Contamination Control Best Practices

Simple Steps to Effectively Control System Contaminants and Sustain System Reliability, Capacity, and Efficiency

Install a New Catch-All® Filter-Drier or Replaceable Cores in the Following Situations:

- **Initial system install**

Installing a properly sized high quality, time proven Sporlan Catch-All® will ensure contaminants like water, acids, sludges and varnishes are captured before they can harm the new system components. These materials may react with compressor windings leading to compressor burnout or cause copper plating which reduces bearing clearances or poor valve seating eventually causing failure. Or they can deposit in the expansion device restricting flow or proper modulation of thermostatic or electric expansion valves. Loss of superheat control can lead to lack of cooling if the evaporator is starved or even worse, flooding of liquid back to the compressor causing bearing washout and eventual compressor failure.

- **Every time a system is open for service or repair**

It is not possible to know how much capacity of the current Catch-All has remaining nor how much contaminant will be added to the system during the repair. Replacing the Catch-All ensures it has sufficient capacity to capture the introduced water and debris and capture the materials normally expected to be generated over time.

- **Catch-All pressure drop exceeds 5 psi or liquid subcooling loss**

The Catch-All has captured enough solid debris to cause excessive pressure drop. If the filter-drier is cooler than the inlet side tubing, then subcooling has been lost and the Catch-All needs replacing. The Catch-All, like air filters, need replacing when it has done its job.

- **See-All® Moisture Indicator shows water is present (caution/wet)**

Water will react and that reaction is always detrimental. The Catch-All capacity has been exceeded and needs replacing.

- **TA-1 Acid Test indicates acid is present in oil**

When the Sporlan Test-All® TA-1 acid test kit shows high acid, it has surpassed the capability of the Catch-All. It is imperative to replace the Catch-All and remove the acid as quickly as possible before it harms system components. In addition, review the compressor operation to ensure it is not experiencing a slow burnout (internal electrical short) that is turning refrigerant and lubricant into acids, sludge, and solid debris.

- **During a compressor burnout cleanup**

If a compressor burnout has occurred, install an oversized liquid line Catch-All to dry the system, capture acid, and solid debris. This will protect the TEV from plugging. Also install a properly sized suction line Catch-All to rapidly capture acid and solid debris to protect the compressor. Continue replacing both until pressure drop of both Catch-Alls stops increasing and acid level is satisfactory when checked with the TA-1 acid test kit.

- **After a successful compressor burnout cleanup is performed**

Once any cleanup is done, replace the liquid line Catch-All with a standard size and remove the suction line unit or replace it. This renews the protection the Catch-All provides for continued contaminant control. This step is often overlooked.

3 KEY WHOLESALE COUNTER TAKEAWAYS

1. Remind contractors to protect their work and reputation. With these simple practices, they can **protect system components, minimize callbacks and warranty service work.**
2. Supply a Catch-all with each replacement system component.
3. Suggest a See-All with each replacement system component.

Type CSG
Catch-All, See-All, Do-All

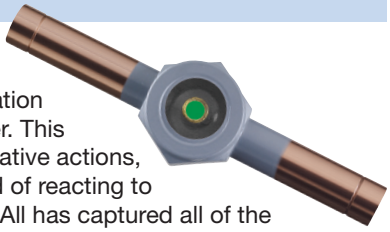
Contaminant Control **At A Glance**

Removes a variety of solid and soluble contaminants found in refrigerant systems.

Assists in determining the state of the circulating refrigerant and if moisture exists in the system.

Precisely measures the amount of harmful acid in system lubricant.

Add a See-All® Liquid & Moisture Indicator as an Additional Safeguard:



- **Indicates when water is present**
  The Sporlan See-All can provide a real-time indication of the worst system contaminant of them all, water. This simple device enables technicians to take preventative actions, eliminating system damage and downtime instead of reacting to failure. It also indicates when a Liquid Line Catch-All has captured all of the water it can hold and should be replaced.

- **Indicates if the system charge is adequate (no bubbles)**
  The See-All indicates if subcooling is present when it is solidly full of liquid or if it has been lost when vapor bubbles are seen. The component enbles optimal system efficiency, capacity and proper compressor cooling.

Include a Secondary Filter When Commissioning Larger Systems:

- **Ensures peak performance**
  The Replaceable Core Catch-All Filter-Drier with a secondary filter provides maximum water capacity, excellent acid removal characteristics, the ability to remove products of lubricant decomposition, and outstanding filtration.

- **Improves and speeds up cleanup**
  The replaceable secondary filter, when added to the Replaceable Core Catch-All Filter-Drier internal assembly, offers unsurpassed filtration efficiencies without compromising the Catch-All's ability to hold a large amount of foreign material. The internal assembly is designed so the cores remove larger sized particles while the secondary filter removes microscopic particles down to 20 microns. This unique construction aggressively filters particles circulating in a refrigerant system. This design is especially advantageous when commissioning a larger system.

Form 40-544 / 112019

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