



# AIR PURGERS TECHNICAL DATA

## Models 443 through 448

### PURGING DEVICES FOR HOT WATER HEATING SYSTEMS:

The water that is used initially to fill a hot water heating system contains dissolved air. Make-up water subsequently added will similarly have a high air content. Heating this water releases the air and permits it to be circulated in the system, from which it must be vented. The purpose of the Air Purgers is to continuously separate and collect any air from the water as it circulates so that it may be vented automatically by a float air vent without the necessity for frequent manual venting.

### DESCRIPTION:

Each Air Purger is a one-piece cast iron chamber with two passages through which boiler water flows. Internal contours and baffles are designed for low flow resistance characteristics and efficient separation of the air from the water. All models have tappings for installation of float air vents to provide complete purging and venting. Space tappings are also provided for easy mounting of an expansion tank or fill valve for combining automatic fill valve and expansion tank.

### OPERATION:

While the circulating pump is operating, system water continuously flows through the purger. The more dense water flows at nearly maximum velocity through the lower passage of the purger and directly to the system piping. The less dense water, containing dissolved air, moves into the upper channel. This area is so designed as to free the air or gases and to accumulate them at the venting port. The water thus freed of its air content rejoins the main flow.

### INSTALLATION:

The Air Purgers should be installed horizontally on the main piping as close to the boiler as possible. These units must be installed so that the water flows through them in the direction indicated by the arrow. Float air vent should be threaded into the opening marked "Vent". Be sure the air valve cap on the float vent is loose to permit air to escape.

### SUMMATION:

Purging of air from system water must be a continuing process. While the major part of the air removal is accomplished on the initial filling of the system, smaller troublesome amounts of air and gases must be removed continuously. Air Purgers are designed for maximum effective air removal together with minimum pressure drop and turbulence.

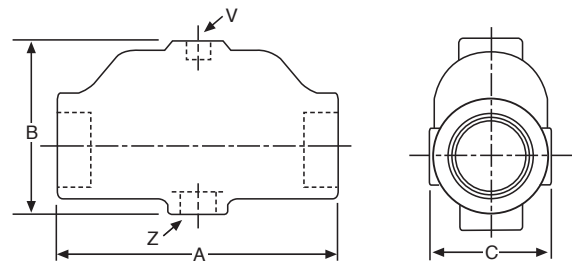
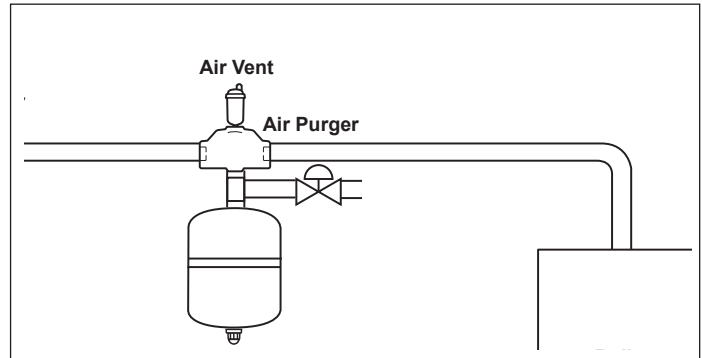
### SPECIFICATIONS:

Material: Close-grained cast-iron, 90 lb. ASA rating.  
Maximum Working Pressure: 125 PSIG (8.6 bar)

### WARRANTY:

1-Year

### TYPICAL INSTALLATION:



### DIMENSIONS FOR MODELS 443-448:

Model Number	Connection	A Length	B Height	C Width	V Tapping NPT	Z Tapping NPT
	In	In	In	In	In	In
443	1	6	4	2½	⅛	½
444	1¼	6	4	2½	⅛	½
445	1½	8	5	3½	⅛	½
446	2	8	5	3½	½	½
447	2½	10	6	5	¾	½
448	3	10	6	5	¾	½