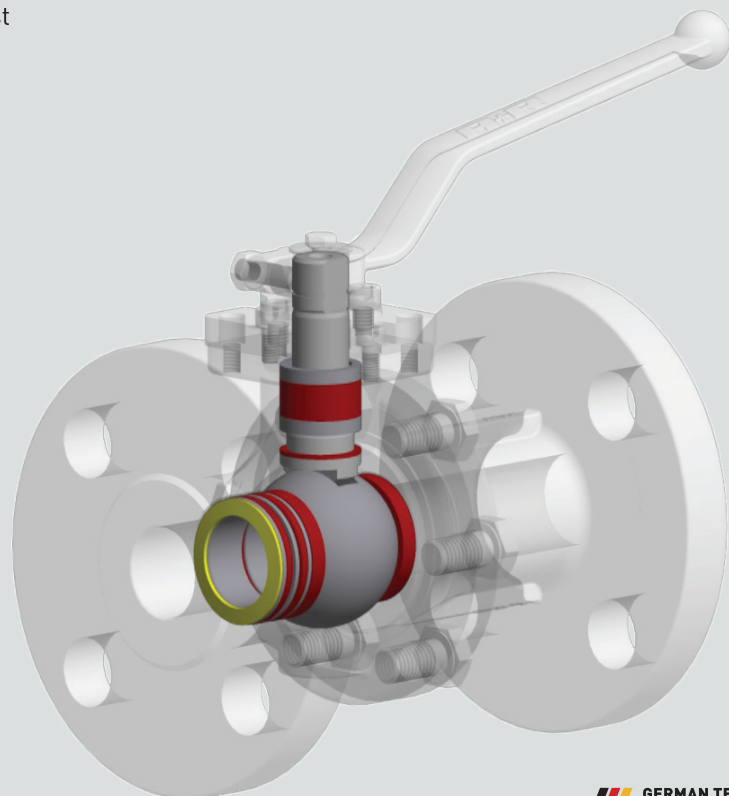


## Soft Seated

High Performance Ball Valves

### TYPE KHF 710

- 1/2"-12", ANSI Class 150-600
- Flange & face-to face-dimensions:  
ASME B 16.5, B 16.10
- Materials:  
CF8M  
WCB  
Special Materials (Duplex,  
Hastelloy C4...etc.) on request
- Temperature range:  
-58°F up to +392°F, up to 446°F on request

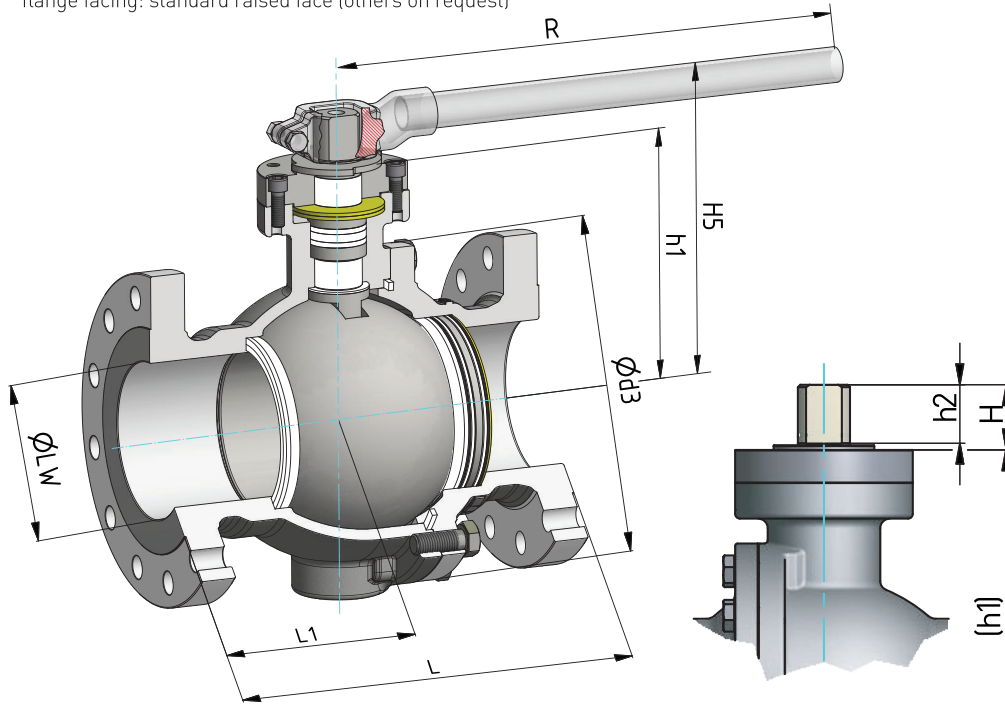


# TYPE KHF 710 soft seats

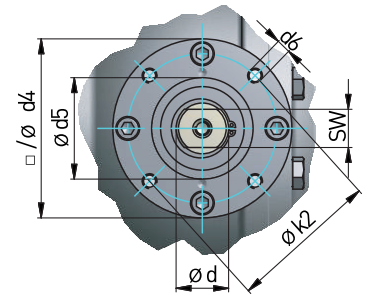
## Dimensional Drawing

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	1.97	4 x M6	0.39	1.38	□1.89
F 07	2.76	4 x M8	0.47	2.17	□2.68
F 10	4.02	4 x M10	0.59	2.76	□3.78
F 12	4.92	4 x M12	0.71	3.35	Ø5.91
F 14	5.51	4 x M16	0.94	3.94	Ø6.89
F 16	6.50	4 x M20	1.18	5.12	Ø8.27
F 25	10.00	8 x M16	0.94	7.87	Ø11.22
F 30	11.73	8 x M20	1.18	9.06	Ø13.78

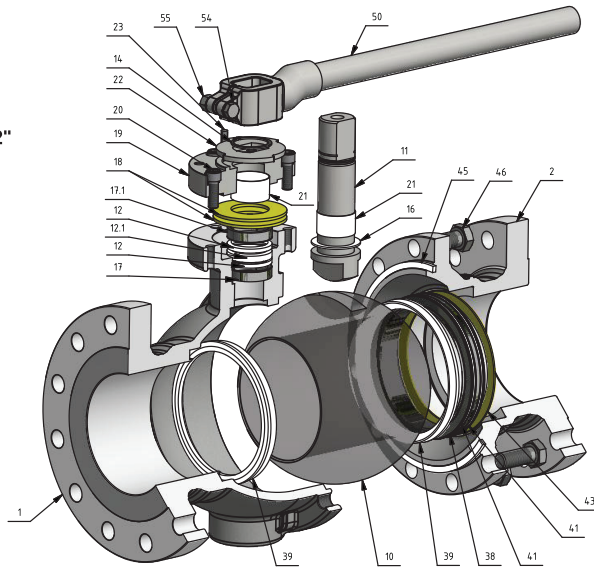
## MEASURING GUIDE TYPE KHF 710 soft seats

NPS	Lw		L			L1			H		h1		h2		Ød		SW		Ød3			H5		R			Weight Lbs			ISO 5211			
	150	300	150	300	600	150	300	600	150	300	150	300	150	300	150	300	150	300	150	300	600	150	150	150	300	600	150	300	600	150	300	600	
1/2" 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	6.6	8.1	9.2	F05	F05	F05					
3/4" 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	7.2	10.3	100	F05	F05	F05					
1" 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	8.1	11.6	15.6	F05	F05	F05					
1 1/2" 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	16.13	23.3	29.7	F07	F07	F07					
2" 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	26.6	33.9	43.6	F07	F07	F07					
2 1/2" 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	42.9	50.7	65.4	F10	F10	F10					
3" 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	54	71.4	91.9	F10	F10	F10					
4" 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	79.5	107.3	166.4	F10	F10	F10					
6" 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	209.8	250.8	401.2	F12	F12	F12					
8" 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	351.6	426.1	768.3	F12	F12	F16					
10" 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	-	-	563.2	726.6	1313.9	F14	F16	F25					
12" 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	-	-	797.6	1007.2	2039.1	F14	F16	F30					

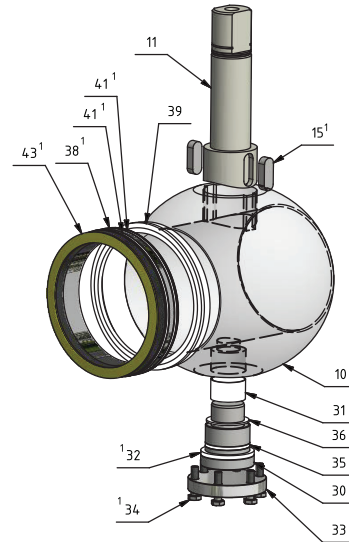
# TYPE KHF 710 soft seats

Exploded View I & II

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



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



## BILL OF MATERIALS TYPE KHF 710 soft seats

Positions Nr. / Item No.	Item	stainless steel version	carbon steel version
1	Body	CF8M	WCB
2	Side cap	CF8M	WCB
10	Ball <sup>2</sup>	CF8M	CF8
11	Stem	316	316
12	Stem seat <sup>2</sup>	PTFE	PTFE
12.1	Stem seat <sup>2</sup>	PTFE	PTFE
14	Safety ring	301	301
15	Key <sup>1</sup>	316Ti	316Ti
16	Thrust ring <sup>2</sup>	PTFE	PTFE
17	Ring	316L	316L
17.1	Ring	316L	316L
18	Cup spring	301	301
19	Cover	CF8M	CF8M
20	Hex.-socket screw	304	304
21	Bearing band	PTFE	PTFE
22	Stop disc	304	304
23	Limit stop	304	304
30	Trunnion <sup>1</sup>	316L	316L
31	Bearing band <sup>1</sup>	PTFE	PTFE
32	Trunnion seal <sup>1,2</sup>	PTFE	PTFE
33	Cover <sup>1</sup>	316L	Carbon steel
34	Hex bolt <sup>1</sup>	316	304
35	O-Ring <sup>1,2</sup>	FKM-FEP covered	FKM-FEP covered
38	Seat carrier	316L	316L
39	Ball seat <sup>2</sup>	TFM1600	TFM1600
41	O-Ring <sup>2</sup>	FKM-FEP covered	FKM-FEP covered
43	Cup spring	Inconel	Inconel
45	Body gasket <sup>2</sup>	PTFE	PTFE
46	Hex bolt	316	304
50	Handle	CF8	CF8
54	Hex bolt	steel galvanized	steel galvanized
55	Nut	steel galvanized	steel galvanized

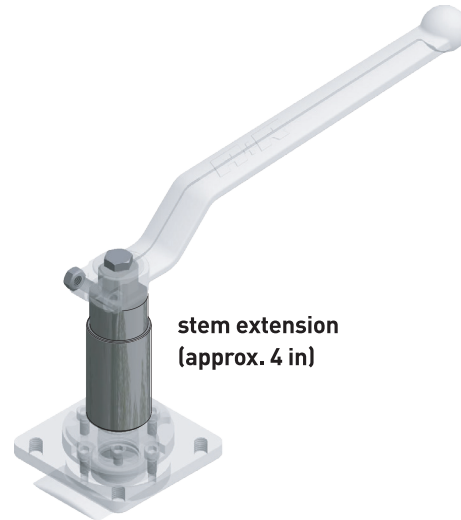
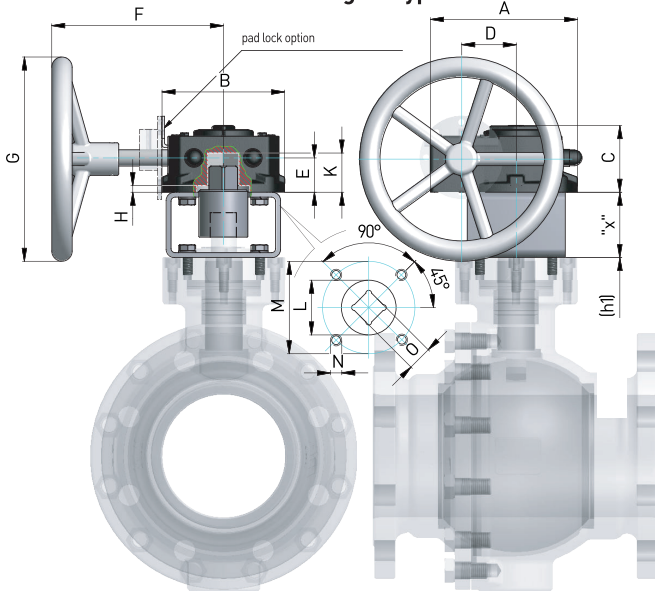
<sup>1</sup> Only for trunnion mounted design

<sup>2</sup> Recommended spare parts

# TYPE KHF 710 soft seats

Accessories

## manual worm gear type AR



## MANUAL WORM GEAR

TYPE AR

Type	max. Torque	A	B	C	D	E	F	G	H	K	L	M	N	O	ISO 5211
AR 1	1,770 in-lb	4.45	3.31	2.52	1.71	1.12	6.04	6.30	0.18	1.18	1.38	2.76	M8	0.67	F07
AR 2	7,080 in-lb	7.28	5.31	3.56	2.71	1.67	10.53	9.84	0.10	1.97	2.36	4.92	M12	1.06	F12
AR 2,5	13,275 in-lb	8.11	6.14	3.82	3.31	1.77	12.91	19.69	0.08	2.36	3.35	5.51	M16	1.42	F14
AR 3	17,700 in-lb	9.29	7.09	3.94	3.80	1.97	13.39	19.69	0.08	2.56	3.35	5.51	M16	1.42	F14
AR 3,5	26,550 in-lb	10.98	9.84	4.63	4.63	1.91	14.96	23.62	0.08	2.95	4.53	6.50	M20	1.81	F16
AR 4	35,400 in-lb	12.83	11.10	5.04	5.41	2.15	16.69	23.62	0.14	2.95	5.12	6.50	M20	1.81	F16
AR 5	57,525 in-lb	13.39	11.10	5.04	5.41	2.15	17.95	23.62	0.14	2.95	5.12	10.00	M16	2.17	F25

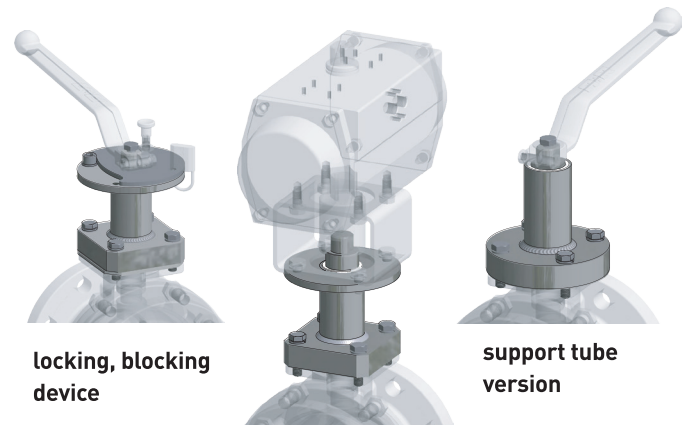
## DIMENSION OF BRACKET "x"

STANDARD

gear box	ball valve						
	ISO 5211	F 10	F 12	F 14	F 16	F 25	F30
AR 1	F 07	3.15	3.15	-	-	-	-
AR 2	F 12	3.15	3.15	3.15	-	-	-
AR 2,5	F 14	-	3.15	3.15	-	-	-
AR 3	F 14	-	3.15	3.15	3.94	-	-
AR 3,5	F 14	-	3.15	3.15	3.94	7.87	-
AR 4	F 16	-	3.94	3.94	3.94	7.87	-
AR 5	F 25	-	-	7.87	7.87	7.87	7.87

## DESIGN FEATURES:

- PED 2014/68/EU, AD-2000
- ASME B16.34
- TA-Luft
- Fire-Safe
- Zero leakage/ Class VI FCI 70-2
- Live load state of the art sealing system
- Floating or trunnion mounted ball



locking, blocking device

ISO-top flange  
acc. to ISO5211

support tube  
version

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