

For Commercial Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

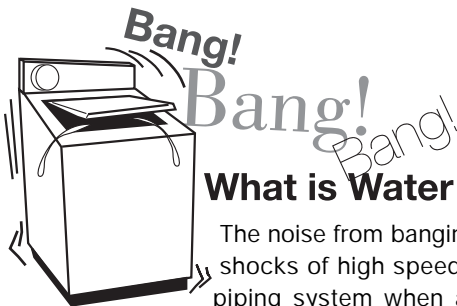
Contractor's P.O. No. _____

Approval _____

Representative _____

Series 15

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.

Dishwashers, clothes washers, fast closing positive shut-off 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 15 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
- Optional 15AK Adaptors available
- Air pre-load is 60 psi (4.22 bar)
- 15AK connects a 1¼", 1½" or 2" (32, 40 or 50mm)

Standards



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



Pre-charged
Air Chamber
Permanently
Sealed from
Water System

NPT Solid
Hex Brass
Adapter
for Easy
Installation

Pressure - Temperature

Operating Pressure: Designed to operate on all domestic and commercial lines @ 150 psi (10.55 bar) working pressure.

Temperature Range: 33°F to 180°F (.6°C to 82°C).

Materials

Bodies

Hard drawn copper with custom internal mirror finish.

Piston, Threaded Adapter and Cap

Machined of free cutting brass.

Seal

O-rings, EPDM.

Seal Lubricant

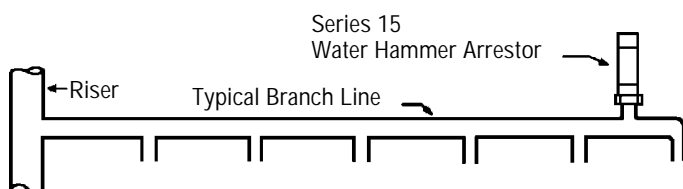
FDA approved for use in potable water systems.

Fittings Information

No.	Ordering Code No.	Size	
		In.	mm
1-15AK	0863210	1¼ F x 1M	32 x 25
2-15AK	0863212	1½ F x 1M	40 x 25
3-15AK	0863214	2F x 1M	50 x 25

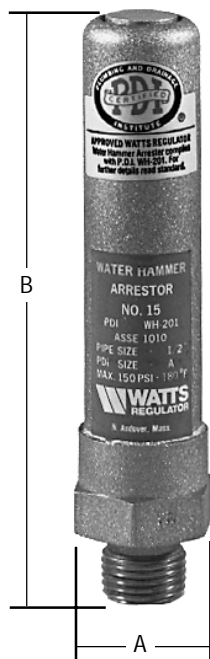


Sizing and Placement



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.

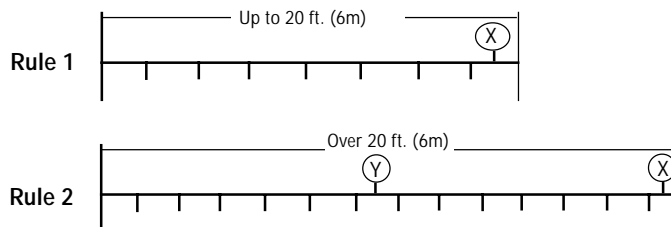
The location of the water hammer arrestor shown above applies to branch lines that do not exceed 20 ft. (6m) in length, from the start of the horizontal branch line to the last fixture supply on this branch line. When the branch line exceeds the 20 ft. (6m) length, an additional water hammer arrestor 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	mm	in.	mm	in.	mm
1/2"	15	1 7/16	37	5 1/2	140
3/4"	20	1 7/8	48	7 1/2	191
1"	25	2 3/16	56	8 1/8	207
1 1/4"	32	2 11/16	68	10 13/16	275
1 1/2"	40	3 5/16	84	11 1/2	292
2"	50	3 5/16	84	14 7/8	378

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.



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)		Ordering Code No.	Cross Fixture Units	Ref. PDI Standard
in.	mm			
1/2	15	0750030	1-11	A
3/4	20	0750053	12-32	B
1	25	0750060	33-60	C
1 1/4	32	0750070	61-113	D
1 1/2	40	0750090	114-154	E
2	50	0750110	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	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



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