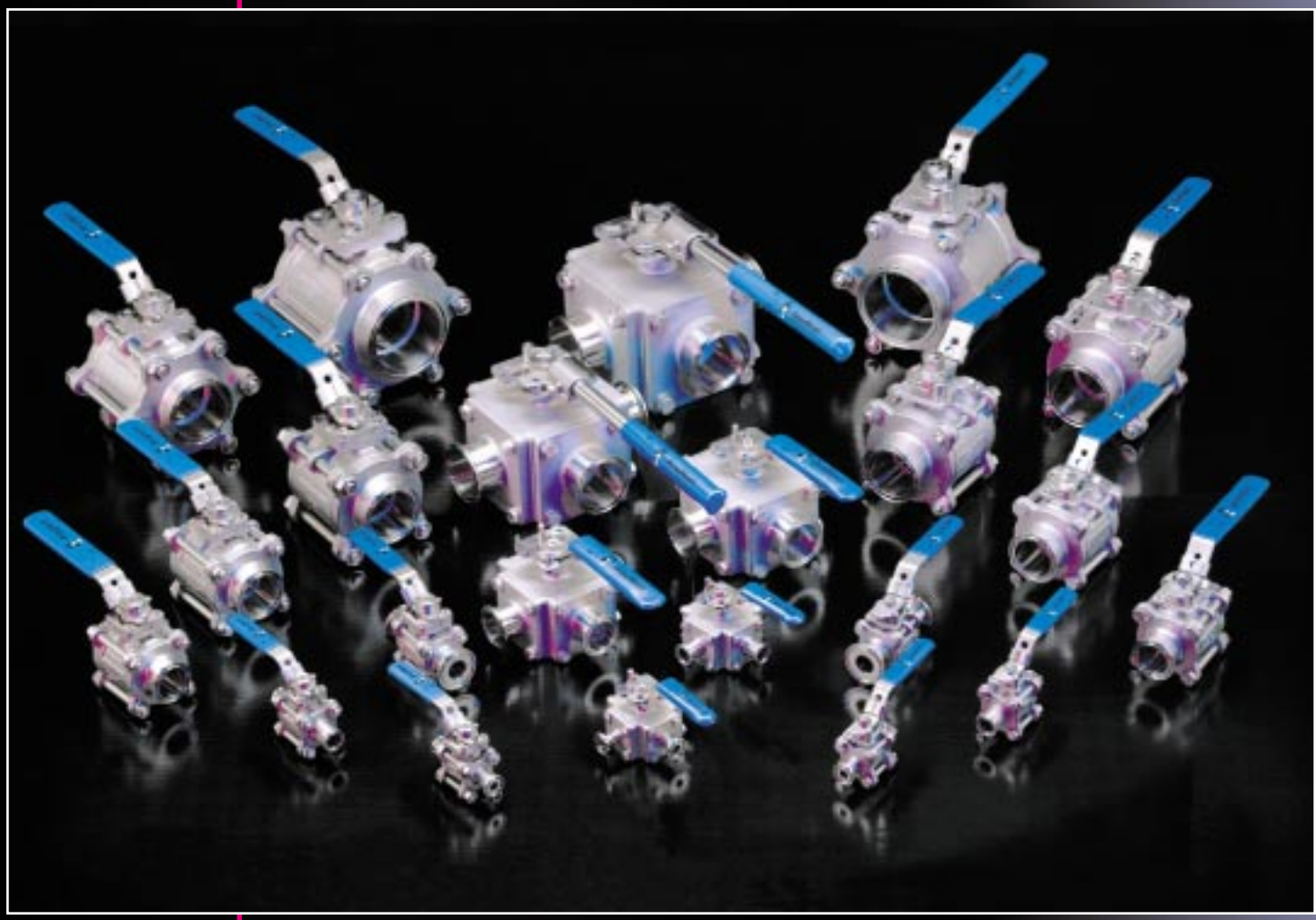
get control with

ball valves



Bradford Company, Inc.

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ball valves

clamps

end caps

hangers

ferrules

elbows

tees

laterals

reducers

valves

gaskets

Get control...

Businesses from food and beverage to pharmaceutical and cosmetics have trusted **Bradford** sanitary ball valves for many years. The reason: **Bradford** has the valves they need in many locations.

Bradford offers many different ball valves:

- **fully encapsulated 3A approved with virgin teflon**
- **fully encapsulated hot valve with 25% carbon reinforced teflon**
- **non-encapsulated 15% fiberglass reinforced teflon**
- **three way "L" or "T" port fully encapsulated 3A approved with virgin teflon**
- **four- and five-way fully encapsulated (call for availability).**

Bradford stocks ball valves with clamp ends from ½″ – 4″, in many warehouses across the country. We can also supply butt-weld ends. I-line and bevel seat ends can be produced from 1″ – 4″ from our stock of ferrules. Please allow one week for delivery.

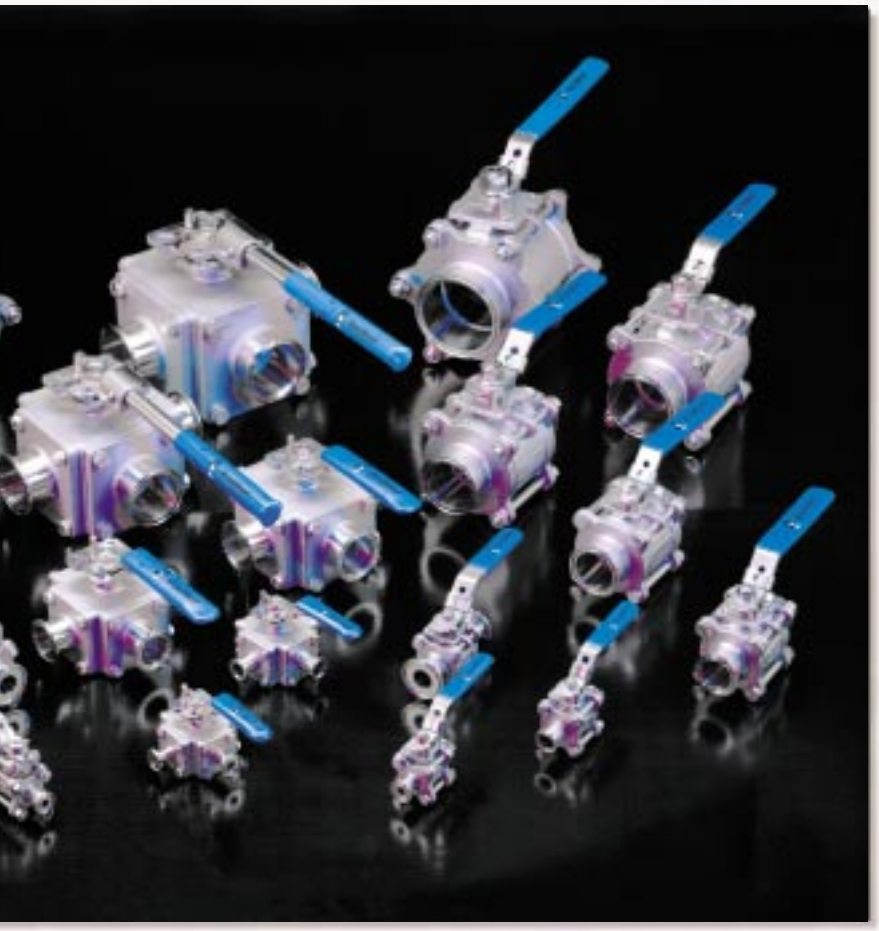
Actuators can be installed on any ball valve. We offer double acting, air to spring or electric. Please call for delivery as availability varies according to the requirements. It's a waiting for shipment to you (or your customers) within a day of your call. If your application demands quality,

get control with Bradford.

Bradford Co., Inc. stands behind its products. If, within one year of shipment, any part fails to perform to your satisfaction because of defects in material or workmanship, return the part and Bradford will, at our option, repair or replace it.

Note: Dimensions are approximate. Engineering dimensions available on request. Specifications are subject to change without notice. Some items may not be in stock. Please allow at least 4 weeks for special orders. Inquiries welcome on items available in future or not pictured.

with ball valves



contents

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3A International Association of Food Industry Suppliers

Bradford quality: maintaining the 3A standard

The 3A Sanitary Standard was created by the dairy industry as a voluntary benchmark for product performance and sanitary safety. The standard, collaboratively developed by a group of processors, suppliers, regulatory officials and sanitation specialists, is generally accepted by federal, state and local regulatory authorities.

Our products have earned the 3A symbol, which requires an annual assessment to make certain each product conforms in all respects to the published standard.

Bradford Co., Inc. is proud to be a participant in the 3A program.

product specifications

size range:
- ½″ – 4″ inch OD

materials:
- 316 passivated (stock)

type:
- clamp ends (stock)
- polished OD ends available
- other ends available

Some items may not be in stock. Call for price and availability. If your part is not listed, call us; we may still be able to get it for you.

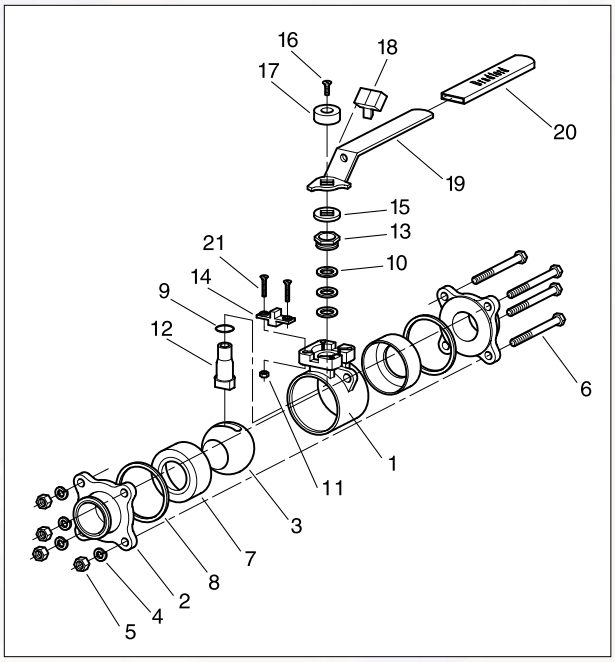
ordering instructions

specify:
- quantity
- product description and Bradford part number
- size
- material type
- polish requirements
- ship to address

ball valve

2-way 3-piece encapsulated

- **fully encapsulated (no need for cleaning ports)**
- **rated at 1,000 psi WOG (water, oil and gas)**
- **blow-out-proof stem design**
- **three piece construction for easy field repair with swing out design**
- **operating parts are stainless steel type CF8M (316) conforming to ASTM A351, solution annealed and passivated for corrosion resistance**
- **all major parts are traceable for chemistry**
- **integral ISO 5211 mounting pad**
- **I/D polish is RA 12 minimum**
- **lock handle can prevent accidental actuation when used**
- **full port for self-draining**
- **15% fiberglass reinforced PTFE seats available (special order – recommended for non-sanitary applications, with temperatures over 250°F)**
- **25% carbon filled fully encapsulated teflon for those very hot applications (marked with a red handle)**



materials list

item #	part name	material	qty.
1	body	CF8M/316	1
2	end cap	CF8M/316	2
3	ball	CF8M/316	1
4	bolt washer*	304	4
5	bolt nut*	304	4
6	bolt*	304	4
7†	ball seat	PTFE††	2
8†	body seal	PTFE††	2
9†	thrust washer	PTFE	1
10†	stem seal	PTFE	3
11	stop nuts	304	1
12	stem	316	1
13	gland nut	304	1
14	stopper	304	1
15	washer	304	1
16	handle bolt	304	1
17	handle cap	304	1
18	locking plate	304	1
19	handle	304	1
20	handle cover	plastic	1
21	stopper bolt	304	2

* 3″ and 4″ – 6 each. † Repair kits available #BVRK.
†† optional 25% carbon fill or 15% fiberglass fill.

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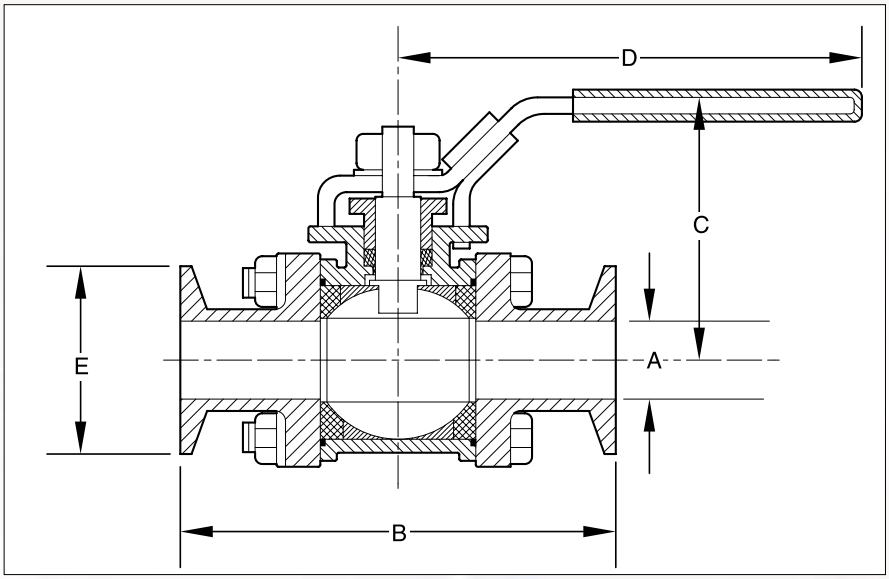
2-way 3-piece encapsulated



dimensions

size	A	B	C	D	E
			B13VCFH/B13BVCF		
½″	0.37	3.64	2.50	4.90	0.992
¾″	0.62	4.13	2.64	4.90	0.992
1″	0.87	4.49	3.27	5.51	1.984
1 ½″	1.37	4.86	3.94	7.88	1.984
2″	1.87	5.71	4.25	7.88	2.516
2 ½″	2.37	6.97	5.90	9.84	3.047
3″	2.87	7.60	6.33	9.84	3.579
4″	3.84	9.29	7.09	11.42	4.682

B13VCFH has 25% reinforced PTFE & a red handle.

standard seat material properties

property	PTFE
temperature range	40°F to 310°F*
acid resistance	excellent
alkali resistance	excellent
petroleum oil resistance	excellent
vegetable oil resistance	excellent
abrasion resistance	excellent
compression set	cold flows

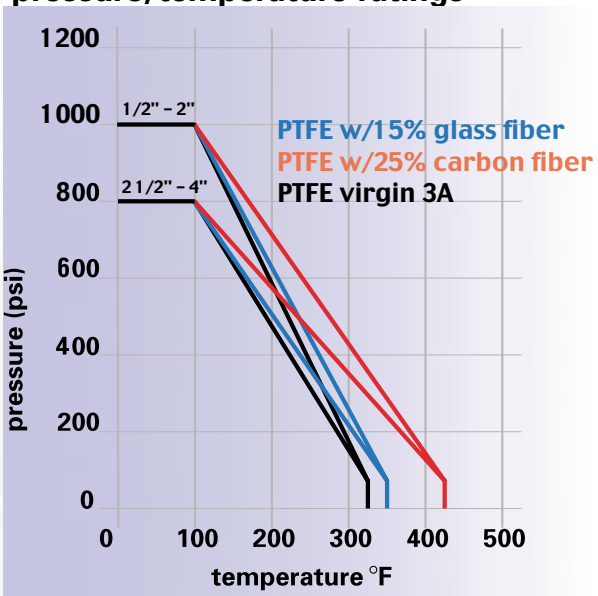
*Cannot withstand for prolonged periods.

torque & weight

size	width	weight lbs	assembly torque in-lbs	assembly bolts	break torque in-lbs*
½″	1.95	1.5	160	4	292
¾″	2.13	1.9	160	4	292
1″	2.40	2.7	160	4	292
1 ½″	3.19	4.8	280	4	664
2″	3.98	8.9	212	4	664
2 ½″	4.84	18.7	221	4	797
3″	5.59	29.7	239	6	1328
4″	7.87	43.6	266	8	1770

* use for sizing value for actuation

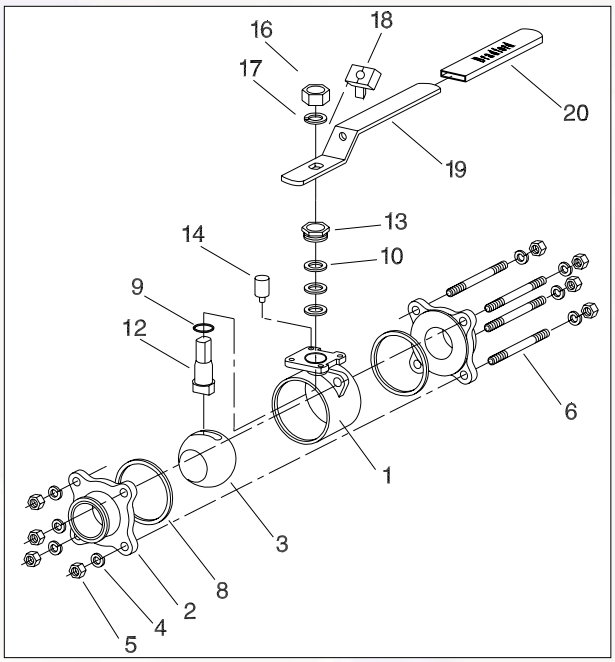
pressure/temperature ratings



ball valve

2-way 3-piece non-encapsulated

- **15% fiberglass reinforced PTFE**
- **rated at 1,000 psi WOG (water, oil and gas)**
- **blow-out-proof stem design**
- **three piece construction for easy field repair with swing out design**
- **operating parts are stainless steel type CF8M (316) conforming to ASTM A351, solution annealed and passivated for corrosion resistance**
- **all major parts are traceable for chemistry**
- **integral ISO 5211 mounting pad**
- **I/D polish is RA 12 minimum**
- **lock handle can prevent accidental actuation when used**
- **full port for self-draining.**



materials list

item #	part name	material	qty.
1	body	CF8M/316	1
2	end cap	CF8M/316	2
3	ball	CF8M/316	1
4	bolt washer*	304	4
5	bolt nut*	304	4
6	bolt*	304	4
8†	body seal	PTFE/	2
9†	thrust washer	PTFE/	1
10†	stem seal	PTFE/	3
11	stop nuts	304	1
12	stem	316	1
13	gland nut	304	1
14	stopper	CF8	1
15	washer	304	1
16	handle bolt	304	1
17	handle cap	304	1
18	locking slide	304	1
19	handle	304	1
20	handle cover	plastic	1
21	stopper bolt	304	2

*3″ and 4″ – 6 each.
†Repair kits available #BVRK.

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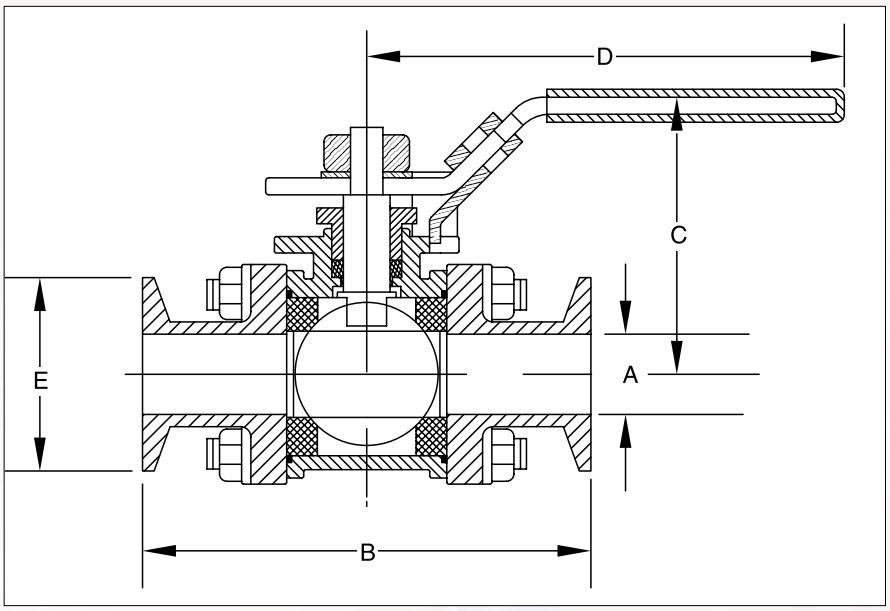
2-way 3-piece non-encapsulated



dimensions

size	A	B	C	D	E
				B13BV	
½″	0.375	3.474	2.600	0.998	1.945
¾″	0.625	3.972	2.712	1.000	2.120
1″	0.880	4.495	2.870	1.985	2.300
1 ½″	1.375	5.552	3.658	1.989	3.812
2″	1.871	6.145	3.978	2.515	3.745
2 ½″	2.372	7.746	5.148	3.053	4.896
3″	2.870	9.015	6.819	3.580	5.400
4″	3.843	9.583	6.676	4.680	8.950

torque & weight

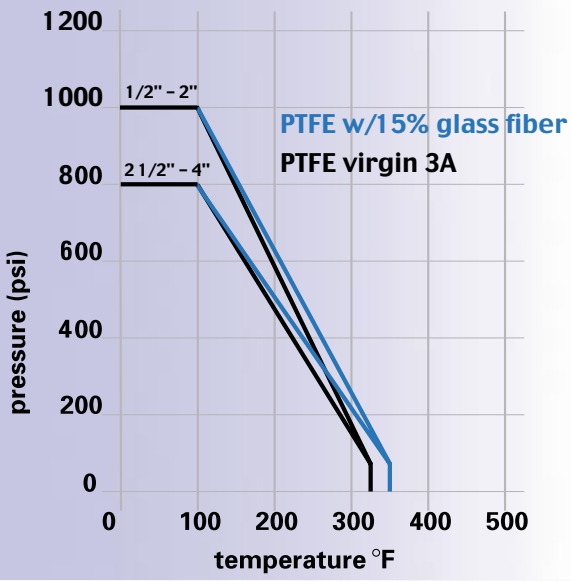
size	width	weight lbs	assembly torque in-lbs	assembly bolts	break torque in-lbs
½″	1.52	1.5	150	4	46
¾″	1.84	1.9	150	4	62
1″	2.78	2.7	150	4	113
1 ½″	5.68	4.8	280	4	294
2″	8.28	8.9	285	4	356
2 ½″	17.28	18.7	330	4	545
3″	23.86	29.7	600	4	722
4″	44.28	43.6	650	4	1286

seat material properties

property	PTFE (15% fiberglass filled)
temperature range	40°F to 350°F*
acid resistance	excellent
alkali resistance	excellent
petroleum oil resistance	excellent
vegetable oil resistance	excellent
abrasion resistance	excellent
compression set	cold flows

*Cannot withstand for prolonged periods.

pressure/temperature ratings



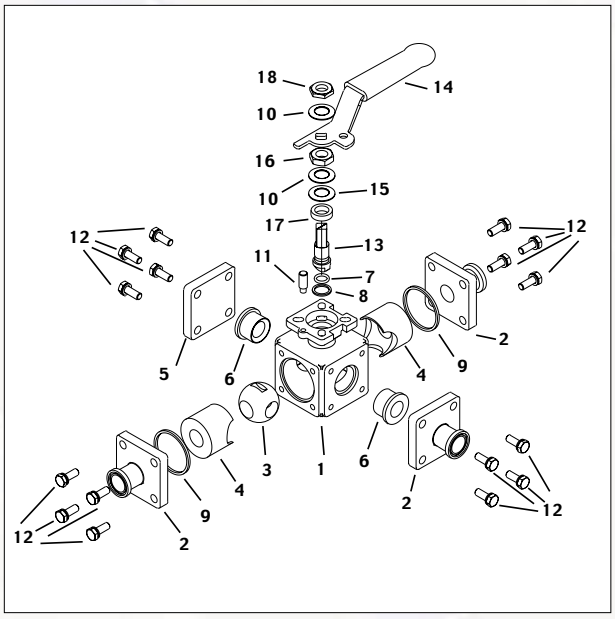
ball valve

3-way encapsulated

- balanced 4-seat construction
- live loaded stem packing
- multiple flow patterns
- PTFE seats
- operating parts are stainless steel type CF-8M (316) conforming to ASTM A351, solution annealed and passivated for corrosion resistance
- all major parts are traceable for chemistry
- I/D polish is RA 12 minimum
- temperature range -20°F – 325°F
- maximum pressure 1000psi (1/2″ – 2″) 600psi (3″ – 4″).

- 3-way L&T design available (see flow chart)
- 4-way bottom or side entry (see flow chart)
- 5-way L&T design available (see flow chart)

Note: 4 & 5-way valves in development (10/01); available soon



materials list

item #	part name	material	qty.
1	body	CF-8M(316)	1
2	end cap	CF-8M(316)	3
3	ball	CF-8M(316)	1
4	seat	PTFE	2
5	cover plate	CF-8M(316)	1
6	seat	PTFE	2
7	o-ring	Viton®	1
8	thrust washer	PTFE	1
9	o-ring gasket	PTFE	2
10	washer	301	2
11	stop pin	316	1
12	bolt	304	16
13	stem	316	1
14	handle	304	1
15	spring washer	304	1
16	gland nut	304	1
17	stem packing	PTFE	3
18	handle nut	304	1

4-way & 5-way valves: call for availability

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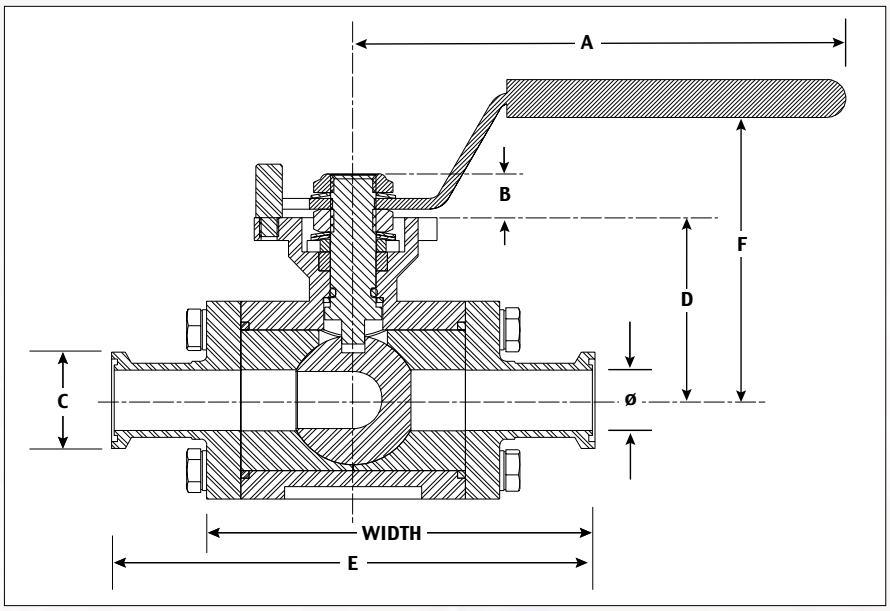
3-way encapsulated



dimensions B13BVCF3WL/T

size	A	B	C	D	E†	F	ø
½″	4.75″	0.35″	0.992″	1.75″	4.64″	3.00″	.37″
¾″	4.75″	0.35″	0.992″	1.88″	5.00″	3.25″	.62″
1″	5.40″	0.43″	1.984″	2.32″	6.00″	3.50″	.87″
1½″	7.20″	0.55″	1.984″	2.83″	6.88″	4.33″	1.38″
2″	7.20″	0.55″	2.516″	3.25″	7.50″	4.50″	1.87″
2½″*	14.50″	0.67″	3.047″	3.90″	8.97″	4.25″	2.37″
3″*	15.75″	0.90″	3.579″	5.00″	10.25″	5.28″	2.87″
4″*	15.75″	0.90″	4.682″	5.39″	11.53″	5.75″	3.83″

*Tubular handle.
† Clamp dimensions shown. Other ends available.

torque & weight

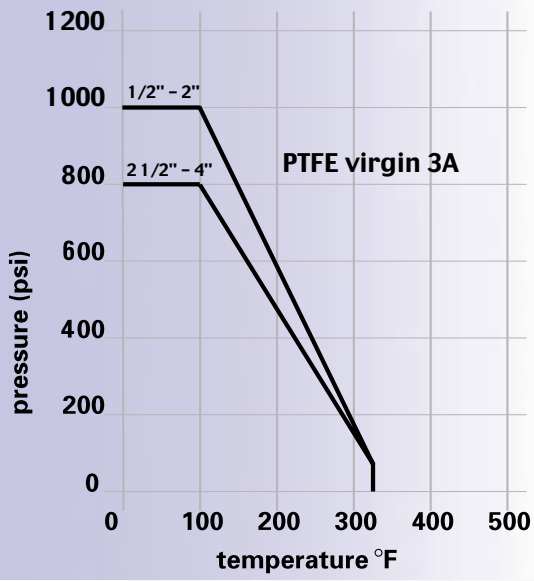
size	width	weight lbs	assembly torque in-lbs	break torque in-lbs
½″	3.90″	3.60	123	44
¾″	4.25″	4.30	123	44
1″	5.00″	6.80	160	70
1½″	5.90″	12.60	177	146
2″	6.94″	21.60	212	165
2½″	7.63″	33.70	212	365
3″	8.75″	56.40	230	565
4″	10.25	85.40	310	695

seat material properties

property	PTFE
temperature range	40°F to 325°F*
acid resistance	excellent
alkali resistance	excellent
petroleum oil resistance	excellent
vegetable oil resistance	excellent
abrasion resistance	excellent
compression set	cold flows

*cannot withstand for prolonged periods

pressure/temperature ratings

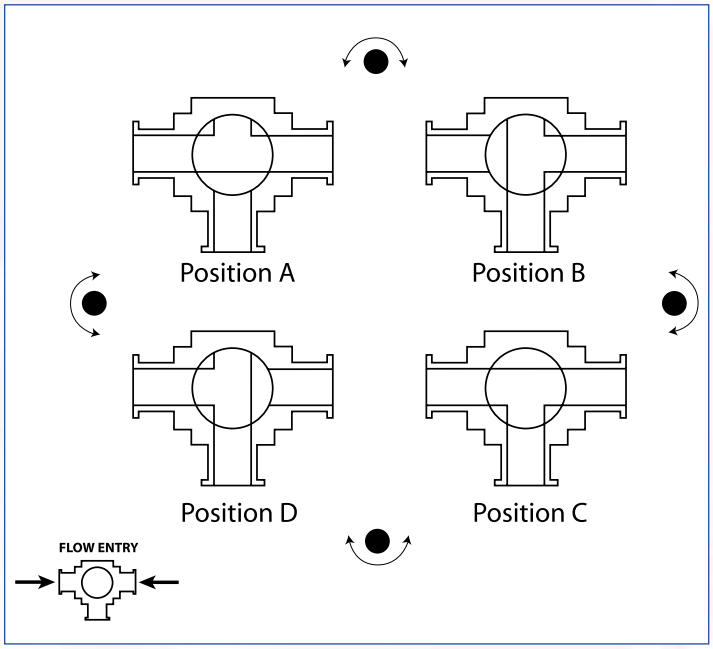


flow plan options

3-way encapsulated

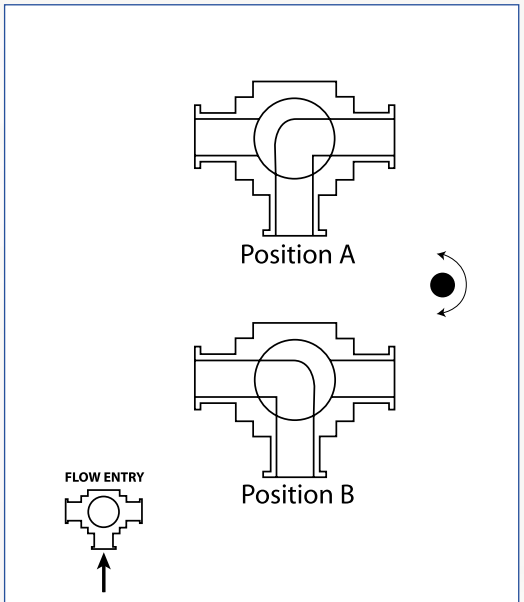
3-way – side entry "T" pattern

Flow typically enters from either side of run.



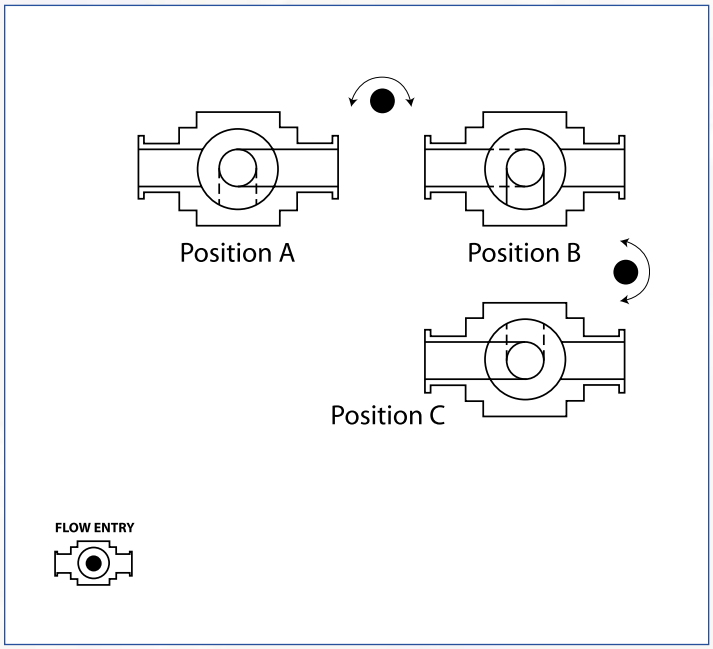
3-way – side entry "L" pattern

Flow typically enters from branch.



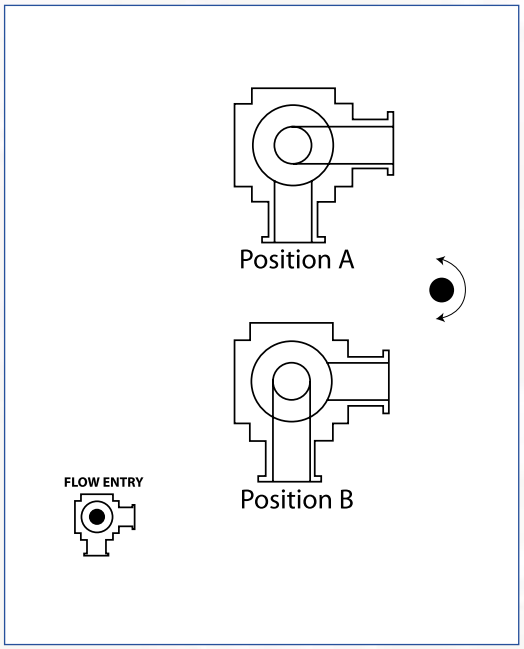
3-way – bottom entry 1 "LL" 90° or "L" 180°

Flow typically enters from bottom of valve.



3-way – bottom entry 2 "L" pattern

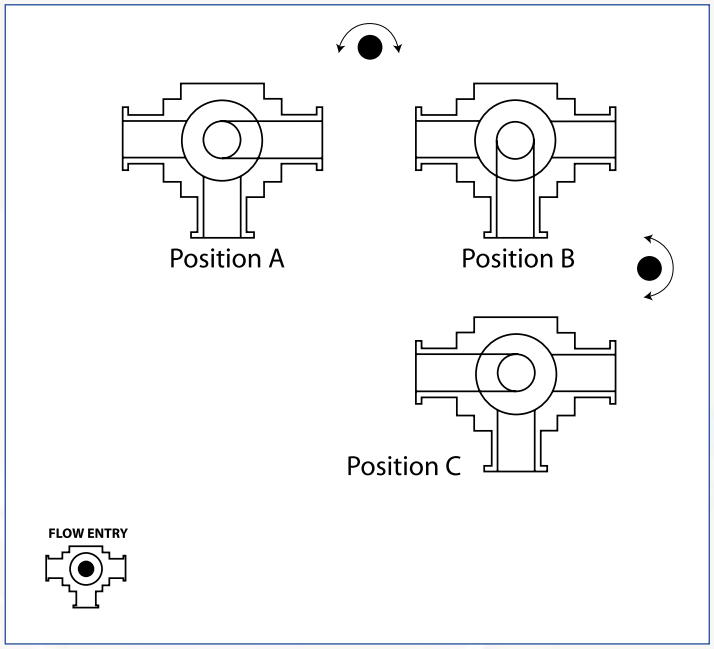
Flow typically enters from bottom of valve.



4-way encapsulated, 5-way encapsulated

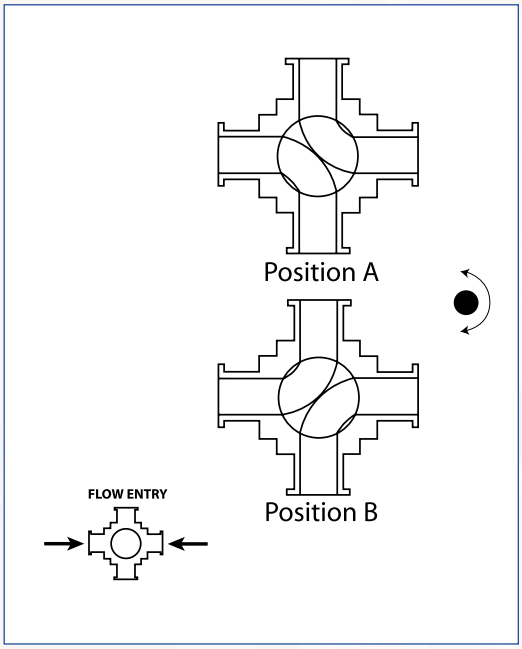
4-way – bottom entry "L" pattern

Flow typically enters from bottom of valve.



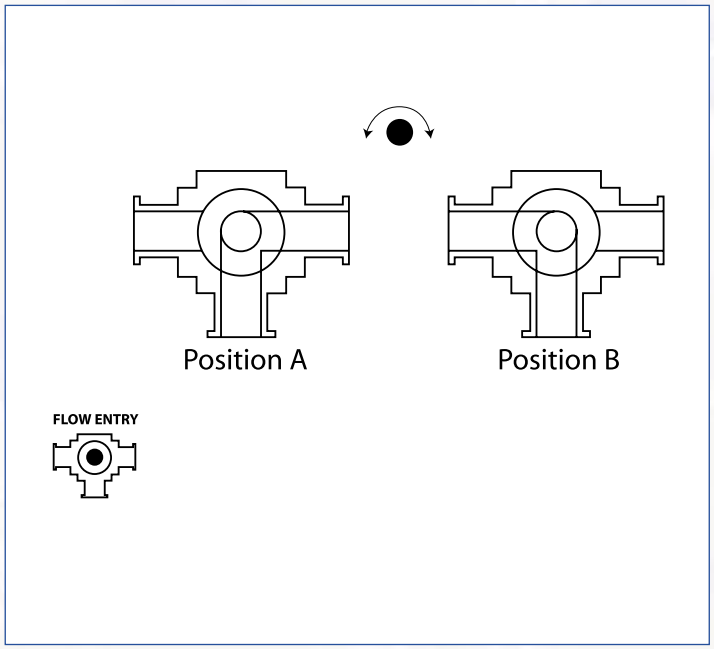
4-way – side entry "LL" pattern

Flow typically enters from bottom of valve.



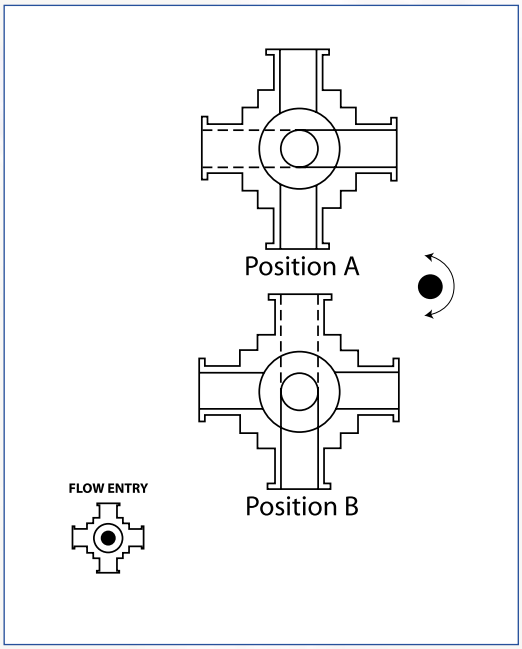
4-way – bottom entry "LL" pattern

Flow typically enters from bottom of valve.



5-way "L" or "T" pattern

Flow typically enters from bottom of valve.



Note: 4 & 5-way valves in development (10/01); call for availability.

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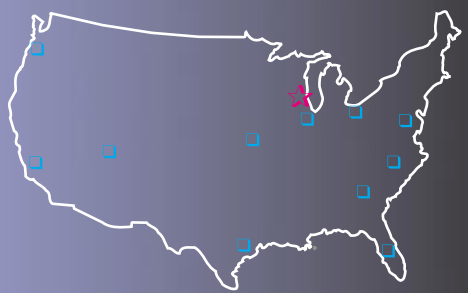

multiple locations to serve you more efficiently

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PO Box 33 • Elm Grove, WI 53122-0033
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