

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Series

LFB6090, LFB6091

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

1/4" – 2"

The LFB6090 and LFB6091 series ball valve is a 2-Piece, Full Port, Lead Free, Bronze Ball valve. These products can be used in both commercial and industrial applications. This series features a blowout proof stem and a full-port orifice to ensure minimal pressure drop. These series are available with solder or NPT connections.

Features

- Lead Free*, forged bronze body and adapter
- Full-port flow
- Full range of sizes from 1/4" – 2"
- Certified to NSF 372
- Minimal pressure drop due to large ports
- Blowout proof, pressure retaining stem
- Adjustable stem packing gland
- White handles for easy Lead Free* identification
- Used in commercial and industrial applications for a full range of liquids and gasses.
- Complies with MSS-SP-110

Models

LFB6090 1/4" – 2" NPT

LFB6091 3/8" – 2" solder

Pressure — Temperature

Temperature Range:

0°F - 400°F (-18°C – 205°C) @ 50psi (3.4 bar)

Pressure Range:

1/4" – 2" 600psi (41 bar) WOG, non-shock;
150psi (10.3 bar) WSP

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



Specifications

A 2-piece full port Lead Free* bronze ball valve to be installed as indicated on the plans. Valves with top loaded stems or valves without adjustable packing are not acceptable. Pressure rating no less than 600psi (41 bar) WOG non-shock and 150psi (10 bar) WSP. The valve shall be constructed using Lead Free* bronze. Lead Free* ball valves shall comply with state codes and standards, where applicable, requiring reduced lead content. Valve must conform to NSF 372 and shall be a Watts Series LFB6090 (NPT) or LFB6091 (solder).

Standards

Tested and Certified by NSF International
NSF 372 Lead Free.



Applications

- Full range of fluids
- Hydronic Heating (90% glycol max)
- Low Pressure Steam, 15 psi max
- Not applicable for flammable gas installations
- Not compatible with soft annealed copper tubing

NOTICE

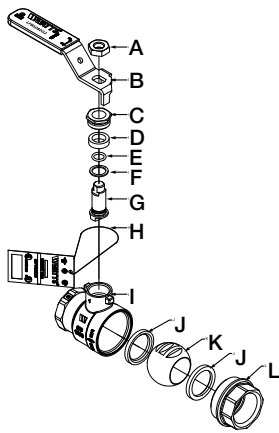
The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation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

NOTICE

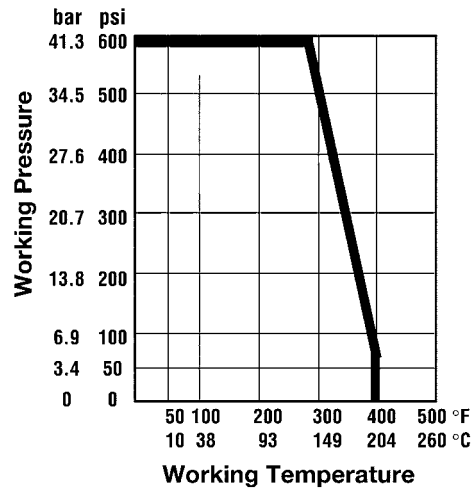
Apply heat with the flame directed **AWAY** from the center of the valve body. Excessive heat can harm the seats. After soldering, the packing nut may have to be tightened.

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.

Materials



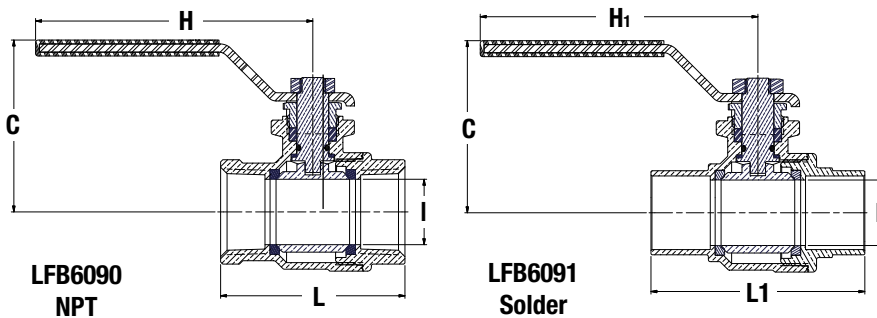
Temperature – Pressure



- | | |
|---------------------------|---|
| 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 | Lead Free* Brass |
| H. Tag | Cardboard, Mylar coated both sides |
| I. Body | Forged Lead Free* bronze |
| J. Seats | Virgin PTFE |
| K. Ball | Chrome-plated Lead Free* brass |
| L. Adapter | Forged Lead Free* bronze |

Dimensions – Weights

Call customer service if you need assistance with technical details.



SIZE	DIMENSIONS								WEIGHT					
	C		H, H1		I		L		L1		LFB6090		LFB6091	
in	in	mm	in	mm	in	mm	in	mm	in	mm	lbs.	kg	lbs.	kg
1/4"	1 13/16	46	3 7/16	87	7/16	11	1 3/4	47	-	-	0.4	0.2	-	-
3/8"	1 13/16	46	3 7/16	87	1/2	13	1 7/8	48.3	1 15/16	49	0.4	0.2	0.4	0.18
1/2"	1 13/16	46	3 7/16	87	1/2	13	2	57	2 1/8	54	0.5	0.22	0.4	0.18
3/4"	2 1/4	58	3 15/16	101	3/4	19	2 1/4	58	3	76	0.9	0.41	0.8	0.36
1"	2 5/8	67	4 1/4	108	1	26	3	77	3 1/2	89	1.4	0.65	1.3	0.57
1-1/4"	2 13/16	72	4 1/4	108	1 1/4	32	3 3/8	86	3 7/8	98	2.1	0.94	1.8	0.82
1-1/2"	3 3/16	80	5 5/16	135	1 1/2	38	3 11/16	93	4 5/16	109	3.1	1.4	2.7	1.23
2"	3 1/2	89	6	153	2	51	4 1/4	108	5 3/8	136	4.9	2.25	4.4	2.02

Ordering Charts

	BALL VALVE		LOCKING HANDLE KIT			STEM EXTENSION		
	PART NUMBER	DESCRIPTION	PART NUMBER	SIZE	DESCRIPTION	PART NUMBER	SIZE	DESCRIPTION
LFB6090	0450141	1/4 LFB6090	88004584	1/4" to 1/2"	"#1 LL-HK LFB6090/LFB6091 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450142	3/8 LFB6090	88004584	1/4" to 1/2"	"#1 LL-HK LFB6090/LFB6091 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450143	1/2 LFB6090	88004584	1/4" to 1/2"	"#1 LL-HK LFB6090/LFB6091 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450144	3/4 LFB6090	88004585	3/4"	"#2 LL-HK LFB6090/LFB6091 3/4 LockingHandleKit"	0789550	3/4" 6090/6091	SKI-HK-9A Stem Extension
	0450145	1 LFB6090	88004586	1 to 1-1/4"	"#3 LL-HK LFB6090/LFB6091 1-1 1/4 LockingHandleKit"	0789551	1"-1 1/4" 6090/6091	SKI-HK-10A Stem Extension
	0450146	1 1/4 LFB6090	88004586	1 to 1-1/4"	"#3 LL-HK LFB6090/LFB6091 1-1 1/4 LockingHandleKit"	0789551	1"-1 1/4" 6090/6091	SKI-HK-10A Stem Extension
	0450147	1 1/2 LFB6090	88004587	1-1/2"	"#4 LL-HK LFB6090/LFB6091 1 1/2 LockingHandleKit"	0789552	1 1/2" 6090/6091	SKI-HK-11A Stem Extension
	0450148	2 LFB6090	88004588	2"	"#5 LL-HK LFB6090/LFB6091 2 LockingHandleKit"	0789546	2" 6090/6091	SKI-HK-5A Stem Extension
LFB6091	0450149	3/8 LFB6091	88004584	1/4" to 1/2"	"#1 LL-HK LFB6090/LFB6091 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450150	1/2 LFB6091	88004584	1/4" to 1/2"	"#1 LL-HK LFB6090/LFB6091 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450151	3/4 LFB6091	88004585	3/4"	"#2 LL-HK LFB6090/LFB6091 3/4 LockingHandleKit"	0789550	3/4" 6090/6091	SKI-HK-9A Stem Extension
	0450152	1 LFB6091	88004586	1 to 1-1/4"	"#3 LL-HK LFB6090/LFB6091 1-1 1/4 LockingHandleKit"	0789551	1"-1 1/4" 6090/6091	SKI-HK-10A Stem Extension
	0450153	1 1/4 LFB6091	88004586	1 to 1-1/4"	"#3 LL-HK LFB6090/LFB6091 1-1 1/4 LockingHandleKit"	0789551	1"-1 1/4" 6090/6091	SKI-HK-10A Stem Extension
	0450154	1 1/2 LFB6091	88004587	1-1/2"	"#4 LL-HK LFB6090/LFB6091 1 1/2 LockingHandleKit"	0789552	1 1/2" 6090/6091	SKI-HK-11A Stem Extension
	0450155	2 LFB6091	88004588	2"	"#5 LL-HK LFB6090/LFB6091 2 LockingHandleKit"	0789546	2" 6090/6091	SKI-HK-5A Stem Extension



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