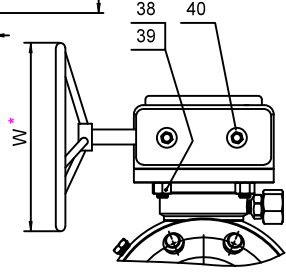
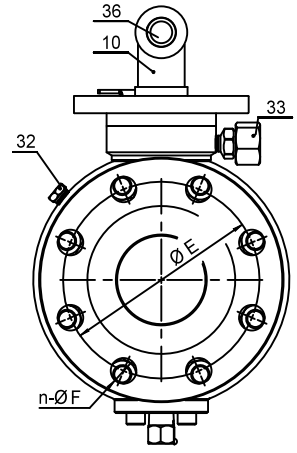
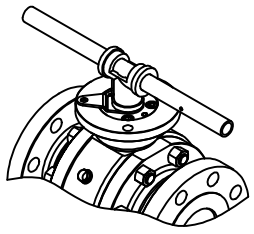


DETAIL E



\* Worm Gear Operation



- NOTES:  
 1. BASIC DESIGN PER ASME B16.34 AND API6D;  
 2. END FLANGE PER ASME B16.5;  
 3. FACE TO FACE DIMENSIONS PER ASME B16.10;  
 4. PRESSURE TESTS PER API598;  
 5. FIRE SAFE DESIGN PER API607.

ITEM	PART NAME	STANDARD (NACE)	LOW TEMP (NACE)	STAINLESS STEEL (NACE)
1	Body	ASTM A105	A350 LF2	A182 F316
2	End Adapters	ASTM A105	A350 LF2	A182 F316
3	QS Ball	A182 F316 + HC		
4	Stem	A182 F316		
5a	Seat Ring	A182 F316		
5b	Seat Insert	PEEK		
5c	O-Ring	VITON A		
5d	Seat Fire Safe Seal	Graphite		
6	Gland	ASTM A105	A350 LF2	A182 F316
7	Post Trunnion	ASTM A105	A350 LF2	A182 F316
8	Gland Plate	ASTM A105	A350 LF2	A182 F316
9	Locking Plate	Carbon Steel + Zn		Stainless Steel
10	Handle guide	ASTM A216 GR.WCB + Painting		
11	Spring	Inconel X750		
12	Key	AISI 1045		Stainless Steel
13	Stem Fire Safe Seal	Graphite		
14	Body Gasket	SPW,316+Graphite		
15	Gland Gasket	SPW,316+Graphite		
16	Trunnion Gasket	SPW,316+Graphite		
17	Stem O-Ring & Back-up ring	VITON A / PTFE		
18	Gland O-Ring	VITON A		
19	Trunnion O-Ring	VITON A		
20	Body O-Ring	VITON A		
21	DU Bearing	1045+PTFE		316SS+PTFE
22	DU Bearing	1045+PTFE		316SS+PTFE
23	Thrust Washer	RPTFE		
24	Body Studs	ASTM A193-B7	ASTM A320-L7M	ASTM A193-B8M
25	Body Nuts	ASTM A194-2H	ASTM A194-7M	ASTM A194-8M
26	Gland Bolt	ASTM A193-B7	ASTM A320-L7M	ASTM A193-B8M
27	Trunnion Bolt	ASTM A193-B7	ASTM A320-L7M	ASTM A193-B8M
28	Parallel Pins	ASTM A276 Gr.316		
29	Parallel Pins	AISI 1045		ASTM A276 Gr.316
30	Spring Pin	AISI 1566		
31	Vent Valve	AISI 316 S/S		
32	Drain Plug	AISI 316 S/S		
33	Sealant Injection Fitting	ASTM A105N+Zn	A350 LF2 + Zn	ASTM A276 Gr.316
34	Anti-static Ball	AISI 316 S/S	A350 LF2 + Zn	ASTM A276 Gr.316
35	Anti-Static Spring	AISI 316 S/S		
36	Pipe	Carbon Steel + Zn		
37	Screw	Carbon Steel + Zn		
38	Gear Studs	ASTM A193-B7		ASTM A193-B8
39	Gear Nuts	ASTM A194-2H		ASTM A194-8
40	Worm Gear	ASTM A216 GR.WCB		

Standard materials of construction listed

VALVE SIZE		DIMENSIONS								1500#		Weight unit:lb (Kg)
NPS	UNIT	ØA	B	ØC	ØE	n-ØF	f	ØD	L	H (Ref)	W	
4"	INCH	12.25	2.12	6.18	9.5	8-Ø1.38	0.25	3.94	21.5	10.5	16 *	427
	MM	311	54	157	241.3	8-Ø35	6.4	100	546	266.5	406 *	( 194 )
3"	INCH	10.5	1.88	5.0	8.0	8-Ø1.25	0.25	2.91	18.5	9.5	16 *	253
	MM	267	48	127	203.2	8-Ø32	6.4	74	470	242.5	406 *	( 115 )
2"	INCH	8.5	1.5	3.62	6.5	8-Ø1.0	0.25	1.93	14.5	7.6	27.6	132
	MM	216	38.5	92.0	165.1	8-Ø25.4	6.4	49	368	193	700	( 60 )

Quadrosphere® NPS 2"~4" CLASS 1500# Full Bore

CLASS 1500 TRUNNION MOUNTED BALL VALVE

REVISIONS: REVISED: B1 DATE: 10-11-14

DRAWING NUMBER: VMC-4702AAL VMC-4702AAW

**VATMATIC** VALVE AND MANUFACTURING CORP.