

514 3-Way Ball Valve

Full and Standard Port
ISO 5211 Direct Mount Pad



For Automated &
Manual Service

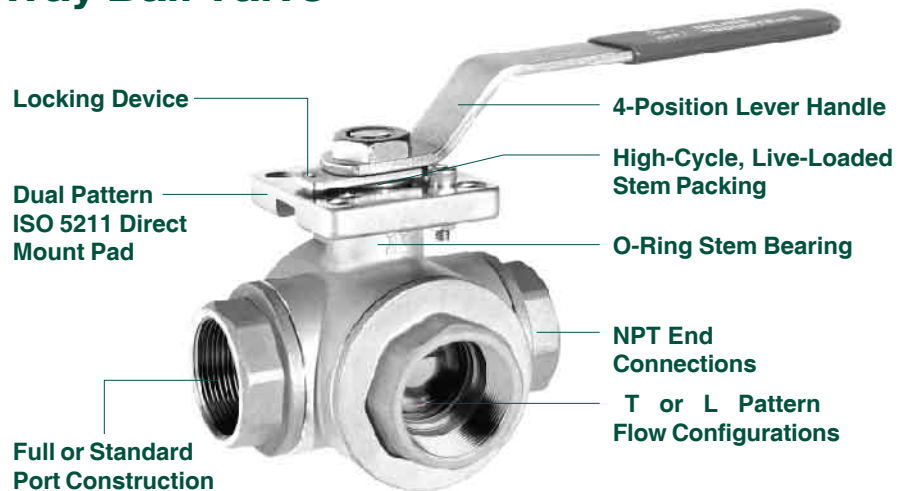
General Chemical

Industrial

and Other Corrosion
Resistant Applications

The 514 Series 3-Way Ball Valve

The 514 is a true 3-way ball valve with balanced 4-seat construction. It is available in both full and standard port with L and T flow configurations. Our unique dual pattern ISO 5211 mounting pad facilitates direct mounting of pneumatic and electric actuators.



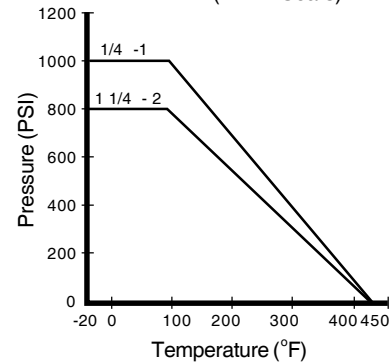
Standard Features and Benefits

- **Balanced 4-Seat Construction**
Unlike two seated diverter valves, the 514 series has four seats for positive shut-off. This true multiport function can reduce the number of valves required in a process system and gives engineers greater design flexibility
- **Dual Pattern ISO 5211 Direct Mount Pad**
No bracket or drive coupling needed for automation
Eliminates exposed moving parts for safer work environment
Direct drive eliminates play and improves actuator positioning
Dual pattern pad fits a wide range of actuator sizes
- **High-Cycle, Live-Loaded Stem Packing**
Ensures tight seal
Extends service life
- **O-Ring Stem Bearing**
Maintains stem alignment
Reduces packing side loading and wear
Enhances stem seal
- **Blow-Out-Proof Stem**
Stem is bottom loaded to prevent removal when valve is in service
- **Full Port Design**
Full port construction improves flow characteristics for greater process efficiencies
- **4-Position Lever Handle**
The lever handle can be positioned in any of four orientations for maximum piping flexibility
- **Locking Device**
Enables plant personnel to secure valve in open or closed position when manually operated

Options

- Available in standard port construction for applications where flow rates are not critical and economy is desired

514 Pressure / Temperature Chart
(RTFE Seats)

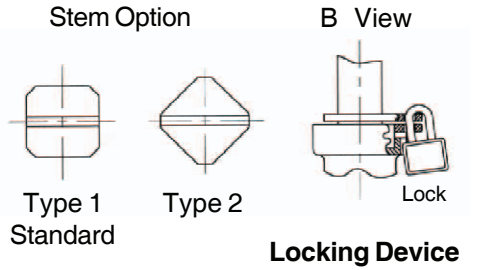
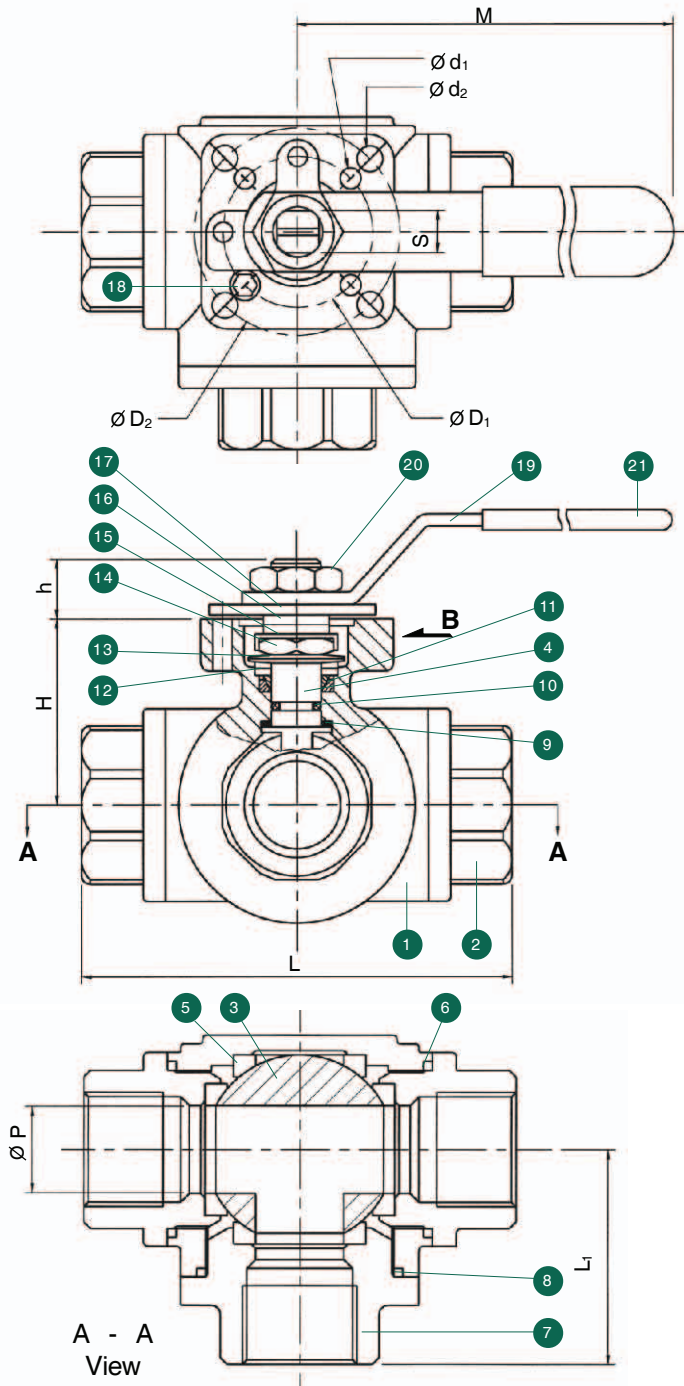


Operating Conditions

- Temperature range (RTFE):
-20°F ~ 420°F
- Maximum pressure (RTFE):
1000 PSI WOG (1/4 - 1),
800 PSI WOG (1 1/4 - 2)

Specifications

- All valves shell and seat tested to ANSI/ASME B16.34 and API 598
- All materials comply with applicable ASTM material specifications
- End connections: NPT to B1.20.1





Valve Components			
#	Part Name	Material	Qty.
1	Body	A351 Gr. CF8M	1
2	End Cap (small)	A351 Gr. CF8M	2
3	Ball	316SS	1
4	Stem	316SS	1
5	Seat	RTFE (15% C.F.)	4
6	Body Seal (small)	PTFE	2
7	End Cap (large)	A351 Gr. CF8M	1
8	Body Seal (large)	PTFE	1
9	Thrust Washer	PEEK	1
10	Stem O-Ring	Viton 90	1
11	Stem Packing Set	PTFE	1
12	Packing Gland	304SS	1
13	Belleville Washers	301SS	2
14	Gland nut	304SS	1
15	Gland Nut Lock Washer	304SS	1
16	Stem Spacer	304SS	2
17	Stop Plate	304SS	1
18	Positioning Pin	304SS	1
19	Handle	304SS	1
20	Handle Nut	304SS	1
21	Handle Cover	Vinyl	1

Size		Dimensions (Inches)												
514F	514S	L	L ₁	P	M	H	h	D ₁	d ₁	D ₂	d ₂	S	ISO 5211 Pattern	Wt. (lbs)
1/4		2.71	1.35	0.47	5.80	1.50	0.36	1.42	0.24	1.65	0.24	0.354	F03 / F04*	1.5
3/8	1/2	2.71	1.35	0.47	5.80	1.50	0.36	1.42	0.24	1.65	0.24	0.354	F03 / F04*	1.5
1/2	3/4	3.14	1.57	0.59	5.80	1.60	0.36	1.42	0.24	1.65	0.24	0.354	F03 / F04*	2.0
3/4	1	3.77	1.89	0.79	6.50	1.91	0.51	1.65	0.24	1.97	0.28	0.433	F04 / F05*	3.0
1	1 1/4	4.37	2.18	1.00	7.70	2.14	0.51	1.65	0.24	1.97	0.28	0.433	F04 / F05*	4.5
1 1/4	1 1/2	4.80	2.40	1.25	9.85	2.48	0.63	1.97	0.28	2.76	0.37	0.551	F05 / F07*	7.0
1 1/2	2	5.67	2.84	1.50	9.85	2.89	0.63	1.97	0.28	2.76	0.37	0.551	F05 / F07*	11.0
2		6.68	3.34	2.00	12.30	3.63	0.87	2.76	0.37	4.02	0.45	0.669	F07 / F10*	20.0

* Direct mount with stem adapter bushing

Flow Pattern Options

T Pattern			L Pattern		
No.	Turn	Positions	No.	Turn	Positions
01	90°	A & B	01	90°	A & B
02	90°	B & C	12	180°	A & B & C
03	90°	C & D	41	180°	D & A & B
04	90°	D & A	00	360°	All
12	180°	A & B & C			
23	180°	B & C & D			
34	180°	C & D & A			
41	180°	D & A & B			
00	360°	All			

Flow Entry		Flow typically enters from either side of the run	Flow Entry		Flow typically enters from the branch
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514 Ordering Information

Example: 2 Full Port Direct Mount Ball Valve, 316SS Body and Trim, RTFE (15% C.F.) Seats and PTFE Seals, 3-Way T-Port, Flow Pattern 01*, NPT Ends, ISO 5211 Direct Mount Pad with Lever Handle and Locking Device (Standard)

514F	20	S6				3L	01		M
Valve Series	Valve Size	Body Material	Trim Material	Seat	Seal	Ball & Port Configuration	Flow Pattern*	End Connection	Actuation
514F - Full Port	02 1/4	S6 - A351 Gr.	None - A351 Gr.	None - RTFE (15% C.F.)	None - PTFE	3L - 3 Way L Port	00	None - NPT	M - ISO 5211 Direct Mount Pad with Lever Handle and Locking Device (Standard)
514S - Standard Port	03 3/8 04 1/2 06 3/4 10 1 12 1 1/4 14 1 1/2 20 2	CF8M	CF8M			3T - 3 Way T Port	01 02 03 04 12 23 34 41		AP - Pneumatic AE - Electric

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

* See Flow Pattern Options.

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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
 info@ballvalve.com

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