

**TITLE:** Product Technical Bulletin – PTB112614  
**DATE:** December 8, 2014  
**FROM:** Brian Jacobs, Chemical Process Engineer  
**TO:** All Interested Parties  
**SUBJECT:** Converting puraDYN® PFT & TF Bypass Systems to use Polydry Filters



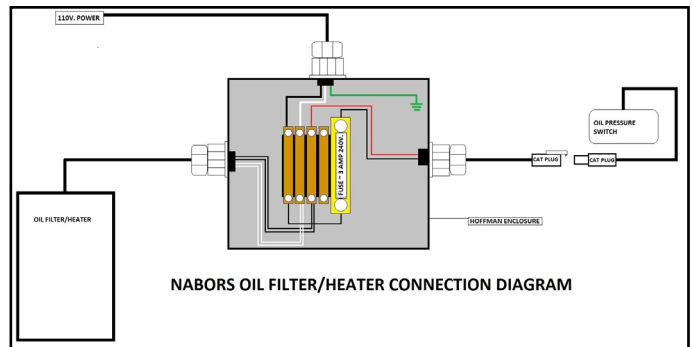
The purpose of this technical bulletin is to convert puraDYN's legacy TF and PFT Bypass Filtration Systems to accept puraDYN's new Polydry replaceable filter elements. The new filter element absorbs moisture from the lubrication oil as it passes through the filter media. By using the Polydry filters, there is no need for the electric heating element, or any electrical accessories. To convert the TF or PFT Bypass Units to use Polydry filters it is necessary to systematically remove all electrical components associated with the legacy systems. \*A certified electrician or qualified personnel should perform this operation. The vent valve will be replaced as well. See following steps 1-4 below:

**1. Disconnecting Power Source:**

Before proceeding, first shut-off all electrical power from engine and disconnect battery to avoid electrical related injuries.

Disconnect the wire leads routed to the engine. Typically the 110V wire leads runs from the junction box (ex. Hoffman Enclosure) to the engine - **see diagram.**

Make sure the engine power source or electrical panel (from where the 110V lead was plugged into) is returned back to its original OEM specification. No exposed wires should be present. Verify no power is going to the electrical junction box or TF/PFT Unit before reconnecting the power.



**2. Removing the Electrical Enclosure (junction box):**

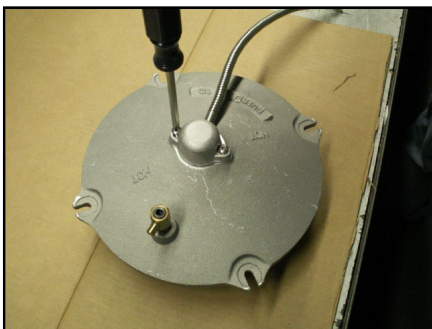
The electrical box (in gray) is located on a post or side mounted next to TF or PFT Units.

The electrical leads from the Puradyn heating element and the pressure switch need to be separated from the box. This can be completed by unscrewing the lead retaining screws and unplugging the leads from the box.

Once all leads are removed and discarded, there should be two bolts that are bolted to the frame rail. Remove the bolts and enclosure from the engine.



**3. (A) Removing the heating element from TF Lid:**



The heating element is located top dead center of the Lid.

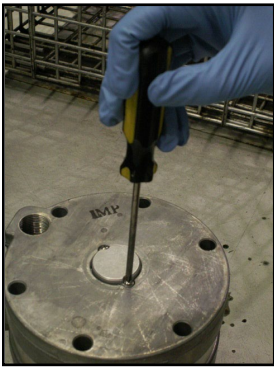
Using a Philips screwdriver unscrew the two heater cover screws. Remove Heater Cover from the TF Lid being careful not to lose the 2 screws as they will be needed later to reinstall the heater cover.

Remove heating element from the Unit by pulling up on the steel shroud. The heating element should slide out with minimal force.



After the heating element has been removed place the heater cover back on the TF Lid. Position screws in place and tighten heater cover screws down with 12 in-lbs. A small amount of loctite can be applied to prevent the screws from vibrating loose in the future.

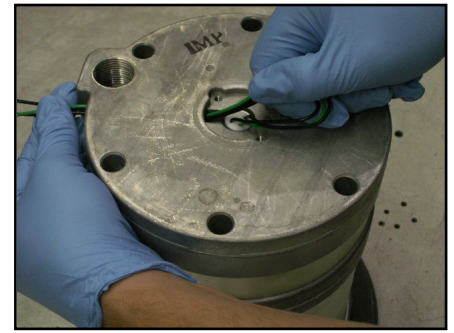
### 3. (B) Removing the heating element from PFT Diffuser:



To remove the heating element it is best to remove the puraDYN system from its mounting location to access the bottom of the PFT Unit where the heating element is located.

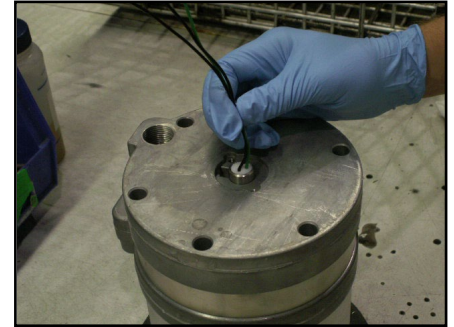
Using a Philips' screwdriver unscrew the two heater cover screws. Remove heater cover being careful not to lose the 2 washers and screws.

With one hand grab and "push" the wire through the channel. It may require a screwdriver to leverage the wires up before pulling wires by hand. Be careful not to scar the wire insulators.

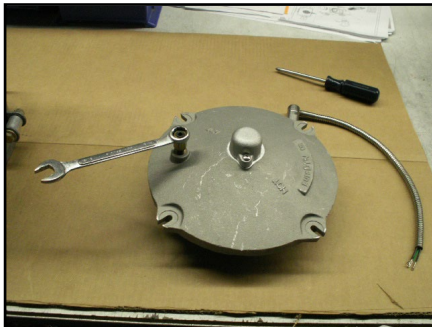


Next pull the wires out of the channel and remove heating element from the Unit by pulling up on the wires. The heating element should slide out with minimal force.

After the heating element has been removed place the heater cover back on the diffuser. Position Lock washers in place and screw heater cap screws down with 12 in-lbs. A small amount of loctite can be applied to prevent the screws from vibrating loose in the future. Mount the Unit back to its original location with correct fittings.



### 4. Replacing the Vent Valve with 1/4" NPT Plug Fitting:



Using a wrench or socket (size 9/16), unscrew the vent valve from the TF Lid (left) or PFT base (right).

Clean up any Teflon tape or sealant residue that may be left behind when the vent valve is removed.

Use 1/4" NPT Plug with Hex Head Fitting (preferably Brass) to plug the vent valve port. Apply Teflon tape or an equivalent sealant (ex. Staybond S592) to the fitting threads. Then tighten the plug fitting into the vent valve port.



Reinstall puraDYN filtration system to the mounting location.

**\*\*Check to make sure all fittings, mounting hardware, & hoses are accounted for and have been reinstalled correctly. If everything is secure, install the NEW Polydry filter element and resume operations of your puraDYN Bypass filtration system as before.**



For more information or answers to additional questions, please feel free to call us at 1-866-787-2396 toll free or 1-561-547-9499 if you are outside the continental United States and/or visit our website at [www.puradyn.com](http://www.puradyn.com).