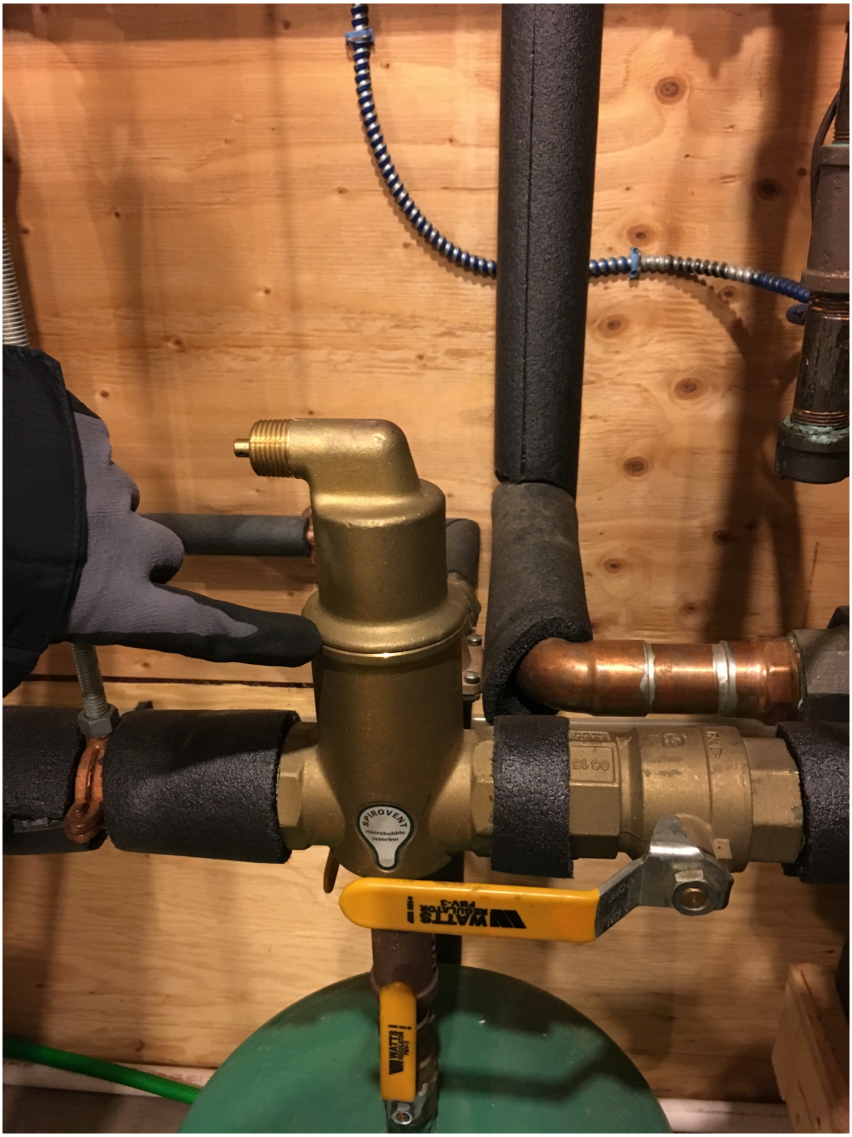
Air Separators – Air Elimination and Purging in Boilers



All hydronic (water based) heating systems use water to convey heat and there is always some air present in this water. When the amount of air is too great, circulation in the hydronic system will stop, usually resulting in a no-heat service call. This air can be continuously and automatically removed by an air separator.

The air separator has a stainless steel screen inside that is fine enough to break the surface tension of the micro bubbles of air that are in solution in the water in the hydronic system. As the water circulates through the air separator, the micro bubbles collect, form larger bubbles, and ultimately rise up to the air vent where the air is removed from the water.

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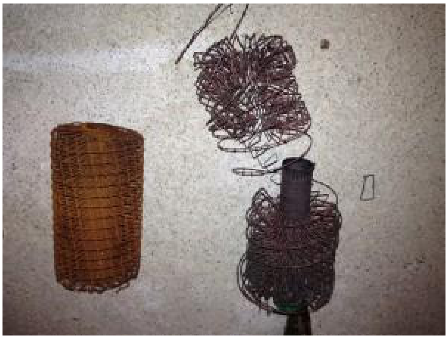
Air separators come in all sizes – here is an enormous unit that is able to handle 100 gallons per minute of flow.

Sometimes the float mechanism starts to leak and no longer is able to vent only air. This spirovent brand air separator needs a replacement head.



Over time, the stainless steel screen can start to corrode, especially in aggressive water that has become acidic. Once the corrosion builds up on the stainless screen, the air separator is no longer able to coalesce the smallest air bubbles and a lot of air gets left in the hydronic system to cause problems. The solution here is to replace the air separator.

Our goal is to be **Martha's Vineyard's premier plumbing and HVAC shop –** please visit our other pages about hydronic systems and boilers to see how we can meet your service and installation needs.