

Hydro Separator 5-in-1



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Installation and Operation Instructions Hydro Separator 5-in-1 Combination Hydraulic, Air, Dirt and Magnetic Separator, including Tridicator

The PurePro Hydro Separator 5-in-1 is a device that incorporates five critical functions for hot or chilled water systems. It combines high performance air and dirt (magnetic and non-magnetic) removal into the hydraulic separation function which makes the primary and secondary circuits connected to it hydraulically independent.

The Hydro Separator 5-in-1 features an internal stainless steel coalescing element that continuously and automatically eliminates air micro-bubbles with the simultaneous removal of dirt particles as tiny as 5 microns. The air discharge capacity is very high, with the capability of automatically removing all the air present in the system down to the micro-bubble level.

The 5-in-1 high performance functionality of the Hydro Separator 5-in-1 saves system installation and maintenance costs as there is no need to include separate air and dirt separators, as well as Tridicator gauge. In addition to removing solid impurities in the system without isolating the separator or shutting down the system, the added powerful removable external magnet probe in the lower body removes up to 100% of the magnetite that can form in a hydronic system. The Hydro Separator 5-in-1 has 2½ times the magnetite removal performance of standard air and dirt separators.

The Hydro Separator 5-in-1 is designed for use in closed hydronic systems. Do not use in plumbing applications. These items do not meet the low-lead plumbing standards of U.S. and Canada.



PRODUCTS

Hydro Separator 5-in-1 hydraulic, air, dirt and magnetic separator in steel with union connections, drain and Tridicator gauge. Available in the following connections:

PROHS1NPT	830267	1" NPT female union
PROHS1P	830268	1" press union
PROHS114NPT	830265	1¼" NPT female union
PROHS114P	830266	1¼" press union
PROHS112NPT	859083	1½" NPT female union
PROHS112P	859084	1½" press union
PROHS2NPT	859085	2" NPT female union
PROHS2P	859086	2" press union

SAFETY INSTRUCTIONS



This safety alert symbol will be used in this manual to draw attention to safety related instructions. When used, the safety alert symbol means.

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



CAUTION: All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of systems in accordance with all applicable codes and ordinances.



CAUTION: If the Hydro Separator 5-in-1 is not installed, commissioned and maintained properly, according to the instructions contained in this manual, it may not operate correctly and may endanger the user.



CAUTION: Make sure that all the connecting pipework is water tight.



CAUTION: When making the water connections, make sure that the connecting pipework is not mechanically over-stressed. Over time this could cause breakages, with consequent water losses which, in turn, could cause harm to property and/or people.



CAUTION: Water temperatures higher than 100°F (38°C) can be dangerous. During the installation, commissioning and maintenance of the hydraulic separator, take the necessary precautions to ensure that such temperatures do not endanger people.

Leave this manual for the user

Technical specifications

Materials	- body:	epoxy resin coated steel
	- air vent body:	brass EN 12165 CW617N
	- air vent hydraulic seal:	peroxide-cured EPDM
	- air vent float:	PP
	- air vent float linkages:	stainless steel
	- internal element:	stainless steel
	- drain valve body:	brass EN 12165 CW617N
	- magnet:	neodymium rare-earth probe

Performance

Suitable fluids:	water, glycol solution
Max. percentage of glycol:	50%
Max. working pressure:	150 psi
Temperature range:	32–230°F
Particle separation capacity:	to 5 µm
Air separation efficiency:	100% removal to microbubble level
Ferrous impurities separation efficiency:	up to 100% removal

Connections

Main connections:	1", 1¼", 1½" & 2" NPT female with unions 1", 1¼", 1½" & 2" press with unions
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Lay length (press connection):	size 1 inch: 9.39; size 1¼ inch: 9.79; size 1½ inch: 12.48; size 2 inch: 13.46
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Drain valve:	¾" garden hose connections
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Flow characteristics

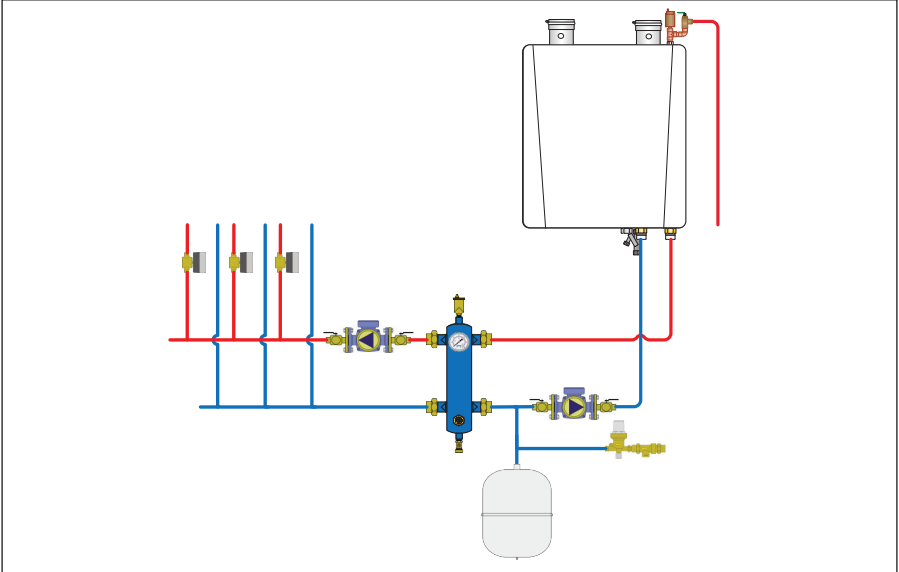
The Hydro Separator 5-in-1 should be sized according to the maximum flow rate at the inlet. The selected value is the primary circuit flow rate, or secondary circuit flow rate, whichever is largest.

Size	1"	1¼"	1½"	2"
GPM	11	18	26	37
Gallons	0.5	0.7	1.3	3.5

Leave this manual for the user

Installation

The Hydro Separator 5-in-1 should be installed only by qualified personnel in accordance with current local codes and legislation. The Hydro Separator 5-in-1 is installed between the primary and secondary circuits, always in a vertical position.



CAUTION: Corrosion or leakage can cause damage or injury. Periodically inspect for signs of corrosion or leakage. If corrosion or leakage is noted, the vent must be replaced. Failure to follow these instructions could result in property damage and/or personal injury.

Service instructions

There is no service required for the Hydro Separator 5-in-1 combination air, hydraulic, dirt and magnetic separator.

Leave this manual at the service of users for their use