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KTN
Kara Technology News

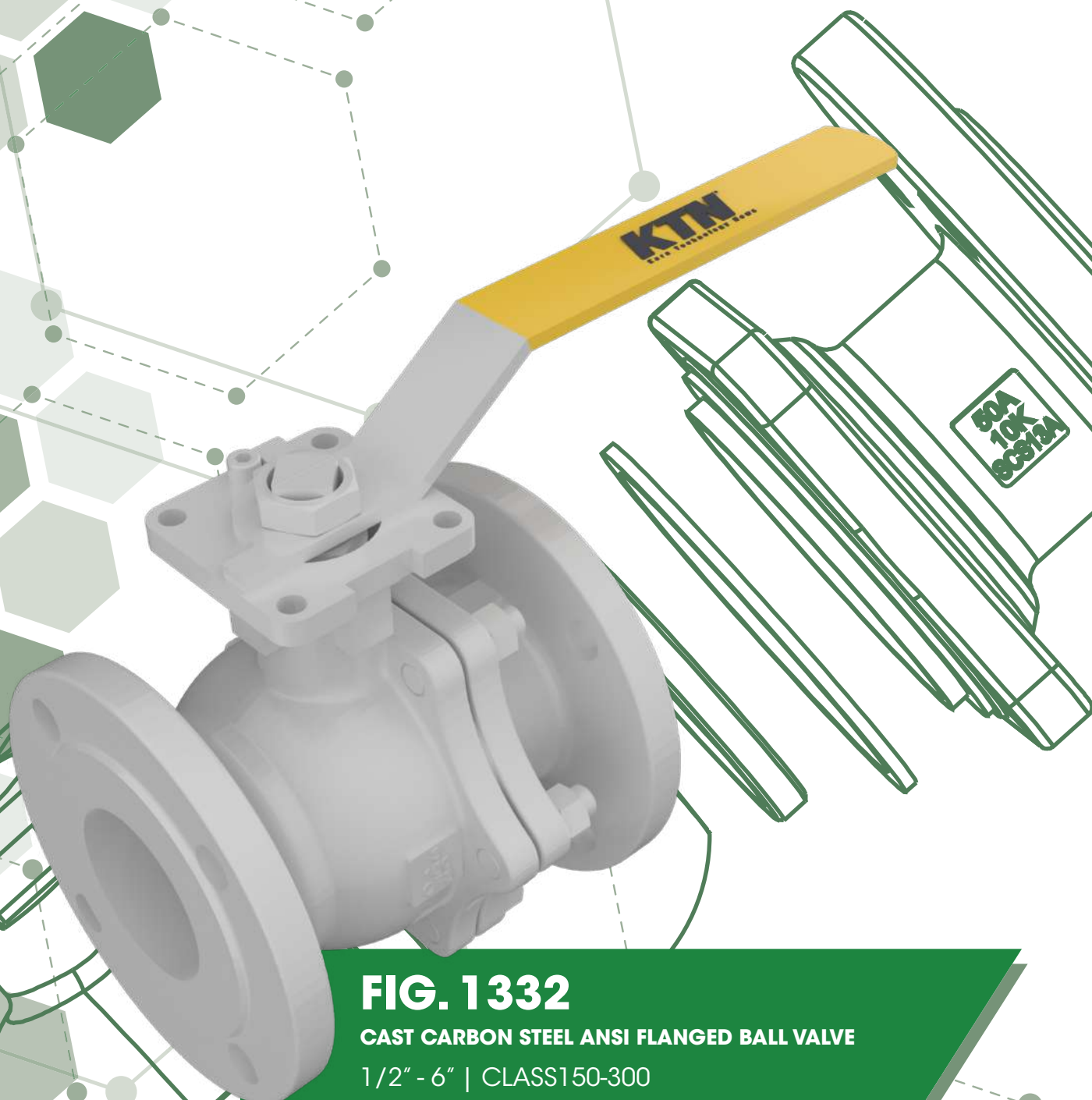
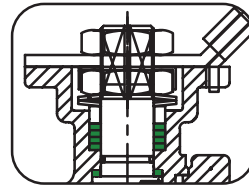
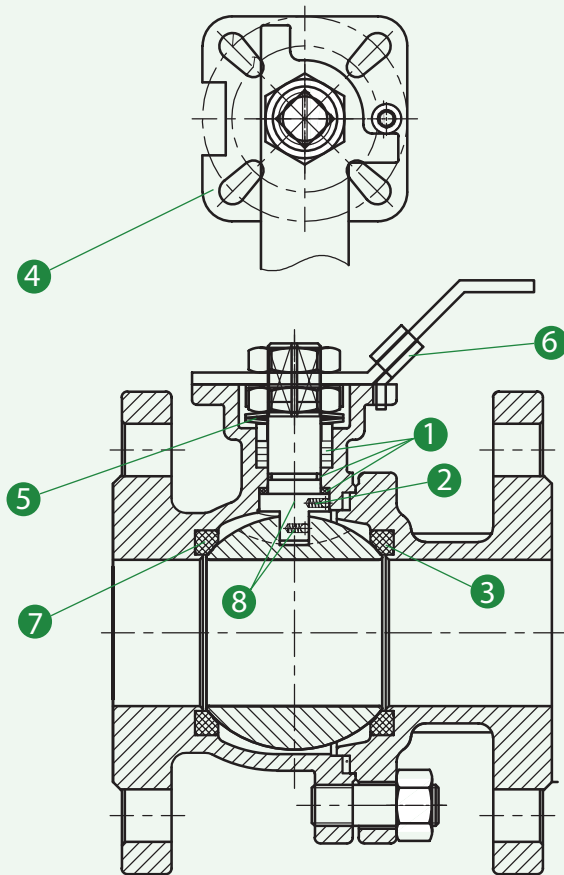


FIG. 1332

CAST CARBON STEEL ANSI FLANGED BALL VALVE

1/2" - 6" | CLASS150-300

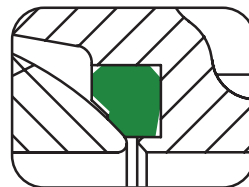


1 Stem multiple seal design

The bottom gasket, intermediate O-ring and packing multiple seal, effectively ensures the upper sealing part of the stem does not leak.

2 Stem blowout design

The lower part of the stem is provided with a shaft shoulder. Even if the nut is removed, the stem will not blow out of the body, ensuring the safety of the body.

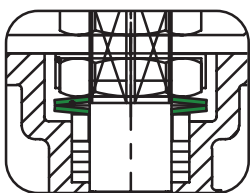


3 Seat resilient seal design

The seat sealing part is designed with elastic structure, which can effectively reduce the valve stem operation torque, which makes the opening and closing easier, and the low pressure and high pressure seal more reliable.

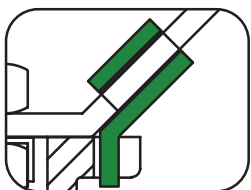
4 Comply with ISO5211 flange design

ISO 5211 standard installation platform, integrated with the body, the actuator can be installed directly, easy to install, economical and reliable.



5 Design of double butterfly shrapnel device

The two pieces of butterfly shears pressed in advance will compensate for the leakage of the valve stem, release is pretensioned deformation, and press the packing again to ensure the sealing of the packing.



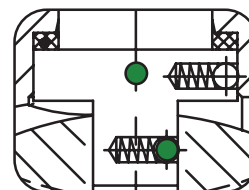
6 Design with locking device

After the padlock of the lock hole, the lock plate cannot move upward and the handle cannot be rotated. This ensures that the valve is locked at the desired position preventing misoperation.



7 Fire protection structure design

When a fire breaks out in the surrounding area, the valve seat is burned, and the ball moves backward under the force of the medium, contacting with the body's fire-proof lip to assist in sealing and reducing medium leakage.

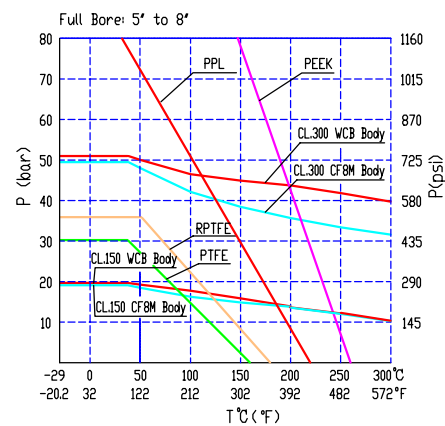
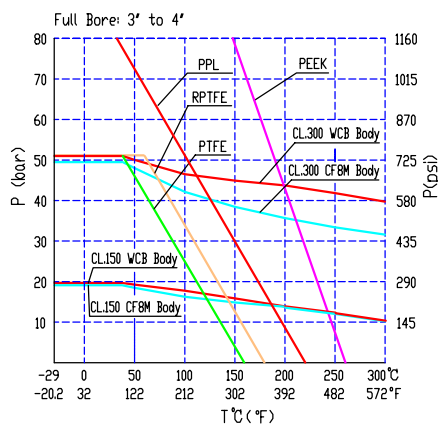
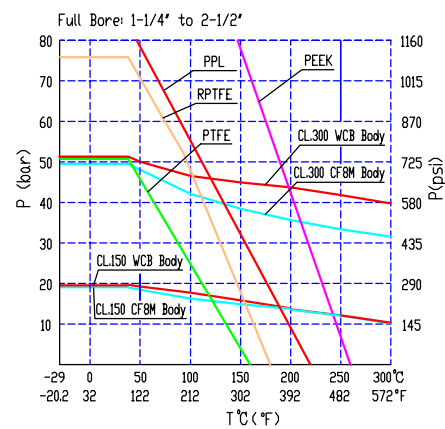
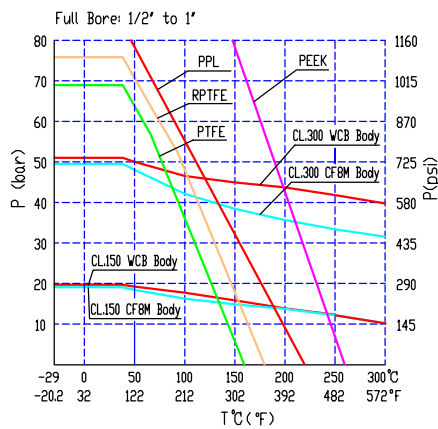


8 Antistatic device

To prevent the buildup of electrostatic charges that could generate sparks, a significant risk in industrial environments, in this valve, the stem and ball are connected in a way that ensures electrical continuity between both components.

GD SEAT MATERIAL			
SEAT MATERIAL		PECULIARITY	Tmax
PTFE		High corrosion resistance, good self - lubrication and wear resistance, easy to cold flow.	160°C
RPTFE	PTFE+15%GF	Resistance to creep, low coefficient of friction, resistance to chemical corrosion, good insulation.	180°C
	PTFE+15%CF	High strength, high temperature resistance, wear resistance, small coefficient of thermal expansion.	180°C
	TFM1600	Under high temperature and high pressure, shape denaturation is smaller, permeability is smaller, pressure recovery is better under high temperature, corrosion resistance is high.	180°C
	TFM4215	Smaller deformation and permeability under high temperature and high pressure, better stress recovery under high temperature, excellent heat resistance and chemical resistance, low friction coefficient.	180°C
PPL		High temperature resistance, high strength, radiation resistance, chemical corrosion resistance, good self-lubrication performance.	220°C
PEEK		High temperature, high pressure, high strength, chemical resistance to PTFE.	260°C

FLOATING BALL VALVE ANSI 150/300



Floating flow coefficient table (PN16/25/40/Class 150/300/10K)

DN	15	20	25	40	50	65	80	100	125	150	200
80	1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8
Cv (Gal/min)	25	56	98	235	366	620	938	1466	2290	3298	5863
Kv (M ³ h)	21	48	84	201	314	530	804	1256	1962	2826	5024

Floating ball valve design torque meter

DN	NPS	All kinds of pressure differential valve open torque (N.m)				
		0.6 MPa	1.0 MPa	1.6 MPa/CL.150/10K	2.5 MPa	4.0MPa/CL.300
15	1/2	6	6	6	6	6
20	3/4	8	8	8	8	8
25	1	10	12	12	13	13
32	1 1/4	12	15	16	16	20
40	1 1/2	16	18	20	22	23
50	2	30	33	35	38	40
65	2 1/2	38	42	50	55	60
80	3	60	80	90	100	115
100	4	90	118	135	160	185
125	5	240	260	300	320	350
150	6	300	350	400	460	480
200	8	500	560	620	635	760

Note:

1. The torque of this table is the maximum open torque of the valve with two disc floating ball valves with different pressure difference. When the seat material is enhanced PTFE, the torque will increase by 20~30%;

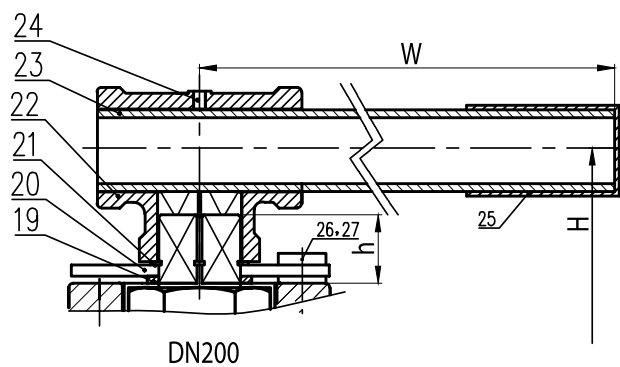
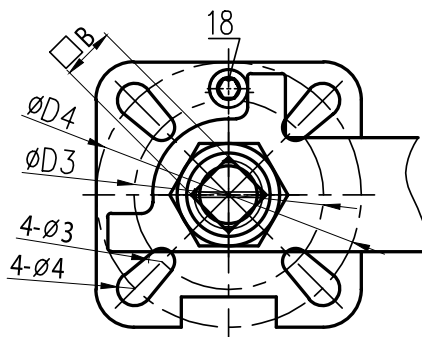
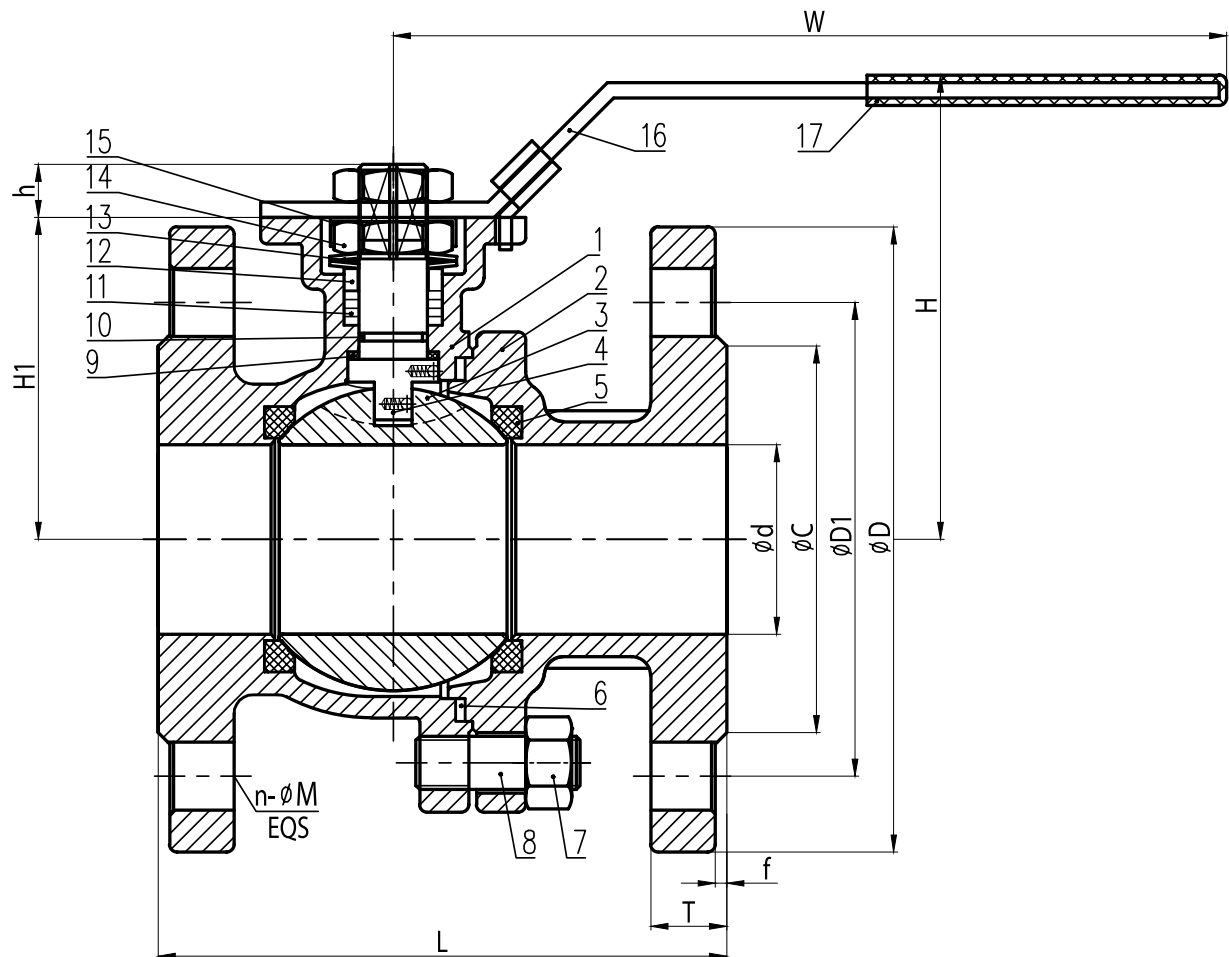
2. For pneumatic and electric actuator drive, the safety factor of minimum driving torque is 30%.

Trunnion ball valve design torque meter

DN	NPS	All kinds of pressure differential valve open torque (N.m)				
		1.6 MPa/CL.150	2.5 MPa	4.0MPa/CL.300	CL.600	CL.900
50	2	-	-	65	120	220
80	3	-	-	220	260	420
100	4	210	260	360	450	760
150	6	325	385	485	965	1510
200	8	640	710	860	1520	2850
250	10	1250	1350	1520	2600	4680
300	12	1720	1900	2380	4200	7100
350	14	2650	2850	3385	6100	10500
400	16	1200	4600	5100	8200	14200
450	18	4900	5300	6500	11600	18800
500	20	6480	6800	7800	13500	253000
600	24	8800	9200	9800	21000	38000

KTN 1332 - 1/2" - 8" (#150)

CAST CARBON STEEL 2PCS FLANGED BALL VALVE



KTN 1332 - 1/2" - 8" (#150)

CAST CARBON STEEL 2PCS FLANGED BALL VALVE

DESIGN SPECIFICATION			
DESIGN STANDARD	API608	FACE TO FACE	ASME B16.10
RATING	CL150	FLANGE	ASME B16.5
TEMPERATURE	-29°C ~120°C	MEDIUM	Water, oil and gas

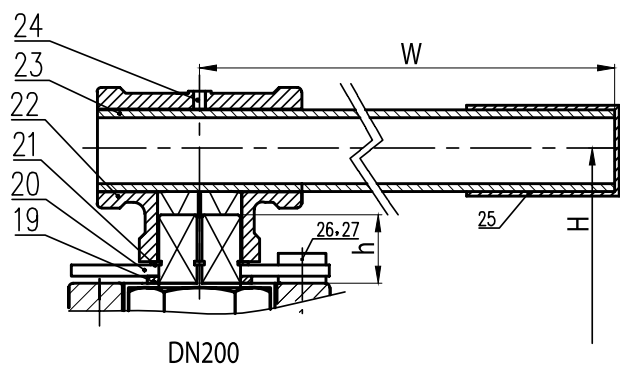
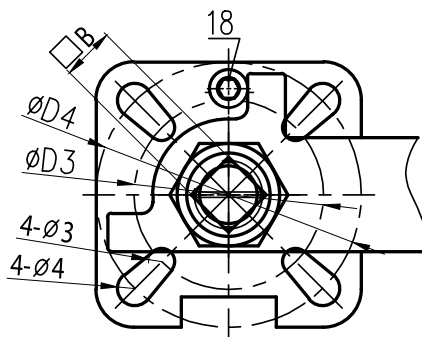
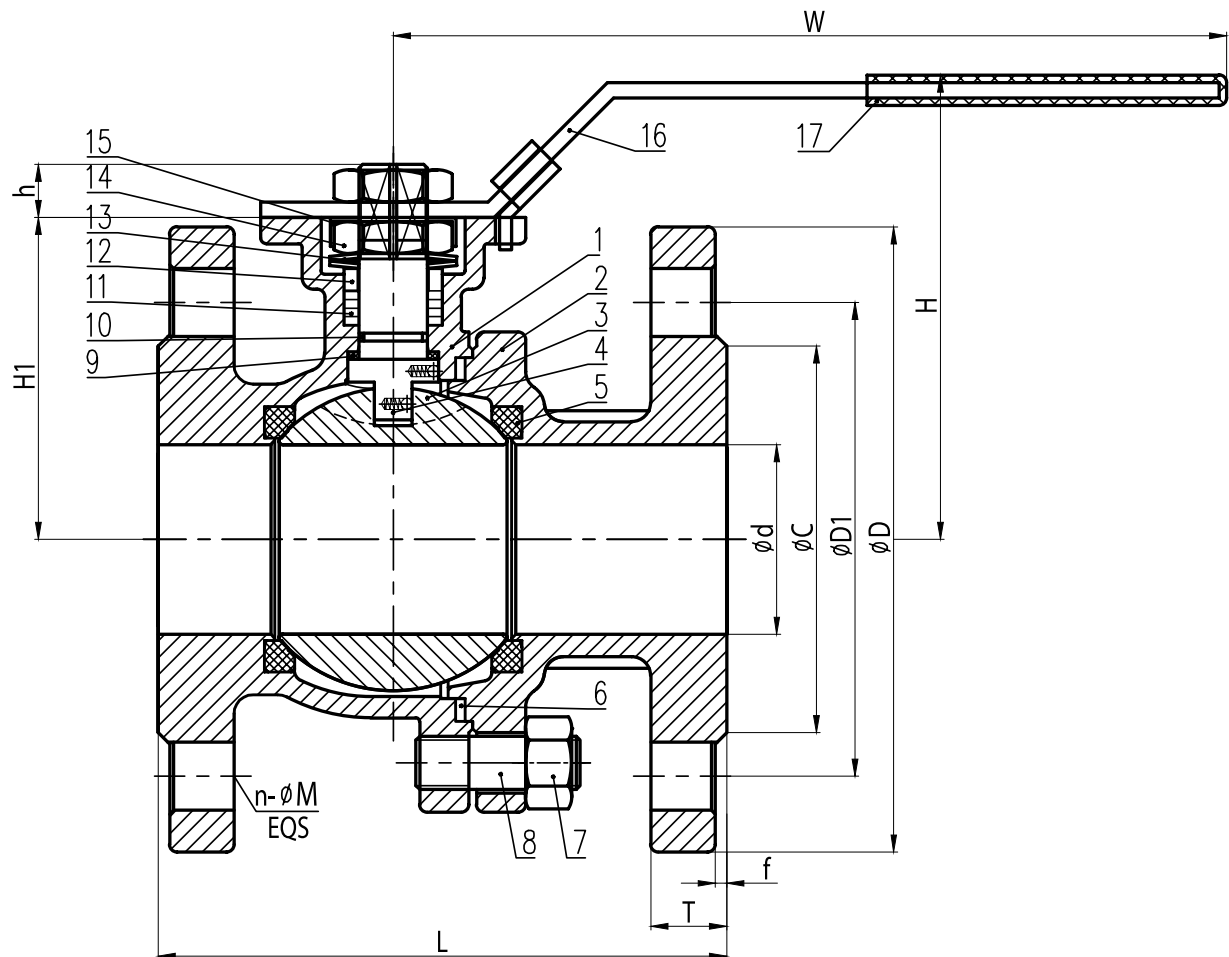
TEST API598			
PRESSURE	CLASS150	SHELL	3.0 Mpa
SEAT	2.2 MPa	SEAT (GAS)	0.6 MPa

N°	NAME	MATERIAL	N°	NAME	MATERIAL
1	Body	A216 WCB	15	Loose proof gasket	304
2	Cap	A216 WCB	16	Handle	304
3	Ball	A182 F316	17	Handle sleeve	PVC (Soft)
4	Stem	A276 316	18	Screw	304
5	Seat	PTFE	19	Gasket	304
6	Sealing gasket	PTFE	20	Lock plate	304
7	Nut	A194 2H	21	Circlip for shaft	304
8	Stud	A193 B7	22	Handle seat	A351 CF8
9	Thrust gasket	RPTFE	23	Handle	304
10	O-Ring	VITON	24	Screw	304
11	Packing	PTFE	25	Handle sleeve	PVC (Soft)
12	Gland	304	26	Screw	304
13	Disc spring	SS301	27	Nut	304
14	Thin nut	304			

Inch	d	D	D1	C	T	f	n-M	L	h	H1	H	W	B	D3	D4	ø3	ø4	Weight
1/2	15	90	60.3	34.9	8.5	2	4-16	108	9	48	80	141	9	36	50	6	7	1.81
3/4	20	100	69.9	42.9	9.5	2	4-16	117	9	54	86	141	9	36	50	6	7	2.21
1	25	110	79.4	50.8	10	2	4-16	127	11	61	97.5	162	11	42	50	6	7	3.04
1 1/4	32	115	88.9	63.5	11.5	2	4-16	140	11	70	106.5	162	11	42	50	6	7	3.94
1 1/2	38	127	98.4	73	12.7	2	4-16	165	14	76	113.5	220	14	50	70	7	9	5.33
2	50	152	120.7	92.1	14.3	2	4-19	178	14	85	122.5	220	14	50	70	7	9	8.26
2 1/2	64	180	139.7	104.8	15.9	2	4-19	190	17	108	154	285	17	70	102	9	11	13.11
3	76	190	152.4	127	17.5	2	4-19	203	22	130	175	380	22	-	102	9	11	17.93
4	100	230	190.5	157.2	22.5	2	8-19	229	22	148	196	380	22	-	102	-	11	29.68
5	123	255	215.9	185.7	22.5	2	8-22	356	32	180	240	456	27	-	125	-	14	51.86
6	150	280	241.3	215.9	24	2	8-22	394	32	202	262	656	27	-	125	-	14	74.90
8	202	345	298.5	269.9	27	2	8-22	457	34	258	316	1200	30	140	165	18	22	121.3
Sizes in mm																		(Kg)

KTN 1332 - 1/2" - 6" (#300)

CAST CARBON STEEL 2PCS FLANGED BALL VALVE



KTN 1332 - 1/2" - 6" (#300)

CAST CARBON STEEL 2PCS FLANGED BALL VALVE

DESIGN SPECIFICATION			
DESIGN STANDARD	ASME B16.34, API608	FACE TO FACE	EN558, series 27;
RATING	CLASS 300	FLANGE	EN 1092-1
TEMPERATURE	-29°C ~120°C	MEDIUM	Water, oil and gas

TEST API 598			
PRESSURE	CLASS 300	SHELL	7.5 MPa
SEAT	5.5 MPa	SEAT (GAS)	0.6 MPa

Nº	NAME	MATERIAL	Nº	NAME	MATERIAL
1	Body	A216 WCB	15	Loose proof gasket	304
2	Cap	A216 WCB	16	Handle	304
3	Ball	A182-F316	17	Handle sleeve	PVC (Soft)
4	Stem	A276-316	18	Screw	304
5	Seat	PTFE	19	Gasket	304
6	Sealing gasket	316L+Graphite	20	Lock plate	304
7	Nut	A194-8	21	Circlip for shaft	304
8	Stud	A193-B8	22	Handle seat	A351-CF8
9	Thrust gasket	RPTFE	23	Handle	304
10	O-Ring	VITON	24	Screw	304
11	Packing	Graphite	25	Handle sleeve	PVC (Soft)
12	Gland	316L	26	Screw	304
13	Disc spring	SS301	27	Nut	304
14	Thin nut	304			

Inch	d	D	D1	C	T	f	n-M	L	h	H1	H	W	B	D3	D4	ø3	ø4	Weight
1/2	15	95	66.7	34.9	12.7	2	4-16	140	9	48	80	141	9	36	50	6	7	2.45
3/4	20	115	82.6	42.9	14.3	2	4-19	152	9	54	86	141	9	36	50	6	7	3.35
1	25	125	88.9	50.8	15.9	2	4-19	165	11	61	98	162	11	42	50	6	7	4.86
1 1/2	38	155	114.3	73	19.1	2	4-22	190	15	76	114	220	14	50	70	7	9	8.15
2	50	165	127	92.1	20.7	2	8-19	216	15	85	123	220	14	50	70	7	9	11.08
2 1/2	64	190	149.2	104.8	23.9	2	8-22	241	17	120	154	285	17	70	102	9	11	17.47
3	76	210	168.3	127	27	2	8-22	282	22	130	175	380	22	-	102	9	11	26.31
4	100	255	200	157.2	30.2	2	8-22	305	23	148	196	380	22	-	102	-	11	41.94
5	123	280	235	185.7	33.4	2	8-22	381	32	180	240	656	27	-	125	-	14	-
6	150	320	269.9	215.9	35	2	12-22	403	34	222	308	1200	30	125	125	-	18	-
Sizes in mm																		(Kg)