Control the Flow...

...With KF Industries Floating Ball Valves.

Oil & Gas companies around the globe trust the reliability of KF floating ball valves even in the harshest conditions. They know the KF Brand means performance second to none.

As an ISO 9001:2000 manufacturer KF Industries continues to utilize superior engineering and manufacturing techniques to insure a consistent quality product at a competitive price.
KF Industries provides the Oil & Gas and Industrial markets with the most comprehensive valve offering available anywhere in the world.



When quality counts,
Specify KF Industries.

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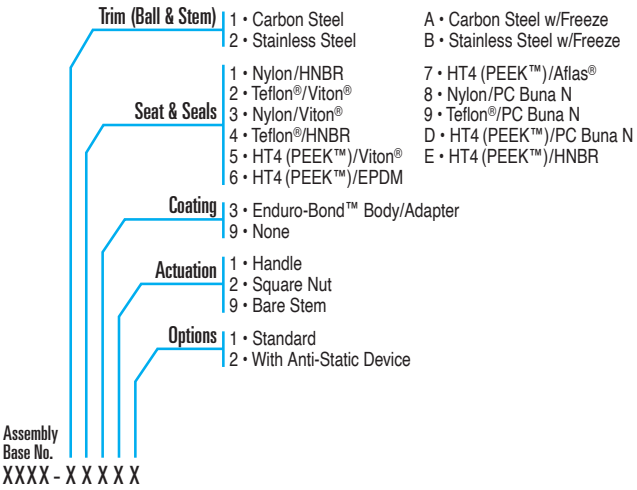
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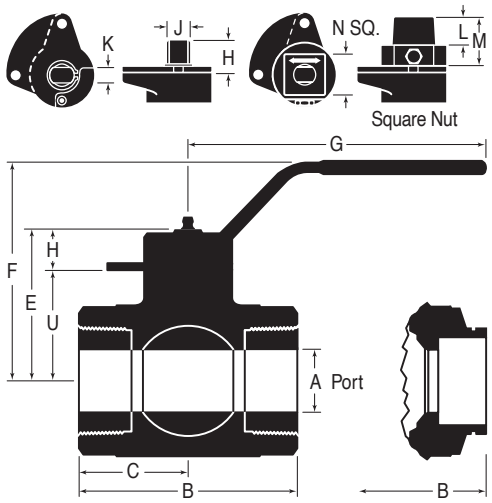
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Registered to the ISO 9001 Quality System Standard, accredited by U.K., Dutch and German qualifying authorities

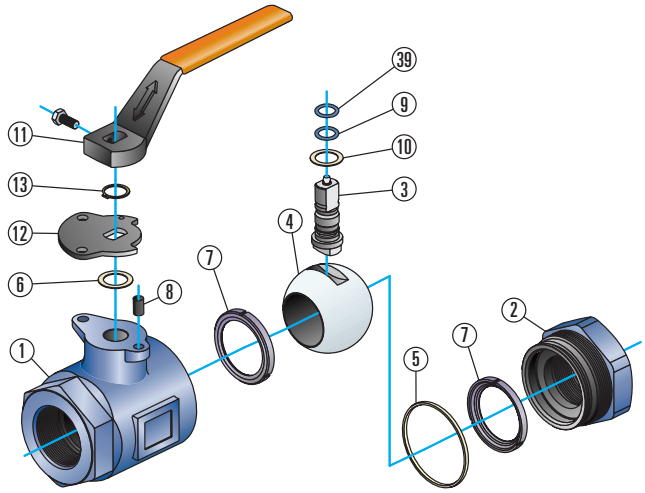
KF Series A and AH Ball Valves





Assembly Base Numbers

Valve Size (in.)		1FP	1 1/2FP	2RP	2FP	2 1/2RP	3RP	3FP	4RP
Rating (psi)		1500							
Series	Thrd.	2339-	2340-	2341-	2342-	2343-	2344-	2345-	2346-
A	Grvd.	2354-	2347-	2348-	2349-	2350-	2351-	2352-	2353-
Rating (psi)		2000 (1500 for PTFE Seats)							
Series	Thrd.	2979-	2980-	2981-	2982-	—	2984-	—	—
AH	Grvd.	2987-	2988-	2989-	—	—	—	—	—



Dimensional Data (in.)

Valve Size (in.)		1FP	1 1/2FP	2RP	2FP	2 1/2RP	3RP	3FP	4RP
Dimension		1x1	1 1/2x1 1/2		2x1 1/2	2x2	2 1/2x2	3x2	3x3	4x3
Weight lbs.*		4.5	13		12.5	18	16.25	22	52	46
A		1	1 1/2			2			3	
B	Thrd.	4	5 1/2			6		7 5/16	8 3/4	
	Grvd.	4 7/8	6			6 1/4		7 5/16	8 3/4	
C		2	2 3/4			3		4 1/8	4 3/8	
E		2 1/2	3 21/32			4 3/32			5 11/32	
F		3 1/16	5 15/32			6 1/16			6 25/32	
G		6 1/4	8 1/2						15	
H		25/32	1 1/32						1 3/8	
J		.623/.621	.873/.871						1.248/1.245	
K		.372/.370	.560/.556						.621/.618	
L		—	1						1 1/8	
M		—	1 3/4						2 3/16	
N		—	1 7/16						1 13/16	
U		1 23/32	2 5/8			3 1/16			4	

*Handle weight included.

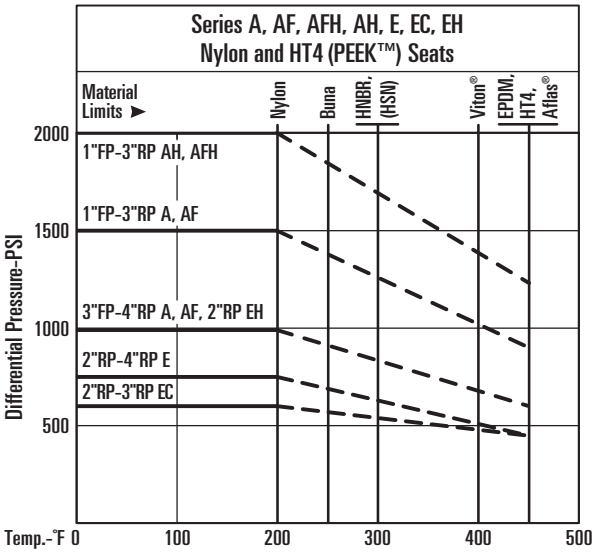
Parts List and Materials

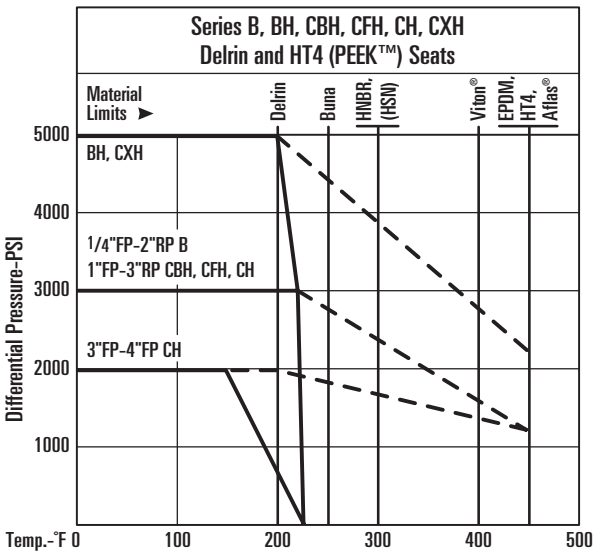
Square Nut not illustrated, see Dimensional Data information above.

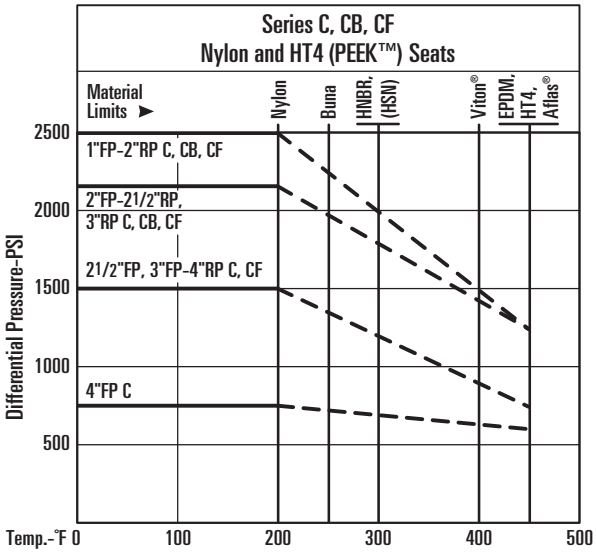
Index	Description	Material
1	Body	ASTM A395 Ductile Iron
2	Adapter	ASTM A395 Ductile Iron
3	Stem	Carbon Steel/Zinc Plated or 316 Stainless Steel
4	Ball	1215 CS w/Chrome over Ni. Plating or 316 SS
5	Body Seal	HNBR, Viton®, PC Buna N, EPDM, Aflas®
6	Stem Bearing	Nylon
7	Seat	Nylon, Reinforced Teflon® or HT4 (PEEK™)

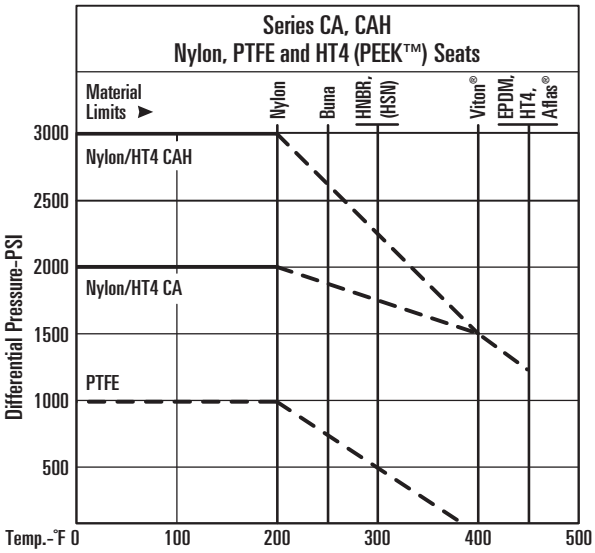
Index	Description	Material
8	Stop	Steel
9	Stem Seal	HNBR, Viton®, PC Buna N, EPDM, Aflas®
10	Thrust Bearing	Teflon® (HT4 when using Hi-Temp Seats & Seals)
11	Handle/Sq. Nut	1018 Carbon Steel (1"FP), A47 Malleable Iron
12	Stop Plate	Steel, Plated
13	Retainer	Spring Steel
39	Weather Seal	Buna N Only

Engineering Data, Pressure Temperature Charts

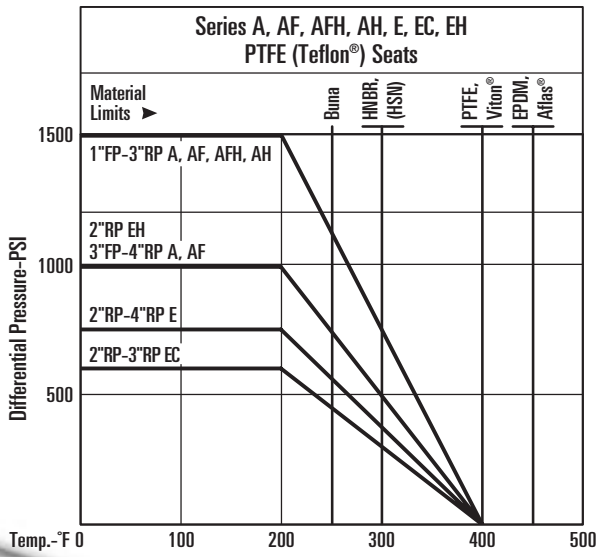


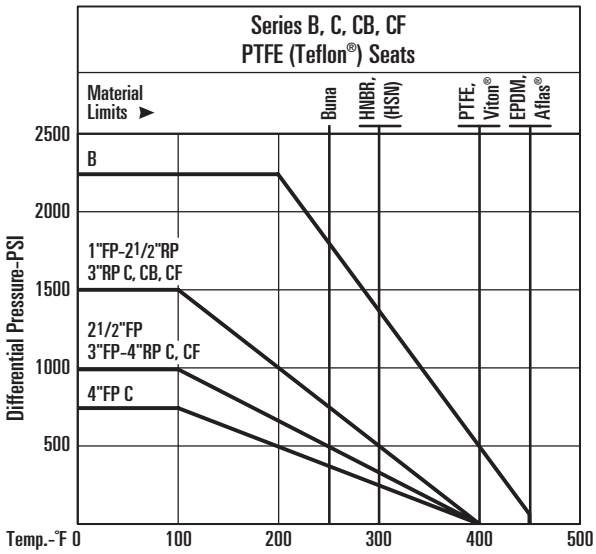






Floating Ball Valves with Seats made of Teflon®





Engineering Data

Flow Coefficients (C_V)

Series	Valve Size (in.)																
	1/4	3/8	1/2	3/4	1 RP	1 FP	1 1/4	1 1/2 RP	1 1/2 FP	2 RP	2 FP	2 1/2 RP	2 1/2 FP	3 RP	3 FP	4 RP	4 FP
A	—	—	—	—	—	185	—	—	308	140	500	220	—	220	1390	630	—
AH	—	—	—	—	—	185	—	—	308	—	—	220	—	—	—	—	—
B	6	—	15	30	30	60	—	—	130	110	—	—	—	—	—	—	—
BH	6	—	15	30	30	—	—	—	—	—	—	—	—	—	—	—	—
C	—	—	—	—	—	185	—	—	308	140	500	220	890	220	1390	630	2160
CH	—	—	—	—	—	185	—	—	308	140	500	—	—	—	—	—	—
CA	—	—	—	—	—	—	—	—	—	—	531	—	935	—	—	—	—
CB	—	—	—	—	—	185	—	—	—	140	500	—	—	—	—	—	—
CBH	—	—	—	—	—	185	—	—	—	140	500	—	—	—	—	—	—
CXH	—	—	—	—	—	185	—	—	308	140	—	—	—	—	—	—	—
E	—	—	—	—	—	—	—	—	—	140	—	—	—	220	—	630	–
EH	—	—	—	—	—	—	—	—	—	140	—	—	—	—	—	—	—
EC	—	—	—	—	—	—	—	—	—	140	—	—	—	—	—	—	—
W	7	8	15	35	60	—	105	150	—	300	—	—	—	—	—	—	—
HC-730	—	—	7	12	25	—	38	52	—	95	—	—	—	—	—	—	—
HC-740	6	12	15	23	36	—	44	64	—	114	—	—	—	—	—	—	—
HS-810	4	4	4	7.5	14	—	19.5	33	—	50	—	—	—	—	—	—	—
HS-820	4.8	4.8	8	12	29	—	50	60	—	110	—	—	—	—	—	—	—
HB-600	6.3	6.3	15	25	40	—	50	75	—	110	450	260	—	400	—	800	—

Method of Calculating Flow

The Flow Coefficient "C_V" of a valve is the flow rate of water (gallons/minute) through a fully opened valve, with a pressure drop of 1 psi across the valve. To find the flow of liquid through valve from the C_V, use the following formulas:

Liquid Flow

QL = flow rate of liquid (gal./min.)
ΔP = differential pressure across the valve (psi)
G = specific gravity of liquid (for water, G=1)

$$Q_L = C_V \sqrt{\frac{\Delta P}{G}}$$

Gas Flow

Qg = flow rate of gas (CFH at STP)
P2 = outlet pressure (psia)
g = Specific gravity of gas (for air, g=1.000)

$$Q_g = 61 C_V \sqrt{\frac{P_2 \Delta P}{g}}$$

For non-critical flow

$$\left\{\frac{\Delta P}{P_2} < 1.0\right\}$$

Actuation

Pneumatic and electric actuators are optionally available for mounting on KF Ball Valves. Four tapped actuator mounting holes in the stem boss surface are standard with all Series B, BH ball valves. Consult factory for specific information. For torque requirements of seats made of Teflon®, multiply chart torque by 0.7.

Specification Conformance

KF ball valves are designed, manufactured and tested in accordance with API, ANSI, ASME and B.S. requirements. The following list contains the most important applicable standards for ball valves. KF valves may be produced in accordance with other international standards on request.

ANSI B 1.20.1 • Pipe threads, general purpose

API Spec. 6A • Wellhead equipment specifications
Spec. Q1 • Quality Program
Spec. 5B EUE • External upset tubing threads

ISO 9001:2000 Quality systems model for quality assurance in design, development, production, installation and servicing.

MSS SP-25 • Standard marking system for valves, fittings, flanges and unions.
SP-55 • Quality standard for steel castings

NACE MR0175 • Sulfide stress cracking resistant metallic materials for oil field equipment

Operating Torque

Series A, AH, C, CH, CB Maximum Operating Torque

Valve Size (in.)	Series A, AF		Series AH, AFH		Series C, CF		Series CH, CFH		Series CB	
	Maximum Pressure	Torque (In-Lbs.)	Maximum Pressure	Torque (In-Lbs.)	Maximum Pressure	Torque (In-Lbs.)	Maximum Pressure	Torque (In-Lbs.)	Maximum Pressure	Torque (In-Lbs.)
1	1500	600	2000	730	2500	860	3000	1000	2500	860
1 1/2 FP, 2 RP	1500	900	2000	1200	2500	1450	3000	1690	2500	1450
2 FP, 2 1/2 RP, 3 RP	1500	1200	2000	1625	2160	1750	3000	2310	2160	1750
2 1/2 FP	—	—	—	—	1500	1950	—	—	—	—
3 FP, 4 RP	1000	1200	—	—	1500	2700	2000	3660	—	—
4 FP	—	—	—	—	750	3600	2000	6000	—	—

Series B, BH, CBH, CXH Maximum Operating Torque

Valve Size (in.)	Series B		Series BH		Series CBH		Series CXH	
	Maximum Pressure	Torque (In-Lbs.)	Maximum Pressure	Torque (In-Lbs.)	Maximum Pressure	Torque (In-Lbs.)	Maximum Pressure	Torque (In-Lbs.)
1/4 FP	3000	170	5000	210	—	—	—	—
3/8 FP	3000	170	5000	210	—	—	—	—
1/2 FP, 3/4 RP	3000	200	5000	210	—	—	—	—
3/4 FP, 1 RP	3000	200	5000	260	—	—	—	—
1 FP	3000	320	—	—	3000	1000	5000	1420
1 1/2 FP, 2 RP	3000	850	—	—	3000	1670	5000	2425
2 FP	—	—	—	—	3000	2310	—	—

Series E, EH, EC Maximum Operating Torque

Valve Size (in.)	Series E		Series EH		Series EC	
	Maximum Pressure	Torque (In-Lbs.)	Maximum Pressure	Torque (In-Lbs.)	Maximum Pressure	Torque (In-Lbs.)
1 1/2	750	720	1000	785	600	665
2	750	960	—	—	600	850
3	750	2160	—	—	—	—

Series CA Max. Op. Torque

Valve Size (in.)	Series CA	
	Maximum Pressure	Torque (In-Lbs.)
2 1/16	2000	1625
2 9/16	2000	2650