

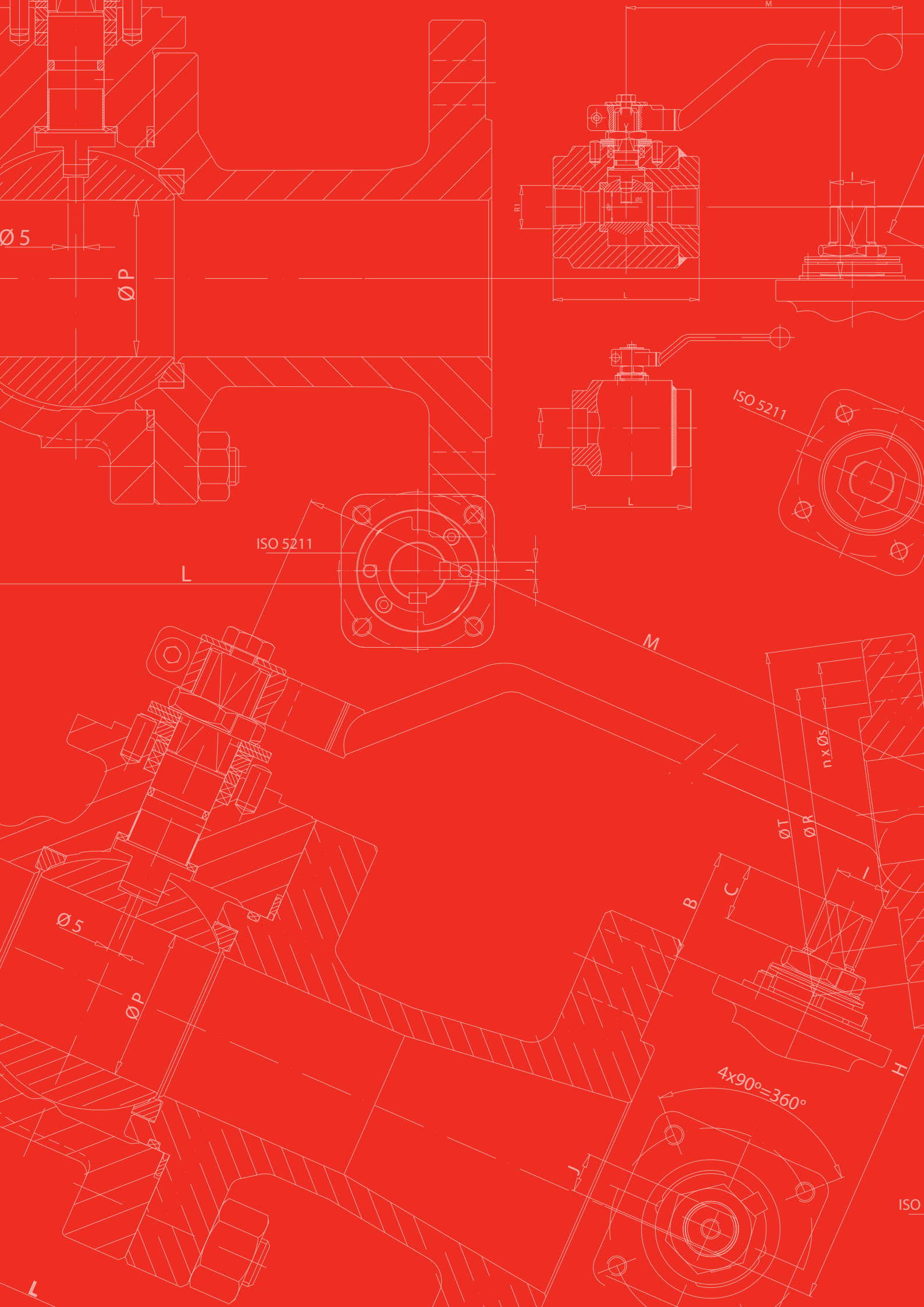
# JC VALVES

*The quality option*



## BALL VALVES

DN-300 (12 ) to DN-400 (16)  
Class-150 & 300  
DN-150 (6 ) to DN-300



$\varnothing 5$

$\varnothing P$

ISO 5211

$L$

$M$

ISO 5211

$\varnothing 5$

$\varnothing P$

$n \times \varnothing s$

$\varnothing T$

$\varnothing R$

$B$

$C$

$I$

$H$

$4 \times 90^\circ = 360^\circ$

$J$

ISO

$L$



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### SPECIAL CONSTRUCTIONS



The quality option



"We make valves since 1968"

JC Fábrica de Válvulas S.A., established in 1968, is a multinational company specialised in the manufacture and sale of high quality industrial valves.

The expertise and know how acquired over the years coupled with the continued investments in the design of valves, has made JC a world renowned company in the field of valve applications.

» Market sectors

JC develops and designs valves for all applications, but the main focus is in Oil & Gas, Chemical, Petrochemical, Pulp & Paper and Energy sectors.



Oil



Chemical



Gas



Pulp & Paper



Petrochemical



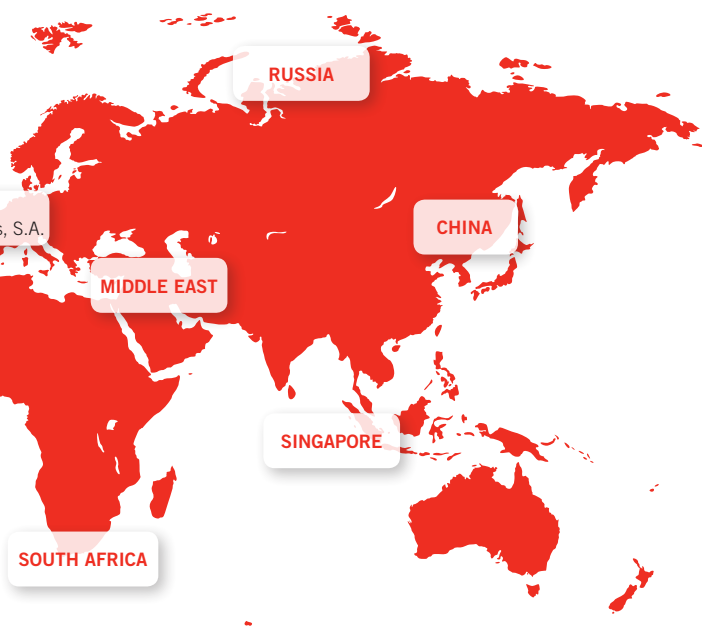
Energy



» JC World Wide

JC Valves provides world wide coverage thanks to the strategic locations of its factories and offices:





**» Global services**

JC Fábrika de Válvulas S.A. offers its customers a world wide service, from technical advice to choose the right valve up to the design and manufacture of custom built valves to meet special service requirements.

Our R+D department is always ready to find solutions for severe applications and our global distribution network offers quick availability of JC valves and an efficient after sales service.





*The quality option*

## » Quality assurance

JC Valves are designed and produced to meet the major international standards and we take great care and put a lot of emphasis on QUALITY, which provides our customers with a total guarantee and trouble free operation of their process. And in addition, we take great care to make our facilities and our products Environment friendly.

### JC Quality Assurance System

- ISO 9001 : 2000 certified by BVQI
- API Q1 certified by the AMERICAN PETROLEUM INSTITUTE
- PED 97 / 23 / EC certified by BVQI

### Products Approvals

- API 6D certified by the AMERICAN PETROLEUM INSTITUTE
- CE Marking (Module H, Category III) in accordance with PED 97 / 23 / EC certified by BVQI
- Fire Safe ISO 10947 : 2004 certified by SGS
- API 607 3rd., 4th. and 5th. Edition certified by SGS
- BS 6755 Part 2 certified by Lloyd's Register and SGS
- GOST "R" certified for Russian market
- SIL 3 (Safety integrity level) certified by BV
- Atex
- EN 13774

### Environmental Certifications

- ISO 14001 : 2004 certified by BVQI
- ISO-EN 15848-1 certified by SGS



API 6D  
API 6A  
API 600



PED 97 / 23 / EC

FUGITIVE  
EMISSIONS  
EN-ISO 15848-1



II 2 G Dc  
ATEX



FIRE SAFE  
ISO 10497 : 2004  
API 607: 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> edition



# GENERAL HIGHLIGHTS

- » Full and Reduced bore
- » Floating and Trunnion mounted ball
- » Soft and Metal seats
- » Castings Quality as per ASME B16.34 Mandatory Appendix I to IV in ASME valves and Severity Levels S3-V3 to DIN 1690 and EN 10203 in EN-DIN valves
- » Polished ball Ra 1 in soft seated valves (in metal seated valves ball is lapped); grinded stem Ra 1.6
- » Full traceability of shell components, upon request, ball and stem as per EN 10204 3.1
- » Antistatic device integral with the stem
- » Viton A, Aflas or Kalrez primary stem seal and secondary graphite packing
- » NACE MR.01.75 wetted parts and bolting as Standard
- » Fire safe as standard construction ISO 10947 : 2004 and API 607 : 3rd, 4th, 5th edition
- » Fugitive emissions EN-ISO 15848-1
- » SIL 3 (Safety Integrity level 3)

| BALL VALVES |

# METAL SEATED

½" - 24" | Class 150 - Class 1500  
DN 15 - DN 600 | PN 16 - PN 40



JC offers also a large range of metal seated ball valves for different services (slurries, pulp and liquors, high temperature, abrasive or sticking fluids, control).

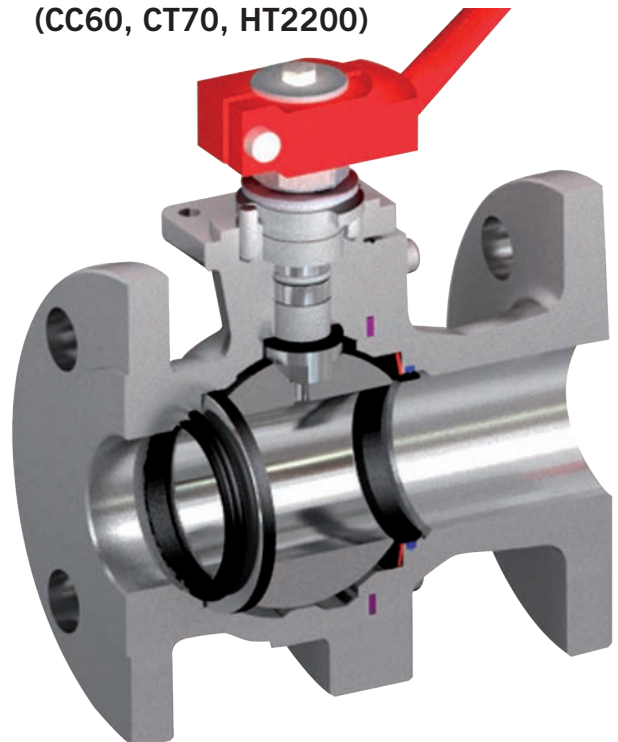
## What is HT-65?

HT-65 is a thermal-chemical diffusion process where ferrous parts are heat treated at 565 °C (1050 °F) through an appropriate formulation to assure the interface of the materials being processed. The intrinsic properties of HT-65 are its low coefficient of friction as well as the degree of lubricity in both the dry state as well as under lubrication. This highly lubricious process prevents stainless steel from galling and, once HT-65 is applied, the surface becomes Rockwell 70 in hardness on the "C" scale. The HT-65 layer is highly resistant to wear, seizure & corrosion. Typically HT-65 penetrates the ferrous matrix to a depth of 0,2 to 0,25 mm (0,0079 to 0,01") to form the diffusion zone. Austenitic steels develop an extremely hard & complex compound zone distinctive from all ferrous metals, typically 17 to 22 microns (0,0007 to 0,0009") thick and a diffusion zone approximately 76 microns (0,003") deep.

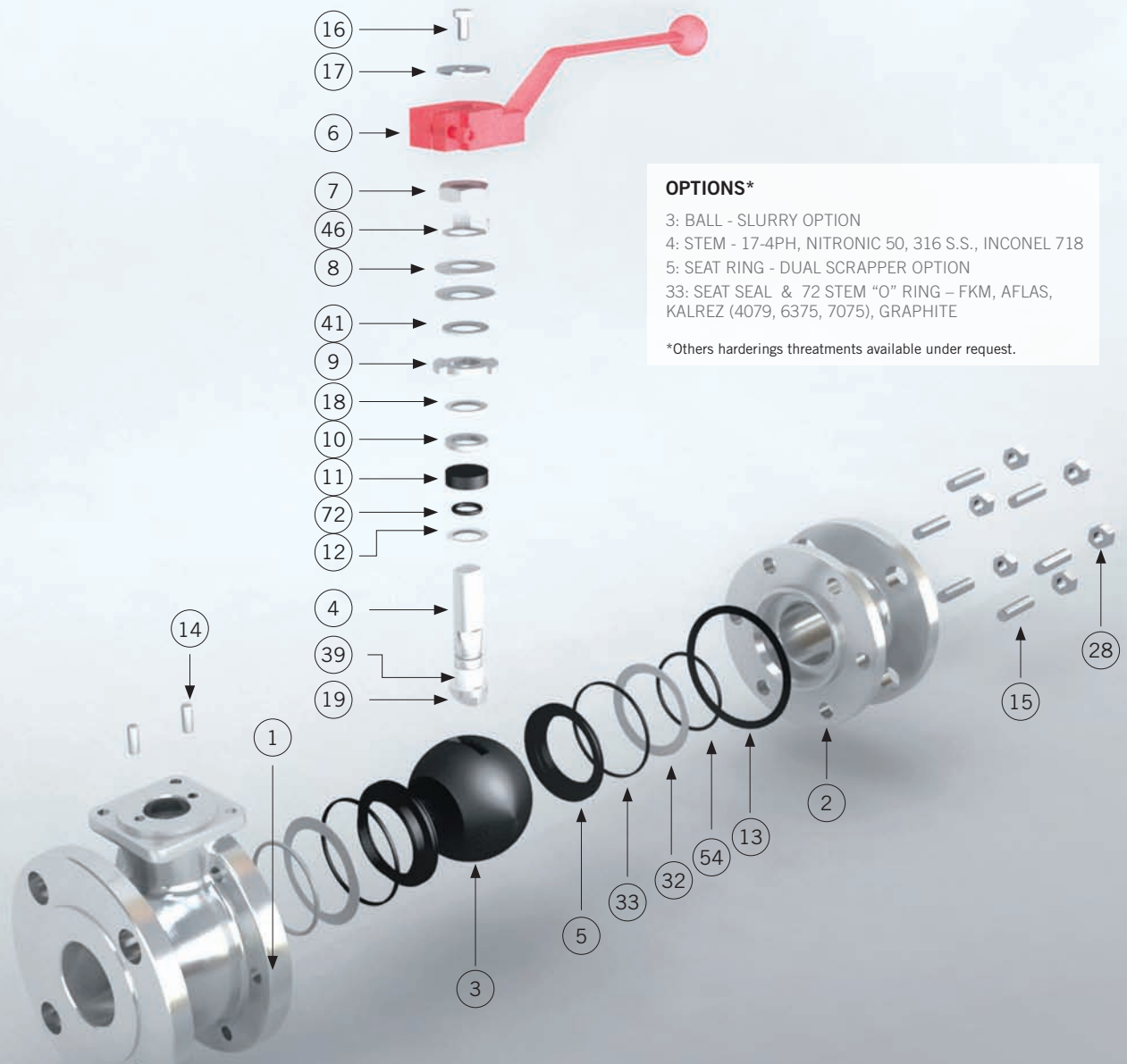
HT-65 components have excellent sliding and running properties, a very low friction coefficient that minimizes the incidence of abrasion due to wear and galling.

With HT-65, JC can assure a bubble tight sealing up to temperatures of 327 °C and Class V up to 500 °C.

- » **Bubble tight sealing up to 327 °C and Class V up to 500 °C**
- » **Low coefficient of friction**
- » **Excellent sliding and running properties**
- » **Hardens the complete surface of ball and seats**
- » **Other hardening procedure under request (CC60, CT70, HT2200)**







**OPTIONS\***

- 3: BALL - SLURRY OPTION
- 4: STEM - 17-4PH, NITRONIC 50, 316 S.S., INCONEL 718
- 5: SEAT RING - DUAL SCRAPPER OPTION
- 33: SEAT SEAL & 72 STEM "O" RING - FKM, AFLAS, KALREZ (4079, 6375, 7075), GRAPHITE

\*Others hardenings threathments available under request.

Materials	EN-DIN		ASME		
	3516 AIM 3540 AIM	3516 IIM 3540 IIM	3515 AIM 3530 AIM	3515 IIM 3530 IIM	
Item	Description	Material		Material	
1	Body	1.0619	1.4408	A216 Gr.WCB (C≤0,25%)	A351 Gr. CF8M
2	Body connector	1.0619	1.4408	A216 Gr.WCB (C≤0,25%)	A351 Gr. CF8M
3	Ball	316 S.S. + HT-65 Lapped		316 S.S. + HT-65 Lapped	
4	Stem	See options		See options	
5	Seat ring	316 S.S. + HT-65 Lapped		316 S.S. + HT-65 Lapped	
6	Wrench	Nodular Iron		Nodular Iron	
7	Gland nut	Zinc plated carbon steel	AISI 303	Zinc plated carbon steel	AISI 303
8	Disk spring	Carbon steel	ENP Carbon Steel	Carbon steel	ENP Carbon Steel
9	Stop plate	Carbon steel	AISI 304	Carbon steel	AISI 304
10	Gland	AISI 303	AISI 316	AISI 303	AISI 316
11	Gland packing	Graphite		Graphite	
12	Stem thrust seal	316 S.S. + HT-65		316 S.S. + HT-65	
13	Body connector seal	AISI 316L +Graphite		AISI 316L + Graphite	
14	Stop pin	Carbon St.	Stainless St.	Carbon St.	Stainless St.
15	Stud (DN 32 to DN 100)	A4-70		A193Gr. B7M Zinc dichromate	A193 Gr. B8M
15.1	Bolt	A4-70		-	-
16	Bolt	DIN 933 A4-70		DIN 933 A4-70	
17	Washer	Zinc plated carbon steel	AISI 304	Zinc plated carbon steel	AISI 304
18	Thrust washer	316 S.S. + HT65		316 S.S. + HT65	
19	Antistatic device	Stainless St.		Stainless St.	
28	Nut (DN 32 to DN 100)	A4-70		A194 Gr. 2HM Zinc dichromate	A194 Gr. 8M
32	Seat disk spring	Inconel X-750		Inconel X-750	
33	Seat Ring	See options		See options	
39	Stem bushing	25% G.F. PTFE		25% G.F. PTFE	
41	Spacer (DN 40 to DN200)	Carbon steel	AISI 304	Carbon steel	AISI 304
46	Locking washer	AISI 304		AISI 304	
54	Seat Seal	Graphite		Graphite	
72	Stem "O" Ring	See options		See options	

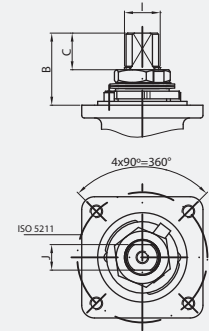
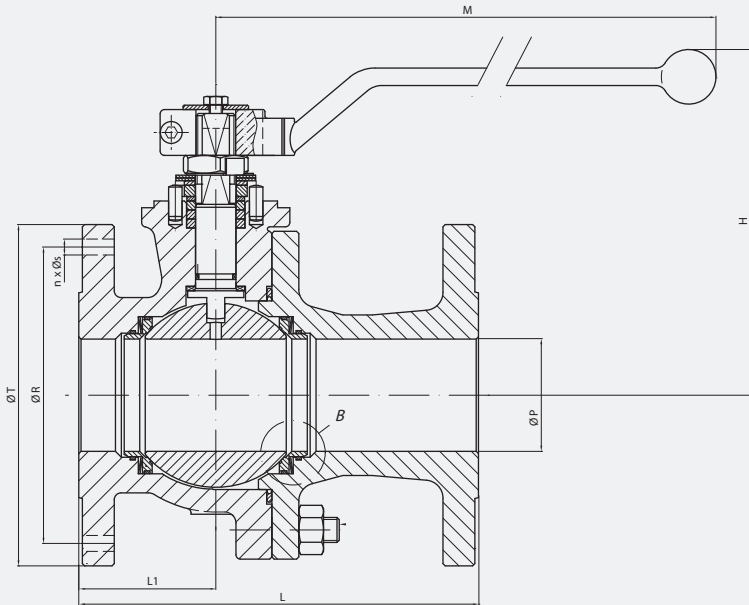
EN-DIN 3516 / 3540

PN 16 / 40

Full Bore

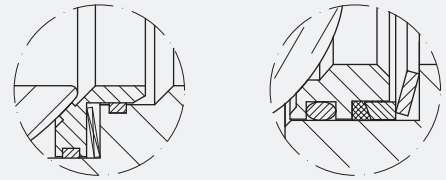
PN 16. From DN 65 to DN 200

PN 40. From DN 15 to DN 150



DETAIL B

ONLY DN-1/2" & 3/4"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

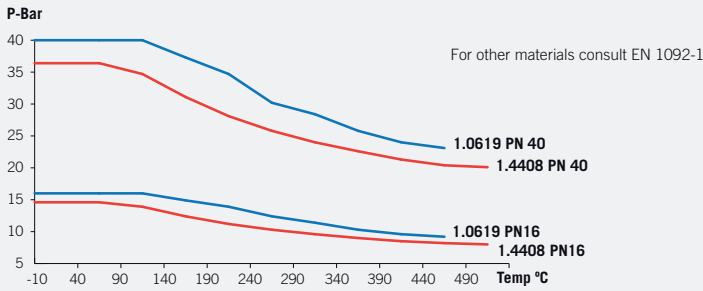


Fig. 3516 (PN 16)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT 3516	WEIGHT 3316	TORQUE	Kv
65	65	170	76	145	4x18	185	169	348	F07	44	19,7	M22x1.5	16	16	18,3	121	550
80	80	180	82	160	8x18	200	207	445	F10	44,5	19,7	M25x1.5	18	22	25	161	1000
100	100	190	90	180	8x18	220	231	495	F10	56,5	29,2	M28x1.5	20	32	36	247	1650
125	125	325	120	210	8x18	250	262	698	F12	56	27,6	M35x2	25	52,5	--	360	3000
150	151	350	135	240	8x22	285	298	698	F12	68	38,5	M40x1.5	29	76	--	675	4200
200	203	400	200	295	12x22	340	352	868	F14	72	39	M45x2	32	111	--	1130	9000

Fig. 3540 (PN 40)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT 3540	WEIGHT 3340	TORQUE	Kv
15	15	115	53	65	4x14	95	110	164	F05	11,2	5,7	M12x1.5	9	2,8	3	26	20
20	20	120	52	75	4x14	105	117	164	F05	13,2	9,2	M12x1.5	9	3,6	--	35	40
25	25	125	49	85	4x14	115	129	164	F05	22,7	10,2	M12x1.5	9	5	5,2	40	75
32	32	130	54	100	4x18	140	131	210	F05	32	13,7	M16x1.5	12	7	7,6	52	130
40	40	140	55	110	4x18	150	148	213	F07	41,5	19,2	M18x1.5	13	9	9,6	60	170
50	50	150	61	125	4x18	165	155	213	F07	41,5	19,2	M18x1.5	13	12	12,9	120	270
65	65	170	76	145	8x18	185	169	348	F07	44	19,7	M22x1.5	16	17	--	160	550
80	80	180	75	160	8x18	200	207	445	F10	44,5	19,7	M25x1.5	18	23	--	254	1000
100	100	190	91	190	8x22	235	231	495	F10	56,5	29,2	M28x1.5	20	35	--	1650	
125	125	325	120	220	8x26	270	262	698	F12	56	27,6	M35x2	25	57	--	3000	
150	151	350	135	250	8x26	300	298	698	F12	68	38,5	M40x1.5	29	83,5	--	4200	

(\*) Dimensions in mm and weight in kg.

(\*\*) Weights and dimensions can be changed without notice.

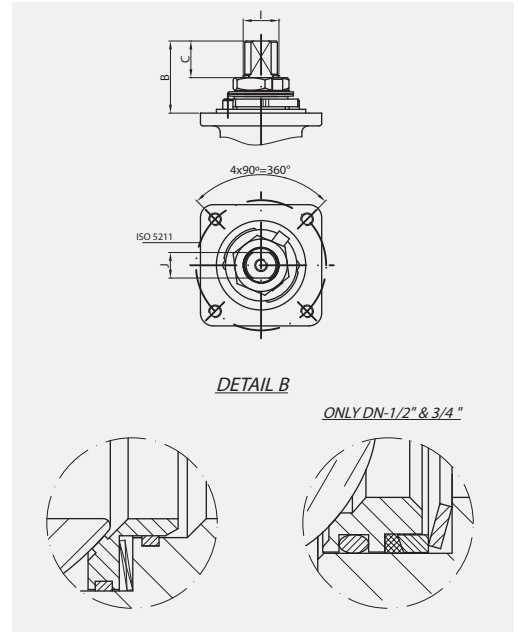
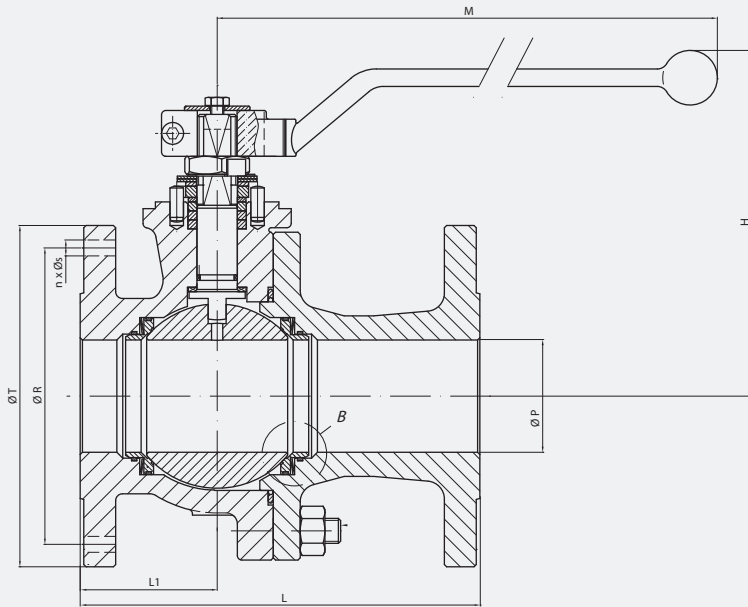
ASME 3515 / 3530

Class 150 / 300

Full Bore

Class 150. From 1/2" to 8"

Class 300. From 1/2" to 6"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

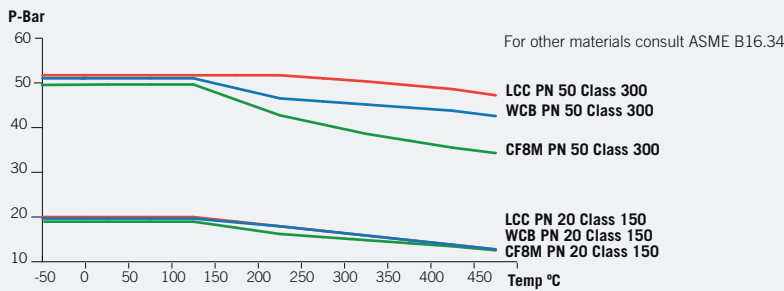


Fig. 3515 (Class 150)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
15 (1/2")	15	108	47	60,3	4x15,9	90	110	164	F05	11,2	5,7	M12x1.5	9	2	26	20
20 (3/4")	20	117	50	69,9	4x15,9	100	117	164	F05	13,2	9,2	M12x1.5	9	3	32	40
25 (1")	25	127	52	79,4	4x15,9	110	129	164	F05	22,7	10,2	M12x1.5	9	3,5	38	75
40 (1 1/2")	40	165	65	98,4	4x15,9	125	148	213	F07	41,5	19,2	M18x1.5	13	8	55	170
50 (2")	50	178	61	120,7	4x19	150	155	213	F07	41,5	19,2	M18x1.5	13	11	92	270
65 (2 1/2")	65	190	75	139,7	4x19	180	169	348	F07	44	19,7	M22x1.5	16	16	140	550
80 (3")	80	203	79	152,4	4x19	190	207	445	F10	44,5	19,7	M25x1.5	18	23	170	1000
100 (4")	100	229	90	190,5	8x19	230	231	495	F10	56,5	29,2	M28x1.5	20	38	273	1650
150 (6")	151	394	174	241,3	8x22,2	280	298	698	F12	68	38,5	M40x1.5	29	88	778	4200
200 (8")	203	457	200	298,5	8x22,2	345	352	868	F14	72	39	M45x2	32	155	1313	9000

Fig. 3530 (Class 300)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
15 (1/2")	15	140	60	66,7	4x15,9	95	110	164	F05	11,2	5,7	M12x1.5	9	3	32	20
20 (3/4")	20	152	65	82,6	4x19	115	117	164	F05	13,2	9,2	M12x1.5	9	4	40	40
25 (1")	25	165	70	88,9	4x19	125	129	164	F05	22,7	10,2	M12x1.5	9	5	45	75
40 (1 1/2")	40	190	80	114,3	4x22,2	155	148	213	F07	41,5	19,2	M18x1.5	13	11	70	170
50 (2")	50	216	83	127	8x19	165	155	213	F07	41,5	19,2	M18x1.5	13	14	135	270
80 (3")	80	283	118	168,3	8x22,2	210	207	445	F07	44,5	19,7	M25x1.5	18	32	286	550
100 (4")	100	305	133	200	8x22,2	255	231	495	F10	56,5	29,2	M28x1.5	20	52		1000
150 (6")	151	403	160	269,9	12x22,2	320	298	698	F10	68	38,5	M40x1.5	29	94		1650

(\*) Dimensions in mm and weight in kg.

(\*\*) Weights and dimensions can be changed without notice.

| BALL VALVES |

# METAL SEATED UDV

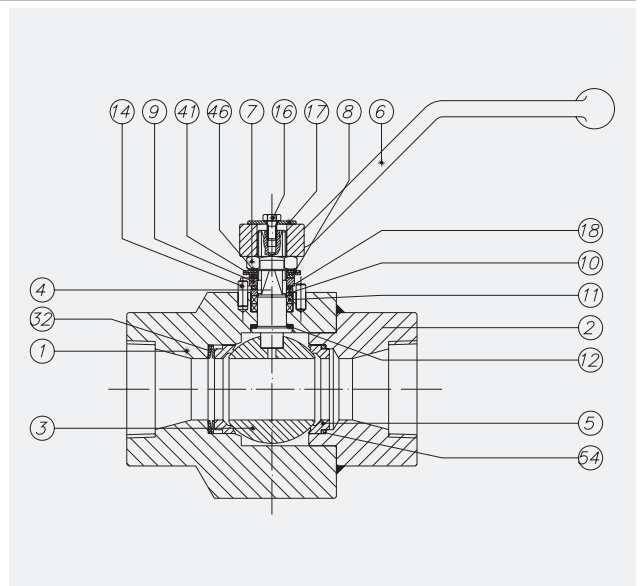
## 1/2" - 2" | Class 800 - Class 1500

The Ultimate Drain Valve (UDV) it is a high temperature special design. The valve has got a monobloc welded body and it is reduced bore. This valve is designed to support high temperatures at high pressures.



## Materials METAL SEATED UDV

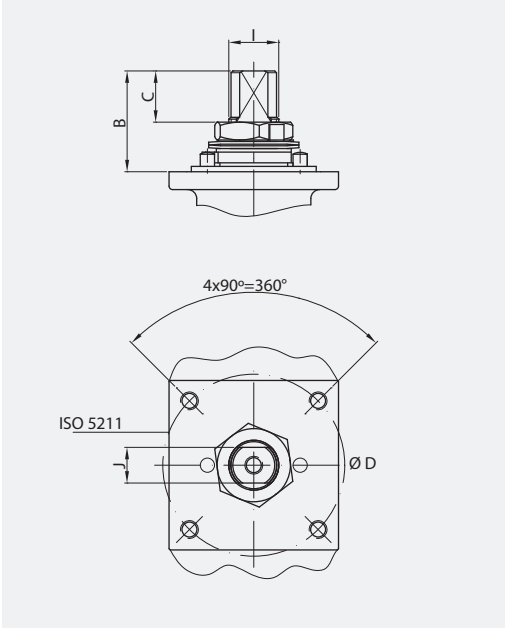
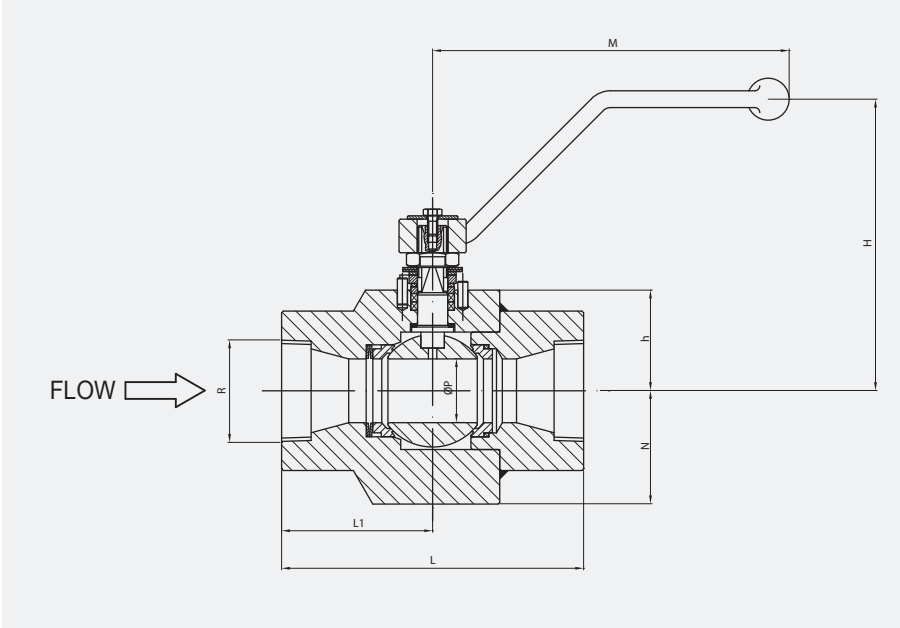
Item	Description	C.S. BODY	S.S. BODY
1	Body	A 105	A 479 Type 316
2	Body connector	A 105	A 479 Type 316
3	Ball	AISI 316 + HT-65 (*)	
4	Stem	17-4 PH + HT-65 (*)	
5	Seat ring	AISI 316 + HT-65	
6	Wrench	GGG-40	
7	Gland nut	Zinc plated carbon st.	AISI 303
8	Disk spring	Carbon St.	E.N.P. Carbon St.
9	Stop plate	Carbon St.	AISI 304
10	Gland	AISI 316 + HT-65	
11	Gland packing	Graphite	
12	Stem thrust seal	AISI 316 + HT-65	
14	Stop pin	Carbon St.	Stainless St.
16	Bolt	DIN 933 5.6 Zinc plated	DIN 933 A2
17	Washer	Carbon St.	Stainless St.
18	Thrust washer	AISI 316 + HT-65	
32	Disk spring	Inconel 718	
41	Spacer	Carbon St.	Stainless St.
46	Washer	AISI 304	
54	Seat gasket	Graphite	



(\*) Other materials under request.

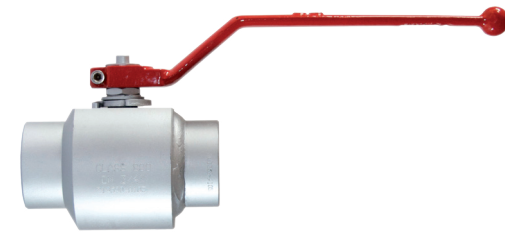
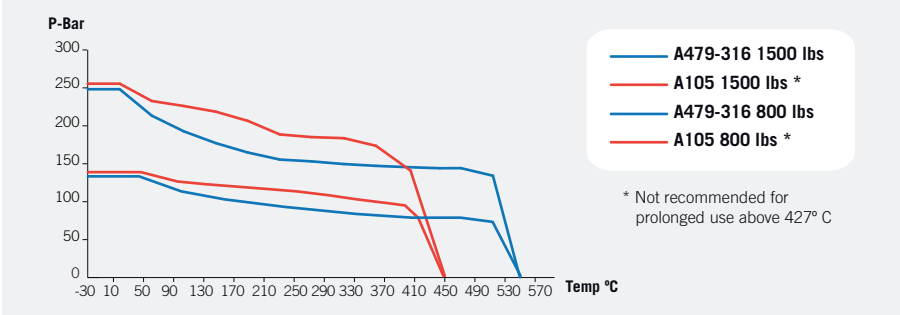
**UDV CLASS 800 & 1500 AIM & IIM TYPE** **Class 800 / 1500** **Reduced Bore**

Class 800. From ½" to 2" Class 1500. From ½" to 2"



(\*) Diameter of drills ISO 5211 = n x F.

**Pressure - Temperature**



**Fig. UDV (Class 800)**

DN	ØP	L	L1	R	N	h	H	M	ISO 5211	B	C	ØD	n x F	I	J	WEIGHT	TORQUE	Kv
½"	15	90	45	NPT	37,5	32	102	164	F04	18,4	7,8	42	4 x M5	M12 x1,5	9	3,5	30	11
¾"	15	110	55	NPT	37,5	32	102	164	F04	18,4	7,8	42	4 x M5	M12 x1,5	9	4,5	30	11
1"	20	120	60	NPT	42,5	35,5	106	164	F05	20	8,5	50	4 x M6	M12 x1,5	9	5	37	14
1½"	28	150	75	NPT	60	50	111	210	F05	31,5	15,5	50	4 x M6	M16 x1,5	12	6	102	30
2"	36	180	90	NPT	67,5	60	128	213	F07	38,5	19	70	4 x M8	M18 x1,5	13	10	173	72

**Fig. UDV (Class 1500)**

DN	ØP	L	L1	R	N	h	H	M	ISO 5211	B	C	ØD	n x F	I	J	WEIGHT	TORQUE	Kv
½"	15	90	45	NPT	37,5	32	102	164	F04	18,4	7,8	42	4 x M5	M12x1,5	9	3,5	39	11
¾"	15	110	55	NPT	37,5	32	102	164	F04	18,4	7,8	42	4 x M5	M12x1,5	9	4,5	39	11
1"	20	120	60	NPT	42,5	35,5	106	164	F05	20	8,5	50	4 x M6	M12x1,5	9	5	54	14
1½"	28	150	75	NPT	60	50	111	210	F05	31,5	15,5	50	4 x M6	M16x1,5	12	6	161	30
2"	36	180	90	NPT	67,5	60	128	213	F07	38,5	19	70	4 x M8	M18x1,5	13	10	287	72

(\*) Dimensions in mm and weight in kg.  
(\*\*) Weights and dimensions can be changed without notice.

| BALL VALVES |

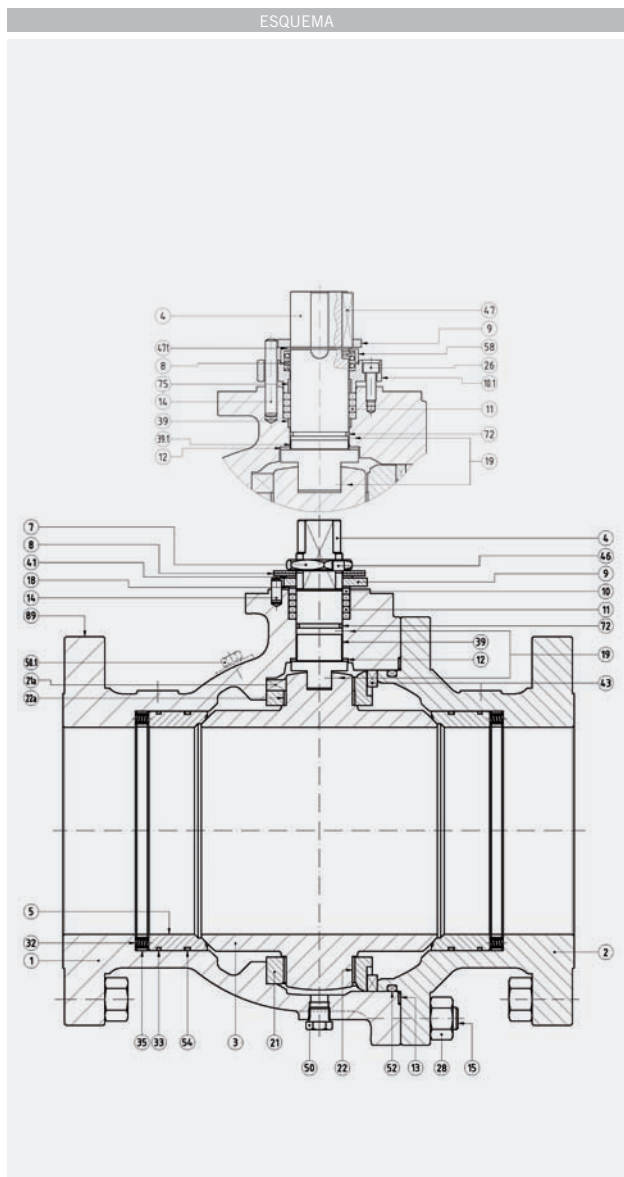
# METAL SEATED TRUNNION

2" - 24" | Class 150 - Class 600

## Materials METAL TO METAL TRUNNION

Item	Description	AIM	IIM
1	Body	A 216 Gr. WCB (C ≤ 0.25%)	A 351 Gr. CF8M
2	Body connector	A 216 Gr. WCB (C ≤ 0.25%)	A 351 Gr. CF8M
3	Ball	TP.316 + HT-65	
4	Stem	NITRONIC-50	
5	Seat ring	TP.316 + HT-65	
7	Gland nut	Zinc Plated Carbon Steel	AISI-303
8	Disk spring / Spring	Carbon St. *	E.N.P. Carbon St. *
9	Stop plate	Carbon St.	AISI-304
10	Gland ring	AISI-303 + HT-65	AISI-316 + HT-65
10.1	Gland	AISI-303	AISI-316
11	Gland packing	Graphite	
12	Stem thrust seal	AISI-316 + HT-65	
13	Body connector seal	AISI-316L + Graphite	
14	Stop pin	Carbon St.	Stainless St.
15	Stud	A 193 Gr. B7M Zinc dichromate	A 193 Gr. B8M **
18	Thrust washer	50% S.S. PTFE	
19	Antistatic device	Stainless St.	
21 / 21a	Ball trunnion	A 351 Gr. CF8M	
22 / 22a	Trunnion bearing	AISI-316 + PTFE	
26	Bolt	DIN 912 8.8 Zinc Plated	DIN 912 A2
28	Nut	A 194 Gr. 2HM Zinc dichromate	A 194 Gr. 8M **
32	Spring	Inconel - 750	
33	O' Ring	FKM -- Note 1 --	
35	Spring carrier	A 351 Gr. CF8M	
39	Stem bushing	25% G.F. PTFE	
39.1	Stem bushing	AISI-316 + PTFE -- Note 2 & Note 3 --	
41	Spacer	Carbon St.	Stainless St.
43	Key	AISI-316	
46	Locking washer	AISI-304	
47	Key	Carbon St.	
50	Drain plug	A 105	AISI-316
50.1	Vent plug	A 105	AISI-316
52	O' Ring	FKM -- Note 1 & Note 2 --	
54	Seat carrier seal	Graphite	
58	Spring protection	Carbon St.	Stainless St.
72	O' Ring	FKM -- Note 1 --	
75	Stem bushing	AISI-316 + PTFE -- Note 2 & Note 3 --	
89	Identification plate	Stainless St.	
471	Retainer	Carbon St.	Stainless St.

ESQUEMA



(\*) On request Inconel X-750.

(\*\*) On request B7M / 2HM Zinc Plated &amp; Bichromated.

Note 1: Depending on design conditions AFLAS, KALREZ or KALREZ Spectrum.

Note 2: Only DN-350 &amp; 400 and all Fig.2560.

Note 3: Over 350°C Steel Inconel + HT-625

CAST TRUNNION METAL 2515 / 2530 / 2560

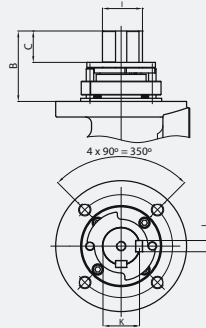
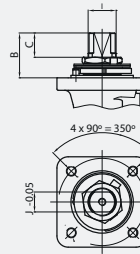
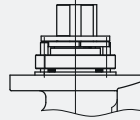
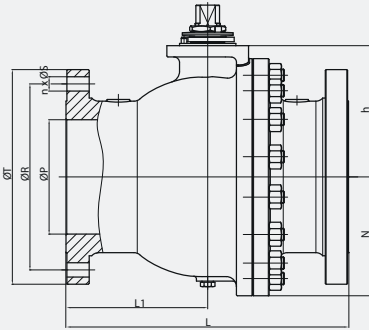
Class 150 / 300 / 600

Full Bore

Class 150. From 2" to 16"

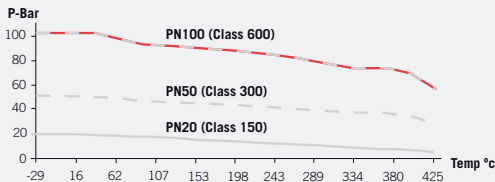
Class 300. From 2" to 16"

Class 600. From 2" to 12"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature



METAL SEATS

2" to 16"

For A216 Gr. WCB only.  
For other materials consult ASME B16.34



Fig. 2515 (Class 150)

DN	ØP	L	L1	ØR	n x ØS	ØT	h	N	ISO 5211	B	C	I	J	K	WEIGHT	TORQUE
50 (2")	50	178	78.5	120.7	4x19	150	84	80	F07	42	17	M22x1.5	16	-	13	118
80 (3")	80	203	87	152.4	4x19	190	126	-	F10	55	27	M28x1.5	20	-	22	198
100 (4")	100	229	101	190.5	8x19	230	152	120	F12	56	27	M35x2	25	-	39	340
150 (6")	151	394	197	241.3	8x22.2	280	212	168	F14	70	36	M45x2	32	-	98	720
200 (8")	203	457	230	298.5	8x22.2	345	233	208	F14	70	37	M45x2	32	-	124	1190
250 (10")	254	533	267	362	12x25.4	405	256	243	F14	70	37	M45x2	32	-	175	1883
300 (12")	305	610	305	431.8	12x25.4	485	297	287.5	F14	106	58	50	14	53.5	295	2620
350 (14")	337	686	343	476.3	12x28.5	535	333	323	F16	103	49	60	18	64.2	580	2446
400 (16")	388	762	381	539.8	16x28.5	595	412	358	F25	159	103	90	25	95.3	750	3160

Fig. 2530 (Class 300)

DN	ØP	L	L1	ØR	n x ØS	ØT	h	N	ISO 5211	B	C	I	J	K	WEIGHT	TORQUE
50 (2")	50	216	84	127	8x19	165	84	-	F07	42	17	M22x1.5	16	-	16	167
80 (3")	80	283	115	168.3	8x22.2	210	126	-	F10	55	27	M28x1.5	20	-	33	359
100 (4")	100	305	133	200	8x22.2	255	152	-	F12	56	27	M35x2	25	-	43	626
150 (6")	151	403	202	269.9	12x22.2	320	212	173	F14	70	36	M45x2	32	-	113	1290
200 (8")	203	502	252	330.2	12x25.4	380	233	210	F14	70	37	M45x2	32	-	157	2162
250 (10")	254	568	284	387.4	16x28.5	445	257	253	F14	70	37	M45x2	32	-	263	3050
300 (12")	305	648	315	450.8	16x31.8	520	310	300	F16	103	49	60	18	64.2	480	5670
350 (14")	337	762	381	514.4	20x31.8	585	333	331	F16	103	49	60	18	64.2	655	5326
400 (16")	388	838	419	571.5	20x34.9	650	412	365	F25	159	103	90	25	95.3	890	7187

Fig. 2560 (Class 600)

DN	ØP	L	L1	ØR	n x ØS	ØT	h	N	ISO 5211	B	C	I	J	K	WEIGHT	TORQUE
50 (2")	50	292	96	127	8x19	165	84	-	F07	42	17	M22x1.5	16	-	20	190
80 (3")	80	356	140	168.3	8x22.2	210	126	113	F10	55	27	M28x1.5	20	-	41	540
100 (4")	100	432	160	215.9	8x25.2	275	152	-	F12	56	27	M35x2	25	-	77	1096
150 (6")	151	559	246	292.1	12x28.5	355	212	188	F14	97	49	45	14	48.5	192	2040
200 (8")	203	660	315	349.2	12x31.8	420	237	235	F14	113	64	50	14	53.5	329	4150
250 (10")	254	787	340	431.8	16x34.9	510	275	273	F16	103	49	60	18	64.2	460	6710
300 (12")	305	838	404	489	20x34.9	560	345	335	F16	127	73	65	18	69.2	570	7600

(\*) Dimensions in mm and weight in kg.  
(\*\*) Weights and dimensions can be changed without notice.

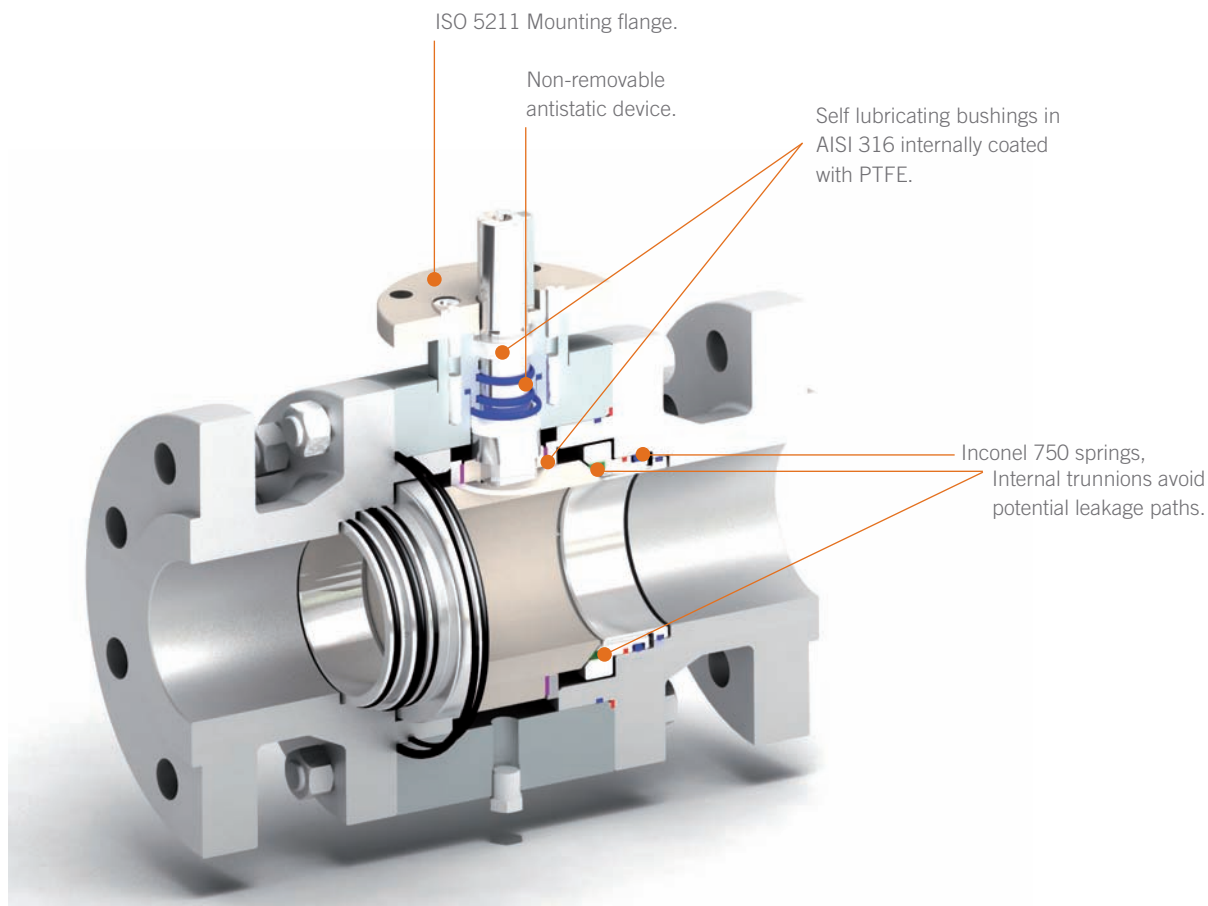
| BALL VALVES |

# 3-PIECE FORGED TRUNNION MOUNTED

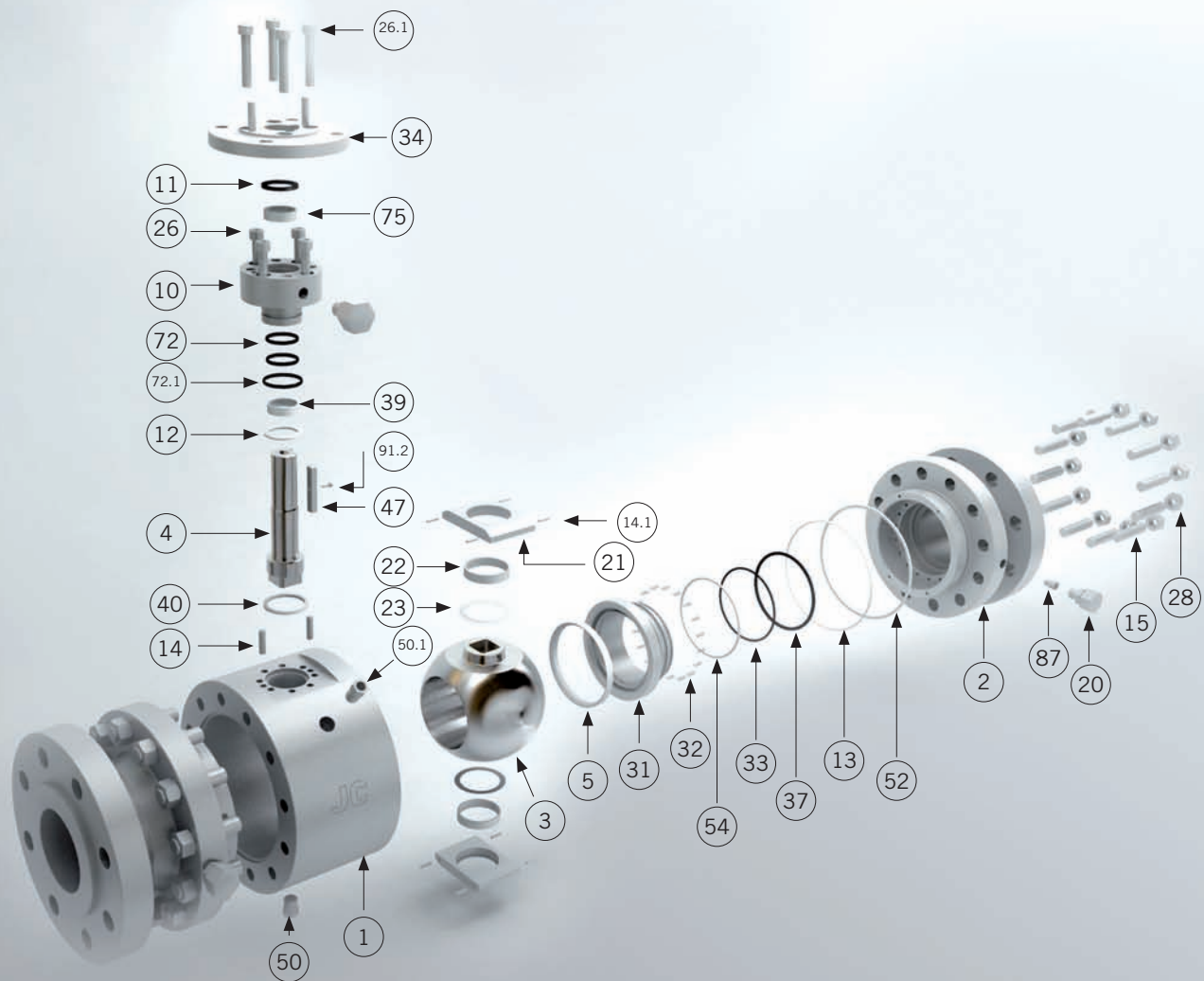
## 2" - 42" | Class 150 - Class 2500

A trunnion ball valve has additional mechanical anchoring of the ball at the top and the bottom, suitable for larger and higher pressure valves.

The JC trunnion mounted ball valves are suitable to stand the harsh service conditions often presented in the hydrocarbon industry and in the gas storage and transportation field. In general, they are recommended for tight shut-off in high pressure and double block and bleed applications.







# Materials

## SERIES 6000 & 7000

Item	Description	AIT	LIT	IIT
1	Body	A 105N	A 350 Gr. LF2 Class. 1	A182 F316
2	Body Connector	A 105N	A 350 Gr. LF2 Class. 1	A182 F316
3	Ball		A182 F316 or A351Gr. CF8M	
4	Stem		A 479 Tp.316	
5	Seat Ring		RPTFE, PEEK, DEVLON	
10	Gland	A 105N	A 350 Gr. LF2 Class-1	A 479 Tp.316
11	Gland Packing		Graphite	
12	Stem Thrust Seal		25% G.F. + PTFE	
13	Body Connector Seal		Graphite	
14 / 14.1	Pin	Carbon St.	Carbon Steel	Stainless Steel
15	Stud	A 193 Gr. B7M Zinc dichromate	A 320 Gr. L7M	A 193 Gr. B8M
19	Antistatic Device		Stainless St.	
20	Sealant Injector	Carbon Steel	Carbon Steel	Stainless Steel
21	Ball Trunnion		A 479 Tp.316	
22	Trunnion Bearing		AISI 316 with inside in PTFE	
23	Bearing		PTFE	
26 / 26.1	Bolt	A 193 Gr. B7M Zinc dichromate	A 320 Gr. L7M	A 193 Gr. B8M
28	Nut	A 194 Gr. 2HM Zinc dichromate	A 194 Gr. 7M	A 194 Gr. 8M
31	Seat Carrier		A 479 Tp.316 / A182 F316	
32	Spring		Inconel - 750	
33	"O" Ring		FKM	
34	Mounting Flange	A 105N	A 350 Gr. LF2 Class-1	A 479 Tp.316
37	"O" Ring		FKM	
39	Stem Bushing		AISI 316 with inside in PTFE	
40	Gasket		Graphite	
47	Key	Carbon Steel	Carbon Steel	Stainless St.
50	Drain Plug	A 105	A 350 Gr. LF2 Class-1	AISI 316
50.1	Relieve Plug	A 105	A 350 Gr. LF2 Class-1	AISI 316
52	"O" Ring		FKM	
54	Seat Carrier Seal		Graphite	
72 / 72.1	"O" Ring		FKM	
75	Stem Bushing		AISI 316 with inside in PTFE	
87	Check Valve		Stainless St.	
89	Identification plate		Stainless St.	
912	Bolt		DIN 912 A2	

FORGED BALL VALVES 6015 / 6030 / 6060 / 6090 / 6050 / 6042

Full Bore

Class 150.  
From 2" to 24"

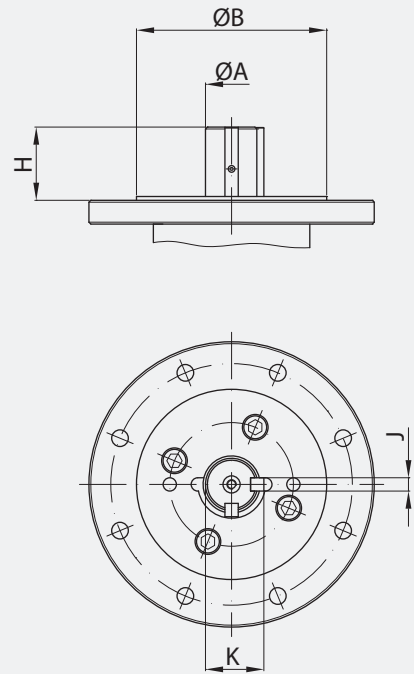
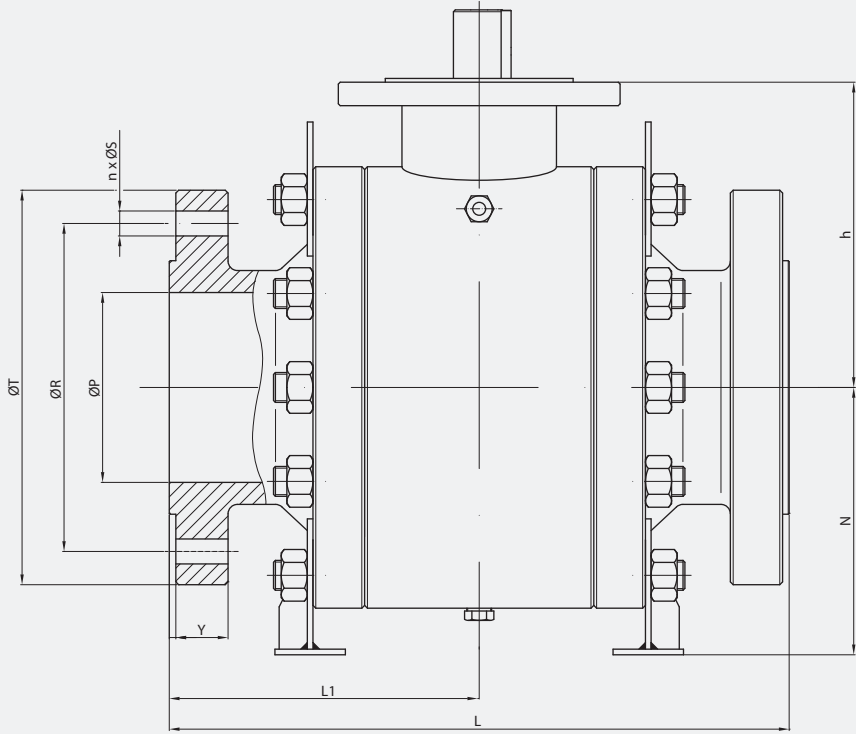
Class 300.  
From 2" to 24"

Class 600.  
From 2" to 24"

Class 900.  
From 2" to 24"

Class 1500.  
From 2" to 12"

Class 2500.  
From 2" to 8"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

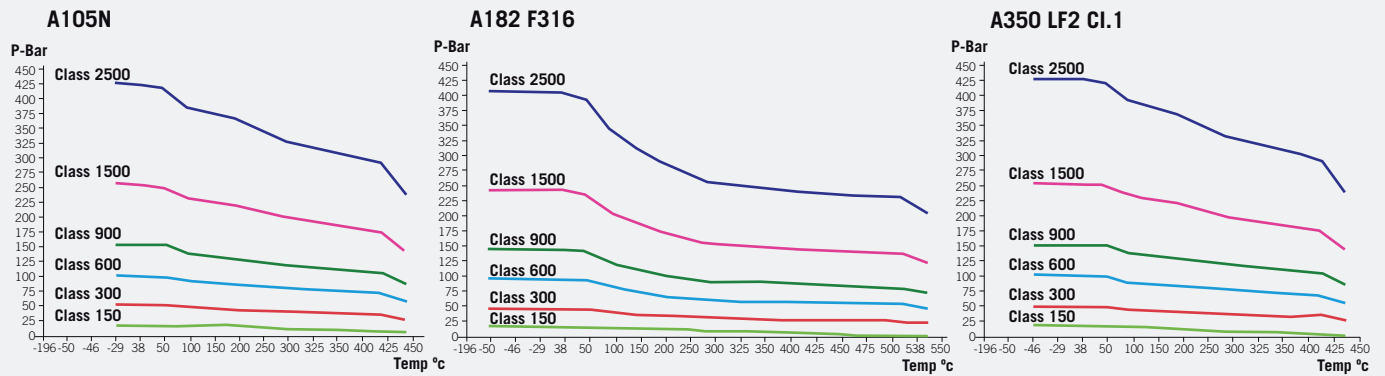


Fig. 6015 (Class 150)

DN	øP	L	L1	øR	n x øS	øT	Y	h	N	ISO 5211	H	øA	J	K	WEIGHT	TORQUE	Kv
2"	49	178	89	120.7	4 x 19	150	14	125	100	F10	36,5	20	8	22,5	52	27	366
3"	76	203	101,5	152.4	4 x 19	190	18	156,5	133,5	F12	37,5	26	10	30	59	52	938
4"	102	229	114,5	190.5	8 x 19	230	22	175	167	F12	54	30	10	34	110	98	1.465
6"	152	394	197	241.3	8 x 22	280	24	269	277	F16	71	39,9	14	48,9	171	225	3.297
8"	203	457	228,5	298.5	8 x 22.2	345	27	325	325	F25	77	49,9	14	58,4	334	450	5.861
10"	254	533	266,5	362	12 x 25.4	405	29	362	319	F25	84,5	59,9	16	67	458	668	9.454
12"	305	610	305	431.8	12 x 25.4	485	30	423	399	F25	104	69,9	18	78	736	1.317	13.631
14"	337	686	343	476.3	12 x 28.5	535	33	455	439	F30	119	79,9	22	87,9	1.019	1.547	16.641
16"	387	762	381	539.8	16 x 28.5	595	35	490	472	F30	134	84,9	22	94,9	1.778	2.000	23.554
18"	438	864	432	577.9	16 x 31.8	635	38	542	596	F30	147,5	99,9	28	111,9	1.860	3.027	29.672
20"	488	914	457	635	20 x 31.8	700	41	577	610	F30	147,5	99,9	28	111,9	2.439	3.803	36.633
24"	589	1.067	533,5	749.3	20 x 34.9	815	46	599	692	F40	152	120	32	134	4.302	9.100	52.751

(\*) Dimensions in mm and weight in kg.  
(\*\*) Weights and dimensions can be changed without notice.



FORGED BALL VALVES 7015 / 7030 / 7060 / 7090 / 7050 / 7042

Reduced Bore

Class 150.  
From 3" to 30"

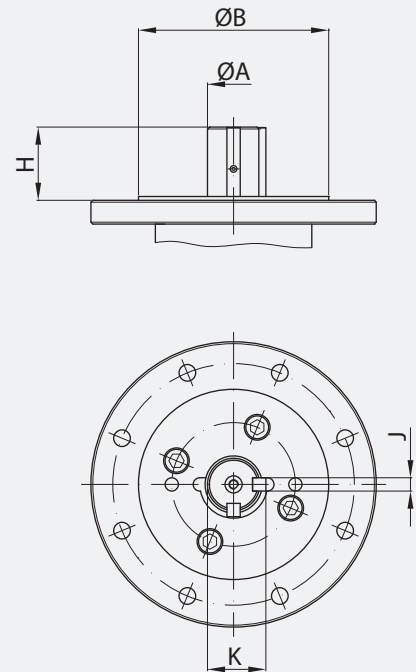
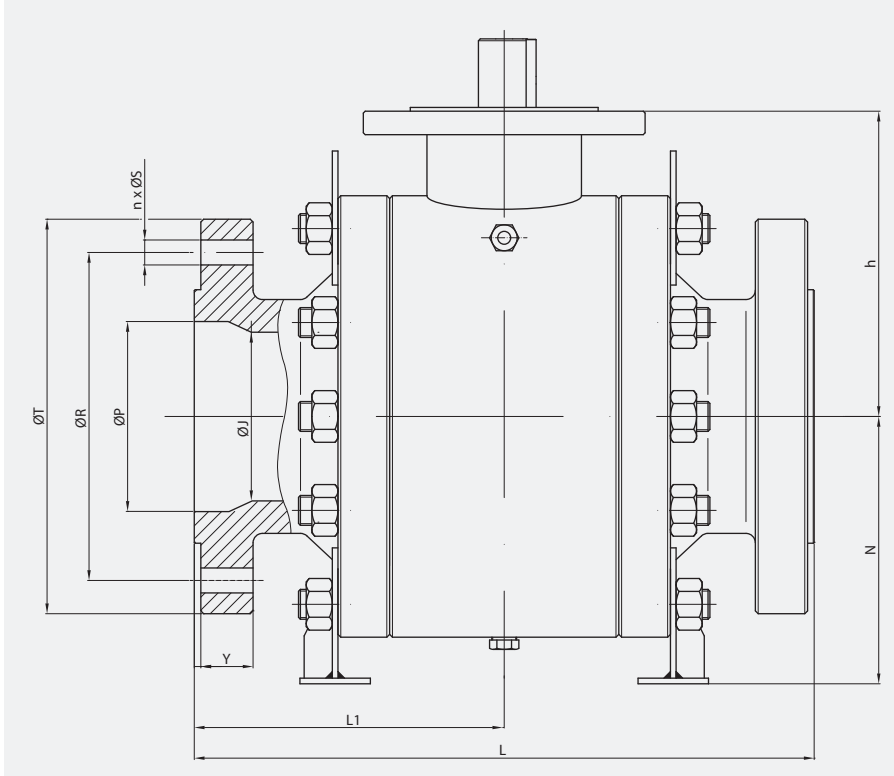
Class 300.  
From 3" to 30"

Class 600.  
From 3" to 30"

Class 900.  
From 3" to 30"

Class 1500.  
From 3" to 14"

Class 2500.  
From 3" to 10"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature



Fig. 7015 (Class 150)

DN	øJ	øP	L	L1	øR	n x øS	øT	Y	h	N	ISO 5211	H	øA	J	K	WEIGHT	TORQUE	Kv
3" x 2"	76	49	203	101,5	152.4	4 x 19	190	18	125	100	F10	36,5	20	8	22,5	66	27	190
4" x 3"	102	76	229	114,5	190.5	8 x 19	230	22	156,5	133,5	F12	37,5	26	10	30	75	52	567
6" x 4"	152	102	394	197	241.3	8 x 22	280	24	175	167	F12	54	30	10	34	115	98	815
8" x 6"	203	152	457	228,5	298.5	8 x 22.2	345	27	269	277	F16	71	39,9	14	48,9	205	225	2.021
10" x 8"	254	203	533	266,5	362	12 x 25.4	405	29	325	325	F25	77	49,9	14	58,4	375	450	4.205
12" x 10"	305	254	610	305	431.8	12 x 25.4	485	30	362	319	F25	84,5	59,9	16	67	565	668	7.348
14" x 12"	337	305	686	343	476.3	12 x 28.5	535	33	423	399	F25	104	69,9	18	78	825	1.317	10.120
16" x 14"	387	337	762	381	538.8	16 x 28.5	595	35	455	439	F30	119	79,9	22	87,9	1.250	1.547	12.000
18" x 16"	438	387	864	432	577.9	16 x 31.8	635	38	490	472	F30	134	84,9	22	94,9	1.820	2.000	17.269
20" x 18"	488	438	914	457	635	20 x 31.8	700	41	542	596	F30	147,5	99,9	28	111,9	2.450	3.027	18.647
24" x 20"	589	488	1.067	533,5	749.3	20 x 34.9	815	46	577	610	F30	147,5	99,9	28	111,9	2.790	3.803	27.010
30" x 24"	735	589	1.295	647,5	857	28 x 35	985	73	599	692	F40	152	120	32	134	5.530	9.100	32.150

(\*) Dimensions in mm and weight in kg.  
(\*\*) Weights and dimensions can be changed without notice.



## | BALL VALVES |

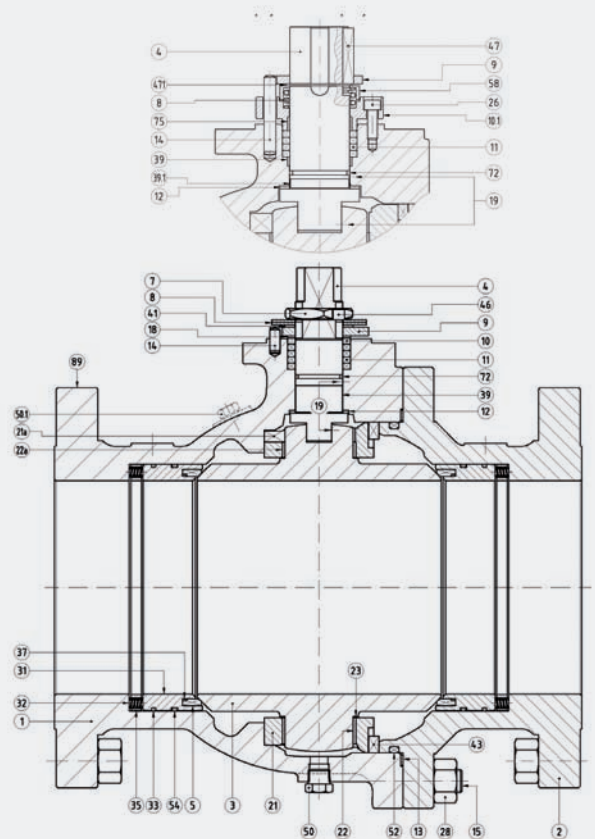
# 2-PIECE CAST TRUNNION MOUNTED CAST TRUNNION

2" - 16" | Class 150 - Class 600

## Materials CAST TRUNNION

Item	Description	AIT	IIT
1	Body	A 216 Gr. WCB (C ≤ 0.25%)	A 351 Gr. CF8M
2	Body connector	A 216 Gr. WCB (C ≤ 0.25%)	A 351 Gr. CF8M
3	Ball	A 351 Gr. CF8M	
4	Stem	A 479 Tp.316	
5	Seat ring	PTFE	
7	Gland nut	Zinc Plated Carbon Steel	AISI-303
8	Disk spring / Spring	Carbon St. *	E.N.P. Carbon St. *
9	Stop plate	Carbon St.	AISI-304
10	Gland ring	AISI-303	AISI-316
10.1	Gland	AISI-303	AISI-316
11	Gland packing	Graphite	
12	Stem thrust seal	25% G.F. PTFE	
13	Body connector seal	AISI-316L + Graphite	
14	Stop pin	Carbon St.	Stainless St.
15	Stud	A 193 Gr. B7M Zinc dichromate	A 193 Gr. B8M **
18	Thrust washer	25% G.F. PTFE	
19	Antistatic device	Stainless St.	
21 / 21a	Ball trunnion	A 351 Gr. CF8M	
22 / 22a	Trunnion bearing	AISI-316 + PTFE	
23	Bearing	PTFE	
26	Bolt	DIN 912 8.8 Zinc Plated	DIN 912 A2
28	Nut	A 194 Gr. 2HM Zinc dichromate	A 194 Gr. 8M **
31	Seat Carrier	A 351 Gr. CF8M	
32	Spring	Inconel - 750	
33	O' Ring	FKM -- Note 1 --	
35	Spring carrier	A 351 Gr. CF8M	
37	O' Ring	FKM -- Note 1 --	
39	Stem bushing	25% G.F. PTFE	
39.1	Stem bushing	AISI-316 + PTFE -- Note 2 --	
41	Spacer	Carbon St.	Stainless St.
43	Key	AISI-316	
46	Locking washer	AISI-304	
47	Key	Carbon St.	
50	Drain plug	A 105	AISI-316
50.1	Vent plug	A 105	AISI-316
52	O' Ring	FKM -- Note 2 --	
54	Seat carrier seal	Graphite	
58	Spring protection	Carbon St.	Stainless St.
72	O' Ring	FKM -- Note 1 --	
75	Stem bushing	AISI-316 + PTFE -- Note 2 --	
89	Identification plate	Stainless St.	
471	Retainer	Carbon St.	Stainless St.

ESQUEMA

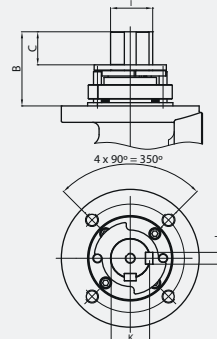
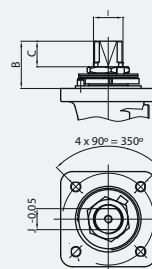
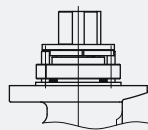
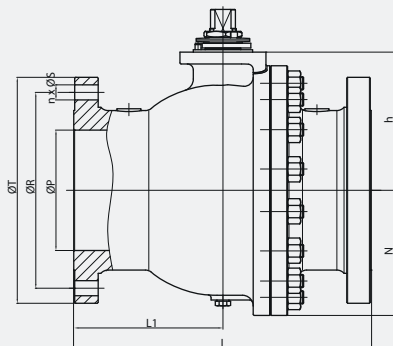
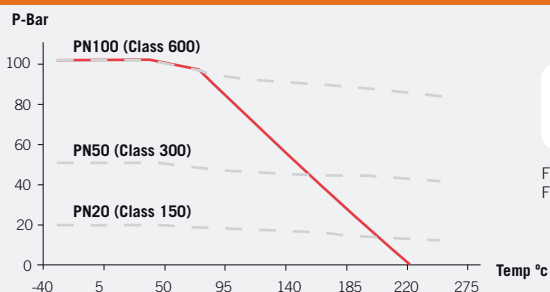


(\*) On request Inconel X-750.

(\*\*) On request B7M / 2HM Zinc Plated &amp; Bichromated.

Note 1: Depending on design conditions AFLAS, KALREZ or KALREZ Spectrum.

Note 2: Only DN-350 &amp; 400 and all Fig.2560.

**CAST BALL VALVES 2515 / 2530 / 2560**
**Class 150 / 300 / 600**
**Full Bore**
**Class 150. From 2" to 16"**
**Class 300. From 2" to 16"**
**Class 600. From 2" to 12"**

**Pressure - Temperature**


(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.


**Fig. 2515 (Class 150)**

DN	$\phi P$	L	L <sub>1</sub>	$\phi R$	n x $\phi S$	$\phi T$	h	N	ISO 5211	B	C	I	J	K	WEIGHT	TORQUE	Kv
50 (2")	50	178	78.5	120.7	4x19	150	84	80	F07	42	17	M22x1,5	16	-	13	70	366
80 (3")	80	203	87	152.4	4x19	190	126	-	F10	55	27	M28x1,5	20	-	22	130	938
100 (4")	100	229	101	190.5	8x19	230	152	120	F12	56	27	M35x2	25	-	39	340	1.465
150 (6")	151	394	197	241.3	8x22.2	280	212	168	F14	70	36	M45x2	32	-	98	500	3.297
200 (8")	203	457	230	298.5	8x22.2	345	233	208	F14	70	37	M45x2	32	-	124	800	5.861
250 (10")	254	533	267	362	12x25.4	405	256	243	F14	70	37	M45x2	32	-	175	1.010	9.454
300 (12")	305	610	305	431.8	12x25.4	485	297	287.5	F14	106	58	50	14	53.5	295	1.800	13.631
350 (14")	337	686	343	476.3	12x28.5	535	333	323	F16	103	49	60	18	64.2	580	2.600	16.641
400 (16")	388	762	381	539.8	16x28.5	595	412	358	F25	159	103	90	25	95.3	750	3.500	23.554

**Fig. 2530 (Class 300)**

DN	$\phi P$	L	L <sub>1</sub>	$\phi R$	n x $\phi S$	$\phi T$	h	N	ISO 5211	B	C	I	J	K	WEIGHT	TORQUE	Kv
50 (2")	50	216	84	127	8x19	165	84	-	F07	42	17	M22x1,5	16	-	16	80	366
80 (3")	80	283	115	168.3	8x22.2	210	126	-	F10	55	27	M28x1,5	20	-	33	140	938
100 (4")	100	305	133	200	8x22.2	255	152	-	F12	56	27	M35x2	25	-	43	380	1.465
150 (6")	151	403	202	269.9	12x22.2	320	212	173	F14	70	36	M45x2	32	-	113	700	3.297
200 (8")	203	502	252	330.2	12x25.4	380	233	210	F14	70	37	M45x2	32	-	157	900	5.861
250 (10")	254	568	284	387.4	16x28.5	445	257	253	F14	70	37	M45x2	32	-	263	1.300	9.454
300 (12")	305	648	315	450.8	16x31.8	520	310	300	F16	103	49	60	18	64.2	480	2.500	13.631
350 (14")	337	762	381	514.4	20x34.9	585	333	331	F16	103	49	60	18	64.2	655	3.750	16.641
400 (16")	388	838	419	571.5	20x34.9	650	412	365	F25	159	103	90	25	95.3	890	5.000	23.554

**Fig. 2560 (Class 600)**

DN	$\phi P$	L	L <sub>1</sub>	$\phi R$	n x $\phi S$	$\phi T$	h	N	ISO 5211	B	C	I	J	K	WEIGHT	TORQUE	Kv
50 (2")	50	292	96	127	8x19.1	165	84	-	F07	42	17	M22x1,5	16	-	20	90	366
80 (3")	80	356	140	168.3	8x22.2	210	126	113	F10	55	27	M28x1,5	20	-	41	170	938
100 (4")	100	432	160	215.9	8x25.2	275	152	-	F12	56	27	M35x2	25	-	77	400	1.465
150 (6")	151	559	246	292.1	12x28.5	355	212	188	F14	97	49	45	14	48.5	192	900	3.297
200 (8")	203	660	315	349.2	12x31.8	420	237	235	F14	113	64	50	14	53.5	329	1.400	5.861
250 (10")	254	787	340	431.8	16x34.9	510	275	273	F16	103	49	60	18	64.2	460	3.050	9.454
300 (12")	305	838	404	489	20x34.9	560	345	335	F16	127	73	65	18	69.2	570	3.800	13.631

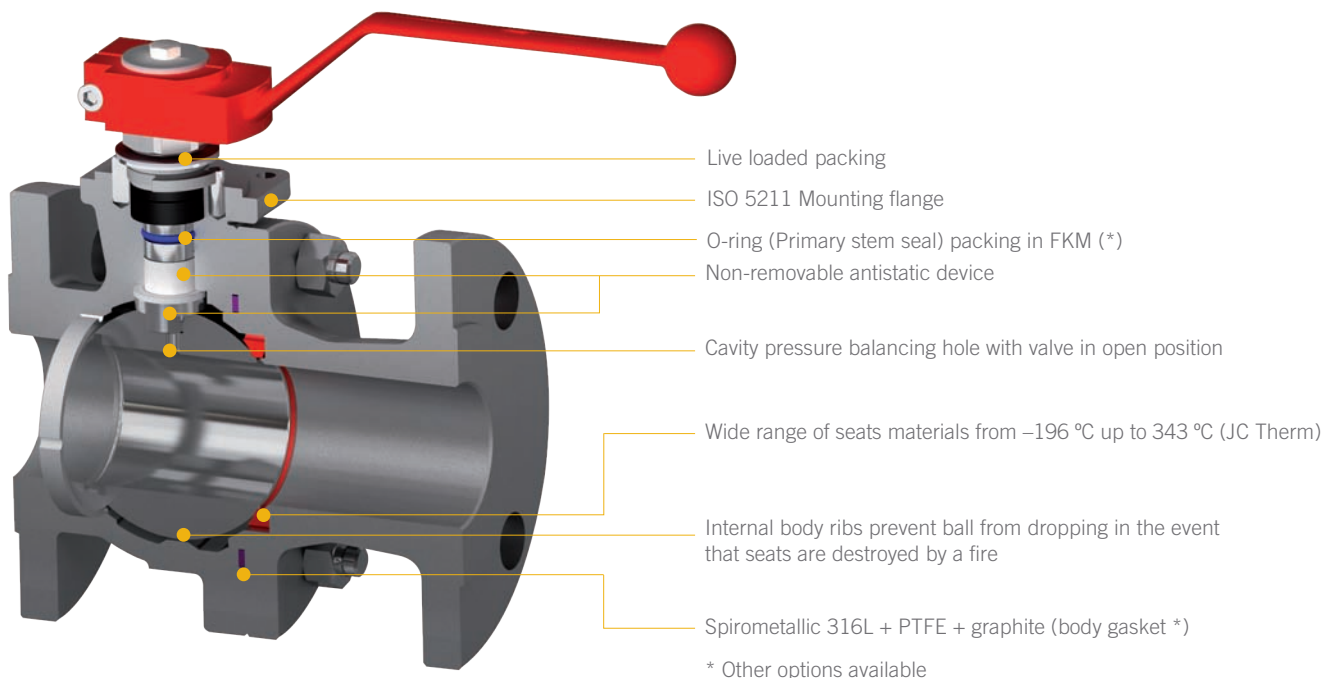
 (\*) Dimensions in mm and weight in kg.  
 (\*\*) Weights and dimensions can be changed without notice.

| BALL VALVES |

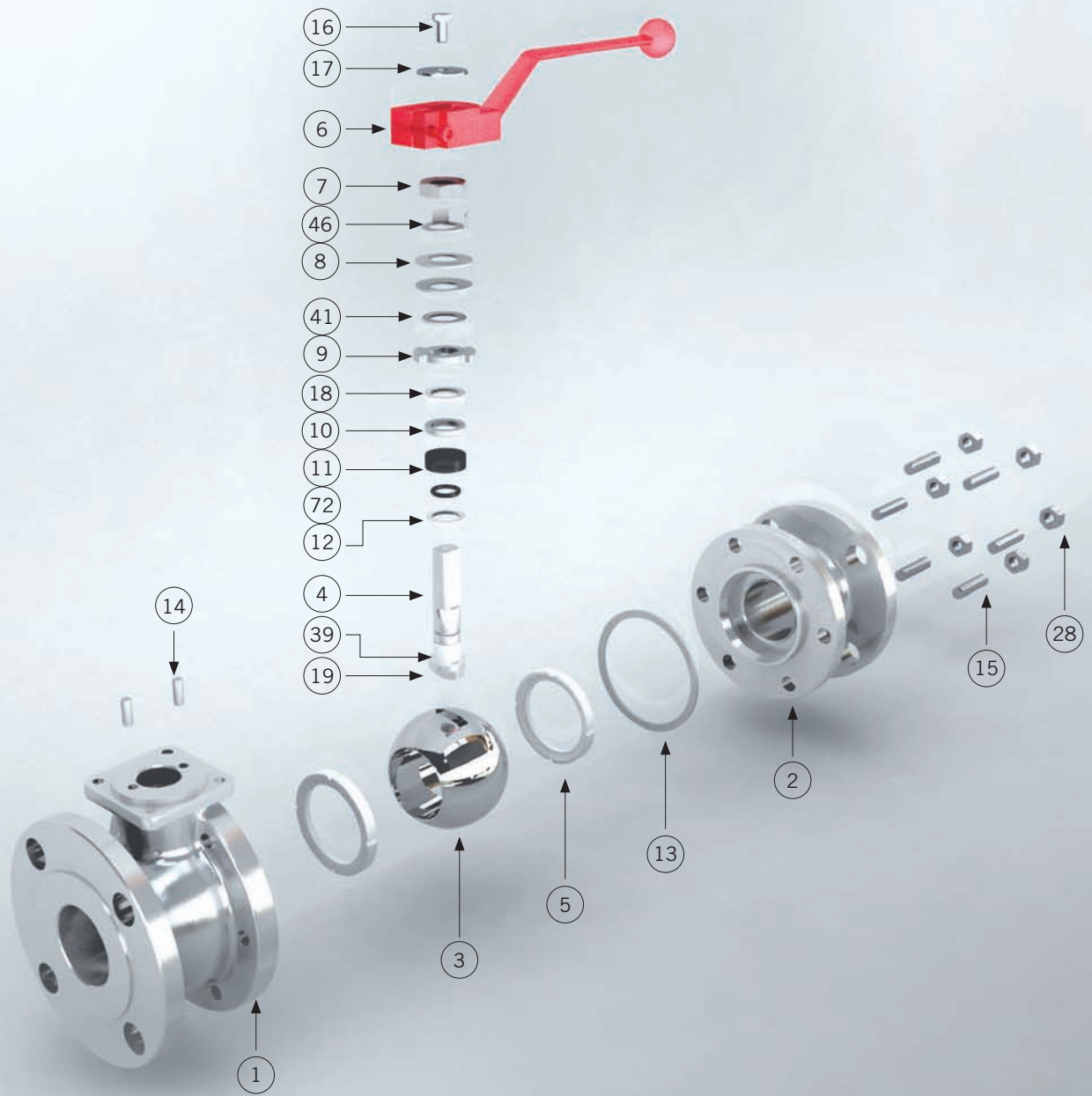
# FLOATING ASME

## 3/8" - 12" | Class 150 - Class 2500

A floating ball valve is a valve with seats supported ball, that is pushed by upstream pressure towards the downstream seat to ensure sealing. The DN of the floating ball valves range is limited by the capability of the seats material to support the pressure, temperature and weight of the ball.







## Materials ASME

Item	Description	AIT	LIT	IIT
1	Body	A 216 Gr. WCB (C ≤ 0,25%)	A 352 Gr. LCC	A 351 Gr. CF8M
2	Body connector	A 216 Gr. WCB (C ≤ 0,25%)	A 352 Gr. LCC	A 351 Gr. CF8M
3	Ball		A 351 Gr. CF8M (DN 15 : 25 A 479 Tp.316)	
4	Stem		A 479 Tp.316	
5	Seat ring		PTFE, PEEK, NYLON, DEVLON	
6	Wrench		Nodular Iron	
7	Gland nut	Zinc plated carbon steel	AISI 303	AISI 303
8	Disk spring	Carbon St.	E.N.P. Carbon St.	E.N.P. Carbon St.
9	Stop plate	Carbon St.	AISI 304	AISI 304
10	Gland	AISI 303	AISI 316	AISI 316
11	Gland packing		Graphite	
12	Stem thrust seal		25% G.F. PTFE	
13	Body connector seal		AISI 316L + PTFE + Graphite	
14	Stop pin	Carbon St.	Stainless St.	Stainless St.
15	Stud	A 193 Gr. B7M Zinc dichromate	A 193 Gr. L7M	A 193 Gr. B8M
16	Bolt	DIN 933 5.6 Zinc plated	DIN 933 A2	DIN 933 A2
17	Washer	Zinc plated carbon steel	AISI 304	AISI 304
18	Thrust washer		25% G.F. PTFE	
19	Antistatic device		Stainless St.	
28	Nut	A 194 Gr. 2HM Zinc dichromate	A 194 Gr. 7M	A 194 Gr. 8M
39	Stem bushing (DN 25 to 200)		25% G.F. PTFE	
41	Spacer (DN 40 to 200)	Carbon St.	AISI 304	AISI 304
46	Washer	AISI-304	AISI 304	AISI 304
72	"O" Ring		FKM	
89	Identification plate		Stainless St.	

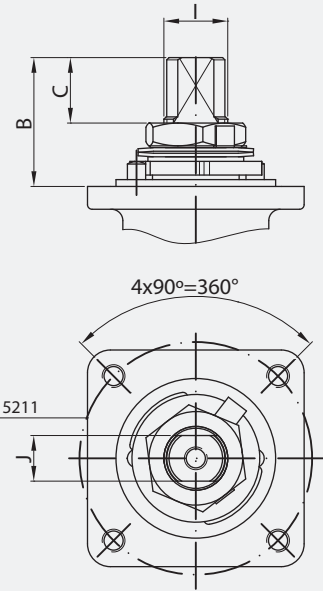
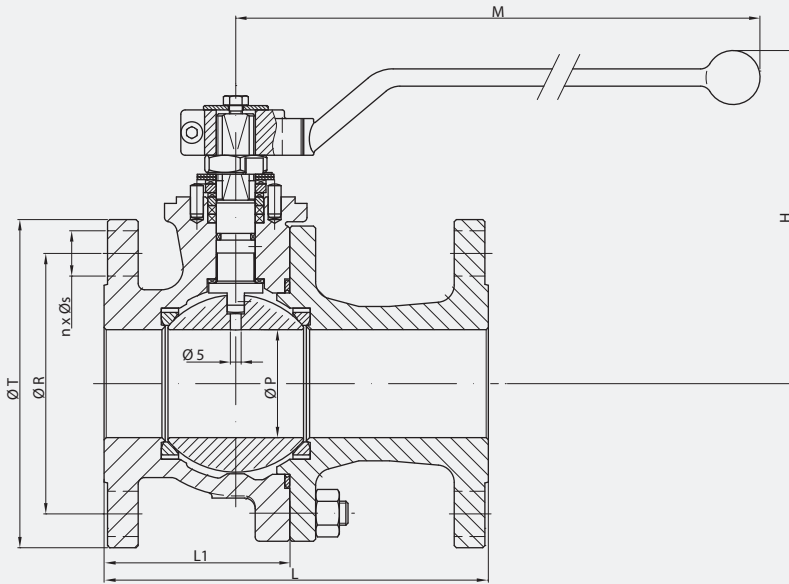
ASME 515 / 530

Class 150 / 300

Full Bore

Class 150. From ½" to 8"

Class 300. From ½" to 6"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

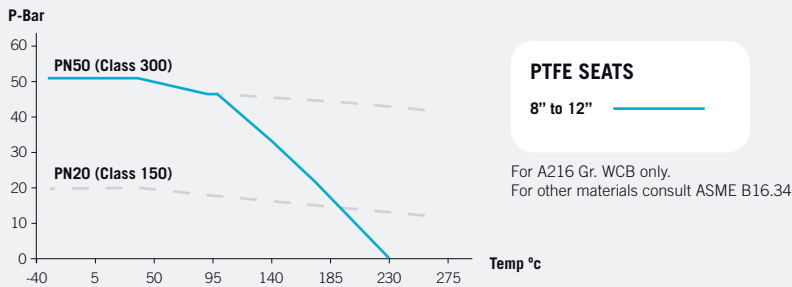


Fig. 515 (Class 150)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
15 (½")	15	108	47	60,3	4x15,9	90	110	164	F05	11,2	5,7	M12x1.5	9	2	8	20
20 (¾")	20	117	50	69,9	4x15,9	100	117	164	F05	13,2	9,2	M12x1.5	9	3	10	40
25 (1")	25	127	52	79,4	4x15,9	110	129	164	F05	22,7	10,2	M12x1.5	9	3,5	15	75
40 (1 ½")	40	165	65	98,4	4x15,9	125	148	213	F07	41,5	19,2	M18x1.5	13	8	25	170
50 (2")	50	178	61	120,7	4x19	150	155	213	F07	41,5	19,2	M18x1.5	13	11	40	270
65 (2 ½")	65	190	75	139,7	4x19	180	169	348	F07	44	19,7	M22x1.5	16	16	60	550
80 (3")	80	203	79	152,4	4x19	190	207	445	F10	44,5	19,7	M25x1.5	18	23	90	1000
100 (4")	100	229	90	190,5	8x19	230	231	495	F10	56,5	29,2	M28x1.5	20	38	150	1650
150 (6")	151	394	174	241,3	8x22,2	280	298	698	F12	68	38,5	M40x1.5	29	88	250	4200
200 (8")	203	457	200	298,5	8x22,2	345	352	868	F14	72	39	M45x2	32	155	700	9000

Fig. 530 (Class 300)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
15 (½")	15	140	60	66,7	4x15,9	95	110	164	F05	11,2	5,7	M12x1.5	9	3	12	20
20 (¾")	20	152	65	82,6	4x19	115	117	164	F05	13,2	9,2	M12x1.5	9	4	16	40
25 (1")	25	165	70	88,9	4x19	125	129	164	F05	22,7	10,2	M12x1.5	9	5	20	75
40 (1 ½")	40	190	80	114,3	4x22,2	155	148	213	F07	41,5	19,2	M18x1.5	13	11	35	170
50 (2")	50	216	83	127	8x19	165	155	213	F07	41,5	19,2	M18x1.5	13	14	55	270
80 (3")	80	283	118	168,3	8x22,2	210	207	445	F10	44,5	19,7	M25x1.5	18	32	150	1000
100 (4")	100	305	133	200	8x22,2	255	231	495	F10	56,5	29,2	M28x1.5	20	52	230	1650
150 (6")	151	403	160	269,9	12x22,2	320	298	698	F12	68	38,5	M40x1.5	29	94	342	4200

(\*) Dimensions in mm, weight in kg and Torque in Nm.  
(\*\*) Weights and dimensions can be changed without notice.

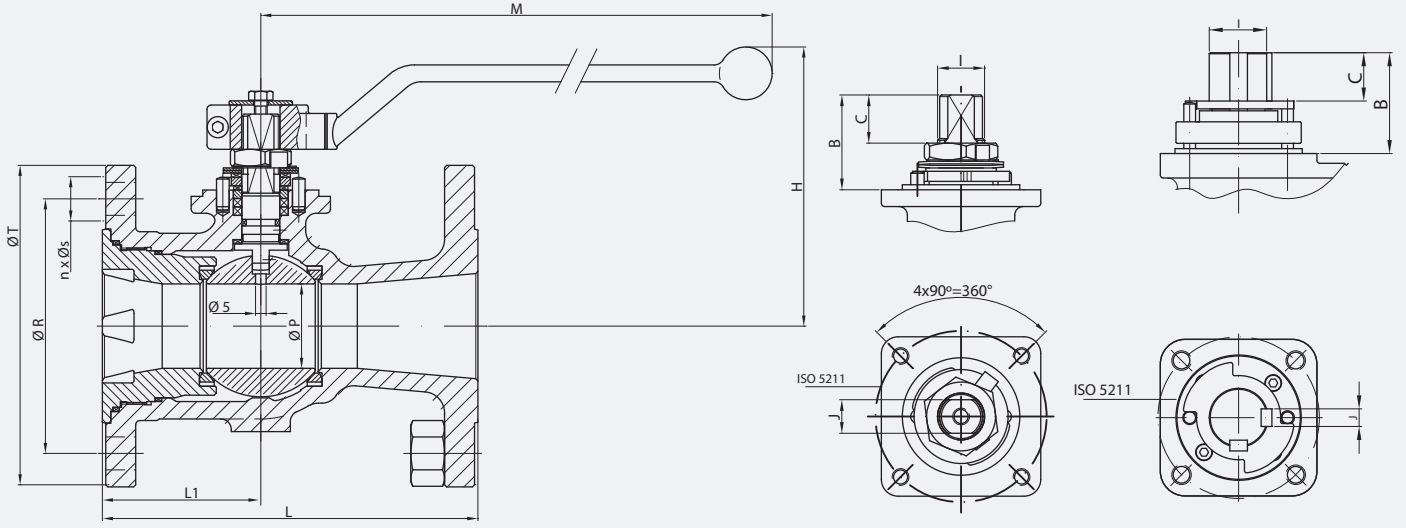
ASME 715 / 730

Class 150 / 300

Reduced Bore

Class 150. From 1/2" to 12"

Class 300. From 1/2" to 8"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

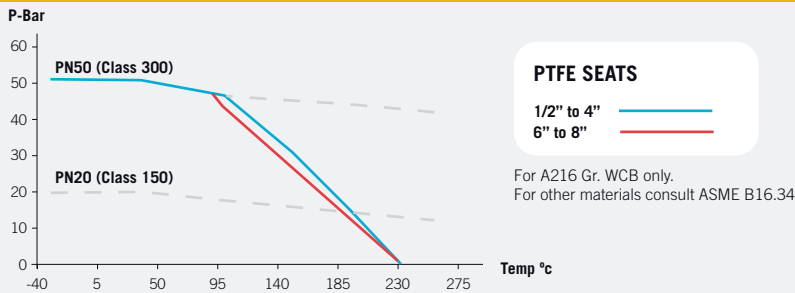


Fig. 715 (Class 150)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
15 (1/2")	9,5	108	54	60,3	4x15,9	90	81	164	F05	22	8,3	M10x1.5	7	1,6	6	7
20 (3/4")	15	117	60	69,9	4x15,9	100	98	164	F05	22,7	9	M12x1.5	9	2,1	9	10
25 (1")	20	127	65	79,4	4x15,9	110	101	164	F05	22,7	9	M12x1.5	9	2,7	10	26
40 (1 1/2")	32	165	72	98,4	4x15,9	125	117	210	F05	34,5	14,7	M16x1.5	12	5,1	21	107
50 (2")	40	178	75,1	120,7	4x19	150	134	213	F07	41,5	19,2	M18x1.5	13	7,9	25	140
80 (3")	58	203	88	152,4	4x19	190	149	348	F07	44	19,7	M22x1.5	16	14,3	40	300
100 (4")	80	229	104,1	190,5	8x19	230	189	445	F10	44,5	19,7	M25x1.5	18	25,9	90	600
150 (6")	111	267	125	241,3	8x22,2	280	227	495	F12	56,5	29,2	M28x1.5	20	43,8	180	1000
200 (8")	144	292	135	298,5	8x22,2	345	264	698	F12	68	38,5	M40x1.5	29	77	250	2000
250 (10")	187	330	164	362	12x25,4	405	307	698	F12	72	39	M45x2	32	114	600	4100
(1) 300 (12")	228	356	178	431,8	12x25,4	485	-	-	F14	106	58	Ø50	14	230	960	6900

Fig. 730 (Class 300)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
15 (1/2")	9,5	140	54	66,7	4x15,9	95	81	164	F05	22	8,3	M10x1.5	7	1,6	10	7
20 (3/4")	15	152	60	82,6	4x19	115	98	164	F05	22,7	9	M12x1.5	9	2,1	12	10
25 (1")	20	165	65	88,9	4x19	125	101	164	F05	22,7	9	M12x1.5	9	4,1	16	26
40 (1 1/2")	32	190	72	114,3	4x22,2	155	117	210	F05	34,5	14,2	M16x1.5	12	8,2	30	107
50 (2")	40	216	75,1	127	8x19	165	134	213	F07	41,5	19,2	M18x1.5	13	10,9	35	140
80 (3")	58	283	88	168,3	8x22,2	210	149	348	F07	41,5	19,2	M18x1.5	13	21,4	60	300
100 (4")	80	305	104,1	200	8x22,2	255	189	445	F10	44,5	19,7	M25x1.5	18	28,9	150	600
150 (6")	111	403	125	269,9	12x22,2	320	227	495	F12	56,5	29,2	M28x1.5	20	70	280	1000
200 (8")	144	419	135	330,2	12x25,4	380	264	698	F12	68	38,5	M40x1.5	29	110,5	420	2000

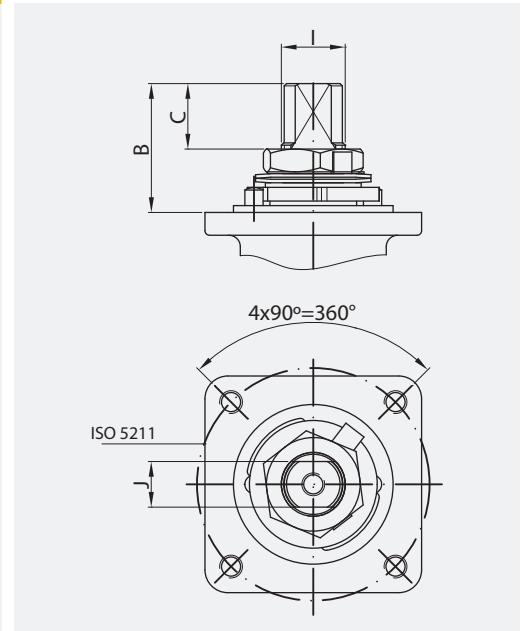
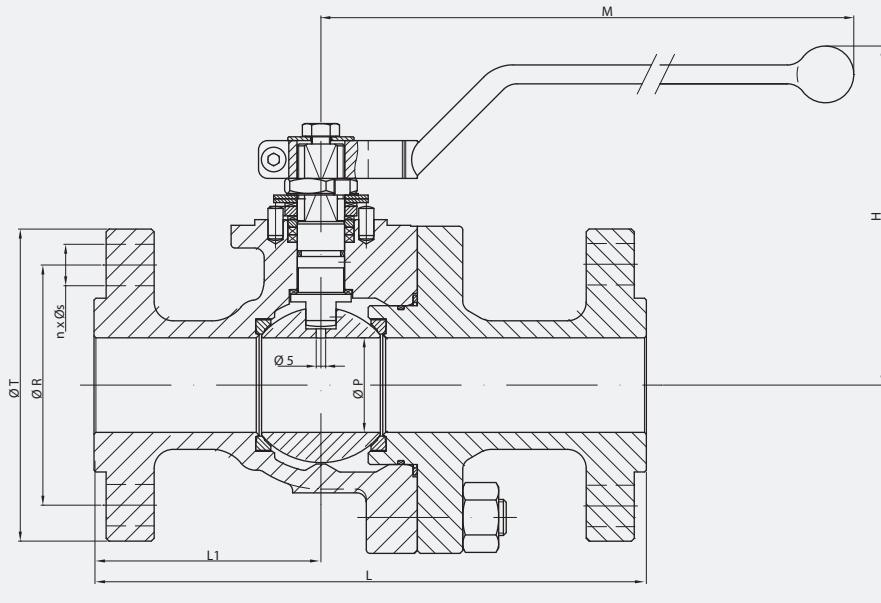
(\*) Dimensions in mm, weight in kg and Torque in Nm.  
 (\*\*) Weights and dimensions can be changed without notice.  
 (1) Body and Body connector joint is not threaded, is with screws.

ASME 560

Class 600

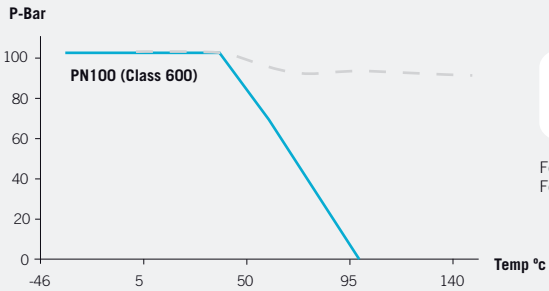
Full Bore

Class 600. From 2" to 4"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature



**NYLON SEATS**

2" to 4"

For A216 Gr. WCB only.  
For other materials consult ASME B16.34



Fig. 560 (Class 600)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
50 (2")	50	292	120	127	8x19	165	180	445	F10	45	20,2	M25x1.5	18	29	135	270
80 (3")	80	356	151	168,3	8x22,2	210	228	698	F12	55,5	27	M35x2	25	42	325	1000
100 (4")	100	432	172	215,9	8x25,4	275	245	698	F12	55	26,5	M35x2	25	78	450	1650

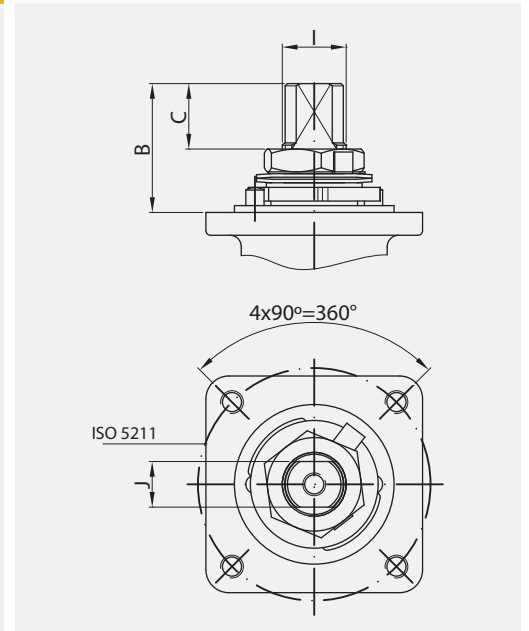
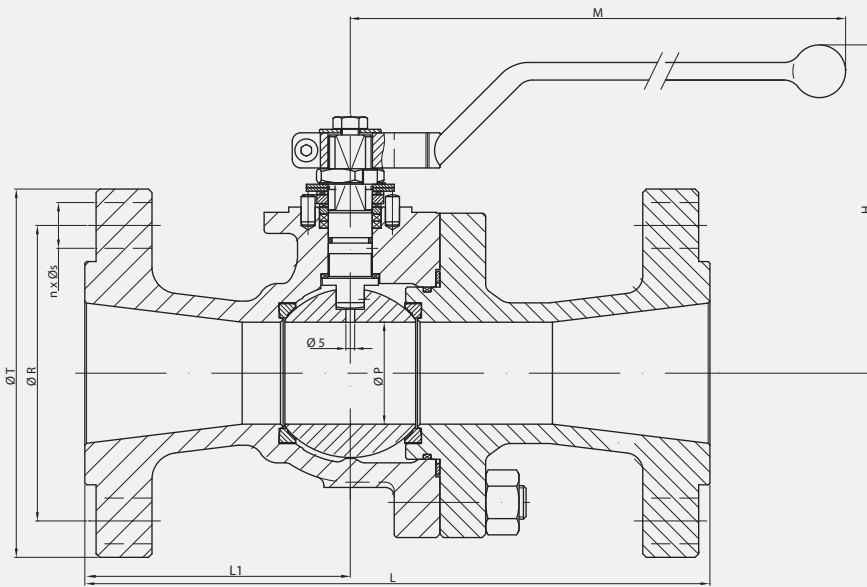
(\*) Dimensions in mm, weight in kg and Torque in Nm.  
(\*\*) Weights and dimensions can be changed without notice.

ASME 660

Class 600

Reduced Bore

Class 600. From 2" to 4"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

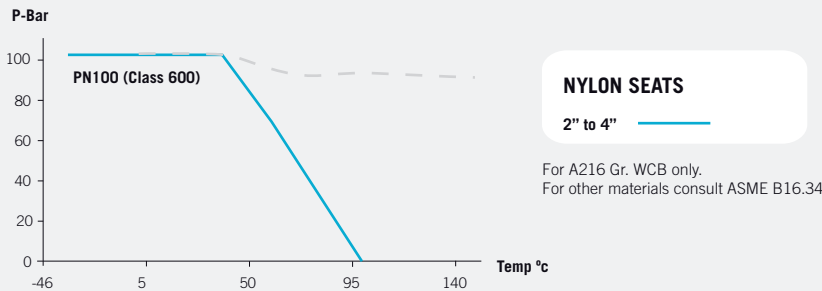
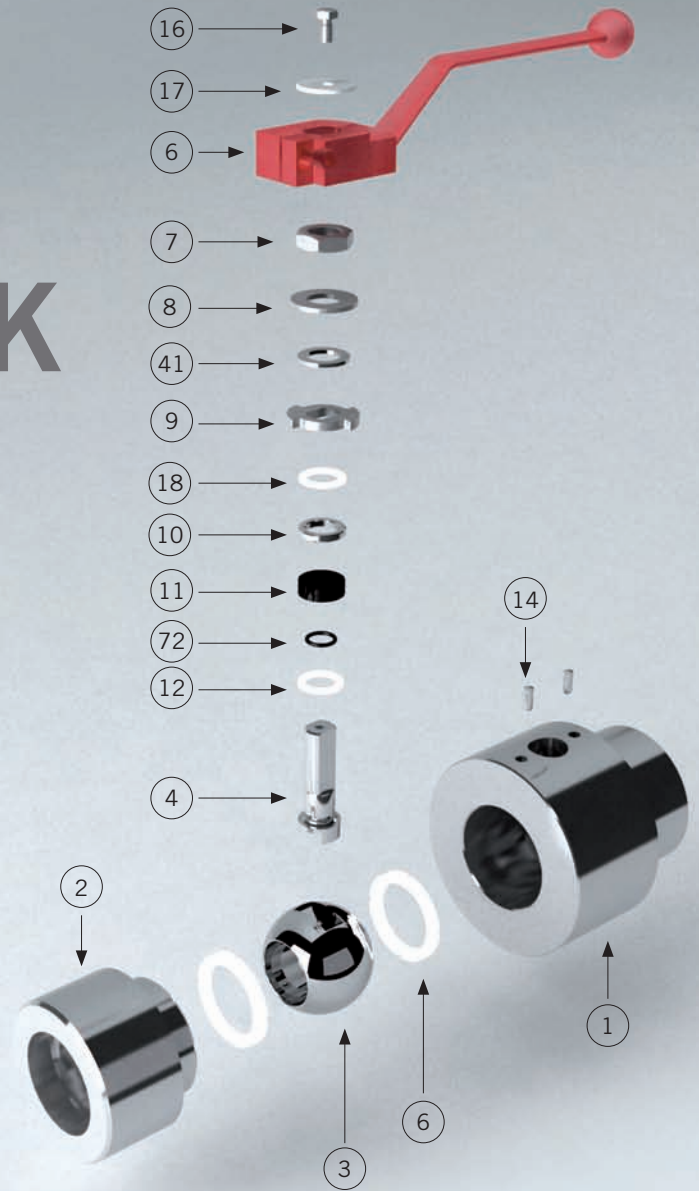


Fig. 660 (Class 600)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
50 (2")	40	292	120	127	8x19	165	137	348	F07	43	18,7	M22x1.5	16	17	95	140
80 (3")	58	356	151	168.3	8x22,2	210	228	698	F10	44	19,2	M25x2	18	30	185	300
100 (4")	80	432	190	215.9	8x25.4	275	228	698	F10	55,5	27	M35x2	25	64	325	600

(\*) Dimensions in mm, weight in kg and Torque in Nm.  
(\*\*) Weights and dimensions can be changed without notice.

# | BALL VALVES | MONOBLOCK VALVES



## Materials MONOBLOCK

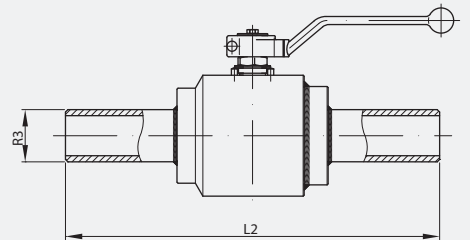
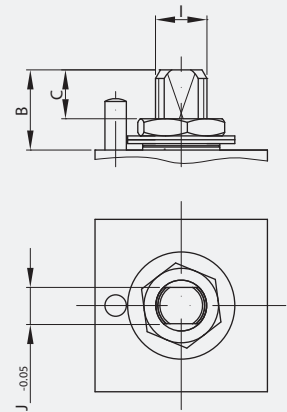
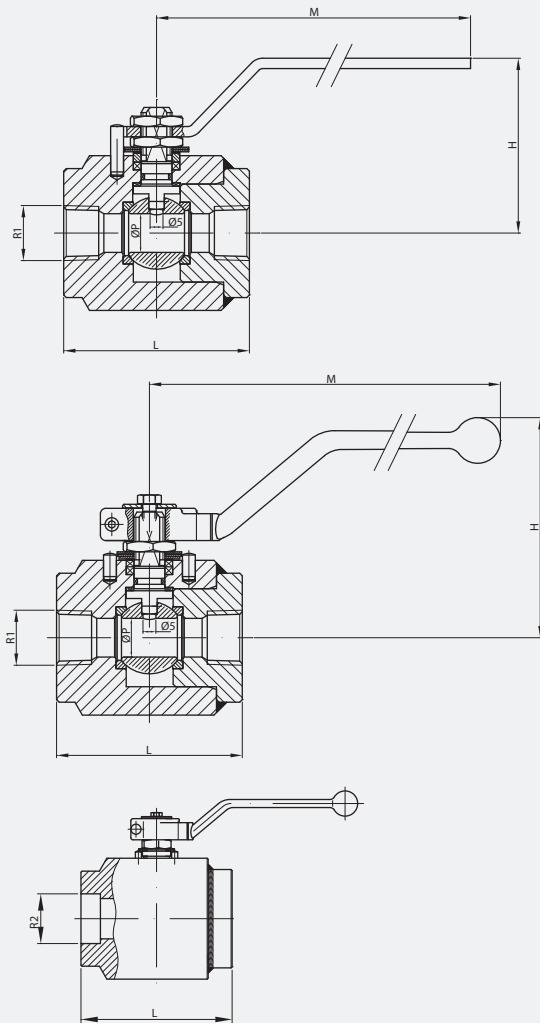
Item	Description	L.I.CG.	L.I.CG.
1	Body	A 350 Gr. LF2 Class 1	A 479 Tp.316L
2	Body connector	A 350 Gr. LF2 Class 1	A 479 Tp.316L
3	Ball		A 351 Gr. CF8M
4	Stem		AISI 410
5	Seat ring		Carbon graphite filled PTFE
6	Wrench (DN-1½" & 2")		Nodular iron
6.1	Wrench (DN-3/8" ~ 1")		AISI-316
7	Gland nut		AISI 303
8	Disk spring		E.N.P. Carbon Steel
9	Stop plate (DN-1½" & 2")		AISI 304
10	Gland		AISI 316
11	Gland packing		Graphite
12	Stem thrust seal		25% G.F. PTFE
14	Stop pin		Stainless St.
16	Bolt (DN-1½" & 2")		DIN 933 A2
17	Washer (DN-1½" & 2")		AISI 304
18	Thrust washer		25% G.F. PTFE
19	Antistatic device		Stainless St.
41	Spacer (DN-40 & 50)		AISI 304
72	"O" Ring		FKM
89	Identification plate		Stainless St.

ASME 400

Class 800

Full Bore

Class 800. From 3/8" to 2"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

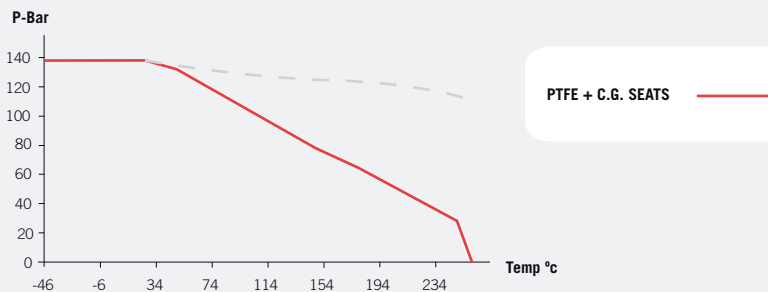


Fig. 400 (Class 800)

DN	øP	L	L2	R1	R2	R3	H	M	B	C	I	J	WEIGHT	TORQUE 20 bar	TORQUE 55 bar	TORQUE 138 bar
3/8"	9,5	70	240	3/8" NPT	3/8" SW	3/8" BW	86	158	16	8,1	M10x1.5	7	1	6	9	16
1/2"	15	72	240	1/2" NPT	1/2" SW	1/2" BW	91	158	18,7	10,6	M12x1.5	9	1,6	8	12	20
3/4"	20	90	240	3/4" NPT	3/4" SW	3/4" BW	94	158	19,2	11,1	M12x1.5	9	2,4	10	16	25
1"	25	95	240	1" NPT	1" SW	1" BW	98	158	19,7	11,1	M12x1.5	9	3,1	15	20	30
1 1/2"	40	130	260	1 1/2" NPT	1 1/2" SW	1 1/2" BW	128	213	38,5	19,2	M18x1.5	13	10	25	35	50
2"	50	140	260	2" NPT	2" SW	2" BW	141	348	41	19,2	M22x1.5	16	14,6	40	55	70

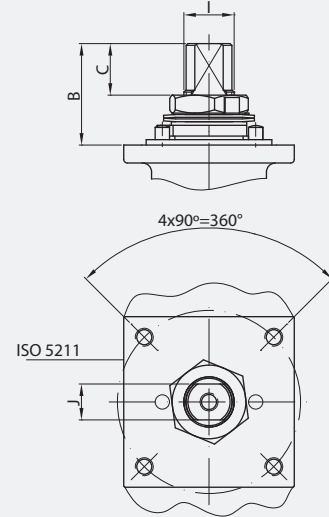
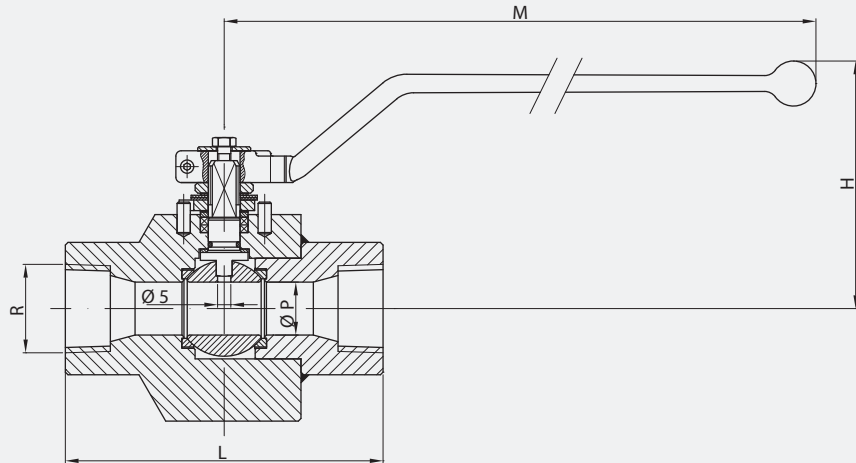
(\*) Dimensions in mm and weight in kg.  
(\*\*) Weights and dimensions can be changed without notice.

## ASME 411N

Class 800

Reduced Bore

Class 800. From 1/2" to 2"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

## Pressure - Temperature

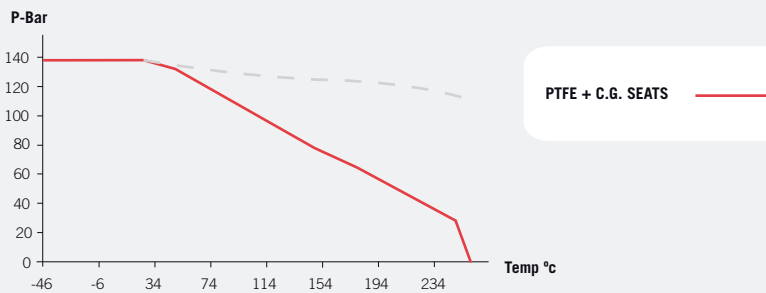


Fig. 411N (Class 800)

DN	ØP	L	R	H	M	B	C	I	J	WEIGHT	TORQUE 20 bar	TORQUE 55 bar	TORQUE 138 bar
1/2"	15	90	NPT	101	164	18,7	7,8	M12x1.5	9	3,5	7	10	16
3/4"	15	110	NPT	101	164	18,7	7,8	M12x1.5	9	4,5	7	10	16
1"	20	120	NPT	105	164	20	8,6	M12x1.5	9	5	9	14	25
1 1/2"	28	150	NPT	111	210	31,5	15,5	M16x1.5	12	6	19	34	71
2"	36	180	NPT	128	213	38,5	19,2	M18x1.5	13	10	43	79	164

(\*) Dimensions in mm and weight in kg.  
 (\*\*) Weights and dimensions can be changed without notice.

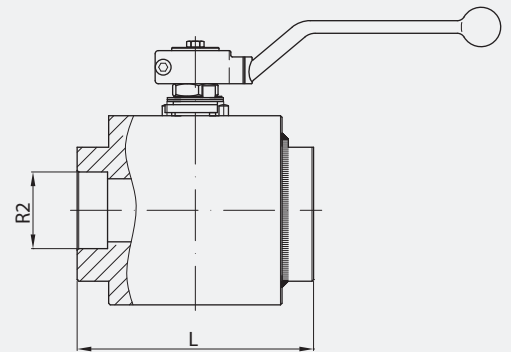
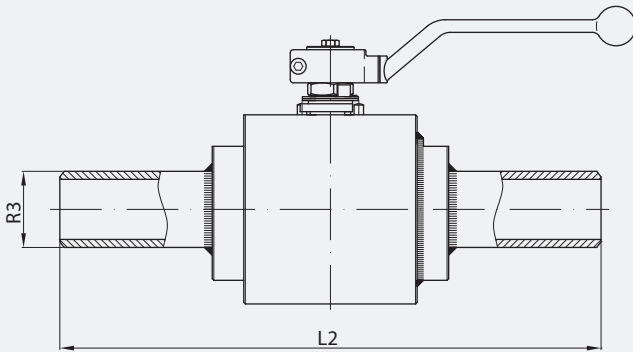
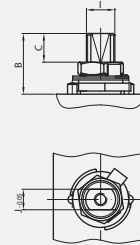
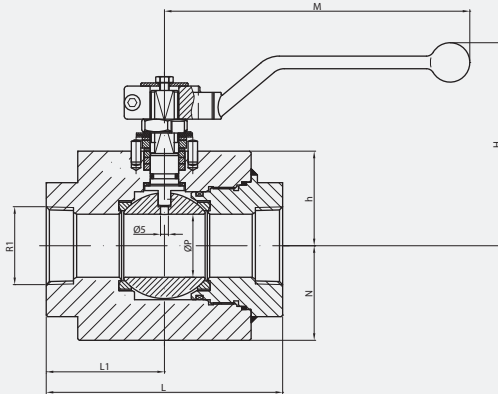


ASME 41500

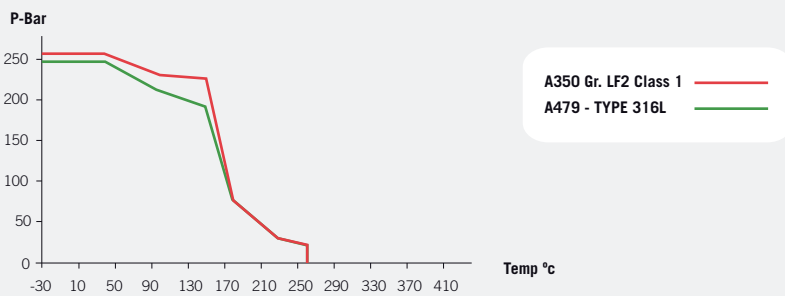
Class 1500

Reduced Bore

Class 1500. From 3/8" to 2"



Pressure - Temperature



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.



Fig. 41500 (Class 1500)

DN	ØP	L	L1	L2	R1	R2	R3	h	N	H	M	B	C	I	J
3/8"	9,5	80	35	240	3/8" NPT	3/8" SW	3/8" BW	25	25	80,5	164	16	6	M10x1,5	7
1/2" x 3/8"	9,5	90	35	250	1/2" NPT	1/2" SW	1/2" BW	25	25	80,5	164	16	6	M10x1,5	7
1/2"	15	90	35	250	1/2" NPT	1/2" SW	1/2" BW	29	25	99	164	19,5	8	M12x1,5	9
3/4" x 1/2"	15	110	50	270	3/4" NPT	3/4" SW	3/4" BW	29	25	99	164	19,5	8	M12x1,5	9
3/4"	20	110	50	270	3/4" NPT	3/4" SW	3/4" BW	32	34	102	164	19,5	8	M12x1,5	9
1" x 3/4"	20	119	49	279	1" NPT	1" SW	1" BW	32	34	102	164	19,5	8	M12x1,5	9
1"	25	119	49	279	1" NPT	1" SW	1" BW	36	37,5	107	164	19,5	7,5	M12x1,5	9
1 1/2" x 1.1/4"	32	150	75	310	1.1/2" NPT	1.1/2" SW	1.1/2" BW	36	37,5	116	210	30,5	14	M16x1,5	12
1 1/2"	40	150	75	310	1.1/2" NPT	1.1/2" SW	1.1/2" BW	60	60	128	213	38,5	19	M18x1,5	13
2 x 1 1/2"	40	161	66	321	2" NPT	2" SW	2" BW	60	60	128	213	38,5	19	M18x1,5	13
2"	50	161	66	321	2" NPT	2" SW	2" BW	73	73	141	348	40,5	19	M22x1,5	16

(\*) Dimensions in mm, weight in kg and Torque in Nm.  
(\*\*) Weights and dimensions can be changed without notice.

| BALL VALVES |

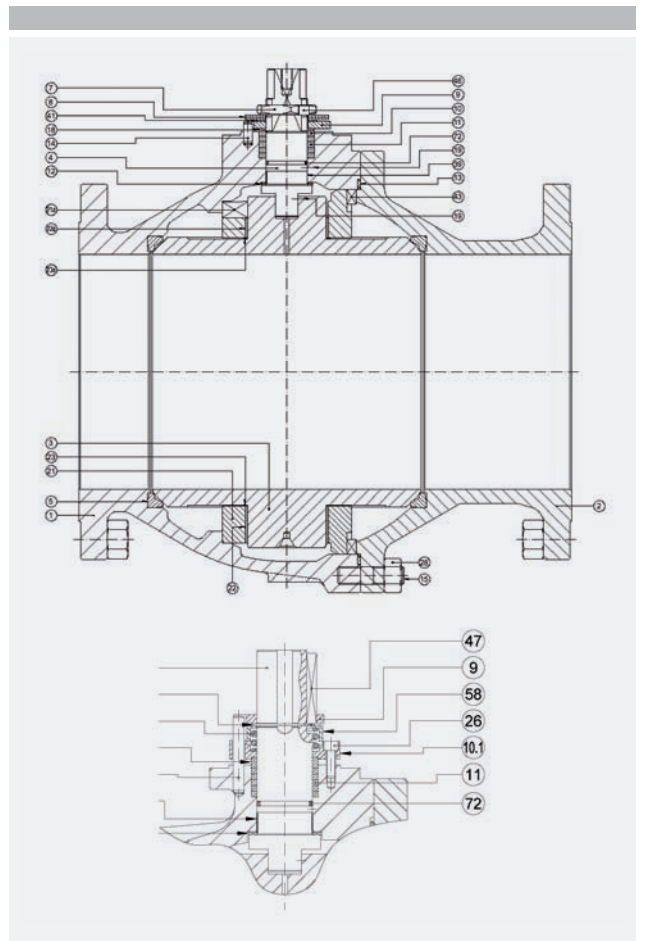
# SEMI-TRUNNION BALL VALVES

8" - 12" | Class 150 - Class 300

DN 200 - DN 300 | PN 16 - PN 40

## Materials CAST TRUNNION

Item	Description	AIM	IIM
1	Body	A 216 Gr. WCB (C ≤ 0,25%)	A 351 Gr. CF8M
2	Body connector	A 216 Gr. WCB (C ≤ 0,25%)	A 351 Gr. CF8M
3	Ball	A 351 Gr. CF8M	
4	Stem	A 479 Tp.316	
5	Seat ring	PTFE	PTFE
7	Gland nut	Zinc plated carbon steel	AISI 303
8	Disk spring	Carbon St.	E.N.P. Carbon St.
9	Stop plate	Carbon St.	AISI 304
10	Gland	AISI 303	AISI 316
10.1	Gland	AISI 303	AISI 316
11	Gland packing	Graphite	
12	Stem thrust seal	25% G.F. PTFE	
13	Body connector seal	AISI 316L + Graphite	
14	Stop pin	Carbon St.	Stainless St.
15	Stud	A 193 Gr. B7M Zinc dichromate	A 193 Gr. B8M
18	Thrust washer	25% G.F. PTFE	
19	Antistatic device	Stainless St.	
21 /21a	Ball Trunnion	AISI 316	
22 /22a	Trunnion Bearing	PTFE + 50% SS	
23	Bearing	PTFE	
26	Bolt	DIN 912 8.8 Zinc plated	DIN 912 A2
28	Nut	A 194 Gr. 2HM Zinc dichromate	A 194 Gr. 8M
39	Stem Bushing	25% G.F. PTFE *	
41	Spacer	Carbon St.	Stainless St.
43	Key	AISI 316	
46	Locking washer	AISI 304	
47	Key	AISI 316	
58	Spring Protection	Carbon St.	Stainless St.
72	O Ring	FKM	
89	Identification plate	Stainless St.	
471	Retainer	Steel	Stainless St.



(\*) AISI 316 + PTFE only in DN300 (12").

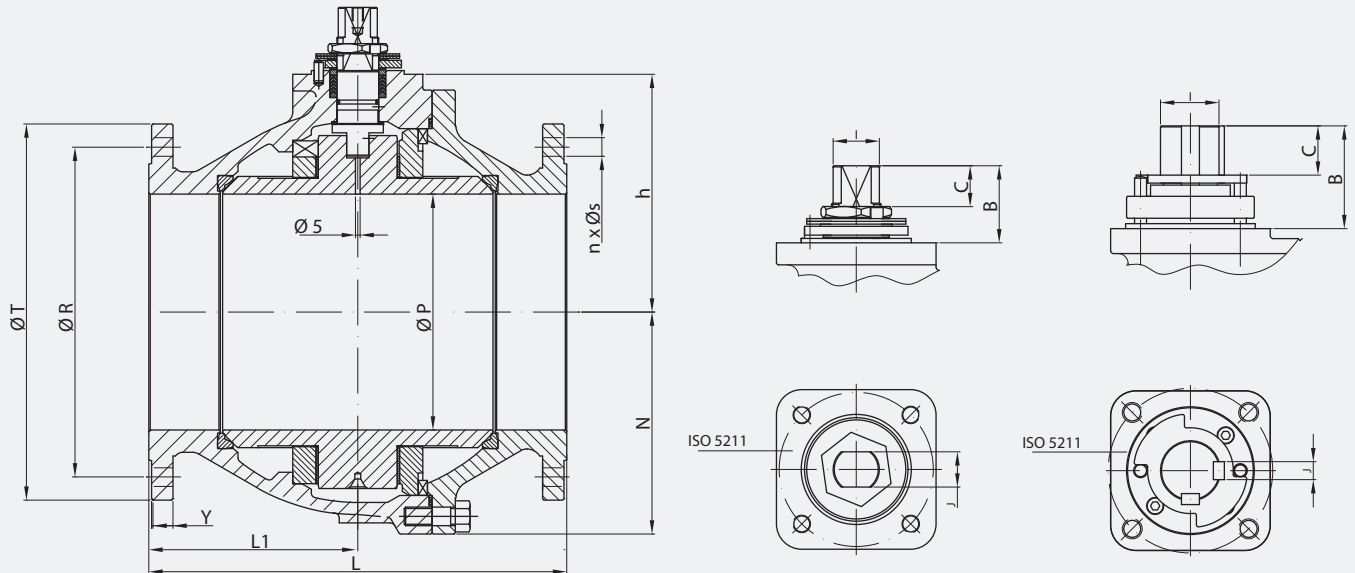
ASME 1515 / 1530

Class 150 / 300

Full Bore

Class 150. From 10" to 12"

Class 300. From 8" to 12"



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

## Pressure - Temperature

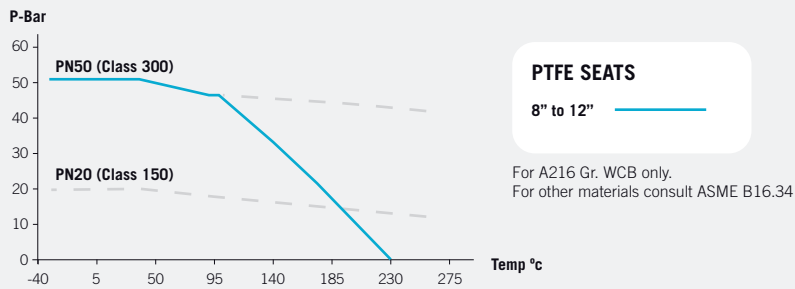


Fig. 1515 (Class 150)

DN	$\varnothing P$	L	L1	$\varnothing R$	$n \times \varnothing S$	Y	$\varnothing T$	h	N	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
250 (10")	254	533	225	362	12x25,4	28,7	405	256	239	F14	72	39	M45x2	32	237	1280	15000
300 (12")	305	610	245	431,8	12x25,4	30,2	485	297	287,5	F14	106	58	50	14	357	2000	20800

Fig. 1530 (Class 300)

DN	$\varnothing P$	L	L1	$\varnothing R$	$n \times \varnothing S$	Y	$\varnothing T$	h	N	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
200 (8")	203	502	239	330,2	12x25,4	39,6	380	233	208	F14	72	39	M45x2	32	189	1280	9000
250 (10")	254	568	225	387,4	16x28,5	46,2	445	256	252,5	F14	72	39	M45x2	32	301	1480	15000
300 (12")	305	648	315	450,8	16x31,8	49,2	520	310	300	F14	106	58	50	14	520	2550	20800

(\*) Dimensions in mm and weight in kg.  
 (\*\*) Weights and dimensions can be changed without notice.

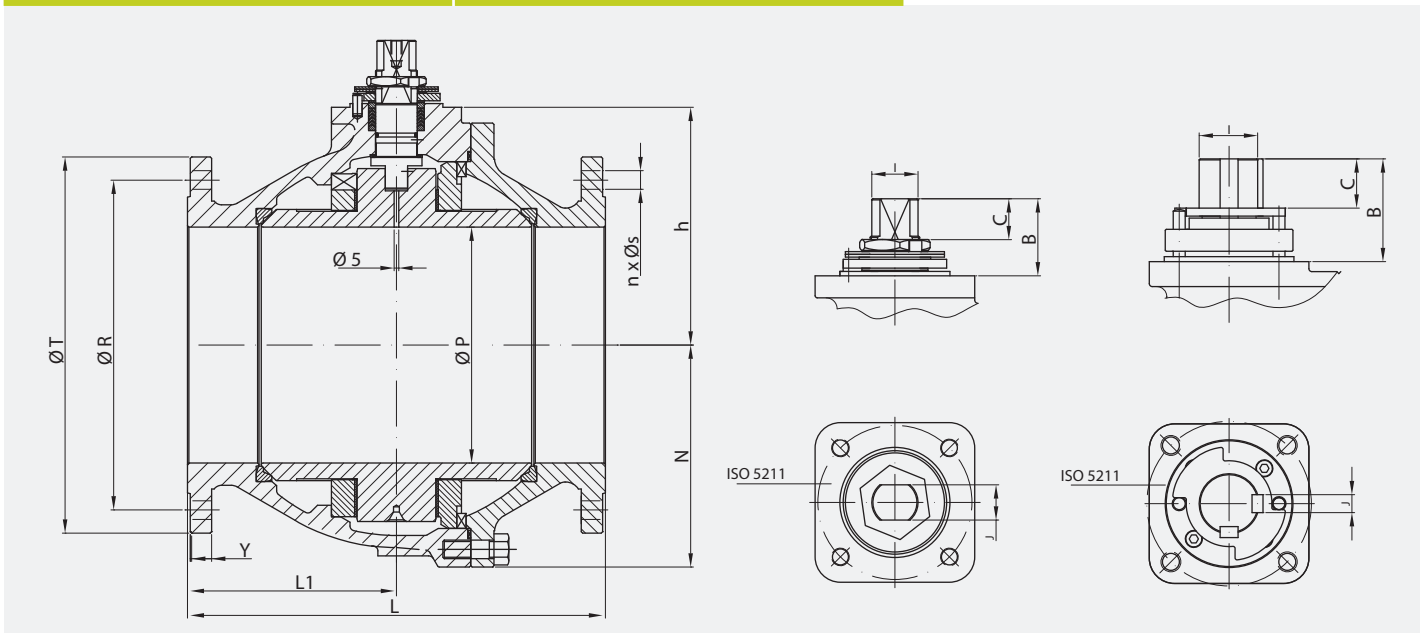
EN-DIN 1516 / 1540

PN 16 / PN 40

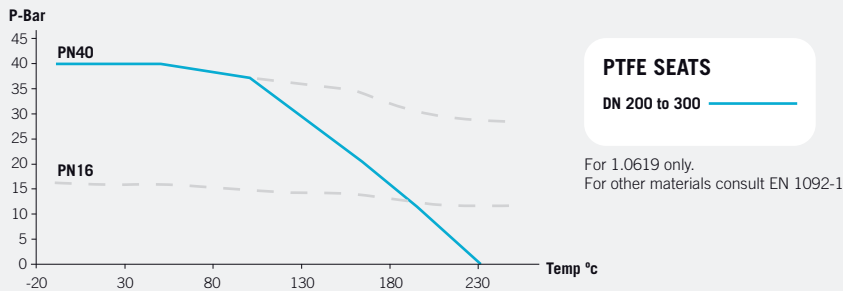
Full Bore

PN 16. From DN 250 to DN 300

PN 40. From DN 200 to DN 300



## Pressure - Temperature



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.  
 (\*\*) Only DN300



Fig. 1516 (PN 16)

DN	øP	L	L1	øR	n x øS	Y	øT	h	N	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
250	254	450	225	355	12x26	26	405	256	239	F14	72	39	M45x2	32	223	1120	15000
300	305	500	245	410	12x26	26	460	297	288	F14	106	58	50	14	323	1800	20800

Fig. 1540 (PN 40)

DN	øP	L	L1	øR	n x øS	Y	øT	h	N	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
200	203	400	200	320	12x30	34	375	233	208	F14	72	39	M45x2	32	162	1000	9000
250	254	450	199	385	12x33	38	450	256	253	F14	72	39	M45x2	32	264	1400	15000
300	305	500	240	450	16x33	42	515	310	300	F14	106	58	50	14	440	2300	20800

(\*) Dimensions in mm and weight in kg.  
 (\*\*) Weights and dimensions can be changed without notice.

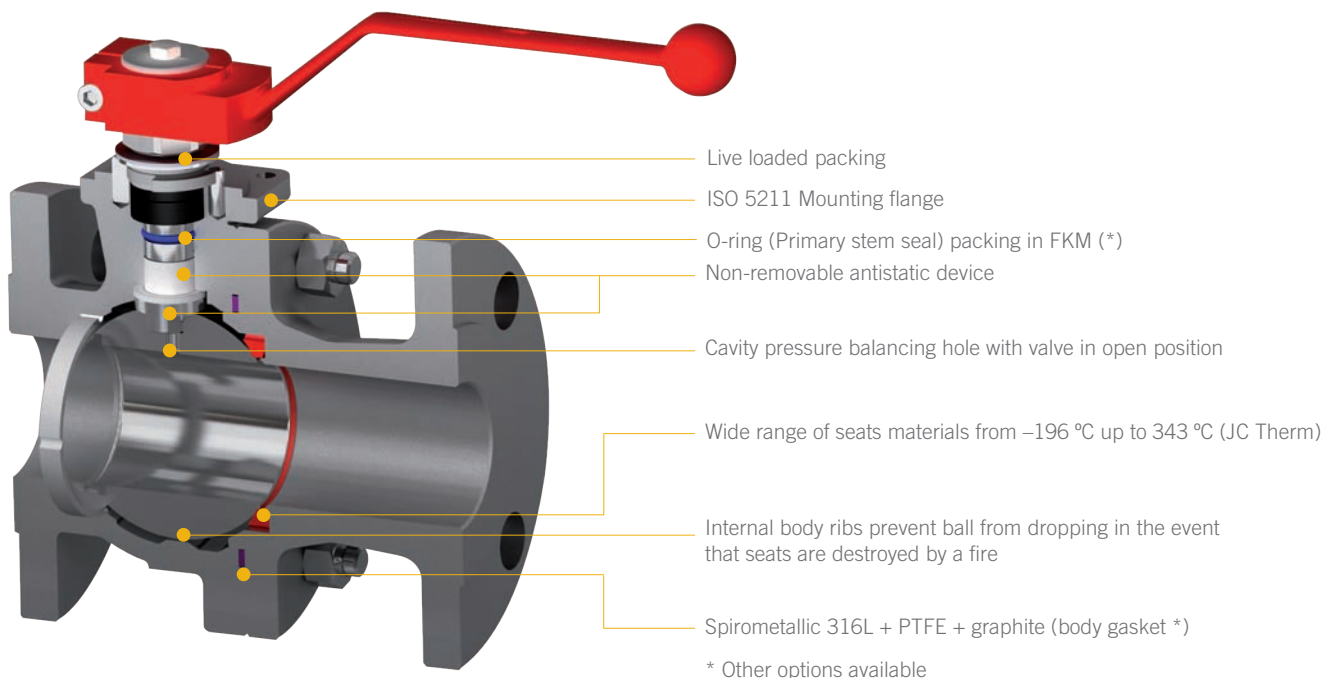


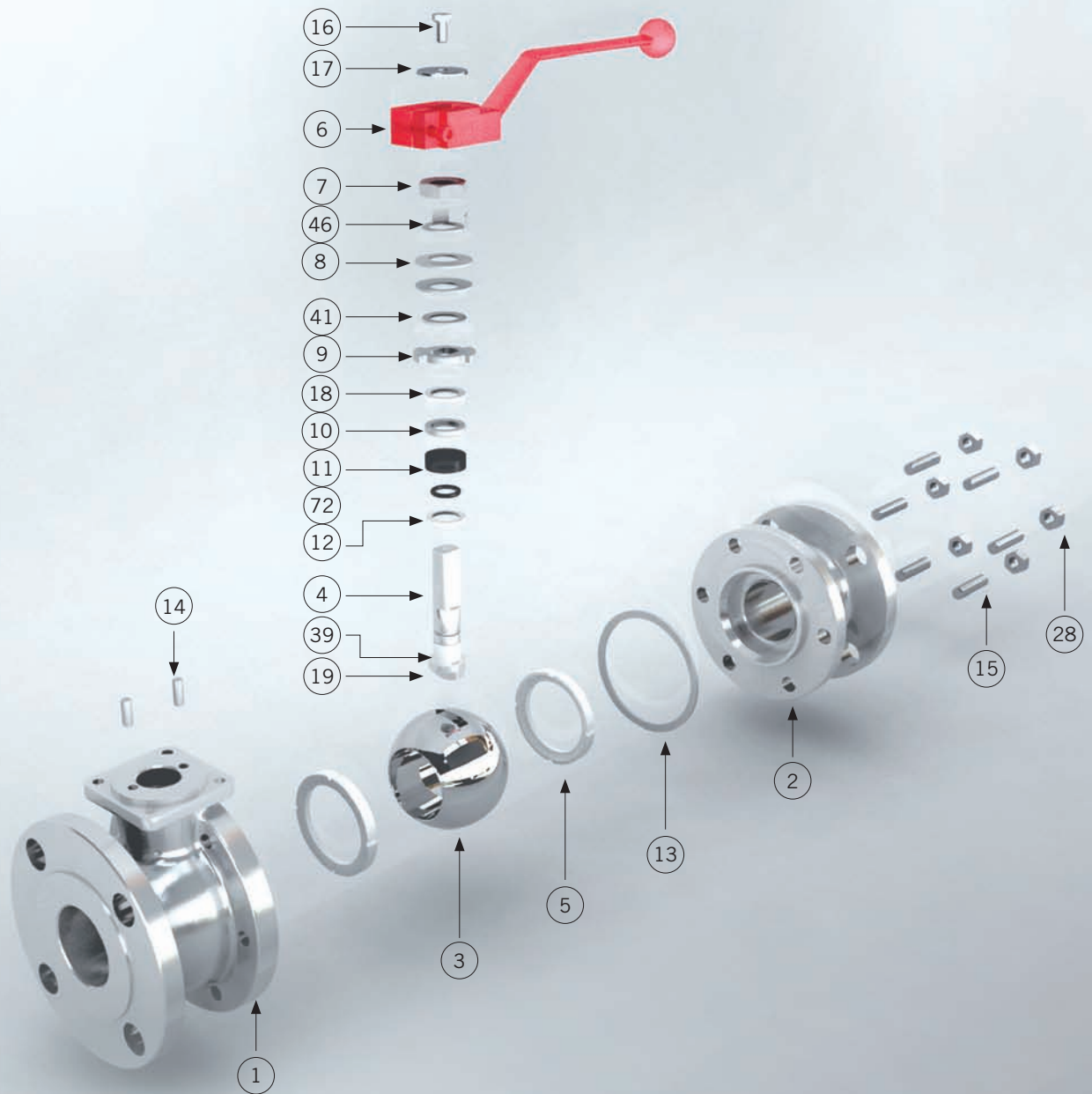
| BALL VALVES |

# FLOATING EN-DIN

DN 15 - DN 200 | PN 16 - PN 40

A floating ball valve is a valve with seats supported ball, that is pushed by upstream pressure towards the downstream seat to ensure sealing. The DN of the floating ball valves range is limited by the capability of the seats material to support the pressure, temperature and weight of the ball.





## Materials EN-DIN

Item	Description	AIT	IIT
1	Body	1.0619	1.4408
2	Body connector	1.0619	1.4408
3	Ball	A 351 Gr. CF8M (DN 15 : 25 A 479 Tp.316)	
4	Stem	A 479 Tp.316	
5	Seat ring	PTFE	
6	Wrench	Nodular Iron	
7	Gland nut	Zinc plated carbon steel	AISI 303
8	Disk spring	Carbon St.	E.N.P. Carbon St.
9	Stop plate	Carbon St.	AISI 304
10	Gland	AISI 303	AISI 316
11	Gland packing	Graphite	
12	Stem thrust seal	25% G.F. PTFE	
13	Body connector seal	AISI 316L + PTFE + Graphite	
14	Stop pin	Carbon St.	Stainless St.
15	Bolt (DN 32 to DN 100 Stud)	DIN 933 A4-70 (DN 32 to DN 100 : A4-70)	
16	Bolt	DIN 933 A4-70	
17	Washer	Zinc plated carbon steel	AISI 304
18	Thrust washer	25% G.F. PTFE	
19	Antistatic device	Stainless St.	
28	Nut (DN 32 to DN 100)	DIN 934 A4-70	
39	Stem bushing (DN 25 to DN 200)	25% G.F. PTFE	
41	Spacer (DN 40 to 200)	Carbon St.	AISI 304
46	Washer	AISI 304	AISI 304
72	"O" Ring	FKM	
89	Identification plate	Stainless St.	

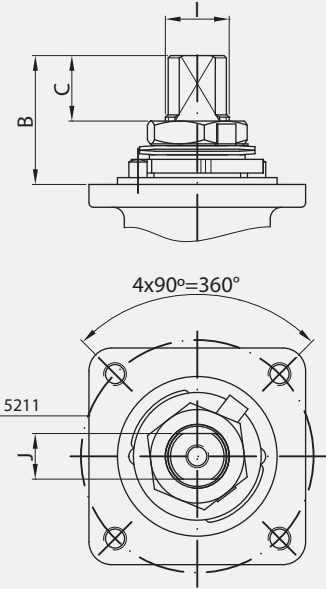
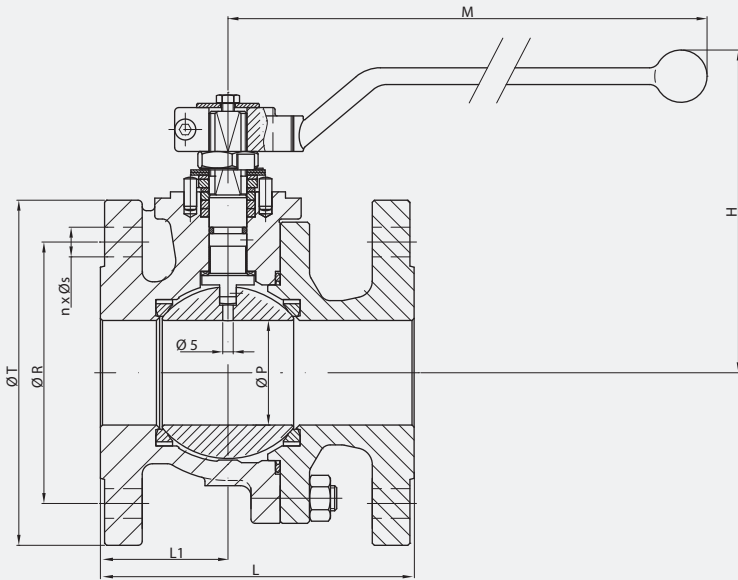
EN-DIN 516 / 540

PN 16 / 40

Full Bore

PN 16. From DN 65 to DN 200

PN 40. From DN 15 to DN 150



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

## Pressure - Temperature

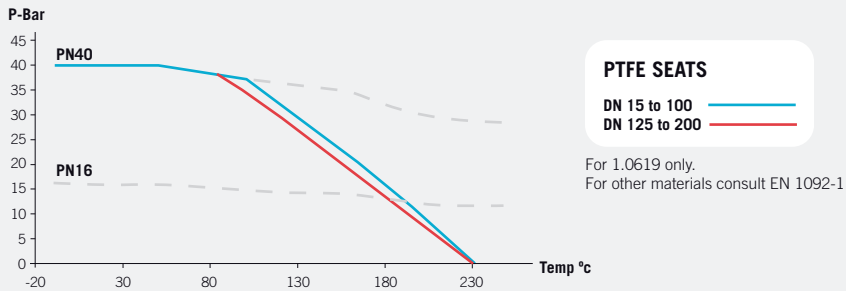


Fig. 516 (PN 16)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
65	65	170	76	145	4x18	185	169	348	F07	44	19,7	M22x1.5	16	16	55	550
80	80	180	82	160	8x18	200	207	445	F10	44,5	18,7	M25x1.5	18	22	85	1000
100	100	190	90	180	8x18	220	231	495	F10	56,5	29,2	M28x1.5	20	32	130	1650
125	125	325	120	210	8x18	250	262	698	F12	56	27,6	M35x2	25	52,5	180	3000
150	151	350	135	240	8x22	285	298	698	F12	68	38,5	M40x1.5	29	76	250	4200
200	203	400	200	295	12x22	340	352	868	F14	72	39	M45x2	32	111	580	9000

Fig. 540 (PN 40)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
15	15	115	53	65	4x14	95	110	164	F05	11,2	5,7	M12x1.5	9	2,8	10	20
20	20	120	52	75	4x14	105	117	164	F05	13,2	9,2	M12x1.5	9	2,8	10	20
25	25	125	49	85	4x14	115	129	164	F05	22,7	10,2	M12x1.5	9	5	16	75
32	32	130	54	100	4x18	140	131	210	F05	32	13,7	M16x1.5	12	7	25	130
40	40	140	55	110	4x18	150	148	213	F07	41,5	19,2	M18x1.5	13	9	30	170
50	50	150	61	125	4x18	165	155	213	F07	41,5	19,2	M18x1.5	13	12	55	270
65	65	170	76	145	8x18	185	169	348	F07	44	19,7	M22x1.5	16	17	80	550
80	80	180	75	160	8x18	200	207	445	F10	44,5	19,7	M25x1.5	18	23	130	1000
100	100	190	91	190	8x22	235	231	495	F10	56,5	29,2	M28x1.5	20	35	150	1650
125	125	325	120	220	8x26	270	262	698	F12	56	27,6	M35x1.5	25	57	240	3000
150	151	350	135	250	8x26	300	298	698	F12	68	38,5	M40x1.5	29	83,5	480	4200

(\*) Dimensions in mm, weight in kg and Torque in Nm.  
 (\*\*) Weights and dimensions can be changed without notice.



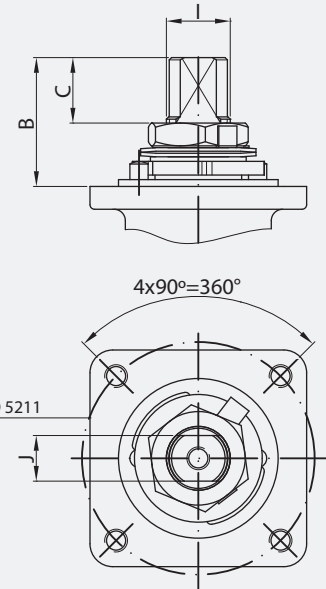
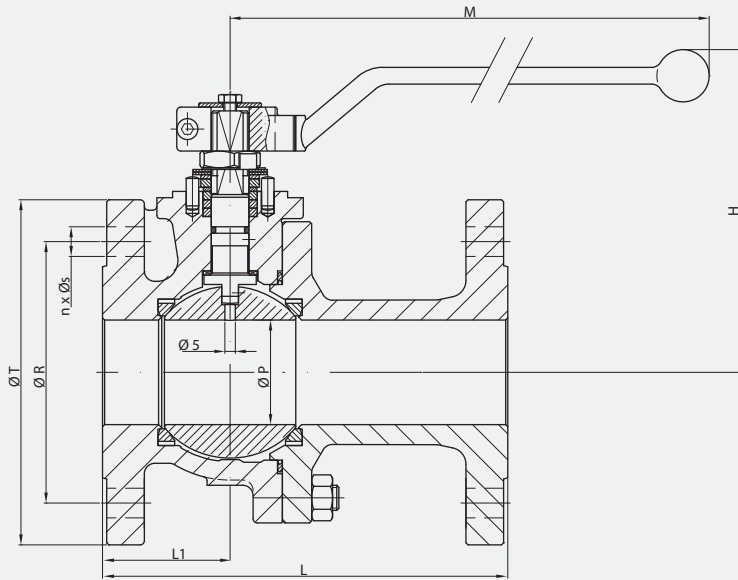
EN-DIN 316 / 340

PN 16 / 40

Full Bore

PN 16. From DN 65 to DN 100

PN 40. From DN 15 to DN 50



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

## Pressure - Temperature

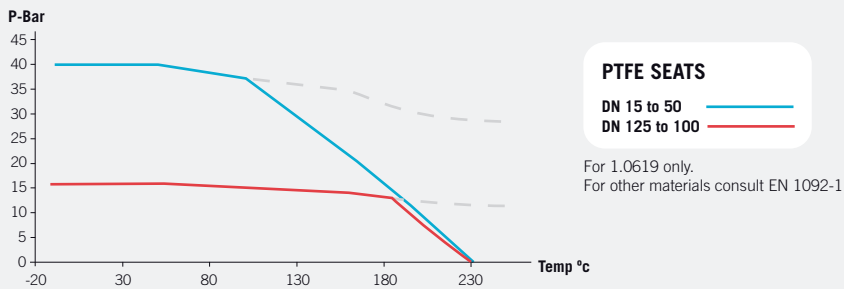


Fig. 316 (PN 16)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
65	65	290	76	145	4x18	185	169	348	F07	44	19,7	M22x1.5	16	18,3	55	550
80	80	310	82	160	8x18	200	207	445	F10	44,5	19,7	M25x1.5	18	24	85	1000
100	100	350	90	180	8x18	220	231	495	F10	56,5	29,2	M28x1.5	20	36	130	16500

Fig. 340 (PN 40)

DN	ØP	L	L1	ØR	n x ØS	ØT	H	M	ISO 5211	B	C	I	J	WEIGHT	TORQUE	Kv
15	15	130	53	65	4x14	95	110	164	F05	11,2	5,7	M12x1.5	9	3	10	20
25	25	160	49	85	4x14	115	129	164	F05	22,7	10,2	M12x1.5	9	5,2	16	75
32	32	180	54	100	4x18	140	131	210	F05	32	13,7	M16x1,5	12	7,6	25	130
40	40	200	55	110	4x18	150	148	213	F07	41,5	19,2	M18x1.5	13	9,6	30	170
50	50	230	61	125	4x18	165	155	213	F07	41,5	19,2	M18x1.5	13	12,9	55	270

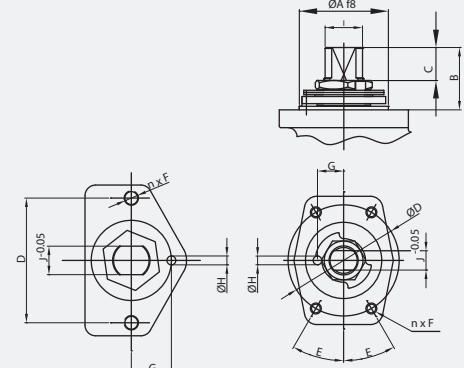
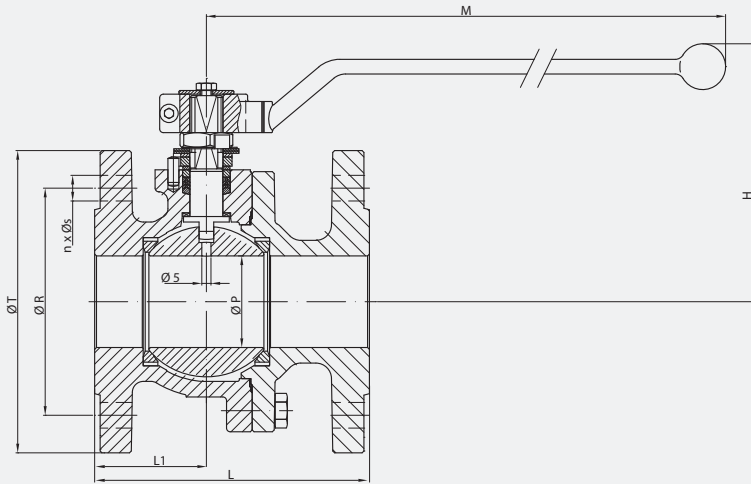
(\*) Dimensions in mm, weight in kg and Torque in Nm.  
(\*\*) Weights and dimensions can be changed without notice.

## EN-DIN 512

PN 16

Full Bore

PN 16. From DN 15 to DN 200



ONLY DN 15, DN 20 &amp; DN 25

## Pressure - Temperature

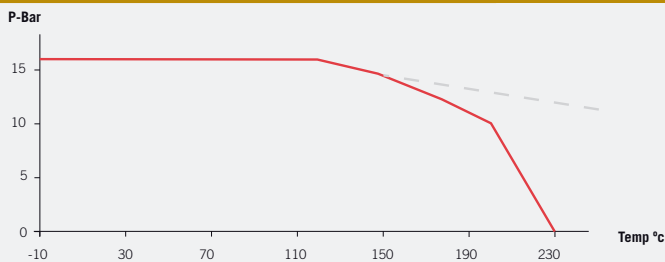


Fig. 512 (PN 16)

DN	ØP	L	L1	ØR	N x ØS	ØT	H	M	WEIGHT	TORQUE	Kv
15	15	115	50	65	4x14	95	99	164	2,39	8	20
20	20	120	52	75	4x14	105	102	164	3,19	10	40
25	25	125	52	85	4x14	115	106	164	3,9	15	75
32	32	130	54	100	4x18	140	117	210	6,3	22	130
40	40	140	55	110	4x18	150	133	213	8	25	170
50	50	150	61	125	4x18	165	141	213	10,7	40	270
65	65	170	75	145	4x18	185	152	348	15,4	55	550
80	80	180	78,5	160	8x18	200	189	445	20,2	85	1000
100	100	190	90	180	8x18	220	220	495	25,8	130	1650
125	125	325	141	210	8x18	250	254	698	49,5	180	3000
150	150	350	160	240	8x22	285	281	698	74,1	250	4200
200	200	400	200	295	12x22	340	338	868	110,5	580	9000

## ACTUATOR CONNECTION

DN	ØA	B	C	D	E	N x F	G	ØH	I	J
15	29	20	8,5	40	-	2xM6	13,3	5	M12x1.5	9
20	29	20	8,5	40	-	2xM6	13,3	5	M12x1.5	9
25	29	20	8,5	40	-	2xM6	13,3	5	M12x1.5	9
32	34	30	13	Ø50	30°	4xM6	15	5	M16x1.5	12
40	39	40,5	20	Ø56	30°	4xM10	18	6	M18x1.5	13
50	39	40,5	20	Ø56	30°	4xM10	18	6	M18x1.5	13
65	47	41	18,5	Ø65	30°	4xM10	22	6	M22x1.5	16
80	55	41,5	18,5	Ø74	30°	4xM10	24	8	M25x1.5	18
100	59	53,5	28,2	Ø82	30°	4xM10	26	8	M28x1.5	20
125	68	53	27,5	Ø100	40°	4xM12	30	8	M35x2	25
150	74	65	38,5	Ø104	40°	4xM12	33	8	M40x2	29
200	94	66	37	Ø130	40°	4xM16	42	10	M45x2	32

(\*) Dimensions in mm and weight in kg.  
 (\*\*) Weights and dimensions can be changed without notice.

## NOTES

A series of horizontal dotted lines for taking notes.

| BALL VALVES |

# FLOATING 3 WAY BALL VALVES

1" - 8" | Class 150

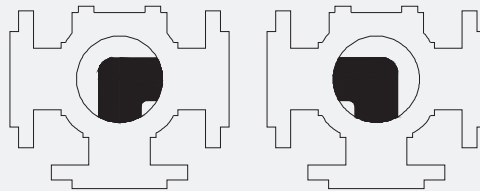
DN 25 - DN 200 | PN 16

The JC Three way ball valves, have been designed to divert the flow at 90° in several options between two pipes. Three way ball valves are available with either "L" and double "L" (X) port, or T-port design. The full port design is easily automated and is available with various seat materials.

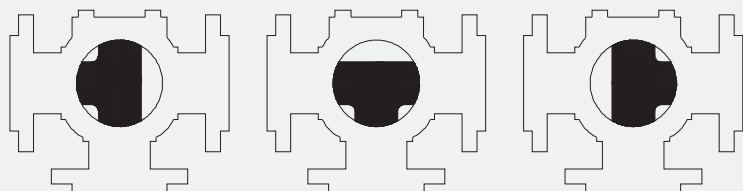


## PORT COMBINATIONS

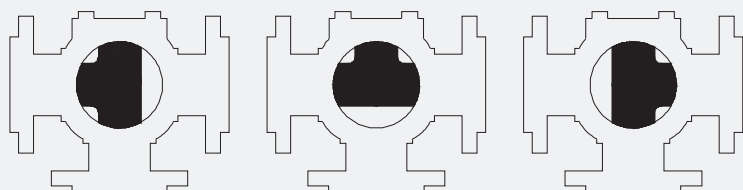
### 3 WAY L PORT

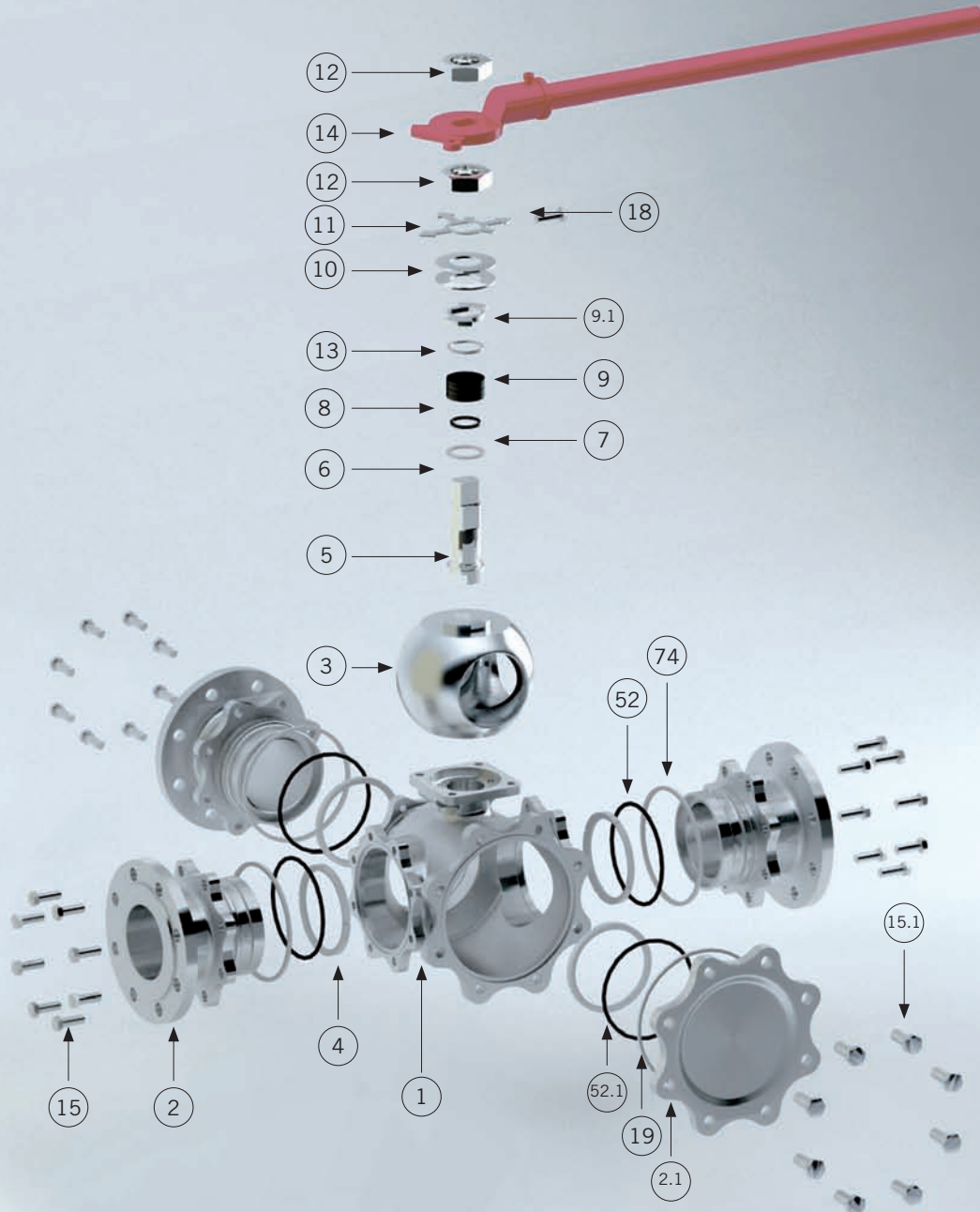


### 3 WAY T PORT



### 3 WAY INVERTED PORT





# Materials

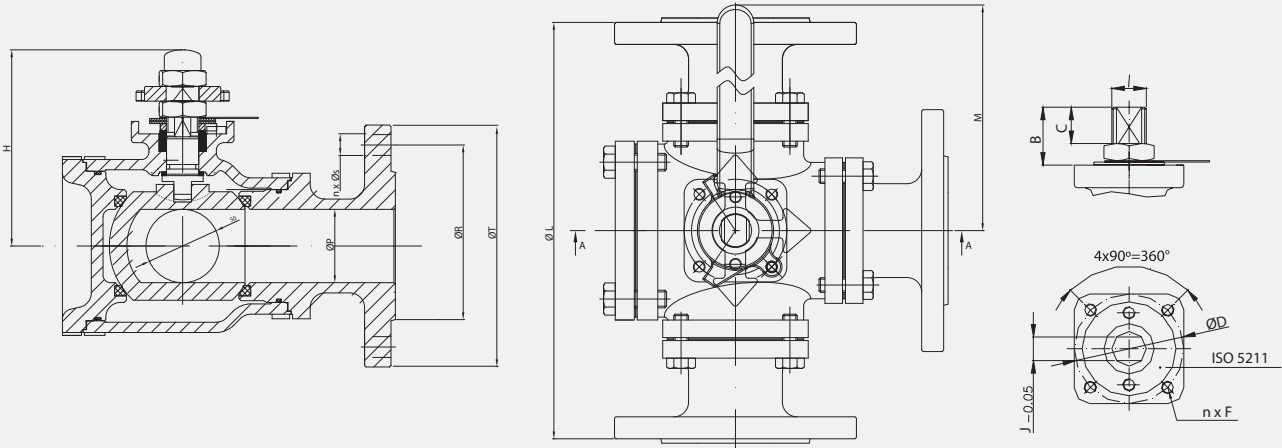
Item	Description	EN-DIN		ASME	
		916 AIT	916 IIT	915 AIT	915 IIT
1	Body	1.0619	1.4408	A216 Gr. WCB (C≤0,25%)	A351 Gr. CF8M
2	Body connector	1.0619	1.4408	A216 Gr. WCB (C≤0,25%)	A351 Gr. CF8M
2.1	Side Cover	1.0619	1.4408	A216 Gr. WCB (C≤0,25%)	A351 Gr. CF8M
3	Ball	A 351 Gr. CF8M		A 351 Gr. CF8M	
4	Seat ring	PTFE		PTFE	
5	Stem	A 479 Type 316		A 479 Type 316	
6	Stem thrust seal	25%GF PTFE		25%GF PTFE	
7	O'ring	FKM		FKM	
8	Stem packing	Graphite		Graphite	
9	Gland	AISI 303	AISI 316	AISI 303	AISI 316
9.1	Stop plate	F114	AISI 304	F114	AISI 304
10	Disk spring	E.N.P Carbon steel		E.N.P Carbon steel	
11	Look. Wash. Pointer	Rilsan coated Carbon St.		Rilsan coated Carbon St.	
12	Gland nut	Zinc plated carbon steel	AISI 303	Zinc plated carbon steel	AISI 303
13	Antifriction washer	25%GF. PTFE		25%GF. PTFE	
14	Wrench	Nodular iron		Nodular iron	
15	Bolt	DIN 933 A4 - 70		DIN 933 A4 - 70	
15.1	Bolt	DIN 933 A4 - 70		DIN 933 A4 - 70	
18	Stop bolt	A4-70		A4-70	
19	Body cover seal	PTFE		PTFE	
52	O'ring	FKM		FKM	
52.1	O'ring	FKM		FKM	
74	Body connector seal	PTFE		PTFE	
89	Identification plate	Stainless St.		Stainless St.	

ASME 915

Class 150

Full Bore

Class 150. From 1" to 8"



Pressure - Temperature

(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

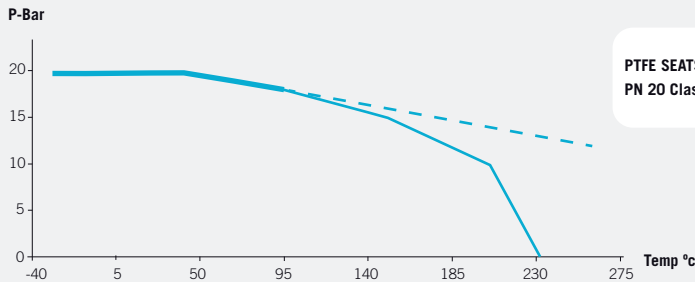
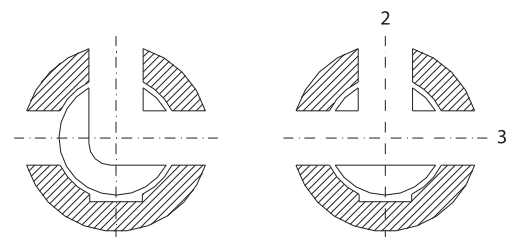


Fig. 915 (Class 150)

DN	øP	øL	A	A1	øR	n x øS	øT	H	M	ISO 5211	B	C	I	J	WEIGHT
1"	25	212	106	70	79,4	4x15,9	110	96	170	F05	22	12,2	M12x1,5	8	8
1½"	40	262	131	80	98,4	4x15,9	125	121	200	F07	33	19,2	M18x1,5	12	17
2"	50	290	145	90	120,7	4x19	150	134	350	F07	34	20,2	M22x1,5	15	25
2½"	65	325	162,5	107	139,7	4x19	180	180	350	F10	34	19,2	M22x1,5	15	34
3"	80	370	185	117	152,4	4x19	190	189	465	F10	45	27,7	M28x1,5	19	51
4"	100	430	215	148	190,5	8x19	230	230	475	F12	56	32,2	M36x1,5	24	77
6"	150	500	250	194	241,3	8x22,2	280	280	855	F14	69	41	M48x3	32	138
8"	200	600	300	270	298,5	8x22,2	345	325	855	F14	69	34	M48x3	32	

TORQUE		
VALVE SIZE	AT MAXIMUM DIFFERENTIAL PRESSURE	
	L	T
25 (1")	32	32
40 (1 ½")	71	71
50 (2")	130	130
65 (2½")	195	195
80 (3")	260	260
100 (4")	494	494
150 (6")	689	689
200 (8")	850	850

Kv			
VALVE SIZE	PORT L	PORT T	
		PORT 2	PORT 3
25 (1")	20,4	28,9	51
40 (1 ½")	51,85	51,85	149,6
50 (2")	42,5	80,75	249,9
65 (2½")	136,85	136,85	478,55
80 (3")	206,55	291,55	732,7
100 (4")	323	323	1217,2
150 (6")	726,75	726,75	3087,2
200 (8")	920	920	4810



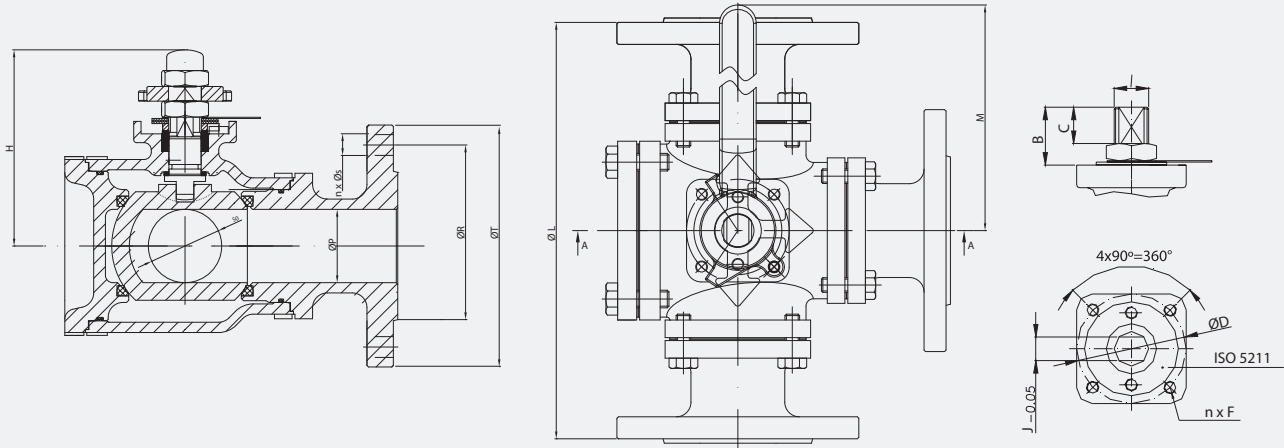
(\*) Dimensions in mm and weight in kg.  
(\*\*) Weights and dimensions can be changed without notice.  
Torque Values in Nm.  
Kv Values in m3/h.

EN-DIN 916

PN 16

Full Bore

PN 16. From DN 25 to DN 200



(\*) Dimensions of diameters of drills ISO 5211 refer to table from page 48.

Pressure - Temperature

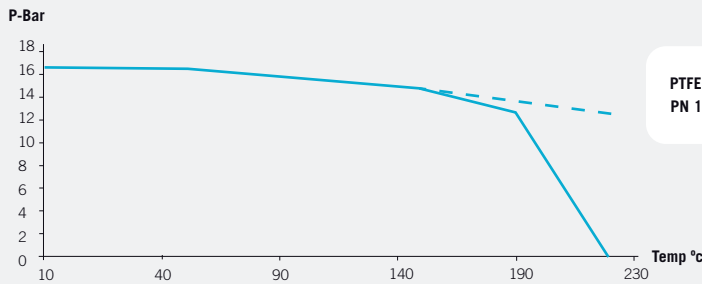
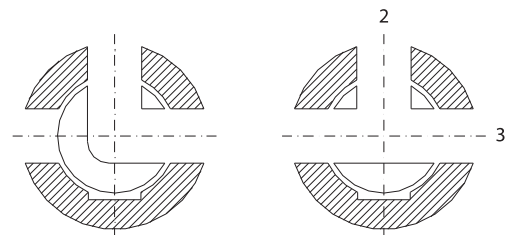


Fig. 916 (PN 16)

DN	øP	øL	A	A1	øR	n x øS	øT	H	M	ISO 5211	B	C	I	J	WEIGHT
25	25	212	106	70	85	4x14	115	96	170	F05	22	12,2	M12x1,5	8	8
40	40	262	131	80	110	4x18	150	121	200	F07	33	19,2	M18x1,5	12	17
50	50	290	145	90	125	4x18	165	134	350	F07	34	20,2	M22x1,5	15	25
65	65	325	162,5	107	145	8x18	185	180	350	F10	34	19,2	M22x1,5	15	34
80	80	370	185	117	160	8x18	200	189	465	F10	45	27,7	M28x1,5	19	51
100	100	430	215	148	180	8x18	220	230	475	F12	56	32,2	M36x1,5	24	77
150	150	500	250	194	240	8x22	285	280	855	F14	69	41	M48x3	32	138
200	200	600	300	270	295	12x22	340	325	855	F14	69	34	M48x3	32	

VALVE SIZE	TORQUE	
	AT MAXIMUM DIFFERENTIAL PRESSURE	
	L	T
25 (1")	32	32
40 (1 1/2")	71	71
50 (2")	130	130
65 (2 1/2")	195	195
80 (3")	260	260
100 (4")	494	494
150 (6")	689	689
200 (8")	850	850

VALVE SIZE	Kv		
	PORT L	PORT T	
		PORT 2	PORT 3
25 (1")	20,4	28,9	51
40 (1 1/2")	51,85	51,85	149,6
50 (2")	42,5	80,75	249,9
65 (2 1/2")	136,85	136,85	478,55
80 (3")	206,55	291,55	732,7
100 (4")	323	323	1217,2
150 (6")	726,75	726,75	3087,2
200 (8")	920	920	4810



(\*) Dimensions in mm and weight in kg.  
 (\*\*) Weights and dimensions can be changed without notice.  
 Torque Values in Nm.  
 Kv Values in m3/h.

| BALL VALVES |

# SPECIAL CONSTRUCTIONS

JC Ball Valves can be delivered in special constructions as following:

## STEAM JACKET

When viscous materials are handled, JC steam jacketed ball valves are recommended to prevent valve to be blocked in closed position.

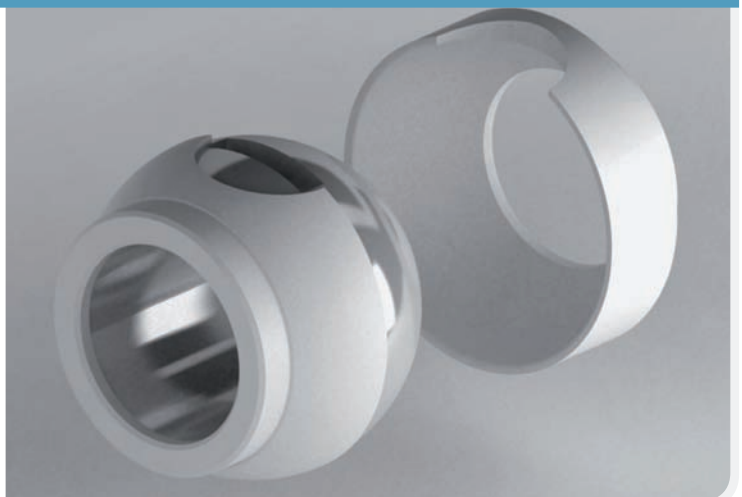
The maximum steam jacket pressure is 10 Bar (1.0 Mpa) and maximum temperature is 260°.



## CAVITY FILLER

Some of the roughest process controls problems involve fluids that can polymerize in place. That means they can polymerize inside body cavities and could block the valve. Cavity-filler seats are available in PTFE, Stansit, TFM.

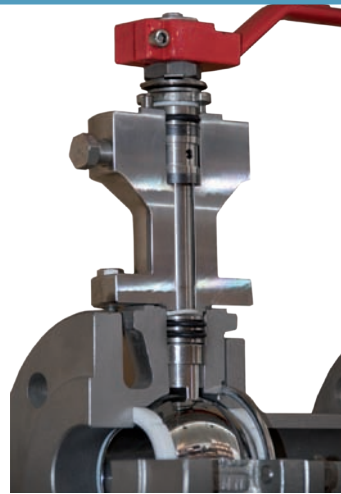
Applications: Styrene, Butadiene, Monomers, Pharmaceuticals, Food process, ...





## DOUBLE PACKING

Today's concern for the containment of fugitive emissions has brought forth in the industry a wide range of stem sealing concepts and designs aimed to eliminating stem leakage. For these applications where it is imperative that fluid containment has to be assured, double packing can be adapted to any JC ball valve.



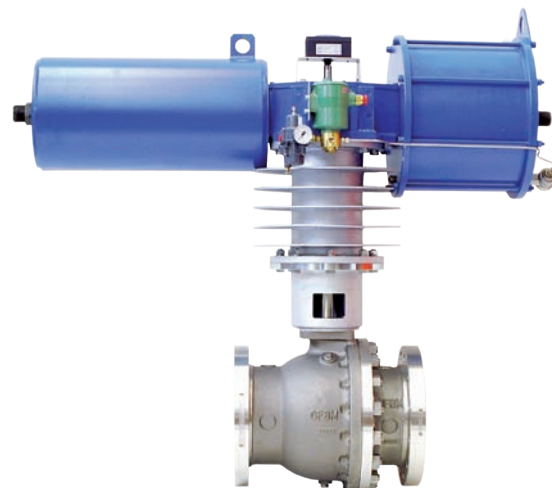
## LOW TEMPERATURE OR CRYOGENIC SERVICE

JC ball valves have been widely used in low temperature and cryogenic applications, including some gas treatment processes (LNG, Methane, LPG...), requiring valves able to be operated and to assure helium leakage rates within specified limits at low temperatures. In these cases JC offers valves designed with special seats, bonnets and materials for low temperature or cryogenic service.



## FULLY AUTOMATED BALL VALVES

JC Valves can be delivered with pneumatic, electric, hydraulic or gas-over-oil actuators as per customer requirements.





# JC VALVES

*The quality option*

## MORE PRODUCTS



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GATE, GLOBE & CHECK VALVES - STRAINERS

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## ACCESSORIES



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PNEUMATIC ACTUATOR - ELECTRIC ACTUATOR - HYDRAULIC ACTUATOR  
GAS OVER OIL ACTUATOR - WORM GEAR - LOCKING DEVICES - STEM EXTENSIONS

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# BALL VALVES

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