



# ISV Series No. I-136 & I-138

## Three Piece Oilfield Design Floating Ball Valve Threaded & Socket Weld Ends, 2000 - 6000 WOG



Threaded end configuration



Socket weld end configuration

### PRESSURE RATING:

2000 PSIG @ 100F W.O.G. – A105N & LF2 body  
 3000 PSIG @ 100F W.O.G. – A105N & LF2 body  
 6000 PSIG @ 100F W.O.G. – A105N & LF2 body

### DESIGN & PRODUCTION FEATURES

- 3 Piece Forged Body
- API 607 5th Ed. fire safe tested, ASME B16.11, B16.34 code compliant
- Pressure tested to API 598
- All valves with 316SS ball and 17-4 PH Stem
- All valves with heavy duty locking lever
- Tack weld body joint prevents unintended disassembly during installation
- Meets NACE
- Full and Reduced Ports are available

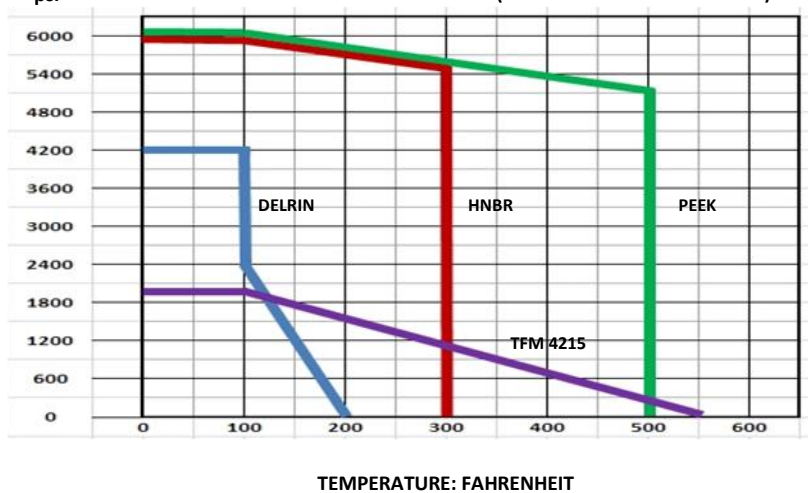
### ISV HOW TO IDENTIFY ISV Series I-136 & I-138 Forged 3pc body Oilfield Floating Ball Valves

I	-	2	3	8	-	3	-	F	H	-	T	H
ISV Series	Material	Design	Port	Pressure Rating	Seats	Seals	End Connection					
I ISV Design	1 A105	3 Forged Oilfield Design	6 Reduced	2 2000WOG	C TFM 4215	V Viton	TH Threaded female					
	2 LF2		8 Full	3 3000WOG	F Delrin	H HNBR	SW Socket Weld					
	3 F316SS			4 4000WOG	N Nylon	L (Low temp elastomers)	ST SW X TH female					
				6 6000WOG	P PEEK							

### Figure Number Example: I-238-FH-TH

Describes a 3000 psi WOG, 3 piece oilfield design, floating style ball valve, full port, LF2 body with Delrin seats, HNBR seals, threaded end connections. Ball of 316SS is standard, 17-4 PH stem is standard, with locking lever operator.

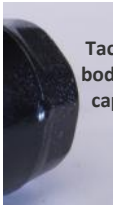
psi PRESSURE - TEMPERATURE CHART (limits of seat & seal materials)



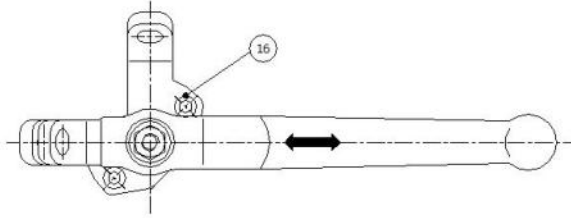
QUALITY MANAGEMENT SYSTEM  
 CERTIFIED BY DNV  
**ISO 9001:2008**

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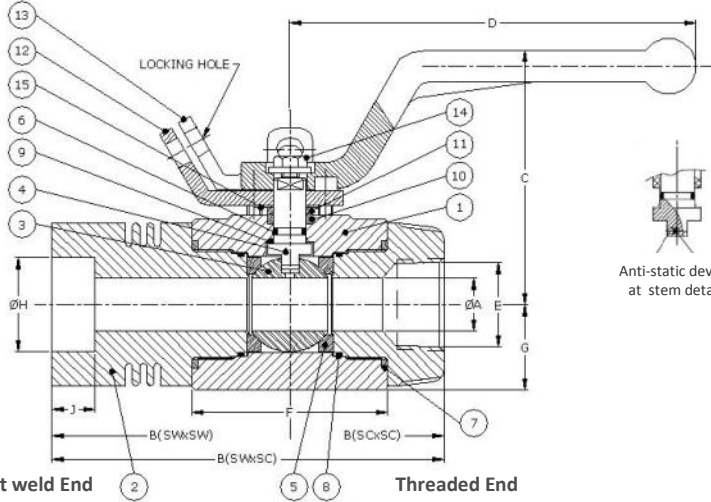
## Three Piece Oilfield Design Floating Ball Valve - Threaded & Socket Weld Ends



Tack weld body—end cap joint



Full port valve view



Anti-static device at stem detail

Socket weld end installation note: Excessive heat generated during the welding process may cause damage to the valve seats of valve ends that are modified from threaded to socket weld. Specify factory furnished extended length socket weld connection for socket weld end configurations.

DESIGN STANDARDS		
Basic Design	ASME B16.34	
Pressure test	API 598	
Ends	Threaded	ASME B16.11, B1.20.1
	Socket weld	ASME B16.11

### MATERIALS OF CONSTRUCTION

No.	PART NAME	MATERIAL		
		A105N	A350 LF2	A182 F316
1	BODY	A105N	A350 LF2	A182 F316
2	END CAP	A105N	A350 LF2	A182 F316
3	BALL	A351 CF8M		
4	STEM	17-4 PH		
5	SEAT	2000 WOG – TFM; 3000 WOG – DELRIN; 6000 WOG – PEEK		
6	STEM O-RING	HNBR		
7	BODY – CAP – GASKET	GRAPHITE		
8	BODY – CAP – O-RING	HNBR		
9	THRUST WASHER	NYLON + MoS2		
10	STEM PACKING	GRAPHITE		
11	PACKING FOLLOWER	304SS		
12	GLAND FLANGE	CARBON STEEL PLATED		
13	LEVER	CARBON STEEL		
14	LOCK NUT	CARBON STEEL PLATED		
15	BELLEVILLE WASHER	SS 301		
16	STOP SCREW	SS 302		

### REDUCED PORT

Size (inch)	Pressure (WOG)	A	B			C	D	E (NPT)	F	G	H	J	Weight (lbs.)		
			SCxSC	SWxSC	SWxSW								SCxSC	SWxSC	SWxSW
¾	2000/3000	0.50	3.98	4.49	5.00	3.43	5.71	¾	2.13	0.85	1.07	.50	2.98	4.41	5.07
	6000	0.50	4.37	4.69	5.00	3.43	5.71						3.42	4.63	5.07
1	2000/3000	0.75	4.33	5.53	6.73	4.17	5.71	1	2.75	1.20	1.33	.50	5.16	7.27	7.93
	6000	0.75	5.24	5.98	6.73	4.17	5.71						6.04	7.71	7.93
1 ½	2000-6000	1.00	5.98	6.89	7.36	3.91	6.77	1 ½	3.27	1.46	1.92	.50	11.90	13.44	13.89
2	2000/3000	1.50	6.26	7.40	8.54	5.84	10.83	2	4.00	1.99	2.41	.62	20.50	22.48	23.14
	6000	1.50	7.24	7.93	8.54	5.84	10.83						23.58	24.02	23.14
3	2000-6000	2.00	9.69	10.28	10.55	7.44	11.89	3	4.25	2.52	3.54	.62	48.49	48.93	59.95

### FULL PORT

Size (inch)	Pressure (WOG)	A	B			C	D	E (NPT)	F	G	H	J	Weight (lbs.)		
			SCxSC	SWxSC	SWxSW								SCxSC	SWxSC	SWxSW
½	2000-6000	0.50	3.98	4.49	5.00	3.29	5.71	½	2.13	0.85	.855	.38	3.09	3.53	3.75
¾	2000-6000	0.75	4.33	5.55	6.73	3.57	5.71	¾	2.75	1.20	1.07	.50	5.73	5.73	6.17
1	2000-6000	1.00	5.98	6.06	6.73	3.91	6.77	1	3.27	1.46	1.33	.50	9.92	9.70	10.36
1 ½	2000-6000	1.50	6.26	7.44	8.54	5.84	10.83	1 ½	4.00	1.99	1.92	.50	21.64	24.02	24.68
2	2000-6000	2.00	9.69	8.07	9.88	7.44	11.89	2	4.25	2.52	2.41	.62	37.91	40.77	46.95

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#### Cv Values

Nominal valve size	1/2"	3/4"	1"	1.5"	2"	3"
Reduce Port: models I-136, I-236, I-336	NA	13	30	37	100	350
Full Port: models I-138, I-238, I-338	26	50	108	260	480	NA

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