

For Commercial Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

**Series LF15M2
Water Hammer Arrestors**

Sizes: 1/2" - 1" (15-25mm)

What is Water Hammer?

The noise from banging pipes is caused by shocks of high speed water flowing in the piping system when a fixture is suddenly closed. Sudden stoppage of the water (a non-compressible liquid) flowing at a given pressure and velocity causes a surge or spike of water and is called water hammer. When this occurs, a pressure wave travels back through the piping until it finds a point of relief. The LF15M2 and LF15M2S Water Hammer Arrestors are designed to eliminate this effect. The LF15M2 and LF15M2S features Lead Free* construction to comply with Lead Free* requirements.

Dishwashers, clothes washers, fast closing positive shutoff valves incorporated in the system all contribute to creating water shock which is not only annoying but damaging to pipes and appliances. The Watts Series LF15M2 and LF15M2S incorporates a pre-charged, permanent sealed air chamber to absorb the shock. The sealed chamber prevents the loss of air to the water and assures long and trouble-free life.

Features

- NPT solid hex brass adapter or solder end connection for easy installation
- Approved for installation with no access panel required
- May be installed in new or existing plumbing systems with a standard pipe tee vertically, horizontally or at any angle
- PDI Listed (PDI WH201)
- Maintenance free – piston is the only moving part
- Air pre-load is 60psi (4.2 bar)
- Factory air charged and permanently sealed

Standards



Standard: Listed by IAPMO, ASSE 1010 approved, ANSI A112.26.1M approved, PDI WH201 approved and certified.



LF15M2



LF15M2S

Pressure - Temperature

Operating Pressure: Designed to operate on all domestic and commercial lines @ 150psi (10.6 bar) working pressure.

Temperature Range: 33°F to 180°F (0.5°C to 82°C).

Materials

- | | |
|----------|------------------|
| Body: | Copper tubing |
| Piston: | Polypropylene |
| Adapter: | Lead Free* Brass |
| O-ring: | EPDM |

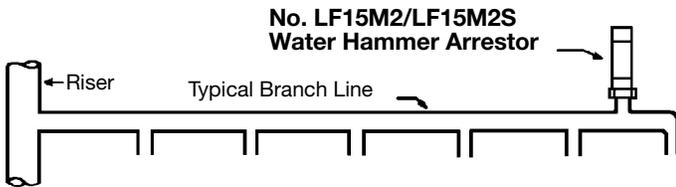
*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

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.



NOTE: 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.

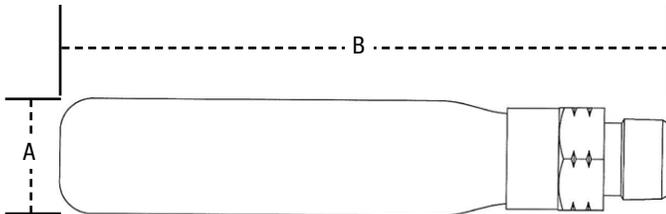
Sizing and Placement



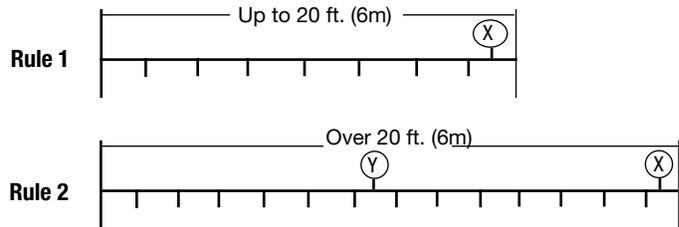
As shown, it has been established that the preferred location for the water hammer arrestor is at the end of the branch line between the last two fixtures served.

The location of the water hammer arrestor shown above applies to branch lines that do not exceed 20 ft. (6m) in length, from the start of the horizontal branch line to the last fixture supply on this branch line. When the branch line exceeds the 20 ft. (6m) length, an additional water hammer arrestor should be used. This practice is best defined by two rules which have been established to cover the placement of water hammer arrestors.

Dimensions - Weight



SIZE (DN)	DIMENSIONS				WEIGHT	
	A		B		(lbs)	(kgs)
	in.	mm	in.	mm		
Threaded						
1/2" LF15M2-A	1 1/8	28.5	5 15/16	150.9	0.5	0.2
3/4" LF15M2-B	1 3/8	34.9	8 9/16	218.0	0.9	0.4
1" LF15M2-C	1 5/8	41.3	8 3/4	223.5	1.3	0.6
1" LF15M2-D	2 1/8	54.0	9 15/16	252.5	2.0	0.9
1" LF15M2-E	2 1/8	54.0	12 11/16	322.5	2.3	1.1
1" LF15M2-F	2 5/8	66.7	11 5/32	283.5	2.7	1.2
Solder						
1/2" LF15M2-AS	1 1/8	28.5	8 1/4	210.0	0.44	0.2
3/4" LF15M2-BS	1 1/8	28.5	10	254.0	0.54	0.2
1" LF15M2-CS	1 3/8	34.9	12 1/2	317.5	0.92	0.4
1" LF15M2-DS	2 1/8	54.0	11	280.0	1.63	0.7
1" LF15M2-ES	2 1/8	54.0	13 1/2	343.0	1.98	0.9
1" LF15M2-FS	2 1/8	54.0	16	406.5	2.32	1.1



Rule 1 covers multiple fixture branch lines which do not exceed 20 ft. (6m) in length.

Explanation - Fixture-unit sizing and selection table is used to select the required PDI unit (water hammer arrestor).

Rule 2 covers multiple fixture branch lines which do exceed 20 ft. (6m) in length.

Explanation - Fixture-unit sizing and selection table is used to select the required PDI unit (water hammer arrestor). The sum of the fixture units rating of units X and Y shall be equal to or greater than the demand of the branches.

Sizing and Selection Table

SIZE (DN)	MODEL	ORDER CODE	MODEL	ORDER CODE	CROSS FIXTURE UNITS	REF. PDI STANDARD
<i>in. mm</i>	<i>Threaded</i>		<i>Solder</i>			
1/2" 15	LF15M2-A	0750160	LF15M2-AS	0750150	1-11	A
3/4" 20	LF15M2-B	0750161	LF15M2-BS	0750151	12-32	B
1" 25	LF15M2-C	0750162	LF15M2-CS	0750152	33-60	C
1" 25	LF15M2-D	0750163	LF15M2-DS	0750153	61-113	D
1" 25	LF15M2-E	0750164	LF15M2-ES	0750154	114-154	E
1" 25	LF15M2-F	0750165	LF15M2-FS	0750155	155-330	F

Fixture Units Sizing Information

FIXTURE	TYPE OF SUPPLY CONTROL	FIXTURE UNITS					
		PUBLIC			PRIVATE		
		TOTAL	C.W.	H.W.	TOTAL	C.W.	H.W.
Water Closet 1.66 PF	Flush Valve	8	8	-	5	5	-
Water Closet 1.66 PF	Flush Tank	5	5	-	2.5	2.5	-
Pedestal Urinal 1.06 PF	Flush Valve	4	4	-	-	-	-
Stall or Wall Urinal	Flush Valve 1.06 PF	4	4	-	-	-	-
Stall or Wall Urinal	Flush Tank 1.06 PF	2	2	-	-	-	-
Lavatory	Faucet	2	1 1/2	1 1/2	1	1	1
Bathtub	Faucet	4	2	3	2	1 1/2	1 1/2
Shower Head	Mixing Valve	4	2	3	2	1	2
Bathroom Group	Flush Valve Closet	-	-	-	8	8	3
Bathroom Group	Flush Tank Closet	-	-	-	6	6	3
Separate Shower	Mixing Valve	-	-	-	2	1	2
Service Sink	Faucet	3	3	3	-	-	-
Laundry Tubs (1-3)	Faucet	-	-	-	3	3	3
Combination Fixture	Faucet	-	-	-	3	3	3



A Watts Water Technologies Company

