

**For Residential, Commercial and Industrial Applications**

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

**LEAD FREE\***

**Series LFBRV  
 Combination Ball Valve  
 and Relief Valve**

**Sizes: 3/4" (20mm)**

Series LFBRV, 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 LFBRV features Lead Free\* construction to comply with Lead Free\* installation requirements.

These valves use a Lead Free\* copper silicon alloy body full port valve design\*\* which includes PTFE seats and a blow out proof stem design. The relief valve section includes a Viton® ball and stainless steel spring. It is provided with a compression or PEX end fitting to provide a secure method of connecting a discharge line.

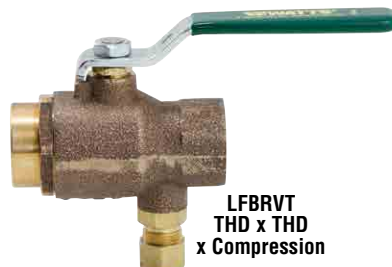
**Features**

- Easy Installation - Installs in any position
- Low profile design
- Full port ball valve with virgin PTFE seats
- Blowout proof stem
- Secure drain tube connection available with PEX or compression fitting models

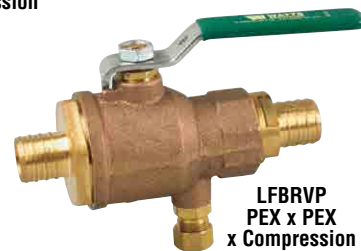
**Specifications**

Valve shall include built-in relief protection from water pressure in excess of 80 or 125psi. Each valve shall be full port construction\*\*, Lead Free\* copper silicon alloy body, blowout proof 316 stainless steel ball and stem, virgin PTFE seats, PTFE stem packing and stem thrust bearing, Viton® relief ball and 302 stainless steel relief spring. Lead Free\* combination ball valve and relief valve shall be constructed using Lead Free\* materials. Lead Free\* valves shall comply with state codes and standards, where applicable, requiring reduced lead content. Valves shall include brass compression nut and ferrule or PEX end connection for a drain line. Valve shall be IAPMO listed. Valve shall be a Watts Series LFBRV.

\*\* PEX end connections reduce full port to reduced port dimensions.



**LFBRVT  
 THD x THD  
 x Compression**



**LFBRVP  
 PEX x PEX  
 x Compression**

**Available Models**

INLET	OUTLET	RELIEF OUTLET
Sweat	Sweat	PEX
Sweat	Sweat	Compression
Thread	Thread	Compression
PEX	PEX	Compression
PEX	PEX	PEX

**NOTICE**

**For Sweat Connections Only:**

This valve is designed to be soft soldered into lines without disassembly, using a low temperature solder 420°F (216°C). Other solders such as 95/5 tin antimony 460°F (238°C) or 96/4 tin silver 430°F (221°C) can be used. However, extreme caution must be used to prevent seat damage. Higher temperature solders will damage the seat material. ANSI B16.18 states that the maximum operating pressure of 50-50 solder connections is 200psi (14 bar) at 100°F (38°C) and decreases with higher temperatures.

**NOTICE**

Apply heat with the flame directed AWAY from the center of the valve body. Excessive heat can harm the seats. After soldering, the packing nut may have to be tightened.

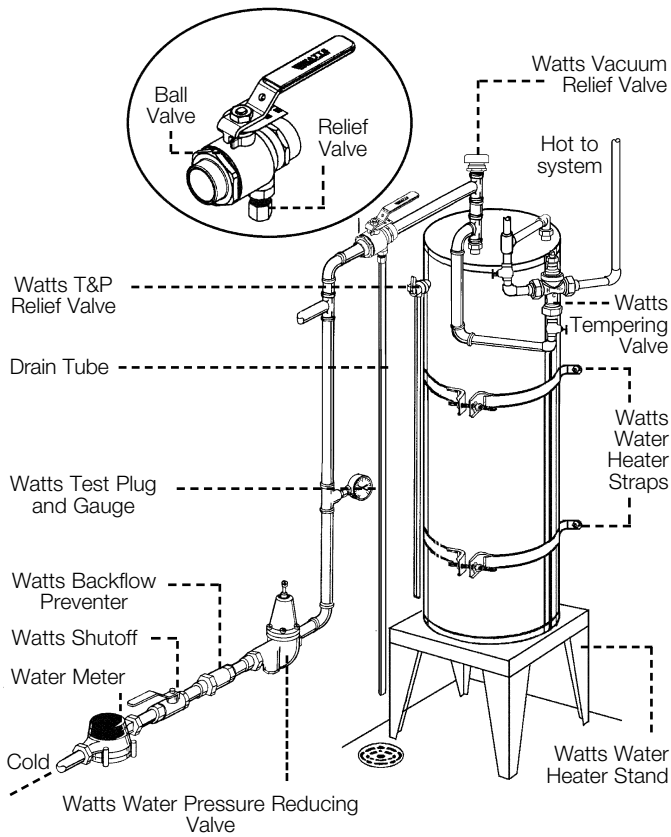
Viton® is a registered trademark of DuPont Dow Elastomers.

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

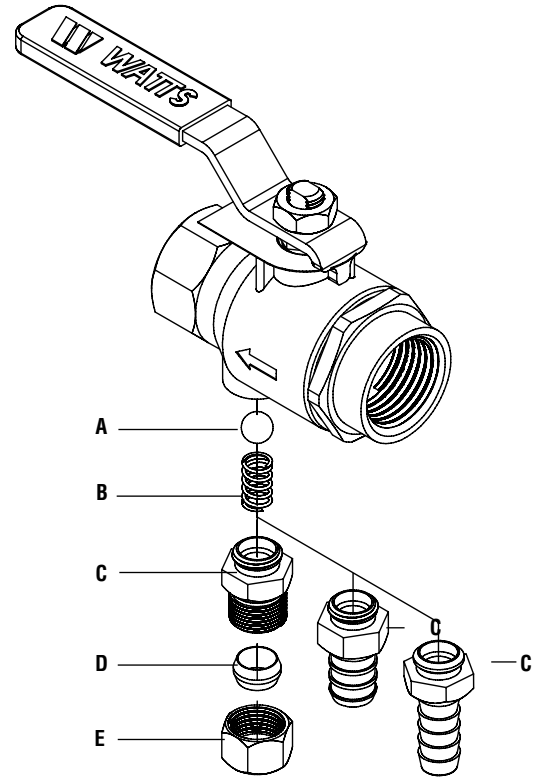
Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



## Installation



## Relief Valve



## Temperature — Pressure Rating

Maximum Temperature: 100°F (32°C)

Maximum Pressure: Valve body rated to 400psi (28 bar)

## Standards

Listed by IAPMO



## Material of Construction

Handle Nut - Zinc plated carbon steel  
 Handle - Zinc plated carbon steel with vinyl insulator  
 Packing Nut - Brass  
 Stem Packing - PTFE  
 Thrust Washer - PTFE  
 Stem - Stainless steel  
 Body - Lead Free copper silicon alloy  
 Seats - Virgin PTFE  
 Ball - Stainless steel  
 Adapter - Lead Free copper silicon alloy  
 Ball - Viton®  
 Spring - 302 stainless steel  
 Spring Cage - Brass  
 Ferrule - Brass  
 Nut - Brass

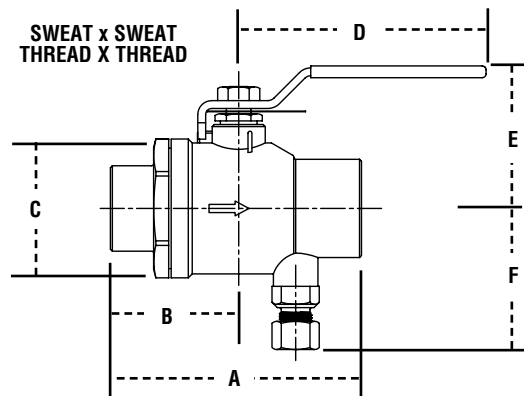
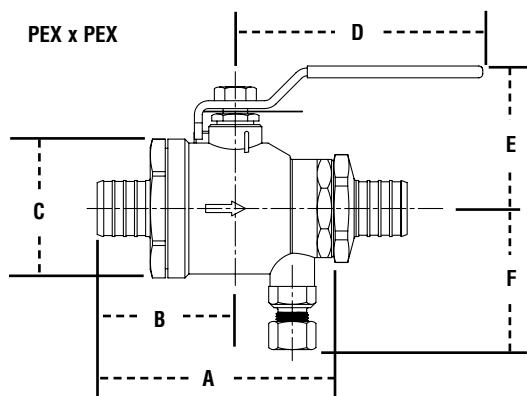
### COMPRESSION:

A. Ball  
 B. Spring  
 C. Spring Cage  
 D. Ferrule  
 E. Nut

### PEX:

A. Ball  
 B. Spring  
 C. Spring Cage

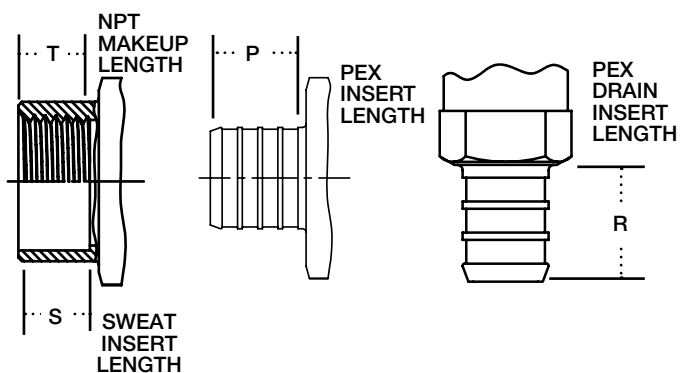
## Dimensions – Weights



MODEL	INLET/OUTLET	SIZE (DN)		DIMENSIONS						WEIGHT							
		in.	mm	A		B		C		D		E		F		lbs.	kg.
LFBRVT	THD x THD	3/4	20	2 15/16	75	1 3/8	36	1 9/16	40	3 3/4	95	1 15/16	49	1 15/16	49	1.00	.45
LFBRVP	PEX x PEX	3/4	20	3 5/8	93	1 11/16	43	1 9/16	40	3 3/4	95	1 15/16	49	1 15/16	49	1.20	.54
LFBRVSxD	SWT x SWT	3/4	20	2 15/16	75	1 3/8	36	1 9/16	40	3 3/4	95	1 15/16	49	1 15/16	49	1.00	.45

Standard relief drain connection is a 3/8" Compression Fitting, add P for 1/2" PEX

## Outlet Options



SIZE		DIMENSIONS									
in.	mm	P	R	S	T	Z					
3/4	20	1 3/16	21	5/8	16	3/4	19	9/16	14	27/32	21



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