Catch-All® REVERSIBLE Heat Pump Filter-Drier

INSTALLATION INSTRUCTIONS

SPORLAN

INSTALLATION

1. The drier may be installed in **any position** – vertical or horizontal – and with feed in either direction. Where possible, the horizontal position is preferred. Some type of **pipe strap support** is recommended so the weight of the drier does not cause undue strain on the refrigerant line.

2. The Heat Pump Catch-All® Filter-Drier is designed for use on heat pump systems in a line where the liquid is subject to **reversing liquid refrigerant** flow. Do not remove the **drier seal** until immediately before installation, to prevent moisture pickup from the atmosphere.

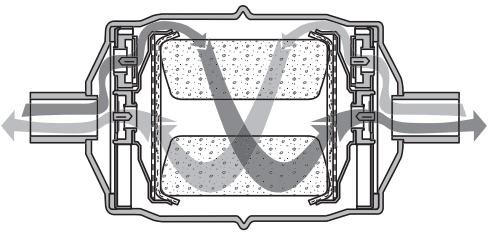
3. The **normal solder technique** will work well with the copper fittings on the Heat Pump Catch-All. Any commonly used brazing alloys will work satisfactorily – including soft solder, Sta-Brite, silver solder, Sil-Fos, or Phos-Copper. The connections are clean and ready to braze as received. Use a high heat for rapid brazing. Point the flame of the torch away from the filter-drier as much as possible, and cover the end of the drier with a wet rag or some other heat shield to avoid damaging the corrosion resistant coating.

4. When installing Catch-Alls with **flare connections,** a drop of refrigerant oil should be placed on the flare surface. This oil is especially important if leaks are to be avoided when the steel flare fitting on the Catch-All is connected to another steel flare fitting, such as a See-All®. Be careful when removing the plastic seal to avoid damaging the flare surface.

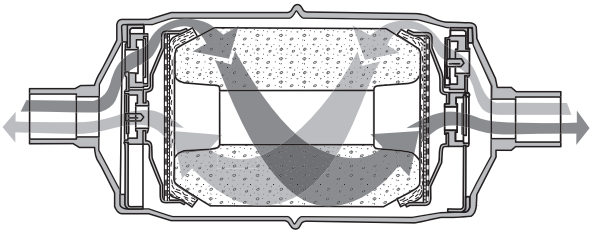
5. If a Catch-All is **accidentally dropped,** shake it to see if it rattles, indicating that the core inside is broken. Do not install a filter-drier with a broken core since the core particles may escape from the drier and damage the refrigeration system. **The check valve assemblies in the HPC series make a slight clatter when shaken, do not mistake this sound for a broken core.**

HOW IT WORKS

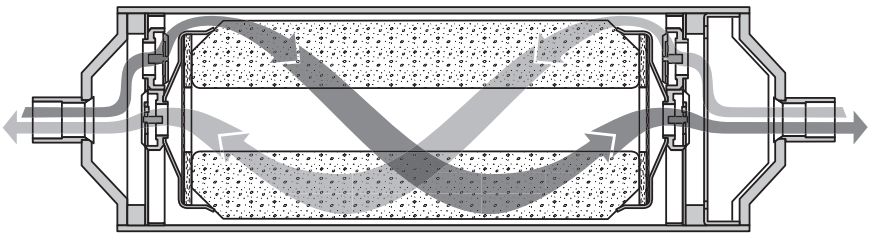
The HPC-100 and HPC-160-HH Series are suitable for use on heat pump systems up through 5 tons. The HPC-300-HH Series is suitable up to 12 tons. The diagram below shows how the Heat Pump Catch-All Filter-Drier is constructed, and how the refrigerant flows through it. Check valves at both ends control the flow so filtration always occurs on the outside of the core. The **contaminants collected during one mode are not released when the flow reverses.**



HPC-100 Series

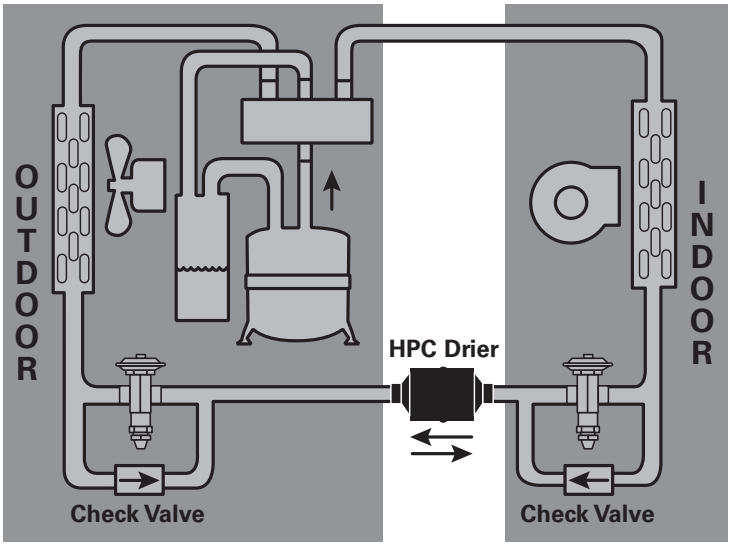


HPC-160-HH Series



HPC-300-HH Series

The **system diagram** below shows how the HPC series Heat Pump Catch-All Filter-Drier should be installed in the common liquid line between the two expansion valves.



SYSTEM CLEAN-UP

The **recommendations for clean-up** after a hermetic motor burnout are similar to the methods used in cleaning up a standard air conditioning or refrigeration system. (See Bulletin 40-10) Remove the refrigerant, replace the compressor, inspect the reversing valve, expansion devices, and check valves for contaminants. Follow the unit manufacturer's instructions whenever they are available. The exact clean-up procedure will vary according to the details of the specific system involved. 1) If the unit had driers on it, they must be removed. The unit can be cleaned up by replacing these filter-driers. 2) If the unit had a reversible filter-drier, or no drier, install the new HPC-160-HH or HPC-300-HH Series filter-drier in the common liquid line as shown above. If the physical layout of the piping permits, it is also advisable to install a standard suction line Catch-All in the common suction line, to provide additional protection for the new compressor. Operate the system for several hours and check the pressure drop across the filter-drier(s) to make sure it doesn't become plugged and require replacement. Make sure the other system components such as the reversing valve, expansion device, and check valves are operating satisfactorily.

An alternative procedure for clean-up is to use a standard Catch-All Filter-Drier in the common liquid line, running the unit for a day or

so, and then replacing this standard drier with a HPC filter-drier. When the standard Catch-All is on the system, the unit should be operated in only one mode, so the Catch-All is not subjected to reverse flow.

While these driers are intended for use in the reversing **liquid line,** they can be used in the reversing **gas line** on systems of 1-ton capacity or less.

For systems with a carefully balanced refrigerant charge, allow the following for the volume of refrigerant to fill the filter-drier.

Unit	Ounces (wt.) of Refrigerant @ 100°F R-22	R-410A
HPC-100 Series	12.2	10.6
HPC-160-HH Series	14.5	—
HPC-300-HH Series	19.7	17.2

Do not subject the Heat Pump Catch-All Filter-Driers to temperatures below –50°F. These Heat Pump Catch-Alls are listed by Underwriters Laboratories Inc. and are suitable for use with all the common refrigerants such as 12, 22, 134a, 404A, 407C, 410A, 502 and 507.

HPC Reversible Catch-Alls keep Heat Pumps running all year by removing:

- **Moisture**
- **Acid**
- **Solid Contaminants**
- **Varnish from oil breakdown**

Superior Performance Plus Easy Installation

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