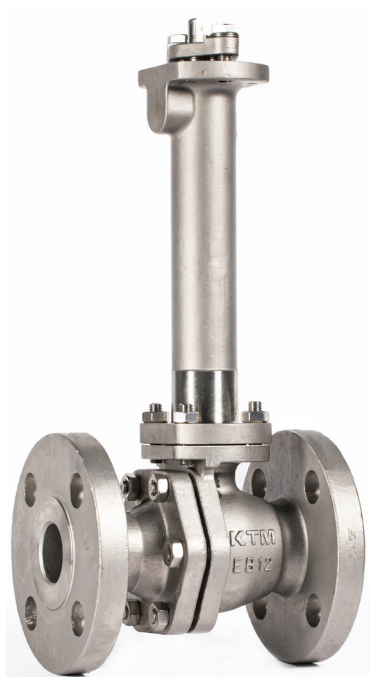




KTM NOVATITE EXTREME™ BALL VALVES

FLOATING TYPE

KTM Novatite Extreme™ metal-seated ball valves deliver API 598 bidirectional sealing characteristics, and are the first ever metal-seated ball valves to undergo Design Validation Testing for the temperature range of -50 to 500°C



FEATURES

- API 608 compliant valve with assured performance across a broad range of flow media and operating conditions
- API 598 compliant bidirectional valve with reliable tight shutoff and uncompromised sealing
- Extended bonnet design for API 607 (8th edition) / ISO 10497-2022 compliant fire-safe valve
- Live loaded stem seals and high integrity joints to deliver fugitive emissions performance compliant with API 641 / ISO 15858-1 standards
- Design Validation Testing, which involves mechanical and thermal cycling over entire temperature range, conducted from -50 to 500°C using single configuration
- Investment cast for quality finish
- Superior sealing for gas applications driven by unique ball and seat manufacturing and finishing process
- Surface hardening of ball and seat with Chrome Carbide via HVOF for reliable performance in harsh operating conditions
- Complete spare part kit, metal trim kits available for ease of maintenance

GENERAL APPLICATION

Sequencing; high temperature, high frequency, high operating speed, thermal cycling; mechanical cycling; clean fluids, dirty fluids, high viscosity, scaling fluids, corrosive, erosive waste treatment, sludge, saturated steam, super-heated steam

TECHNICAL DATA

Model/Sizes: Full bore available in
DN 15 to DN 200
(NPS 1/2 to NPS 8)
Reduced bore available in
DN 80 to DN 250
(NPS 3 to NPS 10)
Pressure rating: ANSI Class 150, 300
Face-to-face: ASME B16.10 Long
End connection: ASME B16.5
Temperature: -50 to 500°C / -58 to 932°F
Up to 450°C / 842°F
for oxidizing conditions.

KTM NOVATITE EXTREME™ BALL VALVES

FLOATING TYPE

NOVATITE EXTREME™: UNLEASHING A NEW PERFORMANCE PARADIGM FOR METAL SEATED VALVES

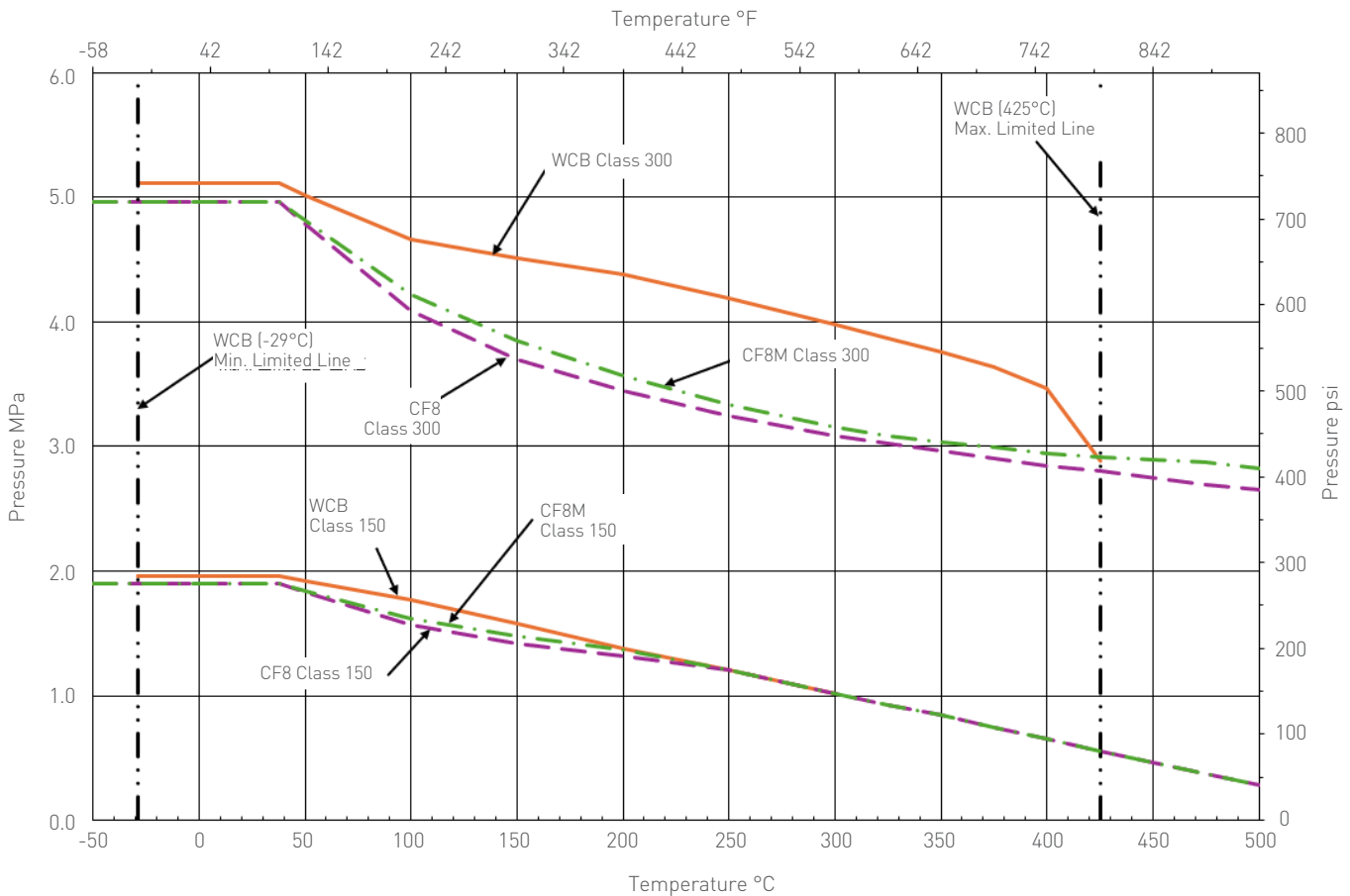
KTM Novatite Extreme™ series of metal-seated ball valves are designed to deliver unmatched performance for customers seeking reliable seal integrity, across a vast range of operating conditions and flow media.

KTM Novatite Extreme™ valves do not just deliver API 598 rated bidirectional leakage performance but are also the first ever metal-seated ball valves to undergo Design Validation Testing with a single configuration over the entire temperature range of -50°C and 500°C.

By utilizing cutting-edge ball-and-seat hard-coating, advanced finishing technologies, and high-grade materials of construction, the KTM Novatite Extreme™ valves deliver a comprehensive solution for customers seeking both durability and unparalleled leakage performance across a wide range of operating environments.

PRESSURE - TEMPERATURE RATING

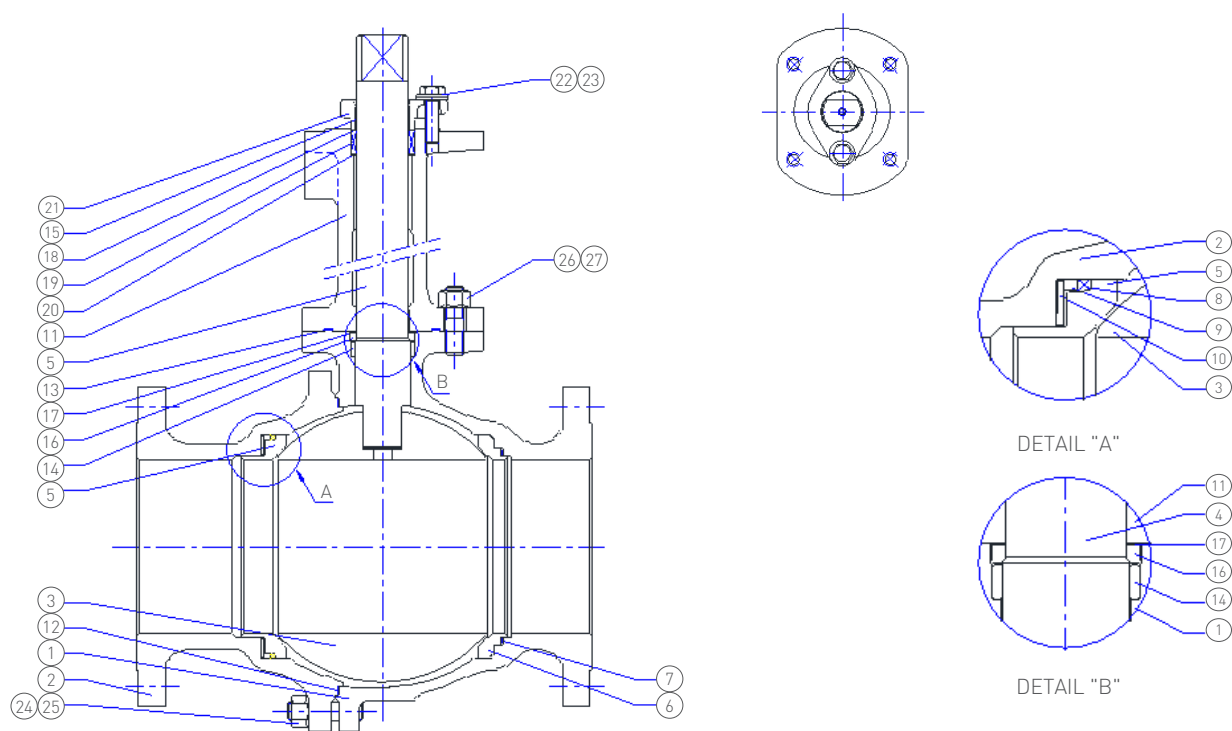
Pressure - Temperature rating of valves are limited by sealing and stem materials. The combination of body rating and trim rating indicate the maximum valve rating at specific pressure and temperature conditions.



KTM NOVATITE EXTREME™ BALL VALVES

FLOATING TYPE

FLOATING TYPE STRUCTURE (BIDIRECTIONAL FLOW)



PARTS LIST³

No.	Parts Name	Quantity	Material		
1	Body	1	A351(G)CF8	A351(G)CF8M	A216(G)WCB
2	Cap	1	A351(G)CF8	A351(G)CF8M	A216(G)WCB
3	Ball	1	A182(G) FXM-19 With Chromium Carbide Coating		
4	Stem	1	Inconel 718		
5	Seat (A)	1	A182(G) FXM-19 With Chromium Carbide Coating		
6	Seat (B)	1	A182(G) FXM-19 With Chromium Carbide Coating		
7	Seat Gasket	1	Graphite		
8	Seat Packing	1	Graphite		
9	Spring Holder	1	316 SS		
10	Spring	1	Inconel 718		
11	Extended Bonnet	1	A351(G)CF8	A351(G)CF8M	A216(G)WCB
12	Gasket	1	Graphite		
13	Gasket	1	Graphite		
14	Stem Bearing	1	Nickel Alloy		
15	Stem Bearing	1	Graphite		
16	Stem Collar ^[1]	1	316 SS		
17	Thrust Bearing ^[2]	1	Stellite		
18	Packing Washer	1	316 SS		
19	Gland Packing	1 Set	Graphite		
20	Thrust Washer	1	316 SS		
21	Gland Flange	1	A351(G)CF8		
22	Gland Bolt	2	A193(G)B7 Zn-Plating		
23	Live Loading Spring	4	Inconel X-750		
24	Stud	4-12	A193(G)B8	A193(G)B8	A193(G)B7
25	Nut	4-12	A194(G)8	A194(G)8	A194(G)2H
26	Stud	4-6	A193(G)B8	A193(G)B8	A193(G)B7
27	Nut	4-6	A194(G)8	A194(G)8	A194(G)2H

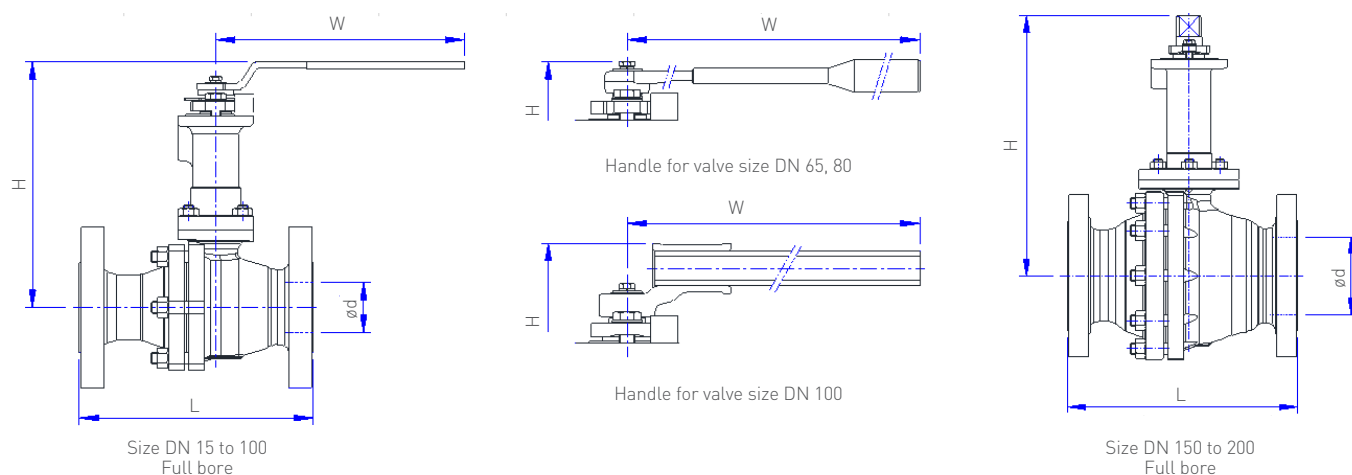
NOTES

1. Not present in DN 15 / DN 20.
2. Nickel alloy in DN 15 - DN 50.

KTM NOVATITE EXTREME™ BALL VALVES

FLOATING TYPE

FLOATING TYPE (FULL BORE)



ASME CLASS 150 DIMENSIONS

Valve size (DN)	Metric mm					Imperial inch				
	Ød	L	H	W	Weight kg	Ød	L	H	W	Weight lb
15	13	108	281	200	3.2	0.512	4.25	11.063	7.874	7.1
20	19	117	285	200	3.5	0.748	4.62	11.220	7.874	7.7
25	25	127	298	240	5.2	0.984	5	11.732	9.449	11.5
40	38	165	375	350	11	1.496	6.5	14.764	13.780	24.3
50	51	178	385	405	15	2.008	7	15.157	15.945	33.1
65	64	190	465	600	30	2.520	7.5	18.307	23.622	66.2
80	76	203	474	600	36	2.992	8	18.661	23.622	79.4
100	102	229	540	1100	49	4.016	9	21.260	43.307	108.0
150*	152	394	623	-	110	5.984	15.5	24.528	-	242.6
200*	203	457	705	-	205	7.992	18	27.756	-	452.0

ASME CLASS 300 DIMENSIONS

Valve size (DN)	Metric mm					Imperial inch				
	Ød	L	H	W	Weight kg	Ød	L	H	W	Weight lb
15	13	140	281	200	3.6	0.512	5.5	11.063	7.874	7.9
20	19	152	285	200	4.8	0.748	6	11.220	7.874	10.6
25	25	165	298	240	6.8	0.984	6.5	11.732	9.449	15.0
40	38	190	375	350	14.7	1.496	7.5	14.764	13.780	32.4
50	51	216	385	405	18	2.008	8.5	15.157	15.945	39.7
65	64	241	465	735	35	2.520	9.5	18.307	28.937	77.2
80	76	283	474	1155	45	2.992	11.12	18.661	45.472	99.2
100	102	305	540	1650	66	4.016	12	21.260	64.961	145.5
150*	152	403	623	-	146	5.984	15.88	24.528	-	321.9
200*	203	502	705	-	265	7.992	19.75	27.756	-	584.3

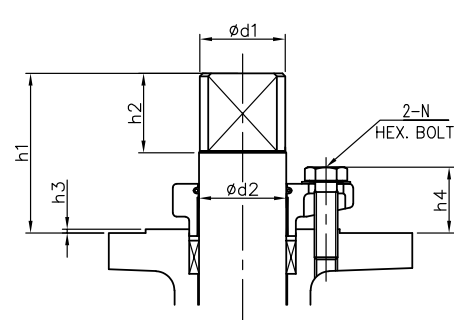
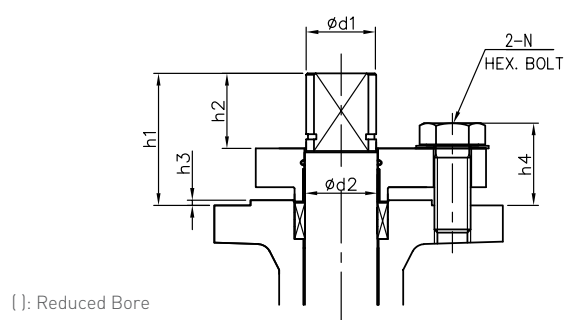
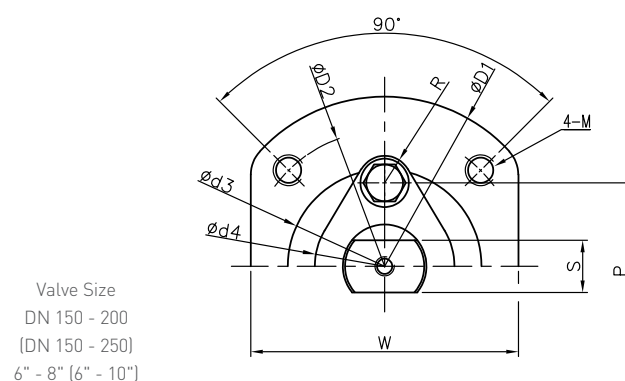
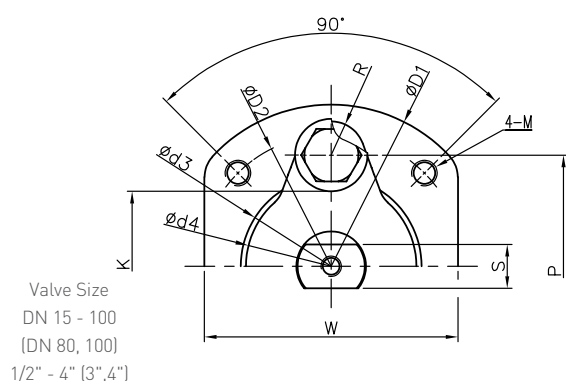
NOTE

* For DN 150 / DN 200, gear operators shall be required in case of manual operation.

KTM NOVATITE EXTREME™ BALL VALVES

FLOATING TYPE

TOPWORKS



Size																						
Full		Reduced																				
mm	inch	mm	inch	d1	d2	d3	d4	D1	D2	h1	h2	h3	h4	H	H1	M	N	P	R	S	W	K
15	1/2	-	-	10 ^{+0.05 -0.15}	11 ^{+0 -0.04}	30 ^{+0 -0.1}	28	55	42	22	10.5	2	19	59	37	M6	M6	40	6	7 ^{+0.07 -0.12}	42.7	23
20	3/4	-	-	10 ^{+0.05 -0.15}	11 ^{+0 -0.04}	30 ^{+0 -0.1}	28	55	42	22	10.5	2	19	63	41	M6	M6	40	6	7 ^{+0.07 -0.12}	42.7	23
25	1	-	-	14 ^{+0.05 -0.15}	15 ^{+0 -0.04}	35 ^{+0 -0.09}	33	65	50	26.5	13.5	2	22	75.5	49	M6	M6	48	8	8 ^{+0.08 -0.14}	50.4	28
40	1 1/2	-	-	20 ^{+0.05 -0.15}	21 ^{+0 -0.05}	55 ^{+0 -0.1}	46	90	70	33.5	17.5	2	25	102.5	69	M8	M10	66	10	12 ^{+0.05 -0.15}	70	40
50	2	-	-	20 ^{+0.05 -0.15}	21 ^{+0 -0.052}	55 ^{+0 -0.1}	46	90	70	33.5	17.5	2	25	112.5	79	M8	M10	66	10	12 ^{+0.09 -0.16}	70	40
65	2 1/2	80	3	27 ^{+0.05 -0.15}	28 ^{+0 -0.052}	70 ^{+0 -0.12}	66	125	102	50.5	30.5	2	32	154.5	104	M10	M14	86	13	17 ^{+0.09 -0.16}	100	52
80	3	100	4	27 ^{+0.05 -0.15}	28 ^{+0 -0.062}	70 ^{+0 -0.12}	66	125	102	50.5	30.5	2	32	163.5	113	M10	M14	86	13	17 ^{+0.09 -0.16}	100	52
100	4	150	6	34 ^{+0.05 -0.15}	35 ^{+0 -0.062}	70 ^{+0 -0.12}	66	125	102	51	31	2	32	189	138	M10	M14	86	13	22 ^{+0.1 -0.19}	100	52
150	6	200	8	44 ^{+0.05 -0.15}	45 ^{+0 -0.062}	100 ^{+0 -0.14}	72	175	140	84.5	40	2	36	272.5	188	M16	M12	86	14	27 ^{+0.1 -0.19}	138	-
200	8	250	10	53 ^{+0.05 -0.15}	54 ^{+0 -0.074}	130 ^{+0 -0.16}	90	210	165	107	53	2	43	355	248	M20	M14	104	16	36 ^{+0.12 -0.22}	170	-

KTM NOVATITE EXTREME™ BALL VALVES
FLOATING TYPE

FLOW COEFFICIENTS

Full Bore		Reduced Bore	
DN	C _v	DN	C _v
15	26	-	-
20	50	-	-
25	94	-	-
40	260	-	-
50	480	-	-
65	750	-	-
80	1300	80 x 50	200
100	2300	100 x 80	770
150	5400	150 x 100	800
200	10000	200 x 150	2500
-	-	250 x 200	4500

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