

344 Firesafe Ball Valve

3-Piece Full and Standard Port
ISO 5211 Direct Mount Pad



For Automated &
Manual Service

General Chemical

Industrial

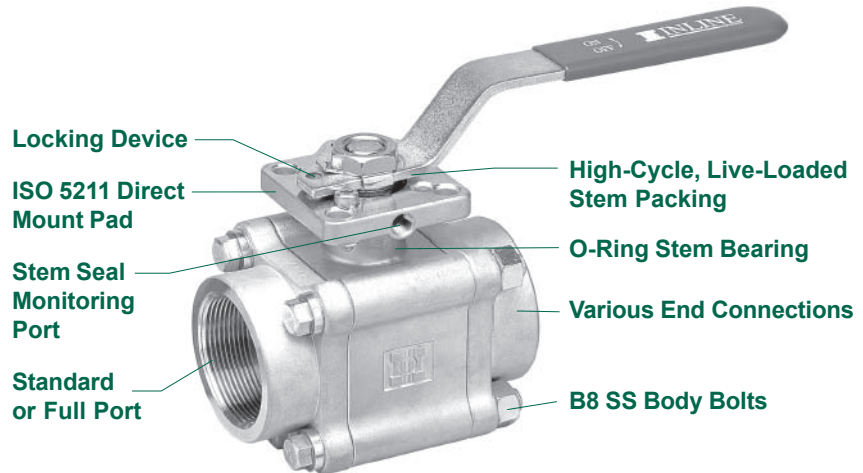
Petrochemical

Refining

and Other Corrosion
Resistant Applications

The 344 Series Ball Valve

The 344 series firesafe ball valve is designed to ensure the operational integrity of the valve in the extreme heat of a refinery fire. A firesafe seating surface, graphite body seals and stem packing prevent both down-stream and external leakage. The valve features an anti-static stem, grade B8 SS body bolts, and a direct mount pad for actuation.

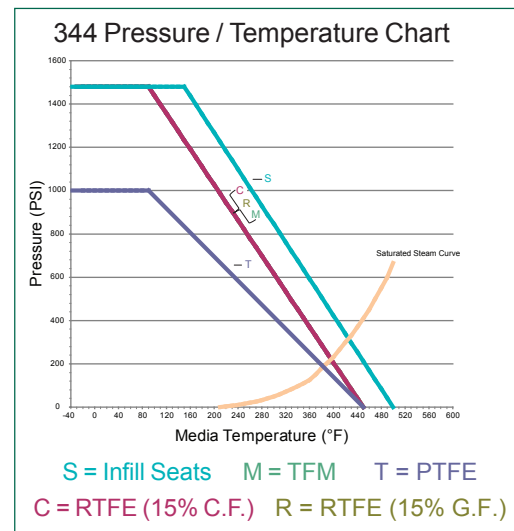


Standard Features and Benefits

- **Meets ANSI/API Standard 607 5th Edition - 2005, ISO 10497-5:2004**
- **ISO 5211 Dual Pattern Direct Mount Pad**
No bracket or drive coupling required for automation
Prevents side-loading improving valve cycle life
Reduces height of package
Dual pattern pad fits a wide range of actuator sizes
- **Live-Loaded Graphite Stem Packing**
Spring energized stem seals self-adjust to compensate for wear pressure and temperature changes ensuring a leak-tight seal and extending service life
- **O-Ring Stem Bearing**
Maintains stem alignment, reduces packing side-loading and wear
Enhances stem seal performance
- **Blow-Out-Proof Stem**
- **Anti-Static Stem**
Grounds ball and stem to valve body
- **Grade B8 Stainless Steel Body Bolts**
- **Graphite Body Seals**
- **End Cap Alignment Step**
Ensures easy and proper alignment between mating parts
- **Integral Locking Device**
Enables plant personnel to secure valve in open or closed position when manually operated
- **Investment Cast**
High quality investment castings improve dimensional control and reduce porosity
- **Steam Rated to 150 PSI Saturated Steam (RTFE & TFM)**

Options

- Various end connections available
- High temperature seats and seals capable of up to 400 psi of saturated steam
- Spring Return Handle
- Certified material test reports are available upon request

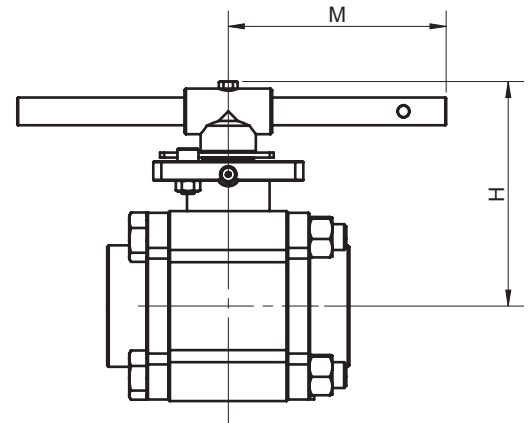
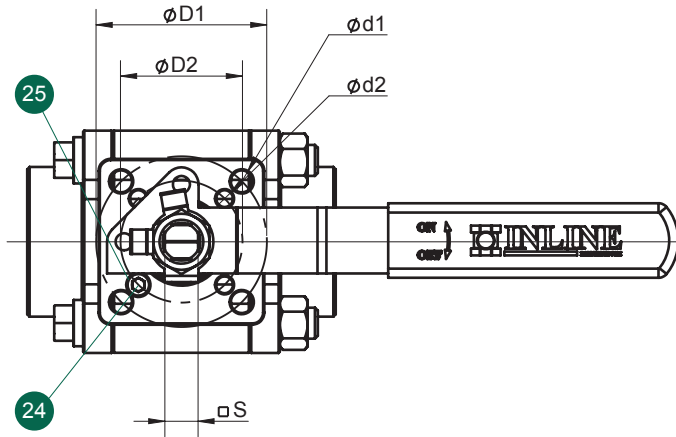


Operating Conditions

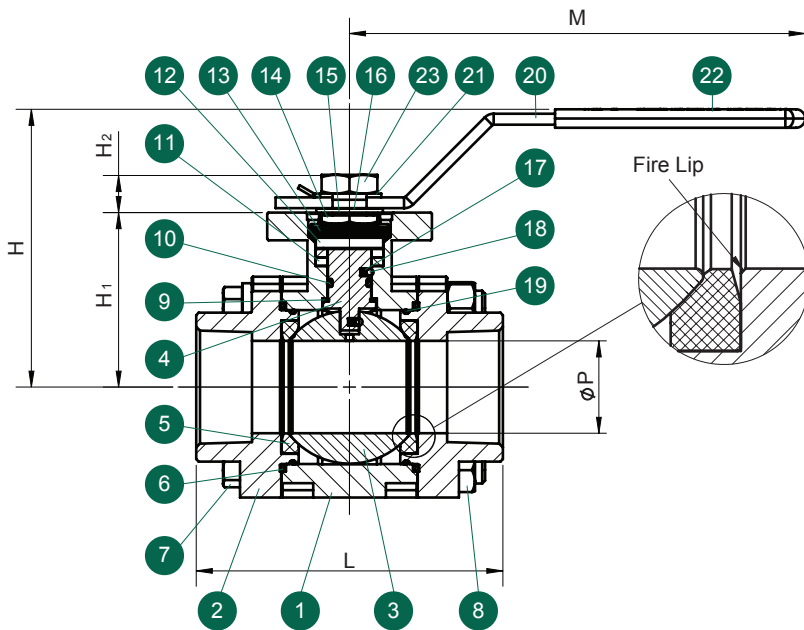
- Temperature range:
-40°F ~ 500°F (depending on seats)
- Maximum pressure (RTFE):
1440 PSI (Class 600)

Specifications

- All valves designed and pressure tested in accordance with ANSI/ASME B16.34, MSS-SP-110 and API 598
- All materials comply with applicable ASTM material specifications
- End connections: All to B16.34; NPT to B1.20.1; socket weld to B16.11; butt weld to B16.25; flanged to B16.5
- Firesafe to ANSI/API 607 Standard 5th Edition - 2005, ISO 10497-5:2004



2" Full Port & 2 1/2" Standard Port



Valve Components			
#	Part Name	Material	Qty.
1	Body	A351 Gr. CF8M	1
2	End Cap	A351 Gr. CF8M	2
3	Ball	316SS	1
4	Stem	316SS	1
5	Seat	PTFE	2
6	Body Seal	Graphite	2
7	Body Bolt	Grade B8	4
8	Body Nut	304SS	4
9	Thrust Washer	PEEK	1
10	Stem O-Ring	Viton	1
11	Stem Packing Set	Graphite	1
12	Gland Washer	304SS	1
13	Belleville Washer	301SS	4
14	Gland Nut	304SS	1
15	Gland Nut Lock Washer	304SS	1
16	Stem Spacer	304SS	1
17	Stem Spring	301SS	2
18	Stem Ball	304SS	2
19	End Cap O-Ring	Viton	2
20	Handle	304SS	1
21	Handle Nut Lock Washer	304SS	1
22	Handle Cover	Vinyl	1
23	Handle Nut	304SS	1
24	Stop Pin	304SS	1
25	Stop Pin Nut	304SS	1

Size		Dimensions (Inches)												
344F	344S	L	M	P	H	H ₁	H ₂	D ₁	D ₂	d ₁	d ₂	S	ISO 5211 Pattern	Wt. (lbs)
1/4	—	2.58	5.41	0.45	3.02	1.80	0.38	1.97	1.42	0.27	0.22	0.35	F03 / F05*	1.65
3/8	1/2	2.58	5.41	0.45	3.02	1.80	0.38	1.97	1.42	0.27	0.22	0.35	F03 / F05*	1.65
1/2	3/4	2.80	5.41	0.57	3.11	1.89	0.38	1.97	1.42	0.27	0.22	0.35	F03 / F05*	2.15
3/4	1	3.69	6.37	0.82	3.22	1.99	0.43	1.97	1.65	0.27	0.22	0.43	F04 / F05*	3.46
1	1 1/4	4.19	6.37	1.00	3.41	2.19	0.41	1.97	1.65	0.27	0.22	0.43	F04 / F05*	5.02
1 1/4	1 1/2	4.54	8.02	1.25	4.21	2.56	0.61	2.76	1.97	0.35	0.27	0.55	F05 / F07*	8.34
1 1/2	2	4.98	8.02	1.50	4.48	2.84	0.60	2.76	1.97	0.35	0.27	0.55	F05 / F07*	10.82
2	2 1/2	5.87	5.51	2.00	5.44	3.50	0.77	4.02	2.76	0.44	0.35	0.67	F07 / F10*	22.11

* Direct mount with stem adapter bushing



Automation Systems



Direct Mount Products

344 Firesafe Ordering Information

Example: 2" 3-Piece Firesafe Standard Port Direct Mount Ball Valve, ISO 5211 Direct Mount Pad with Lever Handle and Locking Device, 316SS Body and Trim, PTFE Seats, Graphite Seals, NPT Ends

344S **D** **6** **6** **6** **6** **T** **G** **TT** **2** **S**

Valve Series	Valve Size	Body Material	End Material	Ball Material	Stem Material	Seat	Seal	End Connection ¹	Port	Ball Config.
344F - Full Port	2 [†] 1/4" 3 [†] 3/8"	6 - A351 Gr. CF8M	6 - A351 Gr. CF8M	6 - A351 Gr. CF8M	6 - A351 Gr. CF8M	T - PTFE C - RTFE (15% C.F.)	G - Graphite H - S Gasket Graphite Coated	T - NPT S - Socket Weld	2 - 2 Way	S - Straight Port
344S - Standard Port	5 1/2" 7 3/4"	(316) 2 - A216 Gr. WCB	(316) 2 - A216 Gr. WCB	(316) 5 - Alloy 20 8 - Alloy-C	(316) 7 - 17-4 5 - Alloy 20 8 - Alloy-C	(15% G.F.) R - RTFE (15% G.F.) S - Infill (Carbon, Carbon Fiber, Modified PTFE) M - TFM D - Delrin	Coated Q - S Gasket PTFE Coated	1 - Butt Weld Sch. 10 4 - Butt Weld Sch. 40 8 - Butt Weld Sch. 80 A - ANSI 150# Flanged B - ANSI 300# Flanged P - Compression H - SAE J1926 X - Other		
	A 1" B 1 1/4" C 1 1/2" D 2" E* 2 1/2"		3 - A351 Gr. CF3M (316L) ¹	ASTM 494 Type CW12MW	ASTM 494 Type CW12MW					

[†] Full Port Only

* Standard Port Only

¹ Butt Weld ends are A351 Gr. CF3M (316L)

Due to continuous product development, information may change without notice.



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