

For Commercial Applications

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

Series 15M2

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 pressure 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 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 15M2 and 15M2-S 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 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 – unit 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.



15M2



15M2-S

Pressure - Temperature

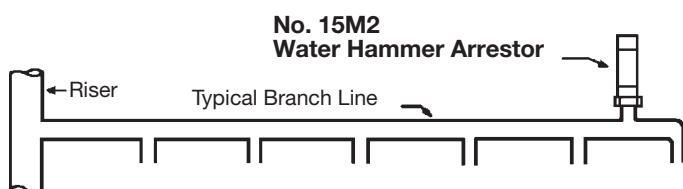
Operating Pressure: Designed to operate on all domestic and commercial lines @ 150psi (10.6 bar) working pressure.

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

Materials

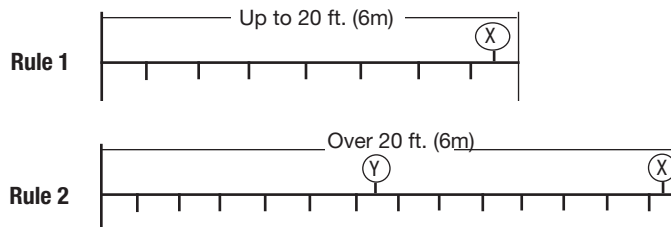
Body:	Copper tubing
Piston:	Polypropylene
Adapter:	Brass
O-ring:	EPDM

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.



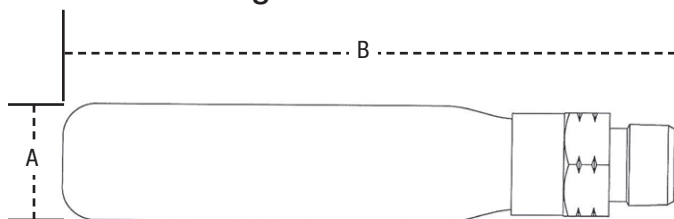
Rule 1 covers multiple fixture branch lines which do not exceed 20 ft. (6m) in length.

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.

Dimensions - Weight



SIZE (DN)	DIMENSIONS				WEIGHT	
	A		B		(lbs)	(kgs)
	in.	mm	in.	mm		
Threaded						
1/2" 15M2-A	1 1/8	28.5	5 15/16	150.9	0.5	0.2
3/4" 15M2-B	1 3/8	34.9	8 9/16	218.0	0.9	0.4
1" 15M2-C	1 5/8	41.3	8 13/16	223.5	1.3	0.6
1" 15M2-D	2 1/8	54.0	9 15/16	252.5	2.0	0.9
1" 15M2-E	2 1/8	54.0	12 11/16	322.5	2.3	1.1
1" 15M2-F	2 5/8	66.7	11 5/32	283.5	2.7	1.2
Solder						
1/2" 15M2-AS	1 1/8	28.5	8 1/4	210.0	0.44	0.2
3/4" 15M2-BS	1 1/8	28.5	10	254.0	0.54	0.2
1" 15M2-CS	1 3/8	34.9	12 1/2	317.5	0.92	0.4
1" 15M2-DS	2 1/8	54.0	11	280.0	1.63	0.7
1" 15M2-ES	2 1/8	54.0	13 1/2	343.0	1.98	0.9
1" 15M2-FS	2 1/8	54.0	16	406.5	2.32	1.1

Sizing and Selection Table

SIZE (DN)	MODEL	ORDER CODE	MODEL	ORDER CODE	CROSS FIXTURE UNITS	REF. PDI STANDARD
in. mm	Threaded		Solder			
1/2" 15	15M2-A	0750140	15M2-AS	0750150	1-11	A
3/4" 20	15M2-B	0750141	15M2-BS	0750151	12-32	B
1" 25	15M2-C	0750142	15M2-CS	0750152	33-60	C
1" 25	15M2-D	0750143	15M2-DS	0750153	61-113	D
1" 25	15M2-E	0750144	15M2-ES	0750154	114-154	E
1" 25	15M2-F	0750145	15M2-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



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