

# 334 Ball Valve

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



For Automated &  
Manual Service

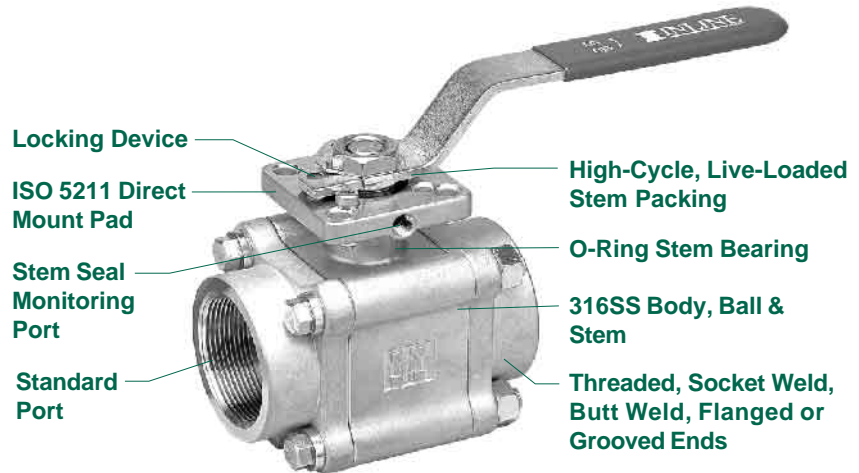
General Chemical

Industrial

and Other Corrosion  
Resistant Applications

# The 334 Series Ball Valve

The 334 series ball valve incorporates several innovative design features for improved process performance. The dual pattern ISO 5211 mounting pad facilitates direct mounting of pneumatic and electric actuators. In combination with our high-cycle, live-loaded stem packing system, the 334 series ball valve provides an ideal choice for all your automation requirements.



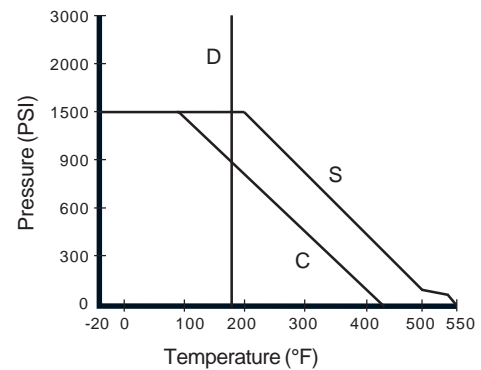
## Standard Features and Benefits

- 1 **Dual Pattern ISO 5211 Direct Mount Pad**  
No bracket or drive coupling needed for automation  
Dual pattern pad fits a wide range of actuator sizes  
Eliminates exposed moving parts for safer work environment  
Prevents side-loading and improves actuator positioning
- 1 **High-Cycle, Live-Loaded 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
- 1 **O-Ring Stem Bearing**  
Maintains stem alignment  
Reduces packing side-loading and wear  
Enhances stem seal
- 1 **Blow-Out-Proof Stem**  
Stem is bottom loaded to prevent removal when valve is in service
- 1 **3-Piece Swing-In-Place Construction**  
Swing-out construction makes the valve easy to repair in line
- 1 **Universal Valve Body**  
Same center section can be used for both manual and automated service
- 1 **Locking Device**  
Enables plant personnel to secure valve in open or closed position when manually operated
- 1 **Heavy Duty Construction**  
Made to full ANSI B16.34 Class 600 dimensions for trouble-free performance over a wide range of service conditions
- 1 **Investment Cast**  
High quality investment castings improve dimensional control and reduce porosity; certified material test reports are available upon request

## Options

- 1 End connections available in NPT, socket weld, butt weld, flanged or grooved, in 316SS or carbon steel
- 1 High pressure seats and seals
- 1 High temperature seats and seals capable of up to 400 psi of saturated steam

334 Pressure / Temperature Chart



D = Delrin Seats    S = Carbon Filled Seats  
C = Reinforced Teflon Seats

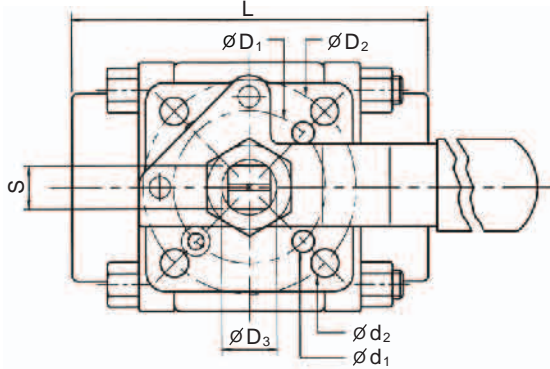
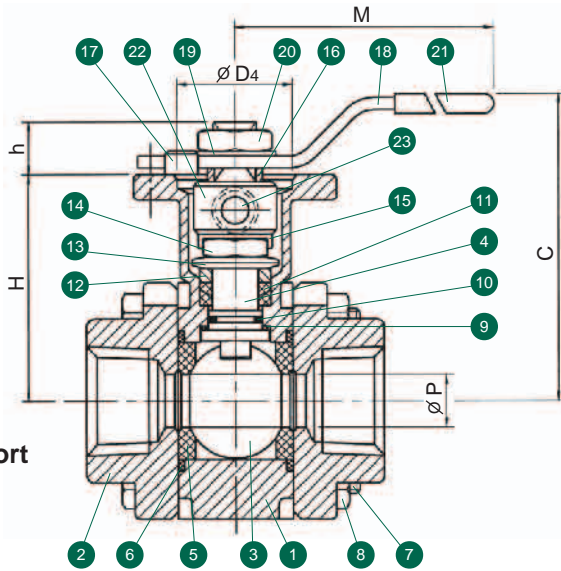
## Operating Conditions

- 1 Temperature range:  
-20°F ~ 550°F (depending on seats)
- 1 Maximum pressure:  
3000 PSI (depending on seats)

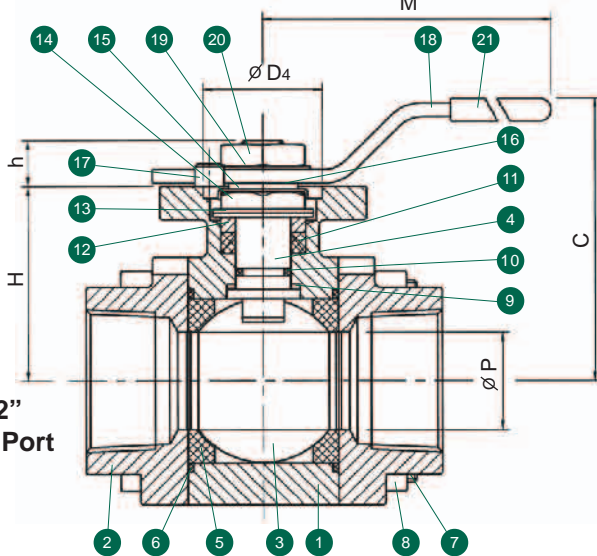
## Specifications

- 1 All valves built and pressure tested to ANSI/ASME B16.34, MSS-SP-110 and API 598
- 1 All materials comply with applicable ASTM material specifications
- 1 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

1/2" to 3/4"  
Standard Port  
1/4" to 1/2"  
Full Port

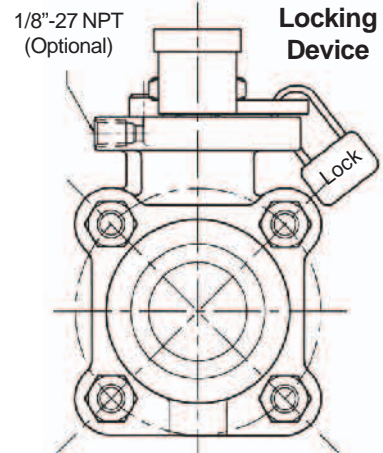


1" to 2 1/2"  
Standard Port  
3/4" to 2"  
Full Port



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	RTFE (15% C.F.)	2
6	Body Seal	PTFE	2
7	Body Bolt	304SS	4
8	Body Nut	304SS	4
9	Thrust Washer	PEEK	2
10	Stem O-Ring	Viton 90	1
11	Stem Packing Set	PTFE	1
12	Packing Gland	304SS	1
13	Belleville Washer	301SS	2
14	Gland Nut	304SS	1
15	Gland Nut Lock Washer	304SS	1
16	Stem Spacer	304SS	2
17	Positioning Pin	304SS	1
18	Handle	304SS	1
19	Handle Nut Lock Washer	304SS	1
20	Handle Nut	304SS	1
21	Handle Cover	Vinyl	1
22	ISO 5211 Stem Adapter <sup>1</sup>	304SS	1
23	Socket Set Screw <sup>1</sup>	304SS	1

<sup>1</sup> 1/4" to 1/2" Full Port, 3/4" Standard Port



Size		Dimensions (Inches)														
334F	334S	L	C	P	M	H	h	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	d <sub>1</sub>	d <sub>2</sub>	S	ISO 5211 Pattern	Wt. (lbs)
1/4	—	2.57	3.21	0.44	5.39	1.84	0.39	1.42	1.65	0.47	0.98	0.22	0.22	0.35	F03 / F04*	1.5
3/8	1/2	2.57	3.21	0.44	5.39	1.84	0.39	1.42	1.65	0.47	0.98	0.22	0.22	0.35	F03 / F04*	1.5
1/2	3/4	2.80	3.27	0.57	5.39	1.91	0.39	1.42	1.65	0.47	0.98	0.22	0.22	0.35	F03 / F04*	2.2
3/4	1	3.69	3.15	0.81	6.38	1.99	0.43	1.65	1.97	0.55	1.18	0.24	0.28	0.43	F04 / F05*	3.5
1	1 1/4	4.19	3.35	1.00	6.38	2.19	0.44	1.65	1.97	0.55	1.18	0.24	0.28	0.43	F04 / F05*	5.0
1 1/4	1 1/2	4.53	3.70	1.24	8.03	2.56	0.61	1.97	2.76	0.71	1.34	0.28	0.35	0.55	F05 / F07*	8.0
1 1/2	2	4.98	3.98	1.50	8.03	2.83	0.61	1.97	2.76	0.71	1.34	0.28	0.35	0.55	F05 / F07*	12.0
2	2 1/2	5.86	5.67	2.00	10.00	3.50	0.77	2.76	4.02	0.87	2.17	0.35	0.44	0.67	F07 / F10*	22.0

\* Direct mount with stem adapter bushing



Automation Systems



Direct Mount Products

## 334 Ordering Information

Example: 2" 3-Piece Standard Port Direct Mount Ball Valve, ISO 5211 Direct Mount Pad with Lever Handle and Locking Device, 316SS Body and Trim, RTFE (15% C.F.) Seats, PTFE Seals, NPT Ends

Valve Series	Valve Size	Body Material	End Material	Ball Material	Stem Material	Seat	Seal	End Connection <sup>1</sup>	Port	Ball Config.
<b>334S</b> - Standard Port	2 <sup>†</sup> 3 <sup>†</sup> 5	6 - A351 Gr. CF8M (316)	6 - A351 Gr. CF8M (316)	6 - A351 Gr. CF8M (316)	6 - A351 Gr. CF8M (316)	<b>C</b> - RTFE (15% C.F.) <b>D</b> - Delrin (PTFE Filled Acetal Homopolymer) <b>P</b> - PEEK (PTFE and Carbon Filled PEEK) <b>S</b> - Carbon, Carbon Fiber, Ekonol Filled PTFE <b>R</b> - RTFE (15% G.F.) <b>T</b> - PTFE <b>U</b> - UHMWPE	<b>T</b> - PTFE <b>B</b> - Buna N <b>G</b> - Grafoil <b>U</b> - UHMWPE <b>V</b> - Viton (Food Grade)	<b>T</b> - NPT <b>S</b> - Socket Weld <b>1</b> - Butt Weld Sch. 10 <b>4</b> - Butt Weld Sch. 40 <b>8</b> - Butt Weld Sch. 80 <b>G</b> - Grooved <b>A</b> - ANSI 150# Flanged <b>B</b> - ANSI 300# Flanged <b>P</b> - Compression <b>X</b> - Other	<b>2</b> - 2 Way	<b>S</b> - Straight Port
<b>334F</b> - Full Port	7 <b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>	3 - A351 Gr. CF3M (316L) 2 - A216 Gr. WCB	3 - A351 Gr. CF3M (316L) 2 - A216 Gr. WCB	7 - 17-4						

<sup>†</sup> Full Port Only

\* Standard Port Only

<sup>1</sup> Socket Weld and Butt Weld ends are A351 Gr. CF3M (316L)

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



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### INLINE INDUSTRIES, INC.

4701-A Littlejohn Street  
Baldwin Park, CA 91706  
Tel: (626) 813-6188  
Fax: (626) 813-6186  
[www.ballvalve.com](http://www.ballvalve.com)  
[info@ballvalve.com](mailto:info@ballvalve.com)