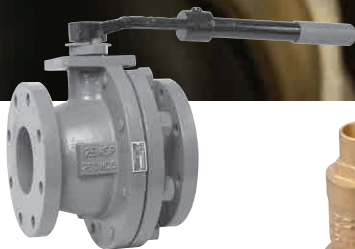


# Ball Valves

Your Trusted Source for Commercial & Residential  
Top-quality Ball Valves



Watts.com

**WATTS®**

### Lead Free Bronze Domestic Ball Valves

Series	Applications	Material	Lead Free	*Certification	Page
LFB6080G2-SS, LFB6081G2-SS	Commercial, Residential, Industrial	Bronze	Yes	NSF 61G	4
LFB6080G2, LFB6081G2	Commercial, Residential	Bronze	Yes	NSF 372	4
LFB6400	Commercial, Residential	Bronze	Yes	NSF 372	4

### Lead Free Brass Ball Valves

Series	Applications	Material	Lead Free	*Certification	Page
LFFBV-3C-M1, LFFBVS-3C-M1,	Commercial, Residential, Industrial	Brass	Yes	NSF 61, CSA, UL, FM	5
LFFBV-3-Press-M2	Commercial, Residential, Industrial	Brass	Yes	NSF 61, NFS 372, NSF 14	5
LFFBV-3C-SS, LFFBVS-3C-SS	Commercial, Residential, Industrial	Brass	Yes	NSF 61, UL, FM	5
LFFBV-3C-CC, LFFBVS-3C-CC	Commercial, Residential, Industrial	Brass	Yes	NSF 61	6
LFFBV-3C-QC	Commercial, Residential	Brass	Yes	NSF 61	6
LFFBV-4, LFFBVS-4	Commercial, Residential	Brass	Yes	NSF 61/8	6
LFFBV-PEX	Commercial, Residential	Brass	Yes	NSF 61, NFS 372, NSF 14	6
LFFBV-PEX-F1960	Commercial, Residential	Brass	Yes	NSF 61, NFS 372, NSF 14	7
LFB6780	Commercial, Industrial	Brass	Yes	NSF 372	7
LFBRV-M1	Commercial, Residential	Brass	Yes		7

### Leaded Ball Valves

Series	Applications	Material	Lead Free	*Certification	Page
C-FBV-1	Commercial, Residential, Industrial	Carbon Steel	No		8
S-FBV-1	Commercial, Residential, Industrial	Stainless Steel	No		8
FBV-3C, FBVS-3C	Commercial, Residential, Industrial	Brass	No	UL, FM	8
GBV	Residential	Brass	No	UL, CSA, MEA	9
GBV-1	Residential	Brass	No	UL, CSA	9

### Isolation Pump Flange Valves

Series	Applications	Material	Lead Free	*Certification	Page
IPF-M1	Commercial, Residential	Brass	No		9
LFIPF-HV	Commercial, Residential	Brass	Yes		10
PIPF-M1	Commercial, Residential	Brass	No		10

### Cast Iron Ball Valve

Series	Applications	Material	Lead Free	*Certification	Page
G4000	Commercial, Industrial	Cast Iron	No		10
G4000M1	Commercial, Industrial	Cast Iron	No		10
G4000-FDA	Commercial, Industrial	Cast Iron	Yes	FDA Approved	11

### Electric Motorized Ball Valves\*

Series	Applications	Material	Lead Free	*Certification	Page
LFEMVII-6400SS	Commercial, Industrial	Bronze	Yes	NSF 372, Nema 4X	11

\*Certifications: Please reference ES sheets as certifications can vary by size and connection.



# Choose Watts for All Your Ball Valve Needs

Boasting a full line of top-quality ball valves for commercial, residential, and industrial applications, the Watts ball valve product line includes brass, bronze, carbon steel, cast iron, and stainless steel models. If you have a custom project on your hands, we have electric motorized valves to suit your needs. Our portfolio covers a wide span of connection types to fit applications within the Residential, Industrial, and Commercial markets.

And that's not all, Watts offers various product accessories and material options such as handle kits or stainless steel ball and stem trims to fulfill a wide range installation requirements.

Review this brochure and visit our website to learn more.

## Lead Free\* for You and Me

As of January 4, 2014 Lead Free\* ball valves are required in certain applications and/or settings in the United States. That's why the Watts line includes top quality, fully-tested Lead Free\* ball valves.

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight

## Certifications

NSF 61	Potable Water
NSF 372	Lead Free
NSF 14	Plastic Piping System Components
UL	Gas & Fire
FM	Fire
CSA	Gas

## Typical Applications

### Residential



### Industrial



### Commercial



# Lead Free Bronze Domestic Ball Valves

## LFB6080G2-SS, LFB6081G2-SS

### 2-Piece, Full Port, Lead Free\* Bronze Ball Valves with Stainless Steel Trim

These products are ideal for potable water, commercial, and industrial applications. These valves feature a blowout proof stem, as well as a full-port design which ensures minimal pressure drop. The G2-SS series offers multiple models for solder and NPT end-connections with NSF-61G certification.

Available accessories: Stem Extension kits, Locking Handle kits

- Sizes: 1/4" – 4" (8 – 50mm)
- Lead Free\*, forged bronze body and adapter
- Full-port flow
- Minimal pressure drop due to large ports
- Blowout proof, pressure retaining stem



LFB6080G2-SS  
Threaded



LFB6081G2-SS  
Soldered



LFB6081G2



LFB6080G2

## LFB6080G2, LFB6081G2

### 2-Piece, Full Port, Lead Free\* Bronze Ball Valves

These forged ball valves are used in commercial and industrial applications for a full range of liquids and gases. They feature a blowout-proof pressure full-port orifice which ensures minimal pressure drop. Model LFB6080G2 has threaded NPT end connections and Model LFB6081G2 has solder end connections. Pressure rating for 1/4" – 2": 600psi WOG (non-shock) 150psi WSP.

Available accessories: Stem Extension kits, Locking Handle kits

- Sizes: 1/4" – 2" (8 – 50mm)
- Minimal pressure drop due to large ports
- Blowout-proof, pressure-retaining stem
- Certified to NSF 372
- BAA compliant

## LFB6400

### 2-Piece, Standard Port, Lead Free\* Ball Valves

These ball valves come standard with actuator mounting pads, Durafill® (carbon/glass filled PTFE) seats, bottom-loaded blowout-proof stem, stainless steel ball and stem, and adjustable stem packing to provide lasting service for a wide range of liquids and gases.

- Sizes: 1/4" – 4" (8 – 100mm)
- Latch-Lok handle available (suffix LL)
- Stainless steel ball is wiped clean during each operation of the valve
- Each valve factory tested
- BAA/ARRA Compliant
- NSF 372



LFB6400



LFB6400LL

\* The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.



# Lead Free Brass Ball Valves

## LFFBV-3C-M1, LFFBVS-3C-M1

### 2-Piece, Full Port, Lead Free\* Brass Ball Valves

These forged ball valves are used in commercial and industrial applications for a full range of liquids and gases. They feature a bottom-loaded blowout-proof stem, virgin PTFE seats, thrust washer, adjustable stem packing gland, stem packing nut, chrome-plated Lead Free\* brass ball, copper silicon alloy adapter, and steel handle.

Standard material FBV-3C and FBVS-3C are available for non-potable applications.

Available accessories: Stem Extension kits and Locking Handle kits.

- Sizes: 1/4" – 4" (8 – 100mm)
- Certified to NSF/ANSI standard 61/8
- CSA approved threaded valves only 1/4" – 3" (15 – 80mm)
- UL/FM approved threaded valves 1/2" – 2" (15 – 50mm)
- UL Listed solder valves 1/2" – 2" (15 – 50mm)



LFFBV-3C-M1



LFFBVS-3C-M1\*\*

## LFFBV-3-Press-M2

### 2-Piece, Full Port, Lead Free\* Brass Ball Valves with Integral Press Fitting End Connection

The Series LFFBV-3 Press-M2 features Lead Free\* construction to comply with low lead installation requirements.

#### Designed for use in ProPress® Piping Systems

- Sizes: 1/2" – 4" (15 – 100mm)
- Tested and Certified to NSF/ANSI 61 Annex G 1/2" – 4" (15 – 100mm)
- Designed for types K, L, and M hard copper tubing 1/2" – 4" and soft copper tubing 1/2" – 1 1/4"
- Press end connections comply to ASTM-B88
- Press connection rated to 250psi CWP up to 250°F (13.8 bar to 121°C)

Available accessories: Stem Extension kits, Locking Handle kits and Replacement Handles.



LFFBV-3-Press-M2

## LFFBV-3C-SS, LFFBVS-3C-SS

### 2 Piece, Full-Port, Lead Free\*, Brass Ball Valves, -SS Trim

These forged copper silicon alloy ball valves are used in commercial and industrial applications for a full range of liquids and gases. They feature a stainless steel ball and stem. The LFFBV-3C-SS, LFFBVS-3C-SS features Lead Free\* construction to comply with Lead Free\* installation requirements.

Available accessories: Stem Extension kits and Locking Handle kits.

- Sizes: 1/2" – 2" (15 – 50mm)
- Suitable for a full range of liquids and gases
- Minimal pressure drop due to full size ports
- Bottom loaded, blow-out proof stem
- Vinyl insulator on heavy duty, zinc plated carbon steel handles



LFFBV-3C-SS



LFFBVS-3C-SS



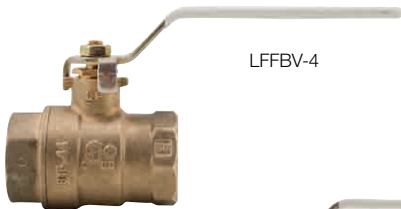
LFFBV-3C-CC



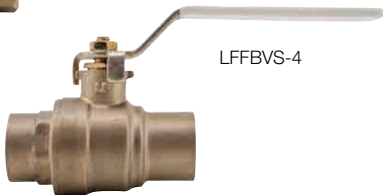
LFFBVS-3C-CC



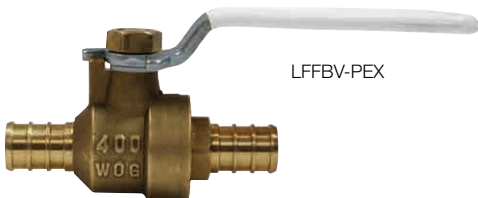
LFFBV-3C-QC



LFFBV-4



LFFBVS-4



LFFBV-PEX

## LFFBV-3C-CC, LFFBVS-3C-CC

### 2-Piece, Full Port, Lead Free\* Ball Valves with 3/4" Hose End

These forged ball valves are used in commercial and industrial wash-down applications which require a 3/4" hose connection. They feature a bottom-loaded blowout-proof stem, virgin PTFE seats, thrust washer and adjustable stem packing, chrome-plated brass ball with brass cap and white polypropylene tether (chain).

- Sizes: 1/2" – 3/4" (15 – 20mm)
- Certified to NSF-61/G
- 400psi (28 bar) WOG
- Adjustable stem packing gland

## LFFBV-3C-QC

### 2 Piece, Full-Port, Lead Free Ball Valves with Watts Quick-Connect Technology

These forged ball valves are ideal for use in residential and commercial potable water applications. They feature a bottom-loaded blowout-proof stem, virgin PTFE seats, thrust washer, adjustable packing gland, stem packing nut, chrome-plated Lead Free\* brass ball, Lead Free\* copper silicon alloy adapter, and steel handle.

- Sizes: 1/2" – 1" (15 – 25mm)
- Watts integral Quick-Connect inlet and outlet connections
- Can be used with copper, CPVC, PEX and PB pipe
- Comes with pipe stiffeners for use with PEX
- No thread sealants, solders, or glues needed
- Can be removed and reused without the use of tools

## LFFBV-4, LFFBVS-4

### 2-Piece, Full Port, Lead Free\* Brass Ball Valves

These forged ball valves are suitable for a full range of liquids and gases in residential and commercial applications. They are rated to 600psi WOG/150psi WSP 1/4"-2" (8-50mm) and 400psi WOG/125psi WSP 2 1/2"-3" (65-80mm).

- Sizes: 1/4" – 3" (8 – 80mm)
- CSA approved threaded valves only 1/4" – 3"
- Certified to NSF/ANSI Standard 61/8
- Metal-to-metal adapter body seal to eliminate adapter leaks after soldering
- Adjustable stem packing gland provides longer service life

## LFFBV-PEX

### 2-Piece, Full Port, Lead Free\* Brass Ball Valves with PEX Ends

These ball valves with PEX ends are designed for use in PEX piping systems and have a Lead Free\* brass body and adapter manufactured per the ASTM F1807 standard. They feature Lead Free\* brass PEX end tail-pieces designed for easy crimping into a PEX piping system.

- Sizes: 1/2" – 1" (15 – 25mm)
- 2-piece, full port design
- Forged Lead Free\* brass body
- Valve rated to 400 WOG
- Crimp connection rated to 160psi at 73°F (23°C)
- Designed specifically for use in PEX piping systems
- Certified to NSF 61, NSF 372 and NSF 14

\* The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

## LFFBV-PEX-F1960

### 2-Piece, Lead Free\* Brass Ball Valves with PEX Ends

These valves are designed with PEX F1960 ends, which are for use with Watts WaterPEXa and any other PEXa piping systems. Forged Lead Free\* brass body and adapter manufactured per the ASTM F1960 standard. This series of valves features Lead Free\* brass PEX F1960 end tailpieces designed for easy crimping into a Watts WaterPEXa and any other PEXa piping system. Additionally the LFFBV-PEX-1960 utilizes Lead Free\* construction to comply with Lead Free\* installation requirements.

Available accessories: Stem Extension kits

- Sizes: 1/2" – 1" (15 – 25mm)
- Forged Lead Free\* brass body
- PEX end designed to ASTM F1960
- Valve rated to 400 WOG
- Cold expansion connection rated to 160psi at 73°F (23°C)



LFFBV-PEX-F1960



LFFBV-PEX-F1960

## LFB6780

### 2-Piece, Full Port, Lead Free\* Diverter Ball Valves

These ball valves are designed to divert liquids and gases in commercial and industrial applications. PTFE seats and stainless steel ball provide lasting service.

- Sizes: 1/4" – 2" (8 – 50mm)
- Minimal pressure drop due to full size ports
- Blowout-proof pressure retaining stem
- Pressure rated at 400psi (28 bars) WOG non-shock @ 100°F (38°C); 125psi (8.6 bars) WSP
- Stainless steel ball and stem



LFB6780

## LFBRV-M1

### Combination Ball Valve and Relief Valve

Series LFBRVM1, Combination Ball Valve and Relief Valve is an easy to install two-in-one device. Designed to be used as water heater shutoff valves to provide both a means to shut off the water supply to the water heater and to provide protection against excess water pressure caused by thermal expansion. The Series LFBRVM1 features Lead Free\* construction to comply with Lead Free\* installation requirements.

These valves use a Lead Free\* body full port valve design\*\* which includes PTFE seats and a blow out proof stem design. The relief valve section includes a Viton® disc and stainless steel spring.

- Easy Installation - Installs in any position
- Low profile design
- Full port ball valve with virgin PTFE seats
- Blowout proof stem



LFBRVM1TxTxC



LFBRVM1PxPxP



LFBRVM1SxSxP

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

# Leaded Ball Valves

## C-FBV-1

### 2-Piece, Full Port, Carbon Steel Ball Valves

These ball valves are suitable for a full range of liquids and gases. The C-FBV-1's full port orifice ensures maximum flow capacity, while reinforced PTFE seats, PTFE stem packing, thrust washer, and body seal provide maximum safety and high operating pressure/temperature limits.

- Sizes: 1/4" – 3" (8 – 80mm)
- Adjustable stem packing
- Bottom-loaded, blowout-proof stem
- Drilled and tapped mounting pads
- Each valve factory tested
- Standard Latch-Lok handle to lock in open or close position



## S-FBV-1

### 2-Piece, Full Port, Stainless Steel Ball Valves

These ball valves are suitable for a full range of liquids and gases. The S-FBV-1's full port orifice ensures maximum flow capacity, while reinforced PTFE seats, PTFE stem packing, thrust washer, and body seal provide maximum safety and high operating pressure/temperature limits.

- Sizes: 1/4" – 3" (8 – 80mm)
- Adjustable stem packing
- Drilled and tapped mounting pads
- Standard Latch-Lok handle to lock in open or close position
- Each valve factory tested

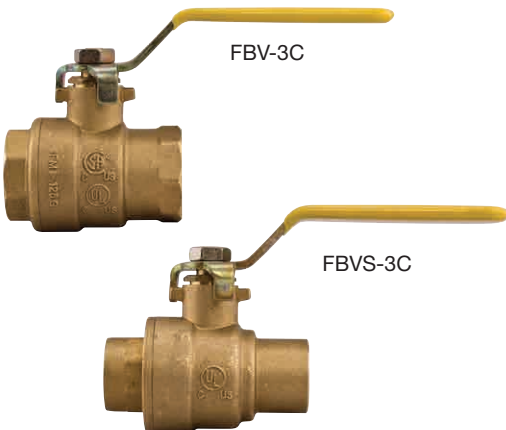


## FBV-3C, FBVS-3C

### 2-Piece, Full Port, Brass Ball Valves

Series FBV-3C 2-piece, full port, brass ball valves are used in commercial and industrial applications for a full range of liquids and gases. They feature a bottom-loaded blowout proof stem, virgin PTFE seats, thrust washer, and adjustable stem packing gland, stem packing nut, chrome plated brass ball, brass adapter, and steel handle.

- Sizes: 1/4" – 4" (8 – 50mm)
- Fluorocarbon elastomer stem O-ring prevents stem leaks
- Adjustable stem packing gland
- PTFE stem packing seal, thrust washer, and seats
- Bottom loaded blowout proof stem





## GBV

### 2-Piece, Brass Gas Ball Valves

These ball valves are used in residential applications for manufactured natural gas and LP gas on in-house and indoor piping systems. They feature a brass ball and stem, PTFE seats and packing, brass end piece and plug, and zinc alloy handle. Series GBV complies with ANSI standards for gas piping and is UL, CSA, and MEA approved.

- Sizes:  $\frac{3}{8}$ " – 1" (10 – 25mm)
- 2-piece body
- UL approved @ 5psi (34.2 kPa)
- Approved by CSA @  $\frac{1}{2}$ , 2 and 5psi (3, 14 and 34 kPa)
- Tested under standards Z21.15 IAS requirement



GBV

## GBV-1

### 1-Piece, Brass Gas Ball Valves

These ball valves are used in residential applications for manufactured natural gas and LP gas on in-house and indoor piping systems. They feature a brass ball and stem, PTFE seats, brass retainer and cap, rubber O-ring, and aluminum handle. Series GBV-1 complies with ANSI standards for gas piping and is UL and CSA approved.

- Sizes:  $\frac{1}{2}$ " –  $\frac{3}{4}$ " (15 – 20mm)
- Patented blowout-proof stem design
- 1-piece body
- CSA and UL Approved



GBV-1

# Isolation Pump Flange Valves

## IPF-M1

### Isolation Pump Flanges for Circulator Pumps

These brass flanges are designed to isolate circulator pumps to facilitate circulator pump replacement or repairs. Series IPF-M1 is suitable for non-potable applications.

- Sizes:  $\frac{3}{4}$ " – 2" (15 – 50mm)
- Adjustable packing gland for longer service life
- O-ring stem seal prevents stem leaks
- Quarter-turn open or close operation
- Available in Press, Treaded, and Solder connections



IPF-S-M1



IPF-T-M1



IPF-M1-Press

\* The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.



LFIPFM1-S-HV

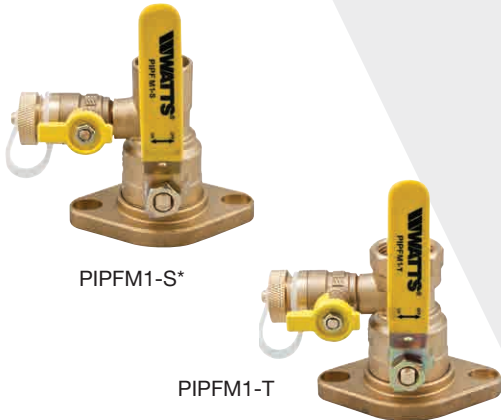
LFIPFM1-T-HV

## LFIPF-HV

### Isolation Pump Flanges for Circulator Pumps

These brass flanges are designed to isolate circulator pumps to facilitate circulator pump replacement or repair. Series LFIPF-HV features Lead Free\* construction to comply with Lead Free\* installation requirements.

- Sizes:  $\frac{3}{4}$ " – 2" (20 – 50mm)
- Adjustable virgin PTFE packing
- Buna-N stem O-ring seal
- Virgin PTFE seats
- Bottom-loaded, blowout-proof stem



PIPFM1-S\*

PIPFM1-T

## PIPFM1

### Isolation Pump Flanges with Purge Port & Swivel Flange

These brass flanges with purge port & swivel flange are designed to provide circulator pump isolation to facilitate the circulator pump replacement or repair while the integral purge port facilitates system purging. Series PIPF flanges are suitable for non-potable applications.

- Sizes:  $\frac{3}{4}$ " – 1  $\frac{1}{4}$ " (20 – 32mm)
- Integral purge port saves time and money compared to purge stations made with ball valves, boiler drains, and copper tees
- Swivel flange allows purge port to be positioned for optimal purging convenience
- Double O-ring stem sealing technology eliminates packing leaks
- Bottom-loaded, blowout-proof stem

## Cast Iron Ball Valves



G4000

### G4000

#### 2-Piece, Full Port, Cast Iron Flanged Ball Valves

Series FBV-3C 2-piece, full port, brass ball valves are used in commercial and industrial applications for a full range of liquids and gases. They feature a bottom-loaded blowout proof stem, virgin PTFE seats, thrust washer, and adjustable stem packing gland, stem packing nut, chrome plated brass ball, brass adapter, and steel handle.

- Sizes: 8" – 10" (200 – 250mm)
- Quarter-turn open or close operation
- Stainless steel ball and stem
- Manual gear operator standard
- Positive shutoff



G4000M1

### G4000M1

#### 2-Piece, Full Port, Cast Iron Flanged Ball Valves

Series G4000M1 2-Piece, Full Port, Cast Iron Flanged Ball Valves feature a stainless steel ball and stem with 200psi (14 bar) CWP and 125psi (9 bar) WSP rating. These valves are ideal to replace old cast iron gate valves and feature reliable quarter-turn ball valve technology.

- Sizes: 2" – 6" (50 – 150mm)
- 125psi (9 bar) WSP rating
- 200psi (14 bar) CWP rating
- Same end-to-end dimensions as conventional flanged iron gate valves (ANSI 16.10)
- Quarter-turn open or close operation

\* The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

## G4000-FDA

### 2-Piece, Full Port, Cast Iron FDA Approved Flanged Ball Valves

Series G4000-FDA 2-Piece, Full Port, Cast Iron, FDA Approved, Flanged Ball Valves have a double coated electrostatically applied heat fused epoxy coating on all interior and exterior surfaces. The valves are FDA approved, suitable for potable water and food contact applications. G4000-FDA valves are ideal for any application requiring a non-corrosive body finish or where a clean cosmetic appearance is desired. The G4000-FDA features Lead Free\* construction to comply with Lead Free\* installation requirements.

- Sizes: 2" – 8" (50 – 200mm)
- Fused epoxy coating on all valve surfaces
- Same end-to-end dimensions as conventional flanged iron gate valves
- Quarter-turn open or closed operation
- Stainless steel ball and stem



2" – 6"  
G4000-FDA

## Electric Motorized Ball Valves

### LFEMVII-6400SS

#### 2-Piece Bronze, Standard Port, Lead Free\* Electric Motor Valves

The LFEMVII -6400SS consist of an electrically actuated motor available in 115 or 24 VAC models and a bronze ball valve with a stainless steel ball and stem available in 1/4" to 2". Features include a visual position indicator, manual override, and the ability to be mounted in with the actuator either in the vertical upright or horizontal plane. The LFEMVII-6400SS ball valve features a 316 stainless steel ball and stem, Durafill® PTFE seats, stem packing, thrust washer and an adjustable packing nut. The LFEMVII-6400SS features Lead Free\* construction to comply with Lead Free\* installation requirements. This high quality product offers a reliable method to control the flow of steam, water, or air. This product is commonly used in commercial and industrial applications.

- Sizes: 1/4" – 2" (8 – 50mm)
- Ready to connect Actuator (no special wiring required)
- 316 stainless steel ball and stem bottom loaded blowout proof stem
- Durafill® PTFE seats
- Adjustable PTFE packing
- Hole in stem slot of each ball valve to equalize pressure between the body cavity and the flow stream
- Motor can be changed without draining system
- Mountable in any position
- Completely assembled



LFEMVII-6400SS

\* The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.



## Watts Family of Brands

Watts designs, manufactures, and sells an extensive line of flow control, water safety, water filtration & treatment, drainage, and PEX plumbing products.

The Watts family of companies provides a single source for solutions used to safely convey, conserve, and manage water.

Making Watts your single source for plumbing-related solutions will streamline your operations, save you money, and reduce the variety of repair parts needed for maintenance.

