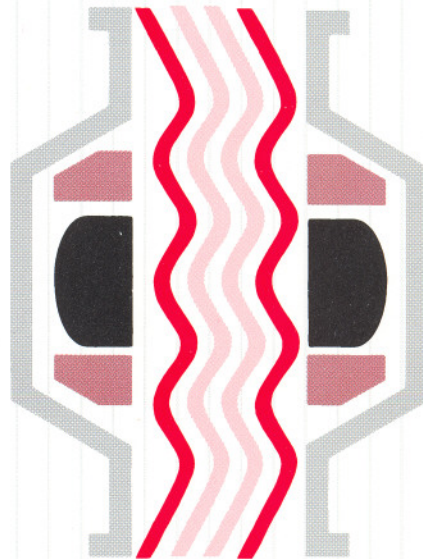




SANITARY MANUAL BALL VALVES



LEE FLUID TRANSFER

SANITARY

Multi-Port, In-Line **FluidFlow** Ball Valves

Fluid Transfer's exclusive multi-port, in-line Fluid-Flow ball valves are precision made of Type 316 stainless steel. They are designed for rigid corrosion-resistant, sanitary applications in the food, cosmetic, pharmaceutical, beverage, and chemical industries. The solid construction of Fluid-Flow valves provides maximum reliability and failure-free performance under the most extreme conditions. Cleanup and maintenance costs are substantially reduced due to the unique, simple design that allows extremely fast breakdown . . . by hand . . . no special tools required. Fluid-Flow valves can also be used in C.I.P. systems.

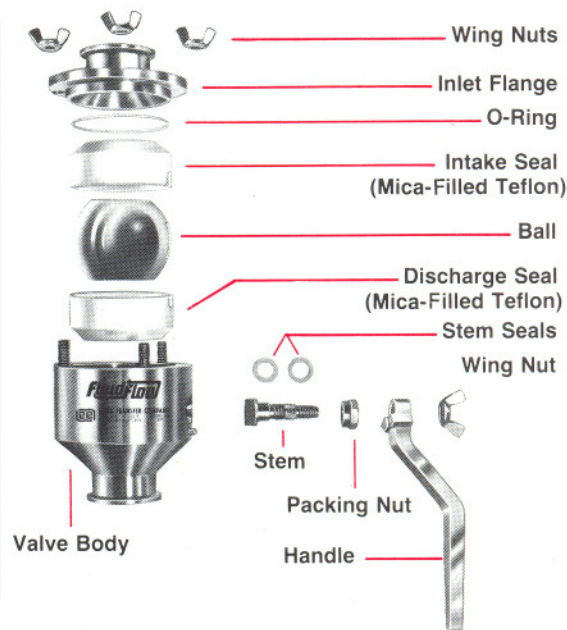
Standard full design seals provide the maximum reduction in product entrapment while full flow ports (also standard) eliminate product flow restrictions. Fully encapsulating Mica-filled Teflon seals are standard on the two-way in-line valve. Solid Teflon seals are available as an option. The three-way in-line valve, as a standard, is supplied with solid Teflon seals. Some applications may require Mica-filled Teflon three-way seals. These are offered as an option. Another standard feature on both the two and three-way in-line valves is a polished #4 ID (3A standard). A polished #4 ID/OD is offered as an option. Electropolish is also available. While other ball valves only meet minimum requirements, Fluid Transfer's Fluid-Flow valves are USDA approved and meet 3A standards.

Sizes range from 1 1/2" to 4". The two-way valve has a working pressure to 300 PSIG and a maximum working temperature of 450°F. Three-way valves have a working pressure to 150 PSIG and a maximum working temperature of 300°F (for increased pressures to 300 PSIG and temperatures to 450°F, request Mica-filled seals). In-line Fluid-Flow ball valves are available as standard with *Tri-Clamp, **In-line, or Sanitary Acme thread and other connections are available upon request.

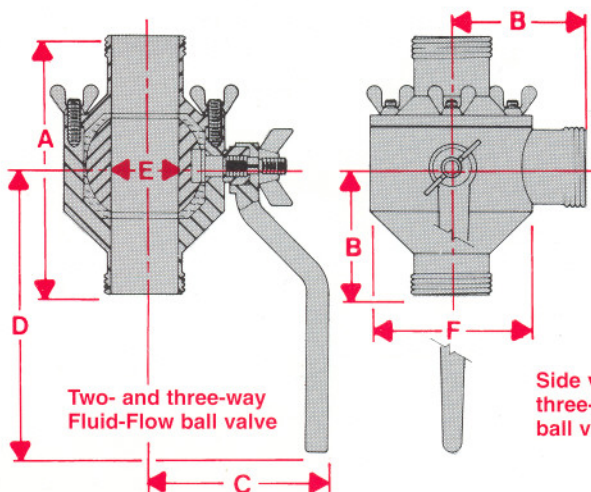
Features

- All stainless steel and Mica-filled Teflon construction Type 316 product contact parts.
- Two piece totally encapsulating Mica-filled Teflon seals eliminate voids in which product may accumulate.
- Valve port fully nominal diameter.
- Unobstructed product flow.
- Type outlets: *Tri-Clamp connectors, **In-line and Sanitary Acme Threads, ASA flanges, 150 or 300 PSIG rating.
- Handle doubles as a wrench to tighten packing nut.
- Easily disassembles in less than thirty seconds.

*Registered trademark Ladish Co. **Registered trademark



Schematic section and dimensions



VALVE SIZE	A	B	C	D	E	F	WEIGHT (LBS.)	
							Two-Way	Three-Way
1 1/2"	5 13/16"	2 29/32"	4 1/8"	6 7/16"	1 1/2"	3 5/8"	7	6 1/2
2"	6 13/16"	3 13/32"	4 1/2"	6 7/16"	2"	4 1/8"	9	8 1/2
3"	9 7/16"	4 23/32"	5"	8 1/4"	3"	5 5/8"	21	20
4"	13 1/16"	6 17/32"	6 3/8"	16"	4"	7 1/4"	50 1/2"	48 1/2

Above dimensions are identical for sanitary Acme tread, sanitary quick clamp connectors, and ASA flanges.

U.S. Patent Nos. 3,614,056 and 4,177,832

SANITARY

Flush-Type *FluidFlow* Ball Valves

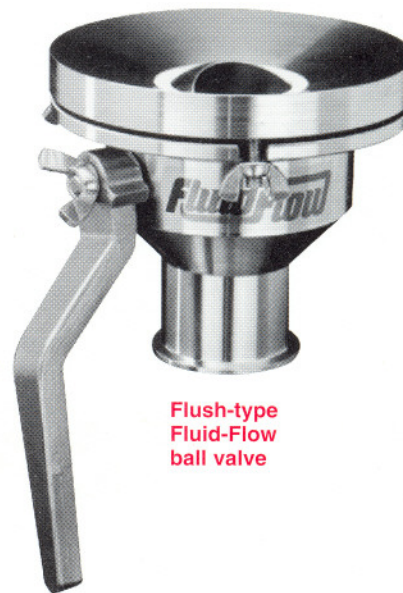
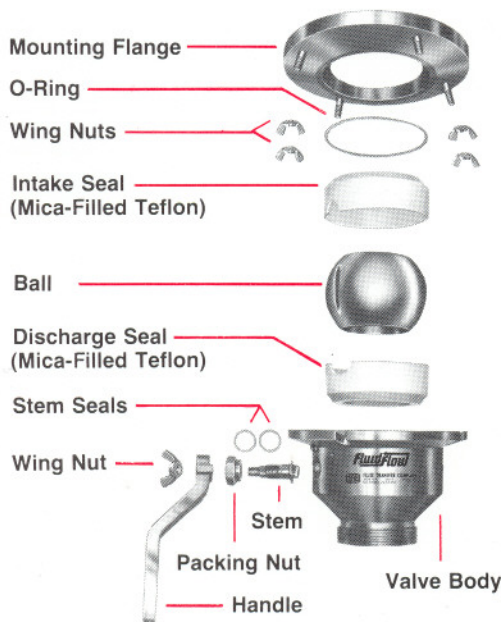
- Meets 3A standards.
- Approved by USDA.
- Each valve is tested before shipment. The maximum working pressure is 300 PSIG.
- Maximum working temperature is 450°F.
- Face-to-face dimension is interchangeable with sanitary plug valves.
- In-line adjustment to compensate for seal wear.
- Mounting flange is easily welded to any style of tank bottom: hemispheric, dished, flat, cone, etc.***
- Flush with bottom of vessel.***

mark of Cherry Burrell Co. ***Flush type Only.

Fluid Transfer's flush-type Fluid-Flow ball valves assure an unobstructed full port product flow. Unlike other ball valves, Fluid-Flow ball valves are the choice where the product is viscous or contains particles. The ball revolves within a totally encapsulating Mica-filled Teflon seal, thus meeting the most stringent sanitary standards. Fluid-Flow ball valves are USDA approved and meet 3A standards.

The corrosion-resistant, sanitary design of Fluid-Flow flush bottom ball valves makes them ideal for use in the food, cosmetic, pharmaceutical, beverage and chemical industries. Due to the solid construction of Type 316 stainless steel wetted valve parts and Type 316L stainless steel mounting flange, the user of a Fluid-Flow flush bottom ball valve will experience very few, if any, breakdowns thus eliminating shutdown costs due to valve failure. Easily disassembled in less than thirty seconds, no special tools required, Fluid Transfer's Fluid-Flow ball valves work well in C.I.P. systems.

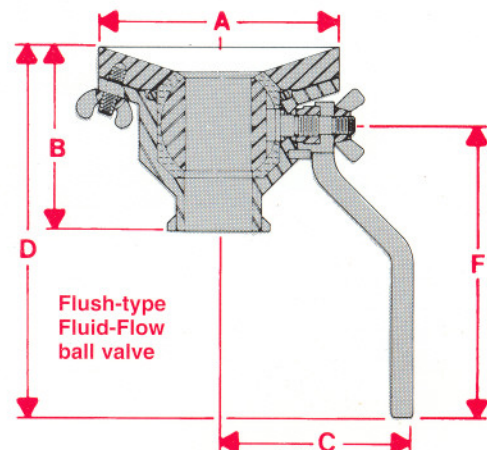
Flush-type Fluid-Flow ball valves range in size from 1½" through 4" and are available in two finishes; polished #4 ID only (3A standard) and optional polished #4 ID/OD. Electropolish is also available. Maximum working temperature is 450° with a working pressure to 300 PSIG. Fluid transfer's flush-type Fluid-Flow ball valves are available with standard outlet types. *Tri-Clamp connectors and Sanitary Acme Threads. Other connections are available upon request.



Flush-type
Fluid-Flow
ball valve

Schematic section and dimensions

VALVE SIZE	A	B	C	D	E	F	TOTAL WEIGHT (LBS.)	FLANGE WEIGHT (LBS.)
1½"	5½"	4⅝"	4⅞"	8⅜"	1½"	6⅞"	9	3½
2"	6"	5⅞"	4½"	8¼"	2"	6⅞"	12	4
3"	8"	7⅞"	5"	10⅝"	3"	8¼"	26	7½
4"	10½"	9⅞"	6⅝"	19⅞"	4"	16"	61½"	13

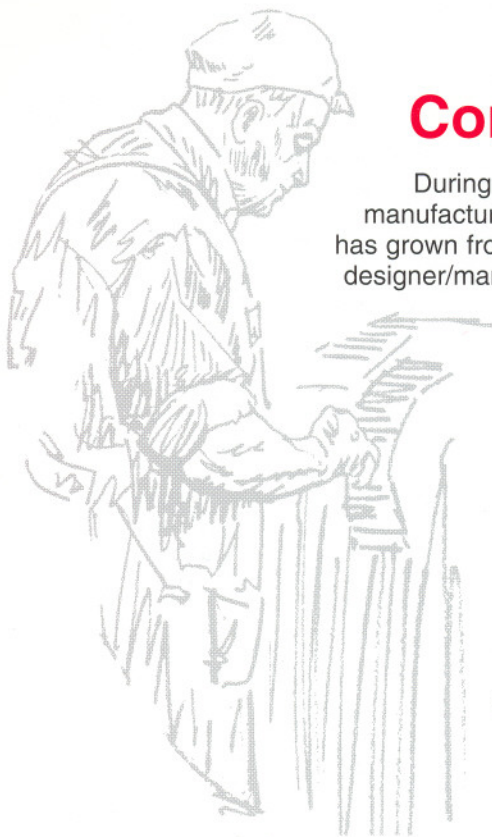


Flush-type
Fluid-Flow
ball valve

Flange material specification — ASTM A351 GR CF3m.

Above dimensions are identical for sanitary Acme thread, sanitary quick clamp connectors, and ASA flanges.

U.S. Patent No. 3,614,056



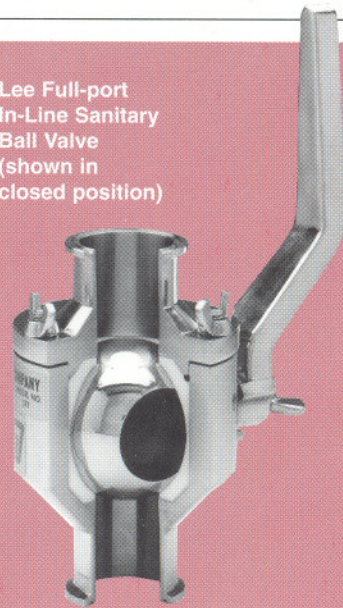
Company History

During its 75+ year history of continuous manufacturing operation, Lee Industries, Inc. has grown from a fabricator of metal parts, to a designer/manufacturer of complete processing systems. Lee started manufacturing plug valves in 1927, and in 1971 was awarded a patent on the first USDA approved sanitary Flush Bottom Ball Valve. As with all Lee processing equipment, the fine quality craftsmanship and innovative design quickly made the Lee Flush Bottom sanitary ball valve a leader in its field. In May of 1976 Lee patented the first USDA sanitary in-line ball valve. That same year, to provide a more personalized customer service, Fluid Transfer was formed as a division of Lee Industries, Inc. Since then, Fluid

Transfer ball valves have been in service all over the world in major food processing, beverage, cosmetic, drug and chemical industries. Fluid Transfer has organized a chain of distributors, throughout the United States, who will be happy to help when your needs demand the best in sanitary ball valves. For the name of the distributor in your area or for any special application information, please contact Fluid Transfer at the address or telephone number given below.

In today's competitive marketplace and economic environment, it has become necessary for the process manufacturer to develop innovative process designs in producing their product. Very often, standard, off-the-shelf items do not conveniently fit the needs of these pioneering companies. Fluid Transfer understands this situation and designs and manufactures special application ball valves that fit into an individual company's process system needs. A staff of eminently qualified design engineers is ready to modify the Lee standard ball valves to your specifications. Each specially designed valve will be manufactured with the same care and precision that Lee craftsmen have exhibited for over 75 years.

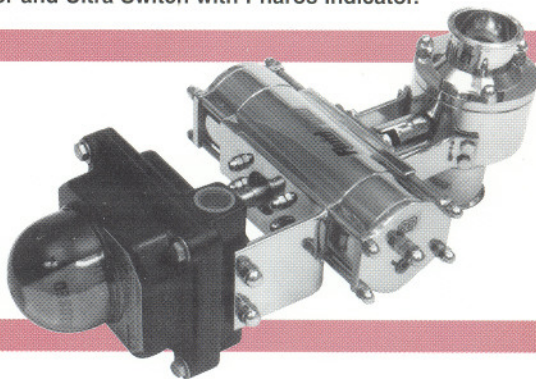
Lee Full-port In-Line Sanitary Ball Valve (shown in closed position)



Lee Super Sanitary Two-Way Ball Valve with Stainless Actuator and Ultra Switch with Pharos Indicator.



Lee Multi-Port In-Line Sanitary Ball Valve



Two-Way (2FT) Super Sanitary C.I.P. Manual Ball Valve with Super #7 O.D. Finish.



LEE INDUSTRIES, INC.
FLUID TRANSFER DIVISION
P.O. Box 471
Philipsburg, PA 16866
Telephone: 814/342-0902 FAX: 814/342-5660
EMAIL: sales@leeind.com

VISIT US ON OUR WEBSITE @ www.leeind.com