHF 710

- 1/2" - 12", ANSI Class 150-600
- **Flange & face-to face-dimensions:**  
ASME B 16.5, B 16.10
- **Materials:**  
1.4408 (CF8M)  
1.0619 (WCB)  
Special Materials (Duplex,  
Hastelloy C4...etc.) on request
- **Temperature range:**  
-50° up to +400°C, up to +650°C on request  
-58°F up to +752°F, up to 1200°F on request



# TYP KHF 710 metallisch

Maßzeichnung

# TYPE KHF 710 metal seats

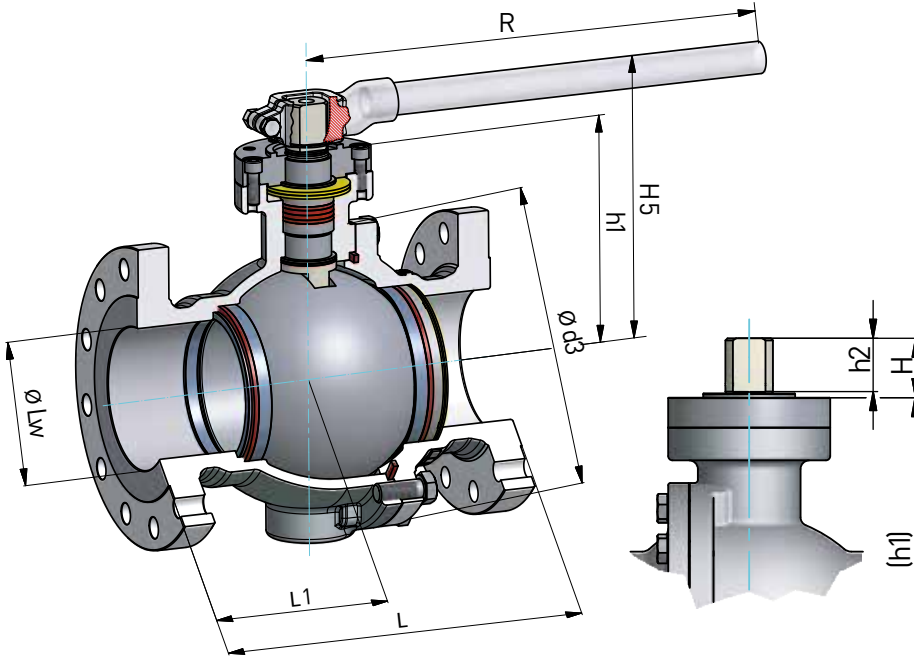
Dimensional Drawing

Flanschanschluss nach ASME B16.5

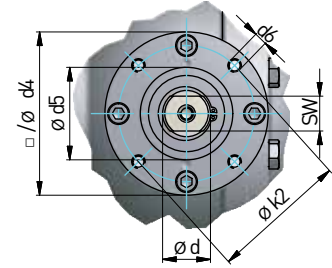
Standard Dichtleiste: raised face (andere auf Anfrage)

flange connection according to ASME B16.5

flange facing: standard raised face (others on request)



## DIN EN ISO 5211



ISO 5211	Øk2	d5	thread length	Ød5 (f8)	Ø/ d4
F 05	50,0	4 x M6	10,0	35,0	□48
F 07	70,0	4 x M8	12,0	55,0	□68
F 10	102,0	4 x M10	15,0	70,0	□96
F 12	125,0	4 x M12	18,0	85,0	Ø150
F 14	140,0	4 x M16	24,0	100,0	Ø175
F 16	165,0	4 x M20	30,0	130,0	Ø210
F 25	254,0	8 x M16	24,0	200,0	Ø285
F 30	298,0	8 x M20	30,0	230,0	Ø350

## MAßTABELLE TYP KHF 710 metallisch

## MEASURING GUIDE TYPE KHF 710 metal seats

NPS	Lw	L			L1			H		h1		h2		Ød		SW		Ød3			H5		R	Weight Kg			ISO 5211		
		150	300	600	150	300	600	150	300	150	300	150	300	150	300	150	300	600	150	300	600	150		300	600	150	300	600	
1/2"	mm	16,0	108,0	139,7	165,1	47,0	47,0	58,0	17,0	17,0	63,0	63,0	10,0	10,0	16,0	16,0	12,4	12,4	90,0	90,0	91,0	133,0	160,0	3,0	3,7	4,2	F05	F05	F05
	in	0,63	4,25	5,50	6,50	1,85	1,85	2,28	0,67	0,67	2,48	2,48	0,39	0,39	0,63	0,63	0,49	0,49	3,54	3,54	3,58	5,24	6,30						
3/4"	mm	19,0	117,3	152,4	190,5	48,0	48,0	58,0	17,0	17,0	63,0	63,0	10,0	10,0	16,0	16,0	12,4	12,4	90,0	90,0	91,0	133,0	160,0	3,3	4,7	5,4	F05	F05	F05
	in	0,75	4,62	6,00	7,50	1,89	1,89	2,28	0,67	0,67	2,48	2,48	0,39	0,39	0,63	0,63	0,49	0,49	3,54	3,54	3,58	5,24	6,30						
1"	mm	25,0	127,0	165,1	215,9	48,0	63,0	78,0	17,0	17,0	63,0	63,0	10,0	10,0	16,0	16,0	12,4	12,4	90,0	90,0	105,0	133,0	160,0	3,7	5,3	7,1	F05	F05	F05
	in	0,98	5,00	6,50	8,50	1,89	2,48	3,07	0,67	0,67	2,48	2,48	0,39	0,39	0,63	0,63	0,49	0,49	3,54	3,54	4,13	5,24	6,30						
1 1/2"	mm	38,1	165,1	190,5	241,3	67,5	67,5	102,5	29,0	29,0	80,0	80,0	14,0	14,0	20,0	20,0	14,0	14,0	120,0	120,0	130,0	158,0	215,0	7,4	10,6	13,5	F07	F07	F07
	in	1,50	6,50	7,50	9,50	2,66	2,66	4,04	1,14	1,14	3,15	3,15	0,55	0,55	0,79	0,79	0,55	0,55	4,72	4,72	5,12	6,22	8,46						
2"	mm	50,0	177,8	215,9	292,1	70,0	77,5	112,5	33,0	33,0	93,0	93,0	18,0	18,0	20,0	20,0	14,0	14,0	152,0	155,0	160,0	171,0	215,0	12,1	15,4	19,8	F07	F07	F07
	in	1,97	7,00	8,50	11,50	2,76	3,05	4,43	1,30	1,30	3,66	3,66	0,71	0,71	0,79	0,79	0,55	0,55	5,98	6,10	6,30	6,73	8,46						
2 1/2"	mm	64,0	190,5	241,3	330,2	80,0	80,0	102,5	35,0	35,0	115,0	115,0	18,0	18,0	20,0	20,0	14,0	14,0	190,0	190,0	190,0	195,0	215,0	19,5	23,0	29,7	F10	F10	F10
	in	2,52	7,50	9,50	13,00	3,15	3,15	4,04	1,38	1,38	4,53	4,53	0,71	0,71	0,79	0,79	0,55	0,55	7,48	7,48	7,48	7,68	8,46						
3"	mm	76,1	203,2	282,5	355,6	82,5	102,5	142,5	37,0	37,0	124,5	124,5	20,0	20,0	25,0	25,0	19,3	19,3	202,0	202,0	215,0	211,0	300,0	24,5	32,4	41,7	F10	F10	F10
	in	3,00	8,00	11,12	14,00	3,25	4,04	5,61	1,46	1,46	4,90	4,90	0,79	0,79	0,98	0,98	0,76	0,76	7,95	7,95	8,46	8,31	11,81						
4"	mm	100,0	228,6	304,8	431,8	94,5	117,5	162,5	37,0	37,0	141,0	141,0	20,0	20,0	25,0	25,0	19,3	19,3	235,0	238,0	253,0	228,0	300,0	36,1	48,7	75,5	F10	F10	F10
	in	3,94	9,00	12,00	17,00	3,72	4,63	6,40	1,46	1,46	5,55	5,55	0,79	0,79	0,98	0,98	0,76	0,76	9,25	9,37	9,96	8,98	11,81						
6"	mm	150,0	393,7	403,4	558,8	175,0	195,0	210,0	55,0	55,0	242,5	242,5	41,5	41,5	44,0	44,0	32,0	32,0	320,0	320,0	365,0	301,0	800,0	95,2	113,8	182,0	F12	F12	F12
	in	5,91	15,50	15,88	22,00	6,89	7,68	8,27	2,17	2,17	9,55	9,55	1,63	1,63	1,73	1,73	1,26	1,26	12,60	12,60	14,37	11,85	31,50						
8"	mm	200,0	457,2	501,7	660,4	210,0	235,0	265,0	55,0	55,0	280,0	280,0	41,5	41,5	44,0	44,0	32,0	32,0	397,0	405,0	465,0	338,0	800,0	159,5	193,3	348,5	F12	F12	F16
	in	7,87	18,00	19,75	26,00	8,27	9,25	10,43	2,17	2,17	11,02	11,02	1,63	1,63	1,73	1,73	1,26	1,26	15,63	15,94	18,31	13,31	31,50						
10"	mm	250,0	533,4	568,5	787,4	245,0	275,0	310,0	60,0	81,0	330,0	337,0	51,0	74,0	48,0	70,0	36,0	50,0	487,0	505,0	540,0	-	-	255,5	329,6	596,0	F14	F16	F25
	in	9,84	21,00	22,38	31,00	9,65	10,83	12,20	2,36	3,19	12,99	13,27	2,01	2,91	1,89	2,76	1,42	1,97	19,17	19,88	21,26								
12"	mm	300,0	609,6	647,7	838,2	270,0	305,0	360,0	60,0	120,0	365,0	460,0	51,0	99,5	48,0	98,0	36,0	75,0	570,0	580,0	640,0	-	-	361,8	456,9	934,0	F14	F16	F30
	in	11,81	24,00	25,50	33,00	10,63	12,01	14,17	2,36	4,72	14,37	18,11	2,01	3,92	1,89	3,86	1,42	2,95	22,44	22,83	25,20								

# TYP KHF 710 metallisch

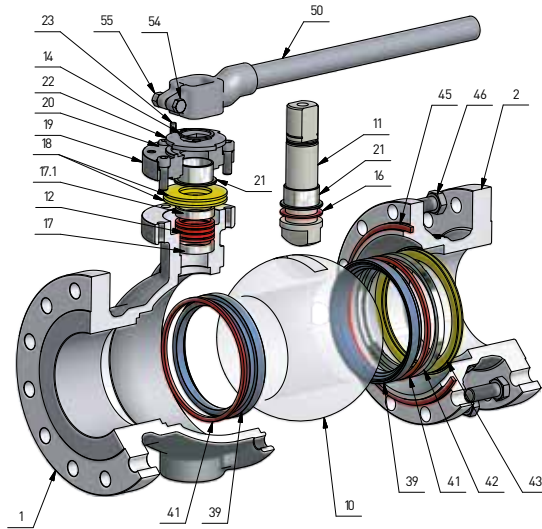
Explosionszeichnung I & II

# TYPE KHF 710 metal seats

Exploded View I & II

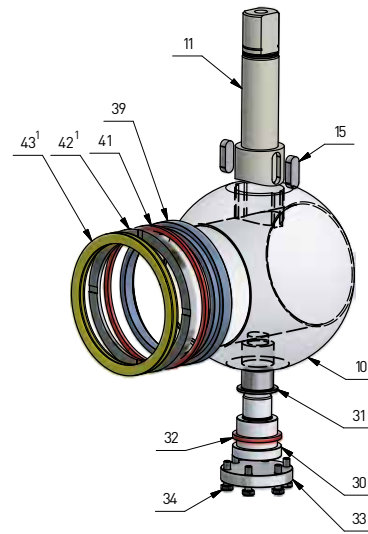
**Abb. I:**  
Schwimmende  
Kugel,  
angefedert  
NPS 1/2" - 12"

**Fig. I:**  
Floating  
ball,  
live load  
NPS 1/2" - 12"



**Abb. II:**  
Gelagerte  
Kugel,  
angefedert  
NPS 3" - 12"

**Fig. II:**  
Trunnion  
mounted  
ball,  
live load  
NPS 3" - 12"



## STÜCKLISTE TYP KHF 710 metallisch

## BILL OF MATERIALS TYPE KHF 710 metal seats

Positions Nr. / Item No.	Beschreibung	tem	Edelstahl Ausführung (EGE) stainless steel version	Stahl Ausführung (SGE) carbon steel version
1	Gehäuse	Body	1.4408/ CF8M	1.0619/ WCB
2	Seitenteil	Side cap	1.4408/ CF8M	1.0619/ WCB
10	Kugel <sup>2,3</sup>	Ball <sup>2,3</sup>	1.4408/ CF8M	1.4408/ CF8M
11	Schaltwelle	Stem	1.4462/ 318 LN	1.4462/ 318 LN
12	Dichtring <sup>2</sup>	Stem seal <sup>2</sup>	Graphite	Graphite
14	Sicherungsring	Safety ring	1.4310/ 301	1.4310/ 301
15	Passfeder <sup>1</sup>	Key <sup>1</sup>	1.4571/ 316 Ti	1.4571/ 316 Ti
16	Gleitring <sup>2</sup>	Thrust ring <sup>2</sup>	Graphite	Graphite
17	Druckring	Ring	1.4404/ 316L	1.4404/ 316L
17.1	Druckring	Ring	1.4404/ 316L	1.4404/ 316L
18	Tellerfeder	Cup spring	1.4310/ 301/1.4568	1.4310/ 301/1.4568
19	Deckel	Cover	1.4408/ CF8M	1.4408/ CF8M
20	Zylinderschraube	Hex.-socket screw	A2-70/ 304	A2-70/ 304
21	Lagerbuchse <sup>3</sup>	Bearing bush <sup>3</sup>	1.4401/ 316	1.4401/ 316
22	Anschlagscheibe	Stop disc	1.4301/ 304	1.4301/ 304
23	Anschlag	Limit stop	1.4301/ 304	1.4301/ 304
30	Lagerbolzen <sup>1</sup>	Trunnion <sup>1</sup>	1.4404/ 316L	1.4404/ 316L
31	Lagerbuchse <sup>1,3</sup>	Bearing bush <sup>1,3</sup>	1.4404/ 316L	1.4404/ 316L
32	Dichtring Lagerbolzen <sup>1,2</sup>	Trunnion seal <sup>1,2</sup>	Graphite	Graphite
33	Deckel <sup>1</sup>	Cover <sup>1</sup>	1.4404/ 316L	S355J2G3/ carbon steel
34	Sechskantschraube <sup>1</sup>	Hex bolt <sup>1</sup>	A4-70/ 316	A2-70/ 304
39	Kugeldichtring <sup>2,3</sup>	Ball seat <sup>2,3</sup>	1.4404/ 316L/ 1.4571/ 316 Ti	1.4404/ 316L/ 1.4571/ 316Ti
41	Dichtring <sup>2</sup>	Seat ring <sup>2</sup>	Graphite	Graphite
42	Druckring	Ring	1.4404/ 316L	1.4404/ 316L
43	Tellerfeder	Cup spring	Inconel	Inconel
45	Gehäusedichtring <sup>2</sup>	Body gasket <sup>2</sup>	Graphite	Graphite
46	Sechskantschraube	Hex bolt	A4-70/ 316	A2-70/ 304
50	Handhebel	Handle	1.4308/ CF8	1.4308/ CF8
54	Sechskantschraube	Hex bolt	steel galvanized	steel galvanized
55	Sechskantmutter	Nut	steel galvanized	steel galvanized

<sup>1</sup> Nur bei gelagerter Ausführung/ Only for trunnion mounted design

<sup>2</sup> Empfohlene Ersatzteile / recommended spare parts

<sup>3</sup> Beschichtungsoptionen / Coating Options: Borid / Boride, Wolfram Karbid / Tungsten carbide, Chrom Karbid / Chrome carbide

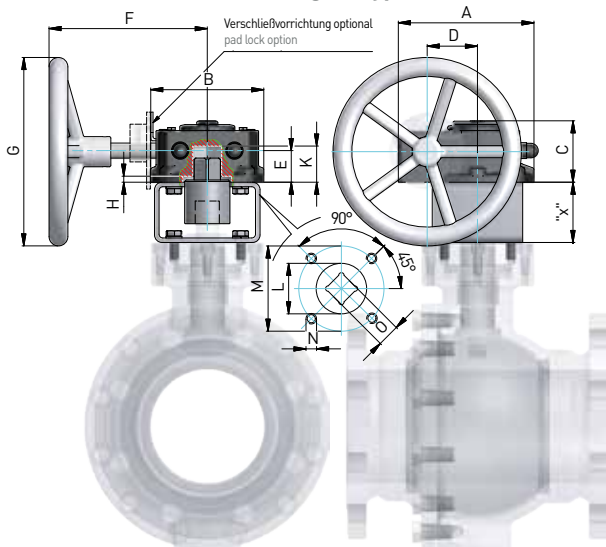
# TYP KHF 710 metallisch

Zubehör

# TYPE KHF 710 metal seats

Accessories

## Handgetriebe Typ AR manual worm gear type AR



### HANDGETRIEBE

TYP AR

### MANUAL WORM GEAR

TYPE AR

Typ/ Type	max. torque	A	B	C	D	E	F	G	H	K	L	M	N	O	ISO 5211
AR 1	200 Nm	113,0	84,0	64,0	43,5	28,5	153,5	160,0	4,5	30,0	35,0	70,0	M8	17	F07
AR 2	800 Nm	185,0	135,0	90,5	68,8	42,5	267,5	250,0	2,5	50,0	60,0	125,0	M12	27	F12
AR 2,5	1500 Nm	206,0	156,0	97,0	84,0	45,0	328,0	500,0	2,0	60,0	85,0	140,0	M16	36	F14
AR 3	2000 Nm	236,0	180,0	100,0	96,5	50,0	340,0	500,0	2,0	65,0	85,0	140,0	M16	36	F14
AR 3,5	3000 Nm	279,0	250,0	117,5	117,5	48,5	380,0	600,0	2,0	75,0	115,0	165,0	M20	46	F16
AR 4	4000 Nm	326,0	282,0	128,0	137,5	54,5	424,0	600,0	3,5	75,0	130,0	165,0	M20	46	F16
AR 5	6500 Nm	340,0	282,0	128,0	137,5	54,5	456,0	600,0	3,5	75,0	130,0	254,0	M16	55	F25

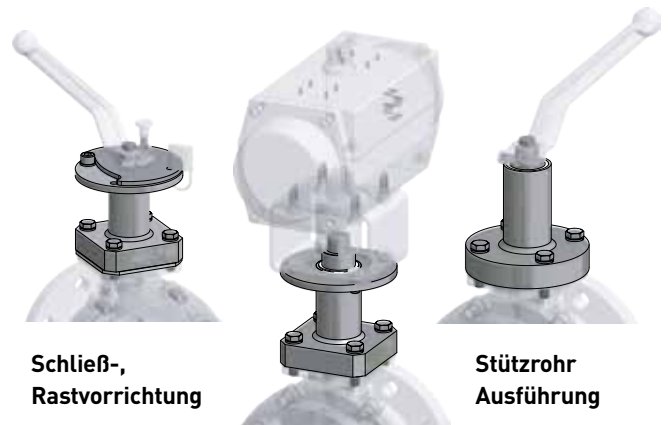
### BRÜCKENHÖHE "x"

STANDARD

### DIMENSION OF BRACKET "x"

STANDARD

gear box	ball valve						
	ISO 5211	F 10	F 12	F 14	F 16	F 25	F 30
AR 1	F 07	80	80	-	-	-	-
AR 2	F 12	80	80	80	-	-	-
AR 2,5	F 14	-	80	80	-	-	-
AR 3	F 14	-	80	80	100	-	-
AR 3,5	F 14	-	80	80	100	200	-
AR 4	F 16	-	100	100	100	200	-
AR 5	F 25	-	-	200	200	200	200



**Schließ-,  
Rastvorrichtung**  
locking, blocking  
device

**Montageflansch  
gem. ISO5211**  
ISO-top flange acc.  
to ISO5211

**Stützrohr  
Ausführung**  
support tube  
version

### KONSTRUKTIONSMERKMALE:

- DGRL 2014/68/EU, AD-2000
- ASME B16.34
- TA-Luft
- Fire-Safe
- Leckagerate „A“ EN 12266-1/ Class VI FCI 70-2
- Angefedertes Kugeldichtsystem
- Schwimmende oder zapfengelagerte Kugel

### DESIGN FEATURES:

- DGRL 2014/68/EU, AD-2000
- ASME B16.34
- TA-Luft
- Fire-Safe
- Leckagerate „A“ EN 12266-1/ Class VI FCI 70-2
- Live load state of the art sealing system
- Floating or trunnion mounted ball

## A+R - Armaturen® GmbH

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