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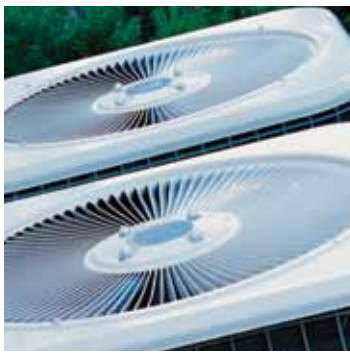
Parker ParFlush Kit

For System Conversion and Clean-up

Catalog A-2, October 2010



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Features and Benefits

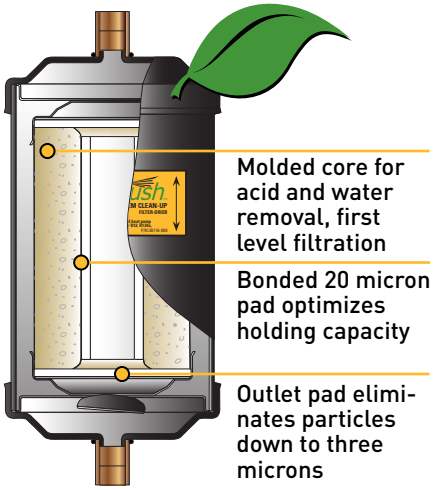
Parker ParFlush kit provides an effective combination for removing soluble and insoluble contaminants, helping avoid costly callbacks due to a metering device restriction.

- Kits are specially developed for refrigerant systems up to eight tons, with powerful PF ParFlush solvent and patented bi-flow Parker PFD-163S filter-drier.
- Ideal for R-410A conversions or system cleanup of air conditioning, heat pump or refrigeration systems with 3/8" OD liquid line sets.
- PF ParFlush leaves no residue during evaporation. Product is available separately for larger applications.
- PF ParFlush is non-toxic and non-flammable. Solvent accepted under the SNAP program of the U.S. EPA as a substitute for ozone depleting substances.
- Parker PFD-163S is specially developed to follow the flush procedure and remove disturbed debris not removed from nitrogen purging. This filter-drier is designed for permanent installation.

Product Description

When a change in system chemistry occurs, thoroughly purging system line sets of chemical and solid contaminants is the key to eliminating a costly and frustrating callback related to a restricted metering device. The ParFlush Kit is a unique total solution that couples the powerful PF ParFlush solvent with our patented bi-flow Parker PFD-163S filter-drier.

The ozone-safe PF solvent aggressively addresses old oil, varnish and sludge within the line-sets before system start-up. This is advantageous since oil breakdown products can exist in the liquid line and are difficult to remove with competing filter-driers that only address moisture concerns of HFC/POE lubricant systems. The Parker PFD-163S is an application specific filter-drier designed for permanent installation in the liquid line. The PFD-163S effectively eliminates disturbed debris not cleared during the flush procedure. The filter-drier removes particles down to three microns in size, preventing their accumulation at the metering device.



Specifications

Catalog Number	Item Number	Product Description	Application	Case Quantity (Case Weight / lbs.)
PFKIT1	475463	Parker 1 lb. ParFlush System Clean-up Kit. Includes PF-1 Canister and PFD-163S Filter-Drier.	System clean-up of refrigeration, air conditioning and heat pump applications up to 8 tons in size.	6 (24 lbs.)
PFKIT2	475460	Parker ParFlush System Clean-up Kit. Includes PF-2 Canister, PFD-163S Filter-Drier, PFV-1 Canister Valve, and PFG-1 Gun/Hose Assembly	System clean-up of refrigeration, air conditioning and heat pump applications up to 8 tons in size.	4 (22 lbs.)
PF-1	475464	ParFlush Solvent – 16 oz. Canister	Supplied in PFKIT1. Solvent sold separately for additional flushing.	6 (7 lbs.)
PF-2	475099	ParFlush Solvent – 32 oz. Canister	Supplied in PFKIT2. Solvent sold separately for additional flushing.	6 (13 lbs.)
PFV-1	475461	ParFlush Canister Valve	Valve for PF Canister. Can be purchased separately. Valve included in PFKIT2.	6 (1.5 lbs.)
PFG-1	475462	ParFlush Gun/3' Hose Assembly	Gun/Hose Assembly for dispersing PF solvent into line-sets. Available separately. PFG-1 is included in PFKIT2.	6 (4.5 lbs.)

Application

Experience has shown R-410A/POE lubricant conversions cause occasional callbacks due to restricted flow, as residues from prior system chemistry deposit at the metering device. The restriction typically consists of a collection of small, 2-20 micron, particles. Common particles include copper oxide, originating from brazing operations, and/or metallic fines from compressor break-in, initiated by a foreign substance in the valve. Generally, these circulating particles will pass through without harm, and are less of an issue on larger systems where the metering device is more robust. For smaller tonnage systems these issues are more common, and are amplified if the metering device is marginally sized. Certainly, a good filter-drier minimizes this concern. However, many styles of filter-driers exist in the industry with different capabilities.

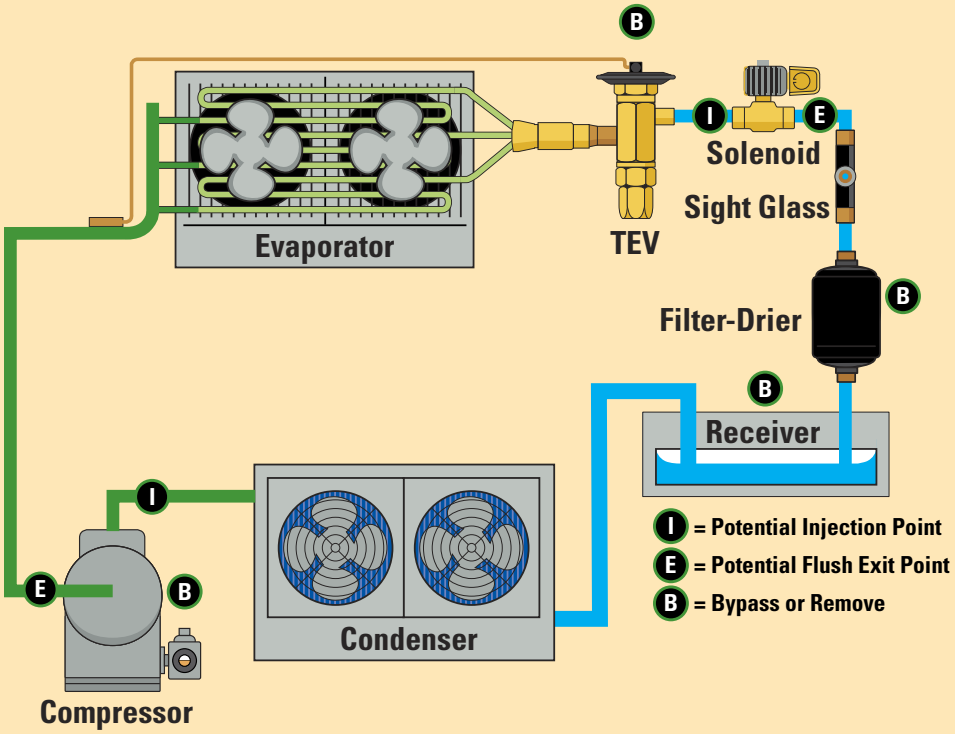
Callbacks are frustrating for everyone and affect the bottom-line and potentially the reputation of the service company. To assist in these circumstances, Parker developed the ParFlush Kit (PFKIT) to aid in the renewal of existing line-sets by offering the best insurance against contamination at the metering device.

The Parker ParFlush (PFKIT) enhances the industry accepted method of liquid and suction line filter-drier usage for system clean-up after a severe compressor burnout. The kit provides the benefit of the PF solvent, instantly dispelling forms of carbonized oil (varnish/sludge) from the system. A properly equipped filter-drier will also assist in the removal of these contaminants – but not all filter-driers are equal.

To best address this application specific need, the Parker PFD-163S

filter-drier provides final clean-up duty. The PFD-163S proven desiccant blend removes remaining trace contaminants such as moisture and acid. In addition, the unique Parker PFD-163S provides best-in-class filtration by removing down to three microns size particles dislodged during the flush procedure.

Suggested Systems Locations



General Guidelines

- Use in well ventilated area. Dispense solvent with rubber gloves and safety goggles.
- Review configuration of the system. For field build-up systems, consider cleaning the condenser, evaporator and line-sets separately. For larger systems, disassemble and clean in sections (always using gravity to your advantage in the collection of oil/deposits).
- Remove filter-drier/cores, bypass components such as TEV, compressor, accumulators, receivers, reversing valves, etc. Never run flush through a compressor. For products such as the filter-drier and suction accumulator (plugged orifice concern with debris from compressor burnout), need to be replaced. Contact Parker with additional questions.
- Identify, crimp/restrict the line set. This allows for added vigor during nitrogen purging step. Always purge to a well-ventilated area since the solvent fumes are heavier than air. Do not breathe high concentrations of solvent fumes or use in an area where an open flame exists.
- Use an open container to catch oil and contaminants from procedure.
- Inspect the PFV-1 canister valve (see photo 1) to ensure piercing stem is turned out. Install valve finger tight to PF canister. Never use a wrench to tighten.
- Affix PFG-1 gun/hose assembly to valve. See photo 2.
- Invert canister and open valve to disperse. A typical disperse time for a 3/8" OD liquid line is 20-30 seconds and 60-90 seconds for a 3/4" or 7/8" OD suction line. More time is required in the suction line due to its larger internal tube surface. Injection time should be tailored to each application based on internal surface area (tube size and linear feet).
- Inspect collected solvent for cleanliness. Repeat if necessary. Discard PF canister—never refill cylinder.
- Using PFG-1, purge system with approximately 120-150 psig of nitrogen to thoroughly chase the contaminated solvent through the line-sets into the collection container. Dispose according to local regulations. See photo 3.
- Reconnect system components. For systems up to 8 tons*, install Parker PFD-163S filter-drier. See photo 4.
- Evacuate and leak check system. Trace amounts of solvent that may remain will be volatilized as the internal pressure drops during evacuation process.
- Charge system with refrigerant (perhaps lubricant) and reconnect electrical connections.
- Verify proper system operation before leaving the jobsite.

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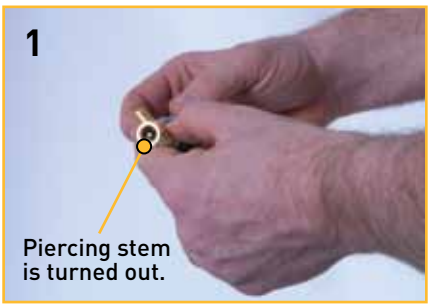

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* For systems larger than 8 tons, the PF ParFlush solvent can be purchased separately.

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