

For Commercial and Industrial Applications

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

LEAD FREE*

**Series LFFBV-3C,
 LFFBVS-3C
 2-Piece, Full Port, Lead Free*
 Brass Ball Valves**

Sizes: 1/4" – 4"

Series LFFBV-3C 2-piece, full port, Lead Free* 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 Lead Free* brass ball, copper silicon alloy brass adapter, and steel handle. The Series LFFBV-3C, LFFBVS-3C features Lead Free* construction to comply with Lead Free* installation requirements.

Features

- Lead Free* forged copper silicon alloy body and adapter
- Certified to NSF/ANSI standards 61 and 372
- CSA approved threaded valves only 1/4" – 3"
- UL and FM approved for threaded valves 1/4" – 2"
- FM approved solder valves 1/2" – 2"
- UL Listed solder valves 1/2" – 2"
- 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
- Machined chrome plated Lead Free* brass ball
- Valves comply to MSS-SP-110 standard

Models

- LFFBV-3C** 1/4" – 4" with threaded connections
LFFBVS-3C 1/2" – 3" with solder connections

Pressure – Temperature

Temperature Range: -40°F to 400°F (-40°C to 204°C)

Pressure Ratings

- LFFBV-3C:** 1/4" – 2"
 600psi (41 bar) WOG, non-shock, 150psi (10.3 bar) WSP
 2 1/2" – 4"
 400psi (27.5 bar) WOG, non-shock, 125psi (8.6 bar) WSP
- LFFBVS-3C:** 1/2" – 2"
 600psi (41 bar) WOG, non-shock, 150psi (10.3 bar) WSP
 2 1/2" – 3"
 400psi (27.5 bar) WOG, non-shock, 125psi (8.6 bar) WSP



LFFBV-3C

LFFBVS-3C**

Approvals

1/4" – 4" LFFBV-3C

1/2" – 3" LFFBVS-3C
 Certified to NSF/ANSI standards 61 and 372
 *Domestic cold water at 73°F (23°C)

1/4" – 2" LFFBV-3C

1/2" – 2" LFFBVS-3C



Gas Approvals (Threaded Valves Only)

- 1/2" – 2" ASME B16.33, CSA ASME B16.44
 1/2 psig, 5psig, and 125psig (14, 34 and 862 kPa)
 @ -40°F to 125°F (-40°C to 52°C)
- 2 1/2" – 3" ASME B16.38, CSA, ASME B16.44
 1/2 psig, 5psig, and 125psig (14, 34 and 862 kPa)
 @ -40°F to 125°F (-40°C to 52°C)



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

****This valve is designed to be soft soldered into lines without disassembly, using a low temperature solder to 420°F (216°C). Higher temperature solders may damage the seat material.**

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.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

NOTICE

Inquire with governing authorities for local installation requirements

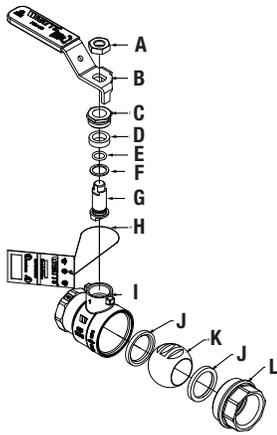
Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior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



Specifications

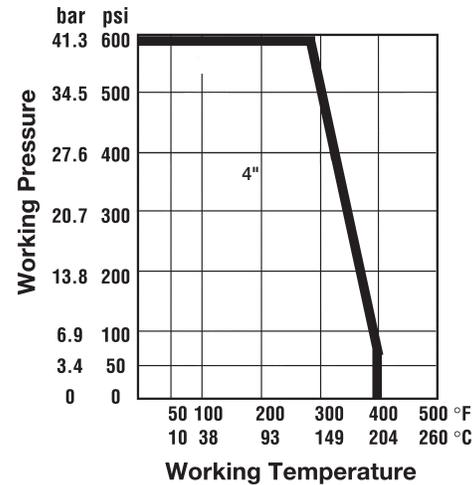
Approved valves shall be 2-piece full port design constructed using Lead Free* forged copper silicon alloy brass body and end adapter. Lead Free* 2-Piece, Full Port, Ball Valves shall be constructed using Lead Free* materials. Lead Free* valves shall comply with state codes and standards, where applicable, requiring reduced lead content. Seats and stem packing shall be virgin PTFE. Stem shall be bottom loaded, blowout proof design with fluorocarbon elastomer O-ring to prevent stem leaks. Valve shall have chrome plated Lead Free* brass ball and adjustable packing gland. Threaded valves 1/4" – 2" shall be CSA approved to 1/2, 5, and 125psig (14, 34 and 862 kPa), UL/FM approved and 1/4" – 4" certified to NSF/ANSI standard 61/8. Solder valves 1/2" – 2" to be UL listed FM approved, and certified to NSF/ANSI standard 61/8. Valve sizes 1/4" – 2" shall be rated to 600psi (41 bar) WOG non-shock and 150psi (10.3 bar) WSP. Valve sizes 2 1/2" – 4" threaded, shall be rated to 400psi (27.5 bar) WOG non-shock and 125psi (8.6 bar) WSP. Valve sizes 2 1/2" – 3" solder shall be rated to 400psi (27.5 bar) WOG non-shock and 125psi (8.6 bar) WSP. Valve shall be a Watts Series LFFBV-3C (threaded) or LFFBVS-3C (solder).

Materials



A Handle Nut	Zinc plated carbon steel
B Handle Assembly	Zinc plated carbon steel with vinyl insulator
C Packing Nut	Brass
D Stem Packing	Virgin PTFE
E O-ring	Fluorocarbon elastomer (FKM)
F Thrust Washer	Virgin PTFE
G Stem	Brass
H Tag	Cardboard, Mylar coated both sides
I Body	Forged Lead Free* copper silicon alloy
J Seats	Virgin PTFE
K Ball	Chrome plated Lead Free* brass
L Adapter	Forged Lead Free* copper silicon alloy brass

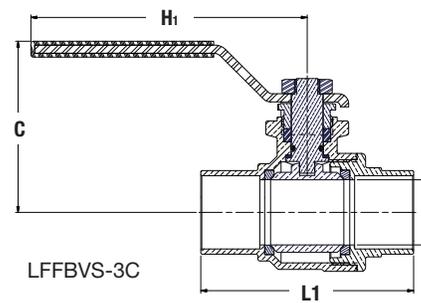
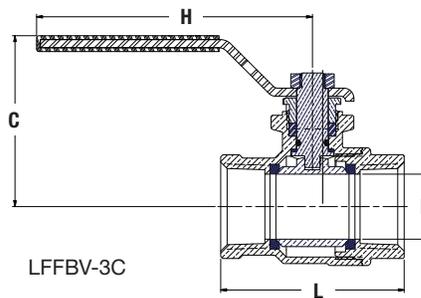
Temperature – Pressure



*See application note on reverse side for solder end valves with regards to pressure/temperature rating.

Options

SS	Stainless steel ball and stem
TH	Tee handle
QC	Quick connect
CC	Cap and chain



Dimensions – Weights

SIZE		DIMENSIONS										WEIGHT		
in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg
1/4	1 13/16	46	3 7/16	87	-	-	1/2	12.9	1 3/4	45	-	-	0.4	0.2
3/8	1 13/16	46	3 7/16	87	-	-	1/2	12.9	1 3/4	45	-	-	0.4	0.2
1/2	1 13/16	46	3 7/16	87	3 7/16	87	1/2	12.9	1 15/16	50	2 1/16	52	0.4	0.2
3/4	2 1/4	57	4	101	4	101	3/4	19.2	2 5/16	59	2 11/16	68	0.8	0.3
1	2 5/8	67	4 1/4	108	4 1/4	108	1	25.5	2 13/16	72	3 1/4	83	1.2	0.5
1 1/4	2 13/16	71	4 1/4	108	4 1/4	108	1 1/4	31.9	3 3/16	81	3 11/16	94	1.8	0.8
1 1/2	3 3/16	80	5 1/4	134	5 5/16	135	1 1/4	38.0	3 1/2	88	4 1/4	108	2.6	1.2
2	3 1/2	89	6	153	6	153	2	50.9	4 1/8	105	5 5/16	135	3.7	1.7
2 1/2	4 1/16	104	7 3/8	187	7 7/8	188	2 1/2	63.6	5 5/16	134	6 1/4	158	7.1	3.2
3	4 1/2	114	7 3/4	197	7 3/4	197	3	76.3	6 1/16	154	7 3/8	185	11.3	4.7
4	5 3/8	136	9 5/8	245	-	-	4	101.6	7 7/16	189	-	-	17.7	8.0

Ordering Chart

VALVE			LOCKING HANDLE KIT			STEM EXTENSION		
Ordering Code	Valve Description	Connection Type	Ordering Code	Description	Size	Ordering Code	Description	Size
0555100	1/4 LFFBV-3C	Threaded	88005467	#1 LL-HK LFFBV-3C	Fits 1/4" - 1/2"	0789542	SXI-HK-1A StemExtension	1/4"-1/2" 3C/3CM1/G2
0555101	3/8 LFFBV-3C	Threaded	88005467	#1 LL-HK LFFBV-3C	Fits 1/4" - 1/2"	0789542	SXI-HK-1A StemExtension	1/4"-1/2" 3C/3CM1/G2
0555102	1/2 LFFBV-3C	Threaded	88005467	#1 LL-HK LFFBV-3C	Fits 1/4" - 1/2"	0789542	SXI-HK-1A StemExtension	1/4"-1/2" 3C/3CM1/G2
0555103	3/4 LFFBV-3C	Threaded	88005468	#2 LL-HK-LFFBV-3C	Fits 3/4"	0789550	SXI-HK-9A StemExtension	3/4" 3C/G2
0555104	1 LFFBV-3C	Threaded	88005469	#3 LL-HK LFFBV-3C	Fits 1" - 1 1/4"	0789551	SXI-HK-10A StemExtension	1" - 1 1/4" 3C/G2
0555105	1 1/4 LFFBV-3C	Threaded	88005469	#3 LL-HK LFFBV-3C	Fits 1" - 1 1/4"	0789551	SXI-HK-10A StemExtension	1" - 1 1/4" 3C/G2
0555106	1 1/2 LFFBV-3C	Threaded	88005470	#4 LL-HK LFFBV-3C	Fits 1 1/2"	0789552	SXI-HK-11A StemExtension	1 1/2" 3C/G2
0555107	2 LFFBV-3C	Threaded	88005471	#5 LL-HK LFFBV-3C	Fits 2"	0789546	SXI-HK-5A StemExtension	2" 3C/3CM1/G2
0555108	2 1/2 LFFBV-3C	Threaded	88005473	#6 LL-HK LFFBV-3C	Fits 2 1/2"	0789547	SXI-HK-6A StemExtension	2 1/2" 3C/3CM1/G2
0555109	3 LFFBV-3C	Threaded	88005474	#7 LL-HK LFFBV-3C	Fits 3"	0789548	SXI-HK-7A StemExtension	3" 3C/3CM1/G2
0555096	4 LFFBV-3C	Threaded	88005475	#8 LL-HK LFFBV-3C	Fits 4"	0789549	SXI-HK-8A StemExtension	4" 3C/3CM1/G2
0555110	1/2 LFFBVS-3C	Solder	88005467	#1 LL-HK LFFBV-3C	Fits 1/4" - 1/2"	0789542	SXI-HK-1A StemExtension	1/4"-1/2" 3C/3CM1/G2
0555111	3/4 LFFBVS-3C	Solder	88005468	#2 LL-HK-LFFBV-3C	Fits 3/4"	0789550	SXI-HK-9A StemExtension	3/4" 3C/G2
0555112	1 LFFBVS-3C	Solder	88005469	#3 LL-HK LFFBV-3C	Fits 1" - 1 1/4"	0789551	SXI-HK-10A StemExtension	1" - 1 1/4" 3C/G2
0555113	1 1/4 LFFBVS-3C	Solder	88005469	#3 LL-HK LFFBV-3C	Fits 1" - 1 1/4"	0789551	SXI-HK-10A StemExtension	1" - 1 1/4" 3C/G2
0555114	1 1/2 LFFBVS-3C	Solder	88005470	#4 LL-HK LFFBV-3C	Fits 1 1/2"	0789552	SXI-HK-11A StemExtension	1 1/2" 3C/G2
0555115	2 LFFBVS-3C	Solder	88005471	#5 LL-HK LFFBV-3C	Fits 2"	0789546	SXI-HK-5A StemExtension	2" 3C/3CM1/G2
0555116	2 1/2 LFFBVS-3C	Solder	88005473	#6 LL-HK LFFBV-3C	Fits 2 1/2"	0789547	SXI-HK-6A StemExtension	2 1/2" 3C/3CM1/G2
0555117	3 LFFBVS-3C	Solder	88005474	#7 LL-HK LFFBV-3C	Fits 3"	0789548	SXI-HK-7A StemExtension	3" 3C/3CM1/G2



USA: T: (978) 689-6066 • F: (978) 975-8350 • Watts.com
 Canada: T: (905) 332-4090 • F: (905) 332-7068 • Watts.ca
 Latin America: T: (52) 81-1001-8600 • Watts.com