



WATER HAMMER ARRESTERS

For better life and environment!

Water Hammer Arrestors LEAD FREE*

Size : 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 water hammer Arrestors are designed to eliminate this effect 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 WATER HAMMERARRESTERS OMEAX Series THREADED and SOLDER incorporates a precharged, 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.

Pressure-Temperature

Max. Pressure : 350psig

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

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

Materials Description

Body : Copper barrel

Piston : Polypropylene

Adapter : Lead Free* Brass

O-ring : EPDM

Features

- NPT solid hex brass adapter 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)
- Air pre-load is 60psi(4.2 bar)
- Factory air charged and permanently sealed

WATER HAMMER ARRESTERS

Copper Body Piston Type Water Hammer Arresters



SPECIFICATION

OMEAX Products Pre- charged hard drawn copper surge pressure absorber with teflon piston, EPDM O- ring seals, and Lead Free Adaptor male NPT & BSP connection.



OPERATING PRESSURE

Designed to operate on all domestic and commerical lines upto 150 PSI working pressure.



TEMPERATURE RANGE

33°F to 180°F (0.5°C to 82°C)



INSTALLATION

May be installed in new or existing plumbing systems with a standard pipe tee.

CONSTRUCTION

Seal Lubricant : Dow-Corning Silicone compound #111 FDA or equivalent approved for use in portable water system.

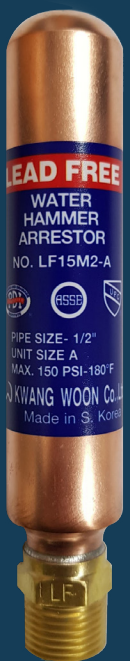
Piston : PP

Seals : O'rings, (2) EPDM

Bodies : Hard drawn copper with custom internal mirror finish.

Sizing and Selection Table			
PDI SYM BOL	SIZE (in mm)	MODEL Threaded	FIXTURE Unit.
A	1/2 15	A	1-11
B	3/4" 20	B	12-32
C	1" 25	C	33-60
D	1 1/4" 32	D	61-113
E	1 1/2" 40	E	114-154
F	2" 50	F	155-330

Technical Data						
	WHA100-A	WHA100-B	WHA100-C	WHA100-D	WHA100-E	WHA100-F
Fixture Unit	1-11	12-32	33-60	61-113	114-154	155-330
"A" connection	1/2"(15)	3/4"(20)	1"(25)	1-1/4"(32)	1-1/2"(40)	2"(50)
"B" height (mm)	151	185	222	259	283	329
"C" diameter	1-1/8"	1-1/8"	1-3/8"	1-5/8"	2-1/8"	2-5/8"



OMEAX



Unique Technology Unique Future

PRODUCT CATALOGUE



WATER HAMMER ARRESTERS

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CYLINDER Type
(Threaded Connection)



CYLINDER Type
(Sweat Connection)



CYLINDER Type
(Laundry & Valve)

STAINLESS STEEL BELLOWS WATER HAMMER ARRESTORS

LEAD FREE, MAINTENANCE FREE, NO ACCESS DOOR REQUIRED

WHA-SS Series

SPECIFICATION : Pre-charged shock arrestor made of Stainless Steel bellows with male IPS threaded connection.

OPERATION PRESSURE : Designed to operate on all domestic and commercial lines up to 150psi working pressure, 250psi static pressure.

TEMPERATURE RANGE : 100°F to 300°F (-73°C to 149°C)

PDI Size	Model Name	Connection Size	Fixture Units
A	KW-SS-A	3/4" or 1/2"	1-11
B	KW-SS-B	1"	12-32
C	KW-SS-C	1"	33-60
D	KW-SS-D	1"	61-113
E	KW-SS-E	1"	114-154
F	KW-SS-F	1"	155-330



COMPARISON CHART BETWEEN OLD & NEW BELLOWS TYPE ARRESTOR

Current Existing Arrestor



No. of Bellows	7
Wall between inlet and housing	Partition wall with 5mm Ø hole
Uniting upper and lower housing	Dual overlap
Water flow	Inside the Bellows

OMEAX's new Developing Arrestor



No. of Bellows	6
Wall between inlet and housing	Without
Uniting upper and lower housing	No overlap
Water flow	Outside the Bellows

IMPROVEMENT EFFECT

Current Existing Arrestor(As-Is)

Durability	OMEAX's New Developing Arrestor(To-Be)
Fluid flows into the bellows and impurities or scales are stuck, resulting in a decrease in absorption over time. Especially when fluid is dirty or calcified	Since the inside of the bellows is in a nitrogen-filled state and fluid flows out of the bellows, no impurities or scale accumulates, so durability or absorption rate does not decrease over time
Appearance	
Dual folded inside between upper & lower housing and jut from the top	Stable in appearance due to the integrated bonding of the upper and lower housing and the flat finish of the top end
Wall between Housing and Inlet pipe	
Small 5mm diameter hole between pipe and housing reduces impact absorption role	As there are no partitions or holes, no delay when absorbing the shock and maximize the effect
No. of Bellows	
The more Bellows, the more cost and manufacturing time	Less Bellows save material and manufacturing time
Target Price Level	
Based current type: 100	Targeting 90-95 level

The INFLUENCE of Water Hammer

- Damage, vibration and noise in the piping line
- Leakage and loosening of piping line
- Damage to Valves and Gauges
- Weakening pipe hanger and support
- Damage to tank and boiler
- Reducing equipment durability

Application Standards

- approved by ASSE 1010-1996
- ANSI/ASME A 11.26.1M-1984
- PDI-WH201-1992
- SPS-KARSE B 0021-0183 : 2016

Performance Test

Analysis hydraulic shock wave in a pipe when open

