For Commercial Applications

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

LEAD FREE*

Series LF15

Water Hammer Arrestor

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 LF15 Water Hammer Arrestors are designed to eliminate this effect.

The LF15 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 LF15 incorporates a pre-charged, permanent sealed air chamber to absorb the shock. The sealed chamber prevents the loss of air to the water and insures long and trouble-free life.

Features

- NPT solid hex brass adapter for easy installation
- May be installed in concealed locations without access panels and are not rechargeable in the field.
- May be installed in new or existing plumbing systems with a standard pipe tee vertically, horizontally or at any angle.
- Factory air charged and permanently capped and solder sealed.
- PDI Listed
- Air pre-load is 60psi (422 kPa)

Standards

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

Pressure – Temperature

Operating Pressure: Designed to operate on all domestic and commercial lines @ 150 psi (10.3 bar) working pressure.

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

Materials

Bodies	Hard drawn copper with custom internal mirror finish.
Piston, Threaded Adapter	Machined Lead Free* brass.
Seal	O-rings, EPDM.
Seal Lubricant	FDA approved for use in potable water systems.
Cap	Machined free-cutting brass.

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.

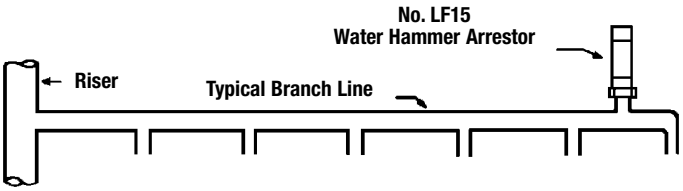
NOTICE

Inquire with governing authorities for local installation requirements

***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.

Sizing and Placement

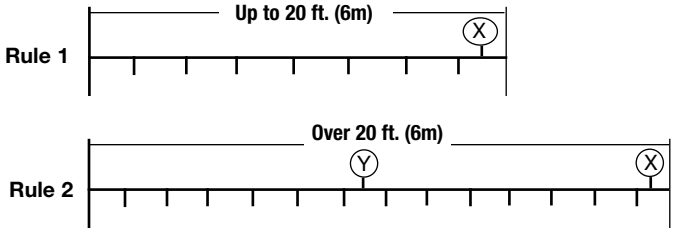


As shown, it has been established that the preferred location for the water hammer arrestor is at the end of the branch line between the last two fixtures served.

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

CONNECTION	DIMENSIONS			
	A		B	
NPT	*in.*	*mm*	*in.*	*mm*
½"	1 7/16	37	5½	140
¾"	1⅞	48	7½	191
1"	2 3/16	56	8⅛	207
1¼"	2 11/16	68	10 13/16	275
1½"	3 5/16	84	11½	292
2"	3 5/16	84	14⅞	378



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	ORDERING CODE NO.	CROSS FIXTURE UNITS	REF. PDI STANDARD
in.			
½	0009858	1-11	A
¾	0009859	12-32	B
1	0009860	33-60	C
1¼	0009861	61-113	D
1½	0009862	114-154	E
2	0009863	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	Flush Tank	5	5	–	3	3	–
Pedestal Urinal	Flush Valve	10	10	–	–	–	–
Stall or Wall Urinal	Flush Valve	5	5	–	–	–	–
Lavatory	Faucet	2	1½	1½	1	1	1
Bathtub	Faucet	4	2	3	2	1½	1½
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

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