Engineering Specifications

Job Name _____ Contractor _____

Job Location _____ Approval _____

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

Approval _____ Representative _____

Series FV-4M1

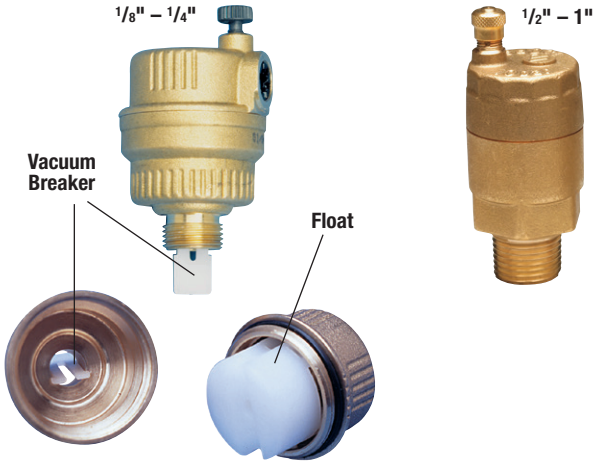
Automatic Air Vent Valves

Sizes: ⅛" – 1"

Series FV-4M1 Automatic Air Vent Valves provide automatic air venting for hot or cold water distribution systems. These vents purge air that may be in the water system.

The vent valve utilizes a float to actuate the valve plug which is located at the top of the valve. Once the air is displaced and the system pressure is sustained, the valve plug seals and prevents any water from escaping from the system.

The float vent can also operate as an anti-vacuum device since it will permit air to enter the system when it must be drained. It can also be installed to permit the separation and dispersal of air while fluid is actually circulating in the system.



Features

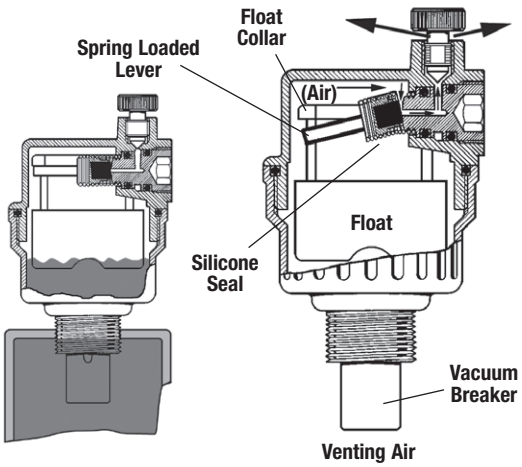
- Body and cover are brass construction
- Air vent with silicone rubber seal
- Impurities do not usually affect function as maximum float line of water is always lower than the valve seal
- Float is high temperature resistant polyethylene
- Suitable for use with glycol systems
- Can be disassembled for inspection and cleaning

Pressure – Temperature

Minimum working pressure: 1.45psi (10 kPa)

Maximum working pressure: 150psi (10 bar)

Temperature Range: 33˚F – 240˚F (5˚C – 116˚C)



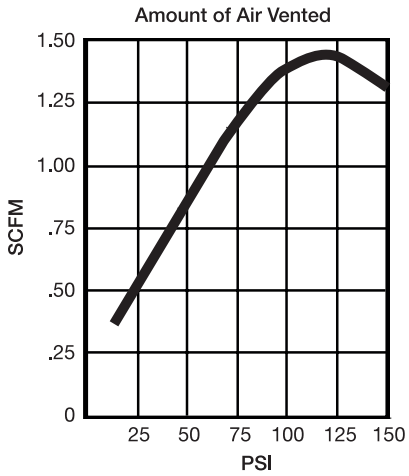


Diagram above shows the quantity of air vented by the "Float Vent" according to the pressure in the system.

Specifications

Air vent shall have brass body & cover and silicone rubber seal. Float shall be constructed of high temperature resistant polyethylene and shall be for use with glycol systems. Air vent shall be Watts Series FV-4M1.

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.

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.

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Installation

Fig. 1

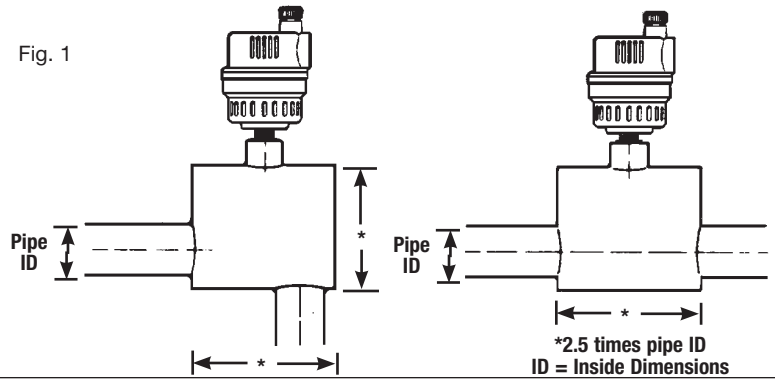


Fig. 2

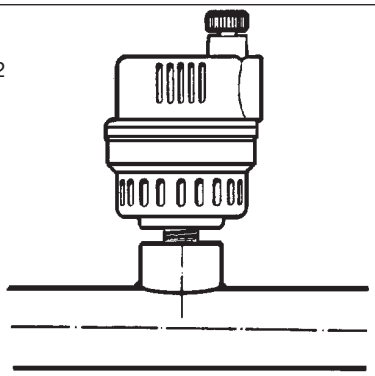


Figure 1 shows the installation of the FV-4M1 for the venting of air while the fluid is circulating in the system. The figure shows the required increase in pipe size in order to obtain proper separation of air from water. Watts Series AS Air Scoop which is designed for efficient separation of air from water in hydronic heating systems can also be installed. See Watts literature S-AS.

Figure 2 When the FV-4M1 is installed as shown, the air will not be vented while the fluid is circulating in the system, but it can vent when the system is shut off.

The FV-4M1 should be mounted only in a vertical position as its operation is based on the vertical movement of the float (see Fig. 3).

Note: In order to get the best results in venting air from risers, use connecting pipes of at least ½" diameter between the "Float Vent" valves and the installation.

Fig. 3

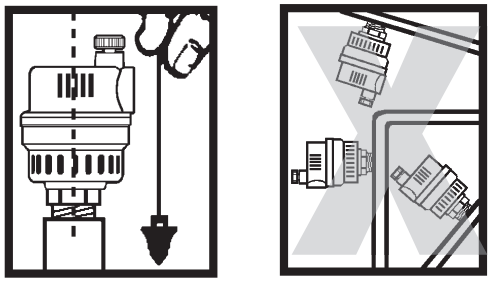
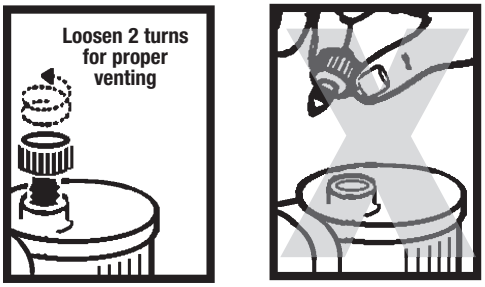


Fig. 4



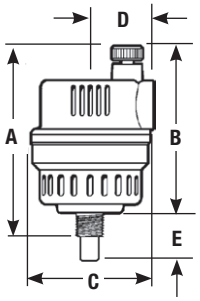
Maintenance

Corrosive water conditions, and/or unauthorized adjustments or repair could render the product ineffective for the service intended. Regular checking and cleaning of the product's internal components helps assure maximum life and proper function. When the FV-4M1 is disassembled for inspection or cleaning, it is important that when re-assembling to ensure that the spring loaded lever properly engages under the float collar (see reverse side).

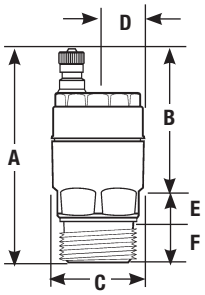
Operation: IMPORTANT!

After installing the FV-4M1, back off the small vent cap two turns (see Fig. 4). This is the proper operating setting which will allow air to be vented from the system. It is advisable to leave the cap on to prevent impurities from entering the valve.

⅛" – ¼"



½" – 1"



Dimensions – Weights

SIZE	DIMENSIONS												WEIGHT	
	A		B		C		D		E		F			
in.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kg*
⅛	2 15/16	75	2 5/8	67	1 5/8	41	13/16	21	5/16	7.9	5/16	7.9	.40	.18
¼	3 1/8	79	2 5/8	67	1 5/8	41	13/16	21	⅛	3.1	½	12.7	.43	.20
½	3 5/16	85	2 11/16	69	1 ¼	32	11/16	18	5/8	16	9/16	14.3	.44	.20
¾	3 3/8	85	2 11/16	69	1 ¼	32	11/16	18	5/8	16	5/8	15.9	.45	.20
1	3 ½	89	2 11/16	69	1 3/8	35	11/16	18	13/16	20	¾	19.0	.47	.21

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