

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Series LFB6090-SS, LFB6091-SS

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

1/4" – 4"

The LFB6090-SS and LFB6091-SS series ball valves are a 2-Piece, Full Port, Lead Free, Bronze valve with Stainless Steel trim. These products are ideal for potable water, commercial, and industrial applications. These valves features a blowout proof stem, as well as a full-port design which ensures minimal pressure drop. The LFB6090-SS and LFB6091-SS series offers multiple models for solder and NPT connections with NSF-61G certification.

Features

- Lead Free*, forged bronze body and adapter
- Full-port flow
- Full range of sizes from 1/4" – 4"
- Certified to NSF/ANSI/CAN 61 & NSF/ANSI/CAN 372
- 316 Stainless steel ball and stem
- Minimal pressure drop due to large ports
- Blowout proof, pressure retaining stem
- Adjustable stem packing gland
- White handles for easy Lead Free* identification

Models

LFB6090-SS 1/4" – 4" 316 stainless steel ball and stem NPT

LFB6091-SS 3/8" – 3" 316 stainless steel ball and stem Solder

Pressure — Temperature

Temperature Range:

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

Pressure Range:

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

2 1/2" – 4" 400 psi (27.5 bar) WOG, non-shock;
125 psi (8.6 bar) WSP

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



LFB6090-SS
NPT



LFB6091-SS
Solder

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 up to 600 psi for 1/4" to 2" and 400 psi for 2 1/2" to 4". 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-61G and shall be a Watts Series LFB6090-SS NPT or LFB6091-SS (solder).

Standards

Tested and Certified by NSF International
NSF-61 Potable Water and NSF 372 low lead.

Complies with MSP-110

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

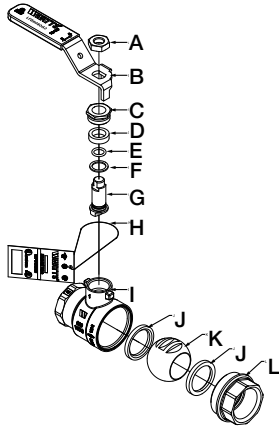
The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation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

NOTICE

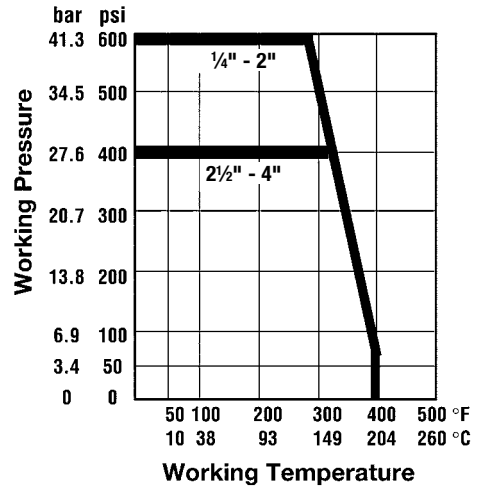
For soldered versions, heat **MUST** be directed **AWAY** from the center of the valve body as excessive heat harm the seats. After soldering, the packing nut may have to be tightened.

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

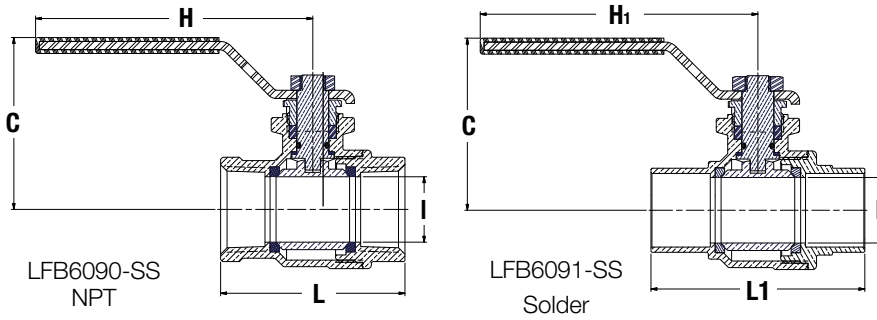


Temperature – Pressure



- 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 316 Stainless Steel
- H. Tag Cardboard, Mylar coated both sides
- I. Body Forged Lead Free* bronze
- J. Seats Virgin PTFE
- K. Ball 316 Stainless Steel
- 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		LFB6080G2		LFB6081G2		
in	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg	lb	kg	
1/4"	1 ¹³ / ₁₆	46	3 ⁷ / ₁₆	87	7 ¹ / 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 ⁵ / 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 ¹ / 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	
2 ¹ / ₂ "	4 ¹ / ₁₆	104	7 ³ / ₈	187	2 ¹ / ₂	63.6	5 ⁵ / ₁₆	134	6 ¹ / ₄	158	9.0	4.1	8.2	3.7	
3"	4 ¹ / ₂	114	7 ³ / ₄	197	3	76.3	6 ¹ / ₁₆	154	7 ³ / ₈	185	13.9	6.3	12.9	5.9	
4"	5 ³ / ₈	136	9 ⁵ / ₈	245	7 ⁷ / ₁₆	189	7 ⁷ / ₁₆	189	-	-	27.7	12.6	-	-	

Ordering Chart

	BALL VALVE		LOCKING HANDLE KIT			STEM EXTENSION		
	PART NUMBER	DESCRIPTION	PART NUMBER	SIZE	DESCRIPTION	PART NUMBER	SIZE	DESCRIPTION
LFB6090-SS	0450156	1/4 LFB6090-SS	0789573	1/4" - 1/2"	"#1 LL-HK LFB6090-SS/LFB6091-SS 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450157	3/8 LFB6090-SS	0789573	1/4" - 1/2"	"#1 LL-HK LFB6090-SS/LFB6091-SS 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450158	1/2 LFB6090-SS	0789573	1/4" - 1/2"	"#1 LL-HK LFB6090-SS/LFB6091-SS 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450159	3/4 LFB6090-SS	0789577	3/4"	"#2 LL-HK LFB6090-SS/LFB6091-SS 3/4 LockingHandleKit"	0789550	3/4" 6090/6091	SKI-HK-9A Stem Extension
	0450160	1 LFB6090-SS	0789571	1" - 1 1/4"	"#3 LL-HK LFB6090-SS/LFB6091-SS 1-1 1/4 LockingHandleKit"	0789551	1"-1 1/4" 6090/6091	SKI-HK-10A Stem Extension
	0450161	1 1/4 LFB6090-SS	0789571	1" - 1 1/4"	"#3 LL-HK LFB6090-SS/LFB6091-SS 1-1 1/4 LockingHandleKit"	0789551	1"-1 1/4" 6090/6091	SKI-HK-10A Stem Extension
	0450162	1 1/2 LFB6090-SS	0789572	1 1/2"	"#4 LL-HK LFB6090-SS/LFB6091-SS 1 1/2 LockingHandleKit"	0789552	1 1/2" 6090/6091	SKI-HK-11A Stem Extension
	0450163	2 LFB6090-SS	0789574	2"	"#5 LL-HK LFB6090-SS/LFB6091-SS 2 LockingHandleKit"	0789546	2" 6090/6091	SKI-HK-5A Stem Extension
	0450171	2 1/2 LFB6090-SS	0789575	2 1/2"	"#6 LL-HK LFB6090-SS/LFB6091-SS 2 1/2 LockingHandleKit"	0789547	2 1/2" 6090/6091	SKI-HK-6A Stem Extension
	0450172	3 LFB6090-SS	0789576	3"	"#7 LL-HK LFB6090-SS/LFB6091-SS 3 LockingHandleKit"	0789548	3" 6090/6091	SKI-HK-7A Stem Extension
	0450173	4 LFB6090-SS	0789578	4"	"#8 LL-HK LFB6090-SS/LFB6091-SS 4 LockingHandleKit"	0789549	4" 6090/6091	SKI-HK-8A Stem Extension
LFB6091-SS	0450164	3/8 LFB6091-SS	0789573	1/4" - 1/2"	"#1 LL-HK LFB6090-SS/LFB6091-SS 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450165	1/2 LFB6091-SS	0789573	1/4" - 1/2"	"#1 LL-HK LFB6090-SS 1/4-1/2 LockingHandleKit"	0789542	1/4"-1/2" 6090/6091	SKI-HK-1A Stem Extension
	0450166	3/4 LFB6091-SS	0789577	3/4"	"#2 LL-HK LFB6090-SS/LFB6091-SS 3/4 LockingHandleKit"	0789550	3/4" 6090/6091	SKI-HK-9A Stem Extension
	0450167	1 LFB6091-SS	0789571	1" - 1 1/4"	"#3 LL-HK LFB6090-SS/LFB6091-SS 1-1 1/4 LockingHandleKit"	0789551	1"-1 1/4" 6090/6091	SKI-HK-10A Stem Extension
	0450168	1 1/4 LFB6091-SS	0789571	1" - 1 1/4"	"#3 LL-HK LFB6090-SS/LFB6091-SS 1-1 1/4 LockingHandleKit"	0789551	1"-1 1/4" 6090/6091	SKI-HK-10A Stem Extension
	0450169	1 1/2 LFB6091-SS	0789572	1 1/2"	"#4 LL-HK LFB6090-SS/LFB6091-SS 1 1/2 LockingHandleKit"	0789552	1 1/2" 6090/6091	SKI-HK-11A Stem Extension
	0450170	2 LFB6091-SS	0789574	2"	"#5 LL-HK LFB6090-SS/LFB6091-SS 2 LockingHandleKit"	0789546	2" 6090/6091	SKI-HK-5A Stem Extension
	0450174	2 1/2 LFB6091-SS	0789575	2 1/2"	"#6 LL-HK LFB6090-SS/LFB6091-SS 2 1/2 LockingHandleKit"	0789547	2 1/2" 6090/6091	SKI-HK-6A Stem Extension
	0450175	3 LFB6091-SS	0789576	3"	"#7 LL-HK LFB6090-SS/LFB6091-SS 3 LockingHandleKit"	0789548	3" 6090/6091	SKI-HK-7A Stem Extension



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