

514F 3-Way Ball Valve

Full Port
ISO 5211 Direct Mount Pad



For Automated &
Manual Service

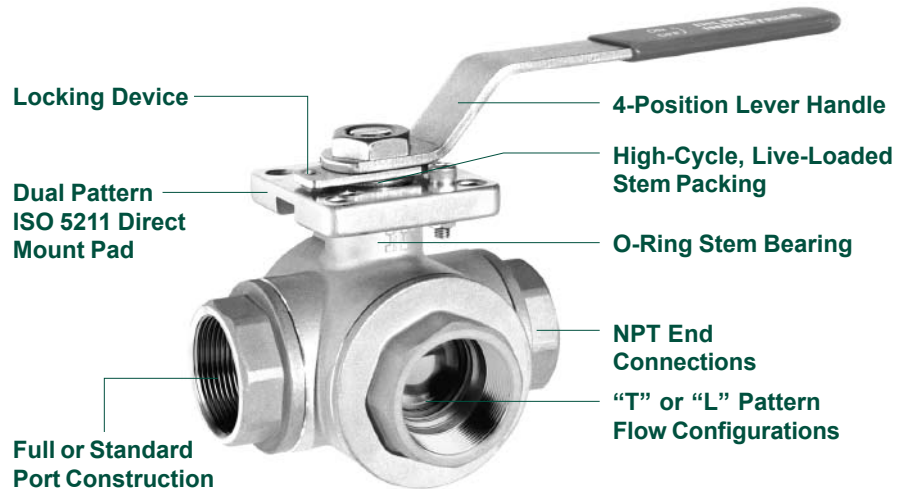
General Chemical

Industrial

and Other Corrosion
Resistant Applications

The 514F 3-Way Ball Valve

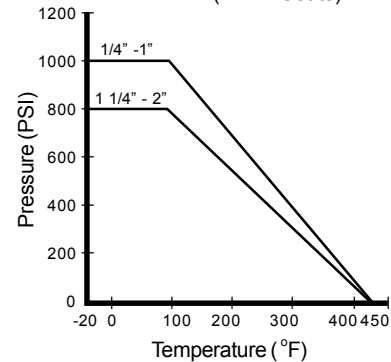
The 514F is a true 3-way ball valve with balanced 4-seat construction. It is available in full port with “L” and “T” flow configurations. Our unique dual pattern ISO 5211 mounting pad facilitates direct mounting of pneumatic and electric actuators.



Standard Features and Benefits

- **Balanced 4-Seat Construction**
Unlike two seated diverter valves, the 514 series has four seats for positive shut-off and balancing the ball.
- **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

514F Pressure / Temperature Chart
(RTFE Seats)

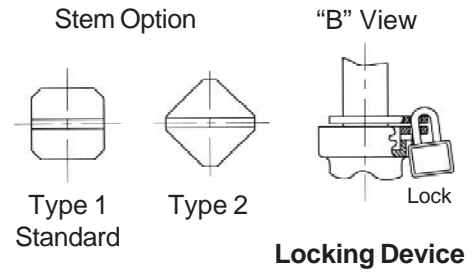
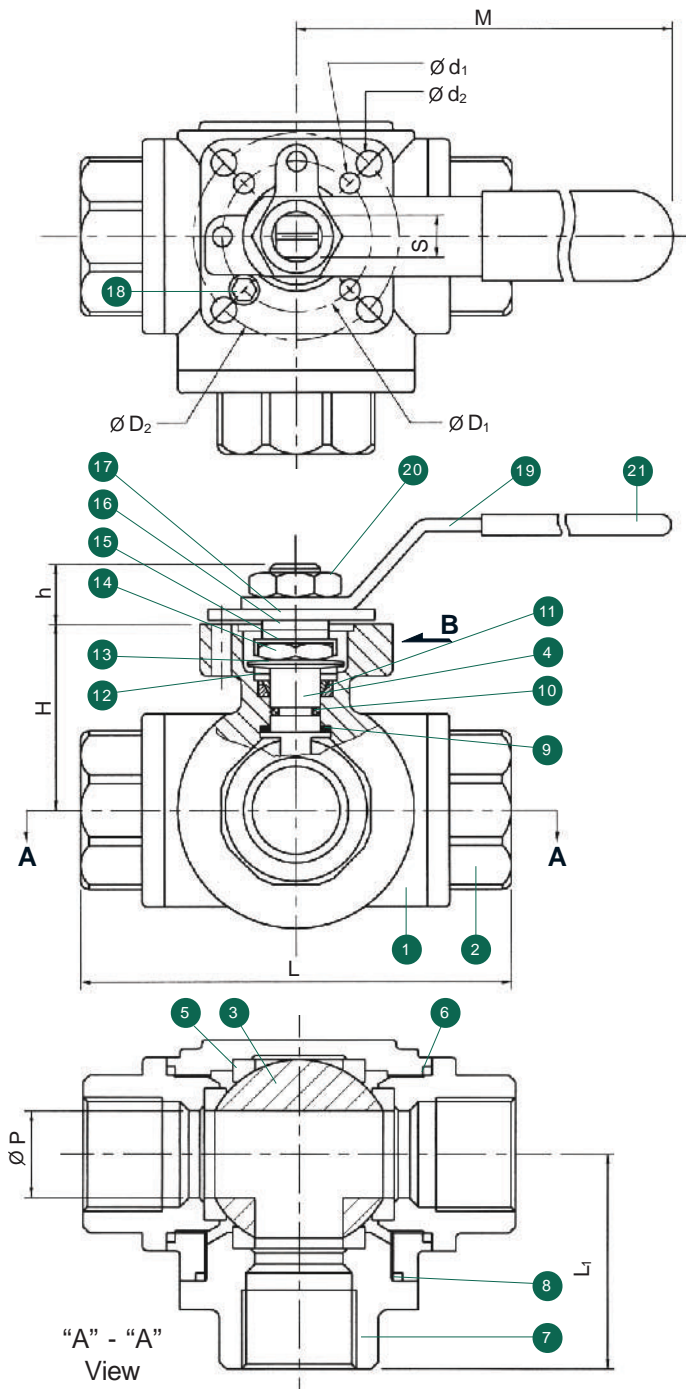


Operating Conditions

- 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)												
	L	L ₁	P	M	H	h	D ₁	d ₁	D ₂	d ₂	S	ISO 5211 Pattern	Wt. (lbs)
514F													
1/4	2.71	1.35	0.47	5.80	1.50	0.36	1.42	0.24	1.65	0.24	0.35	F03 / F04*	1.5
3/8	2.71	1.35	0.47	5.80	1.50	0.36	1.42	0.24	1.65	0.24	0.35	F03 / F04*	1.5
1/2	3.14	1.57	0.59	5.80	1.60	0.36	1.42	0.24	1.65	0.24	0.35	F03 / F04*	2.0
3/4	3.77	1.89	0.79	6.50	1.91	0.51	1.65	0.24	1.97	0.28	0.43	F04 / F05*	3.0
1	4.37	2.18	1.00	7.70	2.14	0.51	1.65	0.24	1.97	0.28	0.43	F04 / F05*	4.5
1 1/4	4.80	2.40	1.25	9.85	2.48	0.63	1.97	0.28	2.76	0.37	0.55	F05 / F07*	7.0
1 1/2	5.67	2.84	1.50	9.85	2.89	0.63	1.97	0.28	2.76	0.37	0.55	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	0.67	F07 / F10*	20.0

* Direct mount with stem adapter bushing

Flow Pattern Options

3 Way - Side Entry, T-Port (5T)				3 Way - Side Entry, L-Port (5L)			
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					

514F Ordering Information

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

Valve Series	Valve Size	Body Material	End Material	Ball Material	Stem Material	Seat	Seal	End Connect.	Port Config.	Ball Config.	Flow Pattern*
514F - Full Port	2 1/4" 3 3/8" 5 1/2" 7 3/4" A 1" B 1 1/4" C 1 1/2" D 2"	6 - A351 Gr. CF8M (316)	6 - A351 Gr. CF8M (316)	6 - A351 Gr. CF8M (316)	6 - A351 Gr. CF8M (316)	C - RTFE (15% C.F.)	T - PTFE	T - NPT	5 - 3 Way Side Entry	L - Side Entry L-Port T - Side Entry T-Port	00 01 02 03 04 12 23 34 41

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

* See Flow Pattern Options.

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