

Forged Metal Seated Ball Valves

For Temperature Up to 538°C / 1000°F

DESIGN FEATURES

High Tensile Handle Design

It avoids insufficient "ON/OFF" operations due to the handle deformation.

Spring-loaded and Adjustable Packing Gland Design

It effectively ensures sealing of the valve stem, reduces maintenance and is quite easy for the on-line maintenance.

High Tensile Stem Material Design

Such safety design as blow-out prevention and stem extension ensure excellent service of the valve at hot and high-pressure atmosphere.

Flexible Graphite Stem Packing For Severe Services

It is suitable for services under extreme operating conditions. ISO 15848-1 low emission test certified packing is available upon request.

Scratch Seat Design

Enable to Remove Slurries, Muds or Other Viscous Fluids & Solid Mediums
Special Hardened Surface Treatment :
Stainless Steel Cr3C2/WC-Co/
Stellite 2.0 /Ni60...etc.

Rigid Extension Bracket Design

It elongates the service life of the flexible graphite packing, reduces the temperature in the operation position at a high temperature, and ensures the user-friendly operation.

Metal Wear-resistant Bearing Design

It ensures the reliable rotation on the central shaft.

Low-torque Disc Spring Design

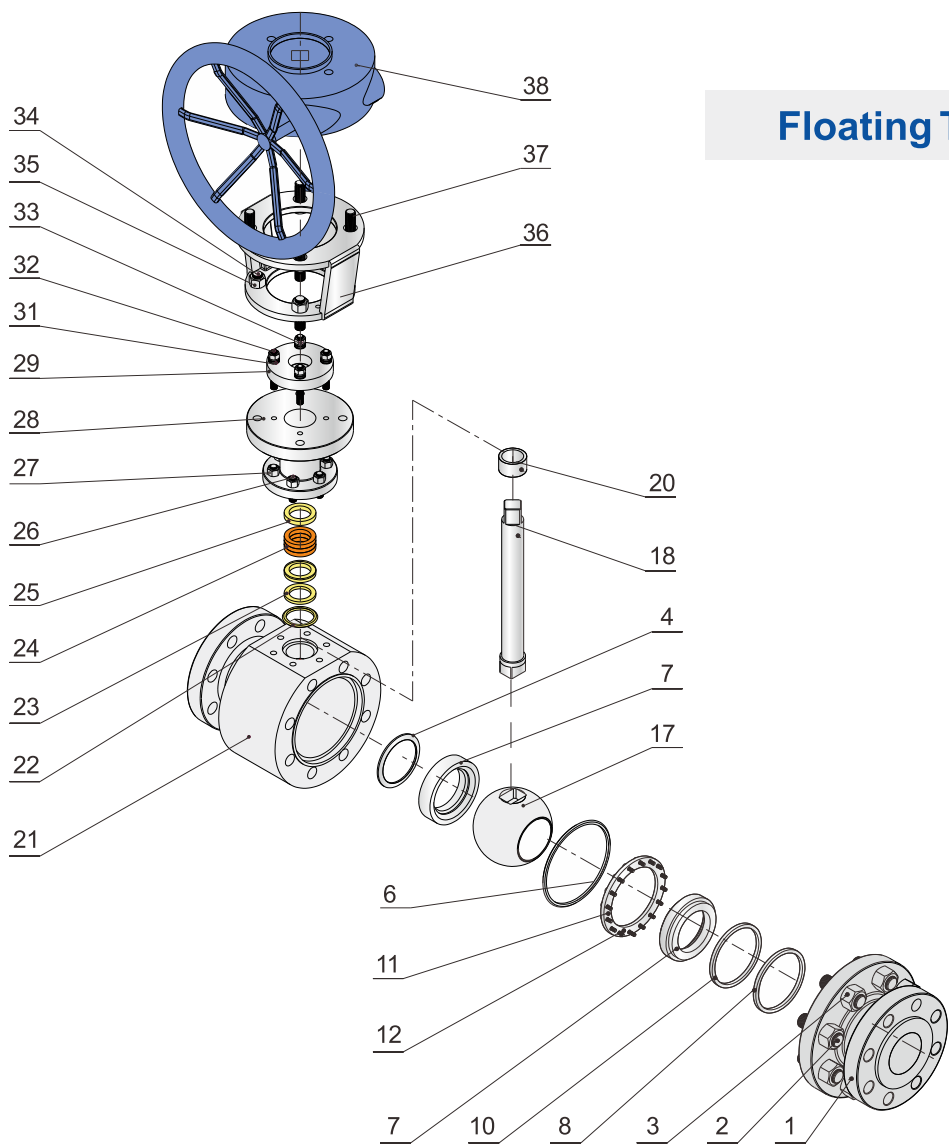
Strict design and inspection ensure the minimum preload of the valve and reduce its torque.

The ball/seats are ground with the CNC ball grinding machine. The lapping equipment independently developed by KI is also adopted. The ball/seat roundness is about 5 um. This is a crucial technology for ensuring the standard-compliant inner leakage. The ball/seats interchangeability is high. Such accessory as ball/seat needs replacing upon demand, other than the overall valve.

The body/bonnet forms an encapsulated groove, ensuring the sealing property of the gasket and avoiding medium leakage.

Ball

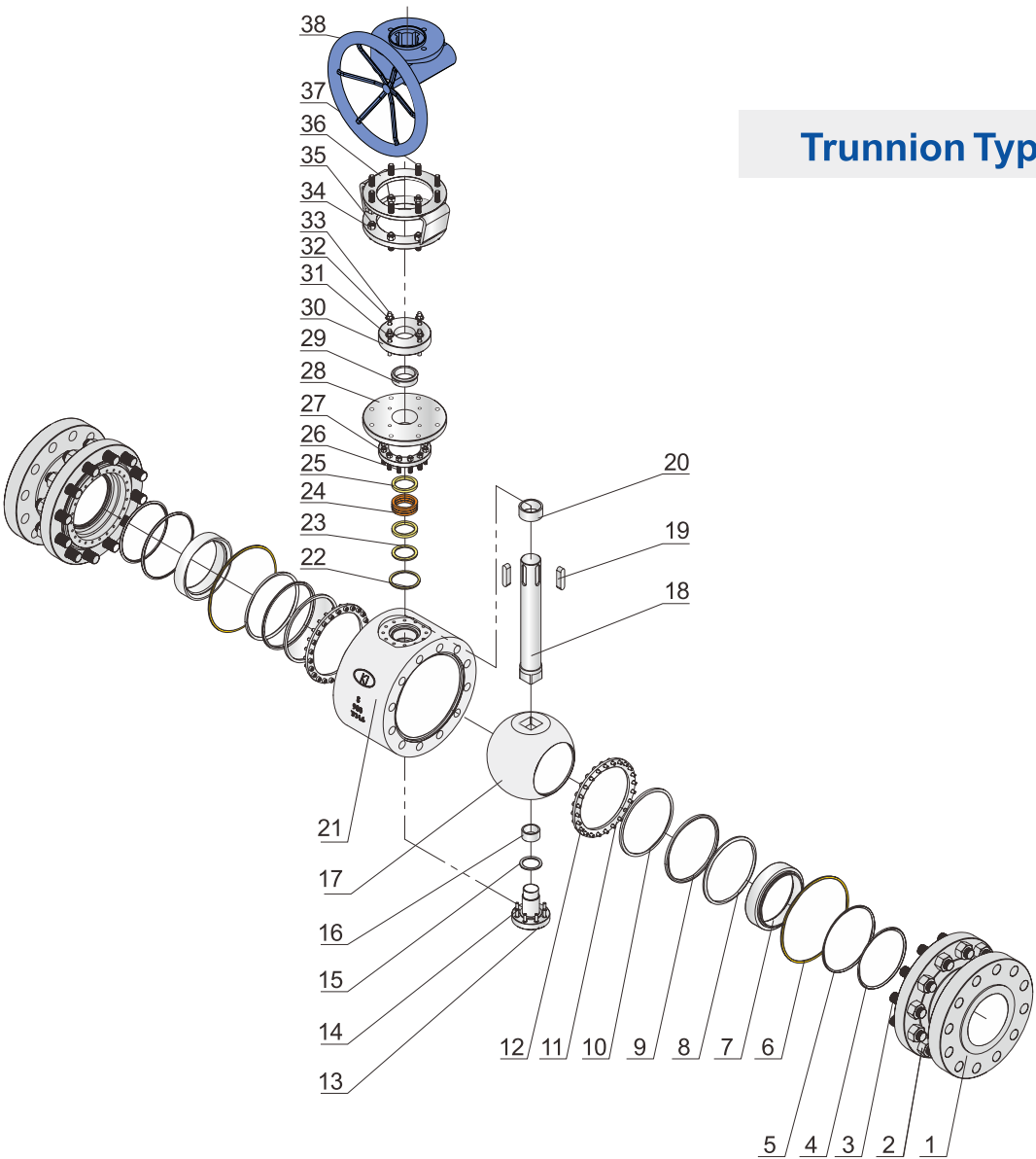
Hardened Surface Treatment
Stainless + Cr3C2/WC-Co/
Stellite.20/Ni60...etc.
For High Temperature,
Abrasive Services



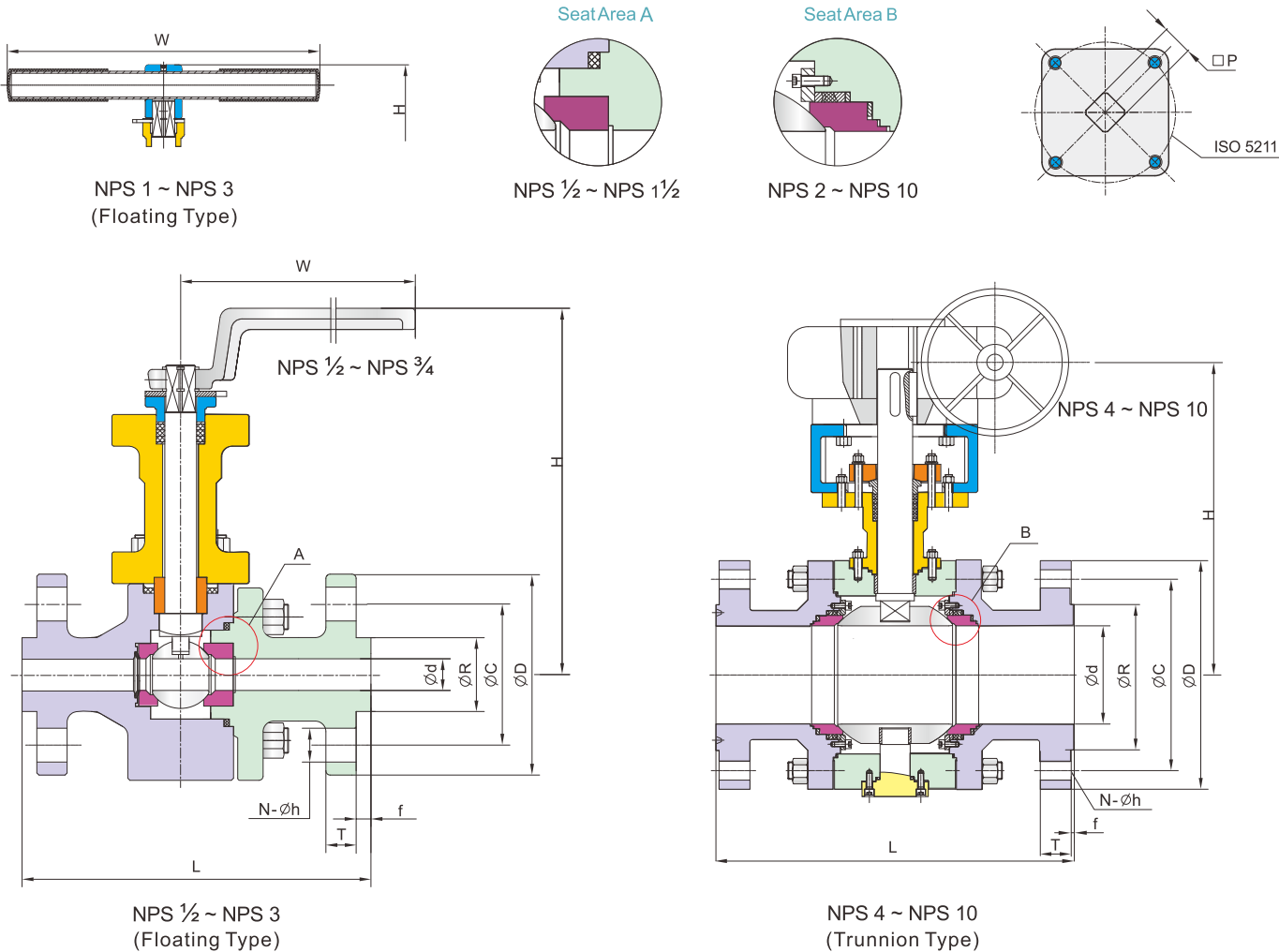
NO	PART NAME	MATERIALS	
1	End Cap	F316	F304
2	Body Stud	A193-B8	
3	Hex Nut	A194-8	
4	Seat Spring	Inconel x-750	
5	Seat Spring	Inconel x-750	
6	Gasket	316 SPIRAL WOUND+GRAPHITE	304 SPIRAL WOUND+GRAPHITE
7	Seats	F316+Ni60	F304+Ni60
8	Bearing Ring	F316	F304
9	Seat Housing	F316	F304
10	Seat Supporter	GRAPHITE	
11	Seat Ring	F316	F304
12	Hex slotted Bolt	A193-B8	
13	Stem	Gr660	
14	Hex slotted Bolt	A193-B8	
15	Stem Packing	316+ Grafoil	304+ Grafoil
16	Stem Sleeve	A439-D2	
17	Ball	F316+Ni60	F304+Ni60
18	Stem	Gr.660	
19	Pin	45# steel	
20	Stem Bearing	A439-D2	

* All valves with graphite stem packing, gasket, back-up seals & seal rings are inherently fire-safe

Trunnion Type



NO	PART NAME	MATERIALS	
21	Body	F316	F304
22	Mid. Flange	316 SPIRAL WOUND+GRAPHITE	304 SPIRAL WOUND+GRAPHITE
23	Stem washer	316	
24	Stem Packing	GRAPHITE	
25	Stem Packing	GRAPHITE	
26	Stud	A193-B8	
27	Hex Nut	A194-8	
28	Stop Flange	CF8	
29	Packing Protector	CF8	
30	Stop Gland	CF8	
31	Packing Spring	Inconel x-750	
32	Stud	A193-B8	
33	Hex Nut	A194-8	
34	Stud	A193-B8	
35	Hex Nut	A194-8	
36	Bracket	WCB	
37	Hex Bolt	A193-B8	
38	Worm Gear	Assembly	



ASME Class 600

KV-M63-HF

Unit: mm

NPS	d	L	R	C	D	f	T	N	h	H	W	P	ISO 5211 on Valve
1/2	15	165	34.9	66.7	95.0	7	14.3	4	16.0	173.2	160	11	F05
3/4	20	190	42.9	82.6	115.0	7	15.9	4	19.0	175.0	160	11	F05
1	25	216	50.8	88.9	125.0	7	17.5	4	19.0	310.0	300	14	F07
1 1/2	38	241	73.0	114.3	155.5	7	22.3	4	22.3	330.0	400	17	F10
2	50	292	92.1	127.0	165.0	7	25.4	8	19.0	405.0	800	22	F14
2 1/2	65	330	104.8	149.2	190.0	7	28.6	8	22.3	456.0	800	27	F14
3	76	356	127.0	168.3	210.0	7	31.8	8	22.3	465.0	—	28	F14
4	100	432	157.2	215.9	275.0	7	38.1	8	25.4	530.0	—	34	F14
6	150	559	215.9	292.1	355.0	7	47.7	12	28.5	590.0	—	46	F16
8	200	660	269.9	349.2	420.0	7	55.6	12	31.8	645.0	—	55	F25
10	252	787	323.8	431.8	510.0	7	63.5	16	35.0	580.0	—	60	F25

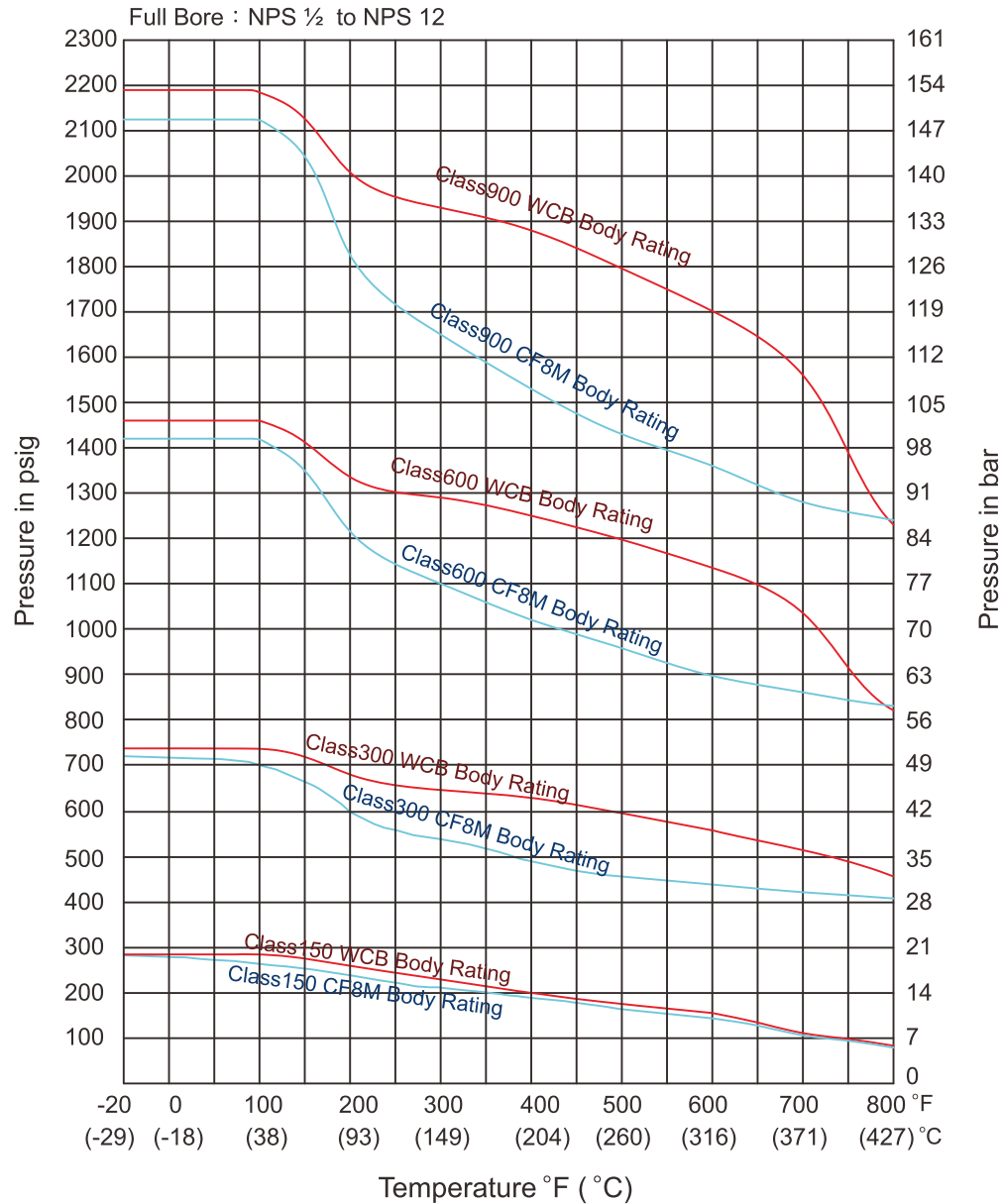
ASME Class 900

KV-M65-HF

Unit: mm

NPS	d	L	R	C	D	f	T	N	h	H	W	P	ISO 5211 on Valve
1/2	15	216	35.0	82.6	120	7	22.3	4	22.3	173.2	160	11	F05
3/4	20	229	43.0	88.9	130	7	25.4	4	22.3	175.0	160	11	F05
1	25	254	50.8	101.6	150	7	28.6	4	25.4	310.0	400	14	F07
1 1/2	38	305	73.0	123.8	180	7	31.8	4	28.5	330.0	400	17	F10
2	49	368	92.1	165.0	216	7	38.1	8	25.4	405.0	400	27	F12
2 1/2	65	419	104.8	190.5	245	7	41.3	8	28.5	456.0	800	27	F14
3	75	381	127.0	190.5	240	7	38.1	8	25.4	465.0	800	30	F14
4	100	457	157.2	235.0	290	7	44.5	8	31.8	530.0	—	34	F14
6	150	610	216.0	317.5	380	7	55.6	12	31.8	590.0	—	46	F16
8	200	737	270.0	393.5	470	7	63.5	12	38.1	645.0	—	55	F25
10	252	838	324.0	469.9	545	7	69.9	16	38.1	580.0	—	60	F25

Metal Seat Ball Valves, Class 150/300/600/900



Metal Seat Ball Valves, PN 16/25/40

