

DIN CAST BALL VALVE

1. USE:

Extraction, transportation and distribution systems in:
water, steam, gas and oil industry.

2. SERVICE CONDITIONS:

2.1. Ambient temperature: from - 35° C to + 40° C

2.2. Service temperature: from -59° C to +200° C

3. TECHNICAL CHARACTERISTICS:

3.1. Design standard: DIN 3357

3.2. End-to-end dimensions:

NP 10 and NP 16	DN 25 ÷ DN 100	EN 558-1	3 series
NP 10 and NP 16	DN 125 ÷ DN 150	EN 558-1	4 series
NP 25 and NP 40	DN 25 ÷ DN 150	EN 558-1	4 series
NP 64 and NP 100	DN 25 ÷ DN 40	EN 558-1	21 series
NP 10 and NP 100	DN 150 ÷ DN 900	EN 558-1	1 series and 26 series
NP 160	DN 25 ÷ DN 400	DIN 3202 F 8	
NP 250	DN 25 ÷ DN 400	DIN 3202 F 9	

3.3. Connection flanges:

General standard DIN 2501 and DIN 2526; DIN 2512; DIN 2513

Flanges Standard DIN 2543 for: NP 16

DIN 2544 for: NP 25

DIN 2545 for: NP 40

DIN 2546 for: NP 64

DIN 2547 for: NP 100

DIN 2548 for: NP 160

DIN 2549 for: NP 250

3.4. Weld ends: DIN 3239

3.5. Temperature pressure rating: DIN 2401

3.6. Testing: DIN 3230 and ISO 5208

3.7. Operation: manual:

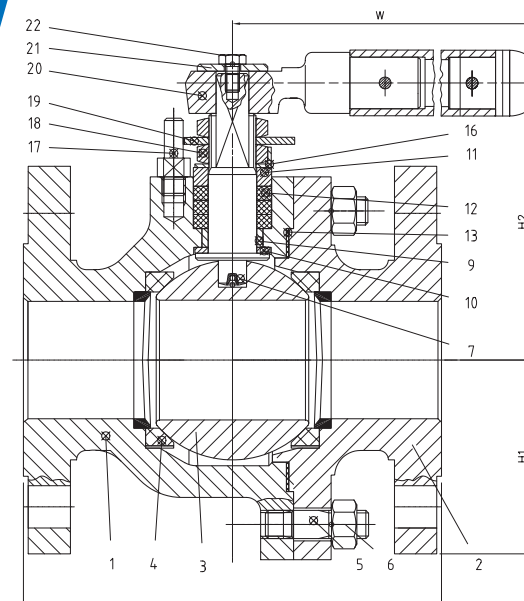
- lever

- gear

electrical - actuator

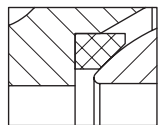
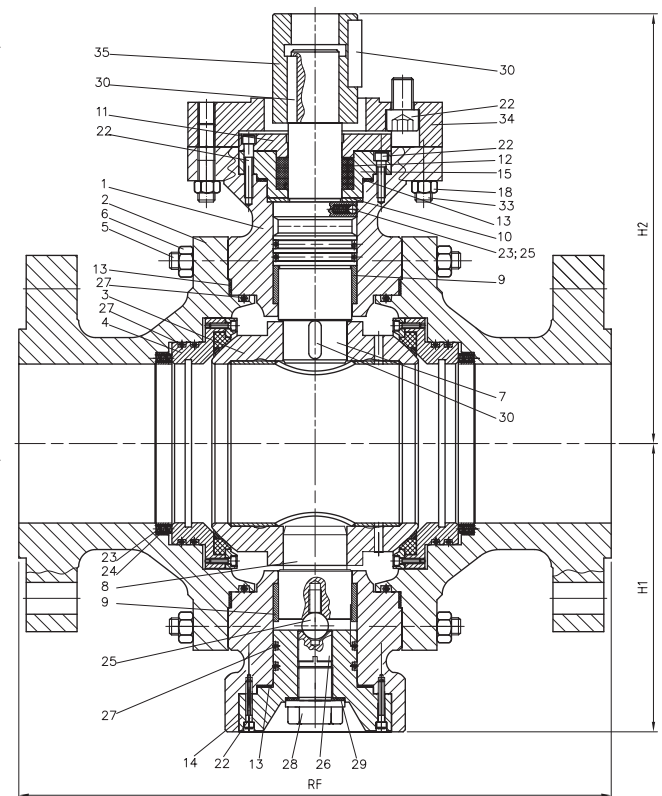
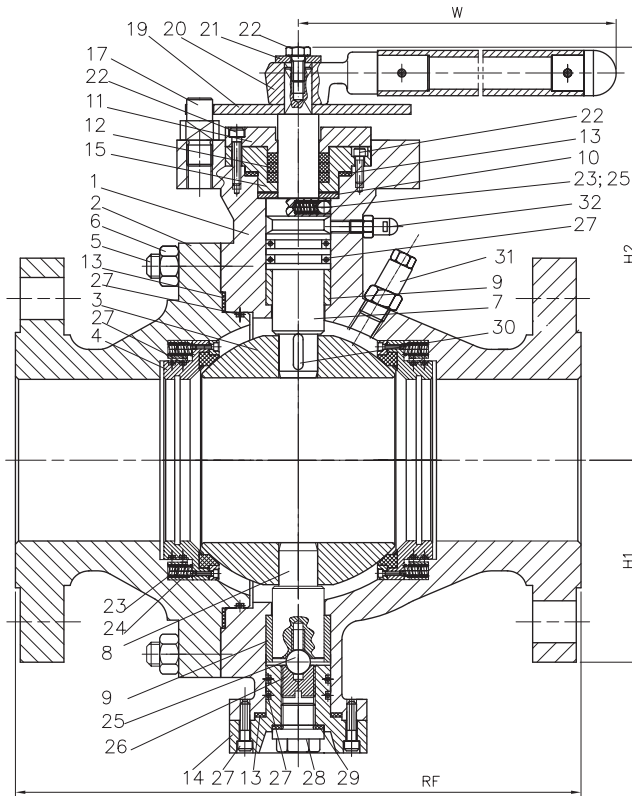
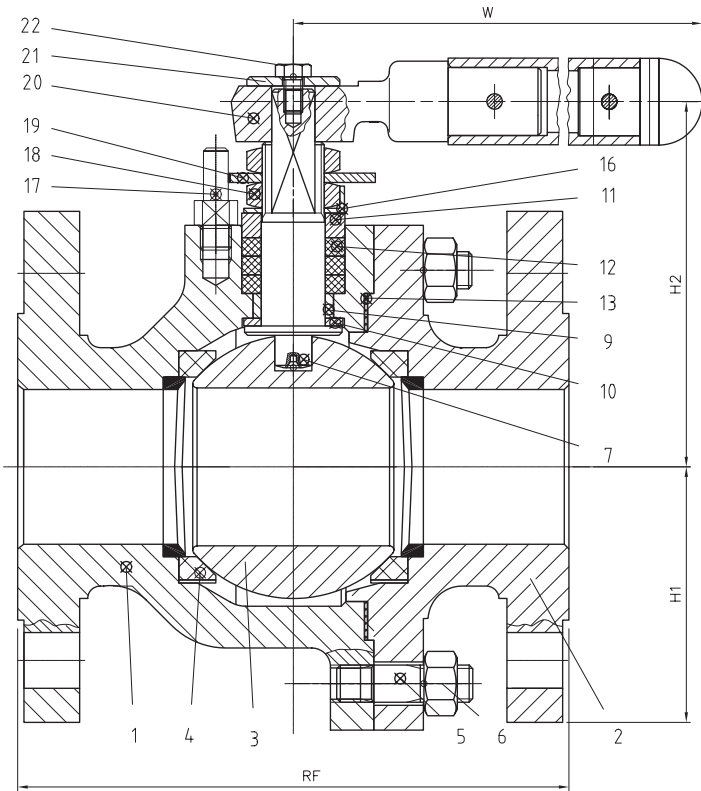
pneumatic - actuator

hydropneumatic - actuator

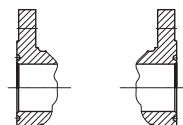


The Science Of Detail

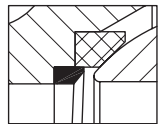
DIN CAST BALL VALVE



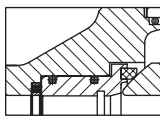
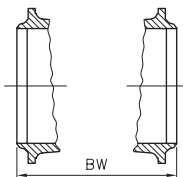
Ball valves with ball floating
Version from twain pieces
- class 150 ÷ 300 NPS 1" ÷ 6"
- class 400 ÷ 1500 NPS 1" ÷ 1 1/2"
- PN 10 ÷ 40 DN 25 ÷ 150
- PN 64 ÷ 250 DN 25 ÷ 40



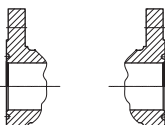
Backseat presure
Sealing surface primary: F6/PTFE



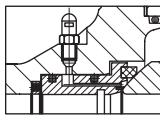
Backseat presure
Sealing surface primary: F6/PTFE
Sealing surface secondary
18 Cr - 8 Ni/PTFE



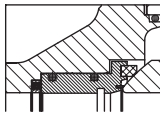
Ball valves with backseat floating
Version from twain pieces
- class 400 ÷ 1500 NPS 2" ÷ 6"
- PN 64 ÷ 250 DN 50 ÷ 150



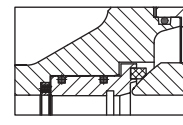
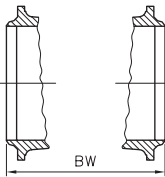
Backseat floating
Sealing surface primary: F6/PTFE



Backseat floating
Sealing surface primary: F6/PTFE
Sealing surface secondary
18 Cr - 8 Ni/PTFE

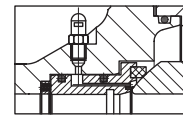


Backseat floating
Sealing surface primary: F6/PTFE
Sealing surface secondary
18 Cr - 8 Ni/PTFE
Sealing tertiary material mellow

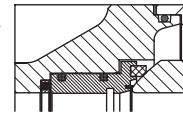


Ball valves with backseat floating
Version from twain pieces
- class 400 ÷ 1500 NPS 6" ÷ 36"
- PN 10 ÷ 250 DN 150 ÷ 900

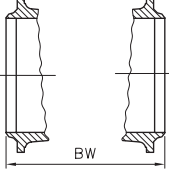
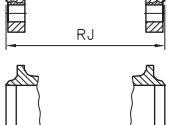
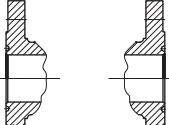
Backseat floating
Sealing surface primary: F6/PTFE



Backseat floating
Sealing surface primary: F6/PTFE
Sealing surface secondary
18 Cr - 8 Ni/PTFE



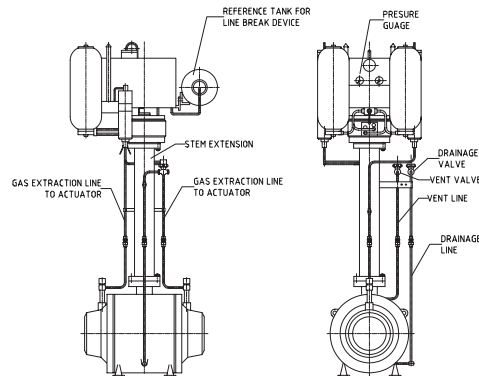
Backseat floating
Sealing surface primary: F6/PTFE
Sealing surface secondary
18 Cr - 8 Ni/PTFE
Sealing tertiary material mellow



DIN CAST BALL VALVE

4. MATERIALS

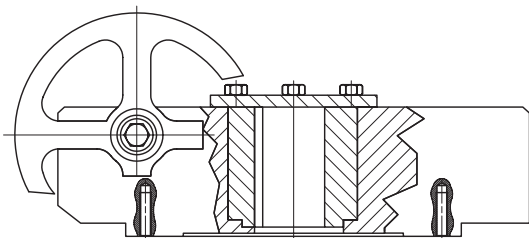
No.	Name of Part	DIN SPECIFICATION		
		Standard		Low Temperature Service
		-29°C 200°C	-40°C 200°C	-45°C 200°C
1	Body	GP 240 GH	G 20 Mo 5	G 18 Mo 5
2	Bonnet	GP 240 GH	G 20 Mo 5	G 18 Mo 5
3	Ball	X 10 Cr 13 / GX 3 Cr Ni 13-4	X 10 Cr Ni Ti 18.9/G-X 6 Cr Ni 18.9	X 10 Cr Ni Ti 18.9/G-X 6 Cr Ni 18.9
4	Sealing Seat	PTFE	PTFE	PTFE
5	Stud	42 Cr Mo 4	42 Cr Mo 4	42 Cr Mo 4
6	Nut	Ck 45	24 Cr Mo 5	24 Cr Mo 5
7	Driving Stem	X 10 Cr 13	X 10 Cr Ni Ti 18.9	X 10 Cr Ni Ti 18.9
8	Bottom Shaft	X 10 Cr 13	X 10 Cr Ni Ti 18.9	X 10 Cr Ni Ti 18.9
9	Bushing	A439-D2C	A439-D2C	A439-D2C
10	Stem Washer	A439-D2C	A439-D2C	A439-D2C
11	Gland	Ck 25	TT StE 36	15 Mo 3
12	Gland Packing	Grafex	Grafex	Grafex
13	Gasket	Graphite	Graphite	Graphite
14	Bottom Lid	Ck 25	TT StE 36	15 Mo 3
15	Upper Lid	Ck 25	TT StE 36	15 Mo 3
16	Safety Washer	St 37.2	St 37.2	St 37.2
17	Pin	Ck 25	Ck 25	Ck 25
18	Nut	gr. 6	gr. 6	gr. 6
19	Check	Ck 25	Ck 25	Ck 25
20	Lever	Sub-assembly	Sub-assembly	Sub-assembly
21	Washer	St 37.2	St 37.2	St 37.2
22	Screw	gr. 8.8	gr. 8.8	gr. 8.8
23	Spring	RR	RR	RR
24	Spring Deck	Ck 25	TT StE 36	15 Mo 3
25	Ball	Rul	Rul	Rul
26	Threaded Pin	Ck 35	42 Cr Mo 4	42 Cr Mo 4
27	O-Ring	Silicon rubber		
28	Threaded Plug	Ck 35	42 Cr Mo 4	42 Cr Mo 4
29	Gasket	Copper	Copper	Copper
30	Key	Ck 45	42 Cr Mo 4	42 Cr Mo 4
31	Vent Hole	Sub-assembly	Sub-assembly	Sub-assembly
32	Lubricator	Commercial	Commercial	Commercial
33	Stud	gr. 6.8	gr. 6.8	gr. 6.8
34	Device Flange	Ck 25	TT StE 36	15 Mo 3
35	Actuator Bushing	Ck 25	TT StE 36	15 Mo 3



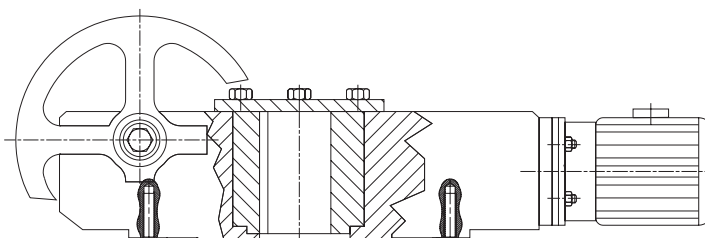
VALVE WITH HYDRO-PNEUMATIC ACTUATOR

NP	L	ND	150	200	250	300	350	400	450	500	600	700	800	900	
		DIN 3202 F1	480	600	730	850	980	1100	1200	1250	1450	1650	1850	2050	
		DIN 3202 F7	450	550	650	750	850	950	1050	1150	1350	1550	1750	1950	
		H1	270	311	362	419	479	502	524	632	645	749	851	981	
		H2	244	286	337	394	454	476	498	606	625	724	826	956	
		W	508	508	508	698	698	698	698	698	698	698	800	800	
		Weight (kg)	175	270	405	585	805	1070	1270	1850	3180	4635	6960	8950	
NP	L	ND	150	200	250	300	350	400	450	500	600	700	800	900	
		DIN 3202 F1	480	600	730	850	980	1100	1200	1250	1450	1650	1850	2050	
		DIN 3202 F7	450	550	650	750	850	950	1050	1150	1350	1550	1750	1950	
		H1	270	311	362	419	479	502	524	632	648	749	851	981	
		H2	244	286	337	394	454	476	498	606	625	724	826	956	
		W	508	508	508	698	698	698	698	698	698	698	800	800	
		Weight (kg)	183	280	437	634	877	1173	1375	1960	3288	4955	7240	9283	
NP	L	ND	150	200	250	300	350	400	450	500	600	700	800	900	
		DIN 3202 F1	480	600	730	850	980	1100	1200	1250	1450	1650	1850	2050	
		DIN 3202 F7	450	550	650	750	850	950	1050	1150	1350	1550	1750	1950	
		H1	270	311	362	419	479	502	524	632	651	749	851	981	
		H2	244	286	337	394	454	476	498	606	625	724	826	956	
		W	508	698	698	698	698	698	698	698	698	698	800	800	
		Weight (kg)	190	290	468	683	948	1275	1478	2070	3395	5278	7520	9615	
NP	L	ND	150	200	250	300	350	400	450	500	600	700	800	900	
		DIN 3202 F1	480	600	730	850	980	1100	1200	1250	1450	1650	1850	2050	
		DIN 3202 F7	450	550	650	750	850	950	1050	1150	1350	1550	1750	1950	
		H1	270	311	362	419	479	502	524	632	651	749	851	981	
		H2	244	286	337	394	454	476	498	606	625	724	826	956	
		W	508	698	698	698	698	698	698	698	698	698	800	800	
		Weight (kg)	208	310	533	782	1093	1484	1687	2294	3611	5923	8084	10285	
NP	L	ND	150	200	250	300	350	400	450	500	600	700	800	900	
		DIN 3202 F1	480	600	730	850	980	1100	1200	1250	1450	1650	1850	2050	
		DIN 3202 F7	450	550	650	750	850	950	1050	1150	1350	1550	1750	1950	
		H1	270	311	362	419	479	502	524	632	651	749	876	981	
		H2	244	286	337	394	454	476	498	606	625	724	851	956	
		W													
		Weight (kg)	245	415	670	950	1115	1535	1940	2540	4250	6435	9015	11910	
NP	L	ND	150	200	250	300	350	400	450	500	600	700	800	900	
		DIN 3202 F1	480	600	730	850	980	1100	1200	1250	1450	1650	1850	2050	
		DIN 3202 F7	450	550	650	750	850	950	1050	1150	1350	1550	1750	1950	
		H1	270	311	362	419	479	502	524	632	651	749	876	981	
		H2	244	286	337	394	454	476	498	606	625	724	851	956	
		W													
		Weight (kg)	280	515	805	1115	1135	1585	2185	2785	4885	6945	9945	13535	
NP	L	ND	150	200	250	300	350	400	450	500	600	700	800	900	
		DIN 3202 F8	600	750	900	1050	1200	1350							
		H1	276	311	368	425	492	514							
		H2	251	286	343	400	467	489							
		W													
				Weight (kg)	405	655	1085	1625	1575	2255					
NP	L	ND	150	200	250	300	350	400	450	500	600	700	800	900	
		DIN 3202 F9	750	950	1150	1350	1550	1750							
		H1	292	330	390	451	517	546							
		H2	264	305	365	425	492	521							
		W													
				Weight (kg)	540	895	1575	2350	3035	4275					

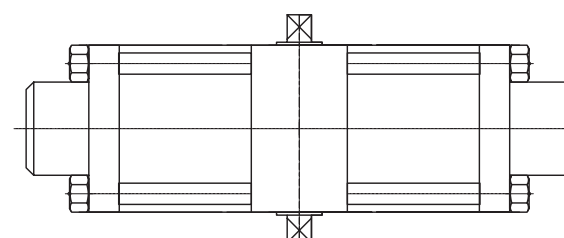
VALVE WITH MANUAL OPERATOR



VALVE WITH ELECTRIC ACTUATOR



VALVE WITH PNEUMATIC ACTUATOR



		ND		25	32	40	50	65	80	100	125	150
10	NP	L	EN 558-1	127	140	165	178	191	203	229	381	394
			H1	82	110	140	155	175	194	229	251	270
			H2	60	75	95	105	117	133	152	203	244
			W	305	305	451	451	451	600	600	600	508
			Weight (kg)	18	20	22	28	40	52	90	133	175
		ND		25	32	40	50	65	80	100	125	150
16	NP	L	EN 558-1	127	140	165	178	191	203	229	381	394
			H1	82	110	140	155	175	194	229	251	270
			H2	60	75	95	105	117	133	152	203	244
			W	305	305	451	451	451	600	600	600	600
			Weight (kg)	19	21	23	28	41	53	94	138	182
		ND		25	32	40	50	65	80	100	125	150
25	NP	L	EN 558-1	165	178	191	216	241	283	305	381	403
			H1	89	89	140	156	175	194	229	251	270
			H2	70	80	95	105	117	130	165	203	244
			W	305	305	451	451	451	600	1000	1000	508
			Weight (kg)	19	21	23	28	41	54	95	143	190
		ND		25	32	40	50	65	80	100	125	150
40	NP	L	EN 558-1	165	178	191	216	241	283	305	381	403
			H1	159	159	159	168	187	206	241	251	270
			H2	70	89	95	105	117	130	165	203	244
			W	305	305	451	451	451	600	1000	1000	508
			Weight (kg)	25	27	30	35	45	60	103	155	208

		ND		25	32	40
64	NP	L	EN 558-1	216	229	241
			H1	159	159	159
			H2	108	108	108
			W	305	305	451
			Weight (kg)	25	28	30
		ND		25	32	40
100	NP	L	EN 558-1	216	229	241
			H1	159	159	159
			H2	108	108	108
			W	305	305	451
			Weight (kg)	27	29	31
		ND		25	32	40
160	NP	L	EN 558-1	254	279	305
			H1	170	170	170
			H2	120	120	120
			W	356	356	356
			Weight (kg)	35	42	52
		ND		25	32	40
250	NP	L	EN 558-1	254	279	305
			H1	170	170	170
			H2	120	120	120
			W	356	356	356
			Weight (kg)	38	45	57

		ND		50	65	80	100	125	150
64	NP	L	EN 558-1	292	330	356	406	457	495
			H1	168	187	206	241	251	270
			H2	117	130	143	178	213	244
			W	600	600	1000	1000	1000	1000
			Weight (kg)	36	50	66	114	180	245
		ND		50	65	80	100	125	150
100	NP	L	EN 558-1	292	330	356	432	508	559
			H1	168	187	206	241	295	270
			H2	117	130	143	178	210	244
			W	600	600	1000	1000	1000	1000
			Weight (kg)	40	55	71	125	203	280
		ND		50	65	80	100	125	150
160	NP	L	DIN 3202 F8	300	360	390	450	525	600
			H1	180	190	206	213	245	276
			H2	140	155	165	178	215	251
			W	600	600	1000	1000	1000	1000
			Weight (kg)	45	75	95	185	295	405
		ND		50	65	80	100	125	150
250	NP	L	DIN 3202 F9	350	425	470	550	650	750
			H1	185	195	206	213	253	292
			H2	150	165	170	178	221	264
			W	600	600	1000	1000	1000	1000
			Weight (kg)	50	90	120	220	380	540



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