

## **PP2 System Trouble shooting:**

Polar Pac has an inoperative function. For example: Unit will operate in product pump mode, however auxiliary or compressor mode does not function when air toggle valve is moved to that position.

### **Possible Causes:**

*Fluid pump was not cleaned out and is locked up:*

Uncouple the motor from the fluid pump and see if the motor or the pump can rotate. If the motor functions and you can't rotate the fluid pump, clean and or rebuild the fluid pump.

*Stuck spool in selector valve or directional control valve.*

We added a dust cover to our selector valve (AC option), and the DCV integrated into the bottom of the TGH20, in order to protect units in northern climates that see a lot of salt spray. Salt spray was found to cause corrosion to the exposed spool. This can cause the spool to stick.

*Air leak.*

It is possible that one of the push to connect air fittings has come loose or an airline has rubbed through. If possible, turn the truck off, hook up shop air to the cooler supply and toggle through all the switch positions while listening for air leaks.

*No air.*

The air toggle valve can get packed with road debris and salt spray that will cause corrosion and prevent the lever from operating properly. We have switched from a Zinc plated lever to a stainless-steel lever to combat this issue. Occasional cleaning and lubrication (WD-40 etc.) is recommended for maximum switch life.

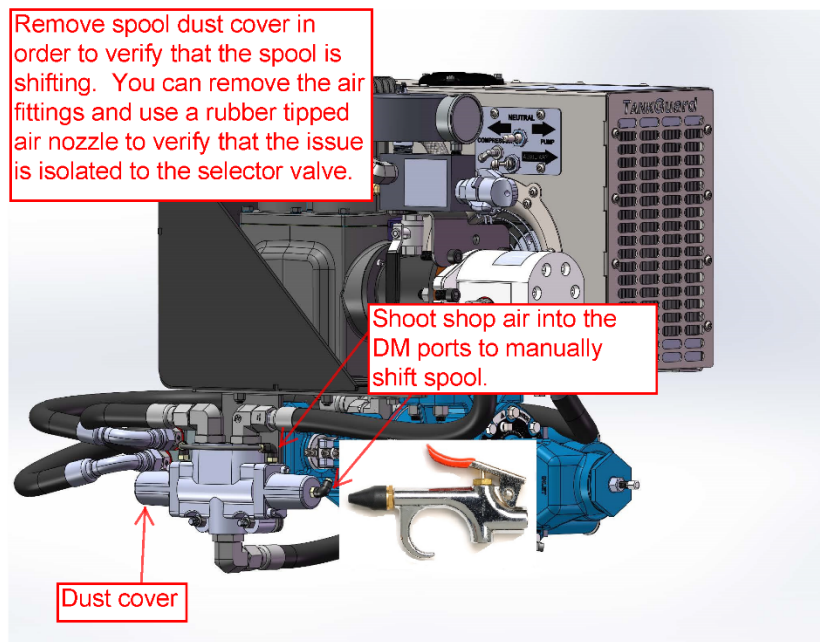
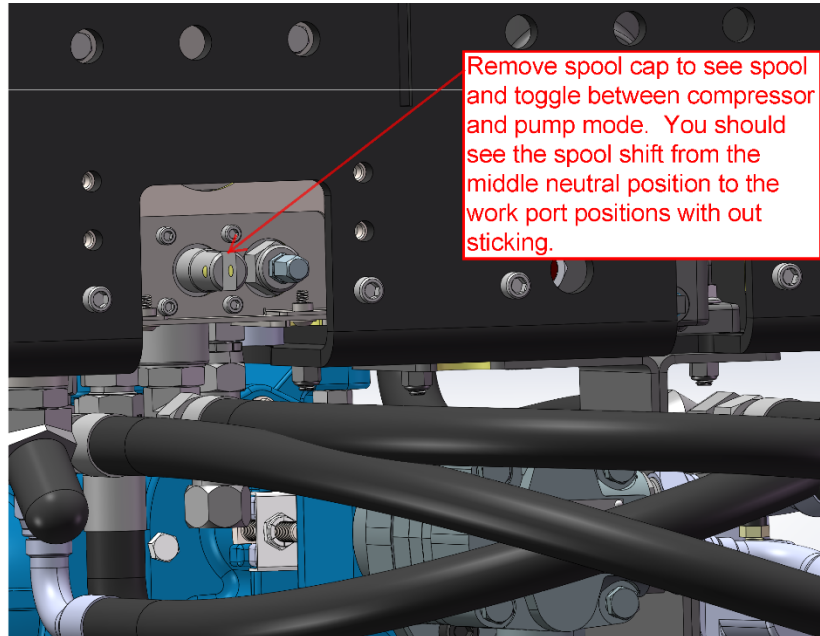
The air switches themselves can go bad. Pull the external air lines off the air panel and make sure air comes out when the corresponding switch is operated.

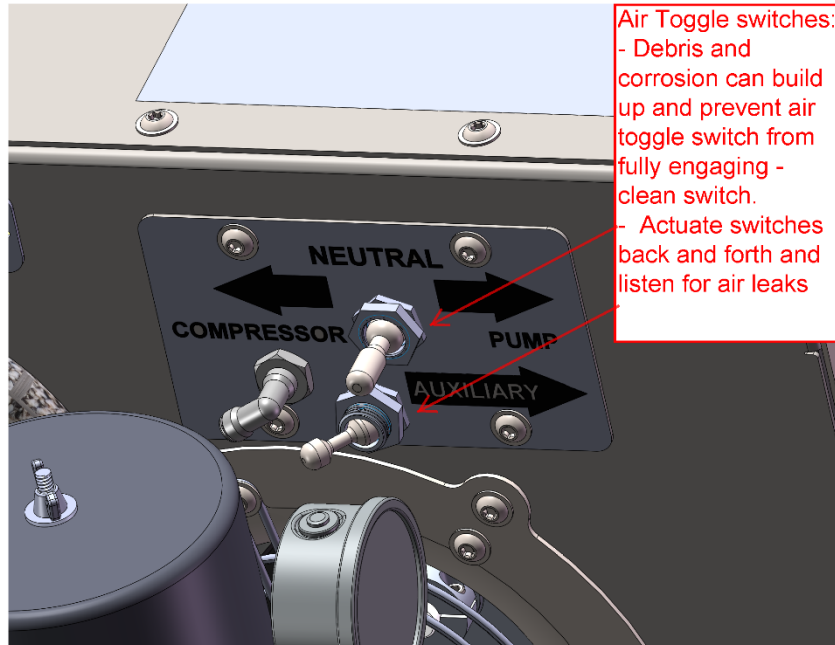
*Hydraulic motor that drives the air compressor or auxiliary function has locked up.*

This can be caused by hydraulic flow greater than 18 GPM through the Polar Pac system due to too high of engine RPM or improper pump/PTO selection. The most obvious sign of a locked-up motor is heat damage, melted oil level gauge, melted oil filter housing, etc. You would also see system pressure at relief valve setting 2500psi, and no flow through a flow meter hooked in line of the offending motor inlet.

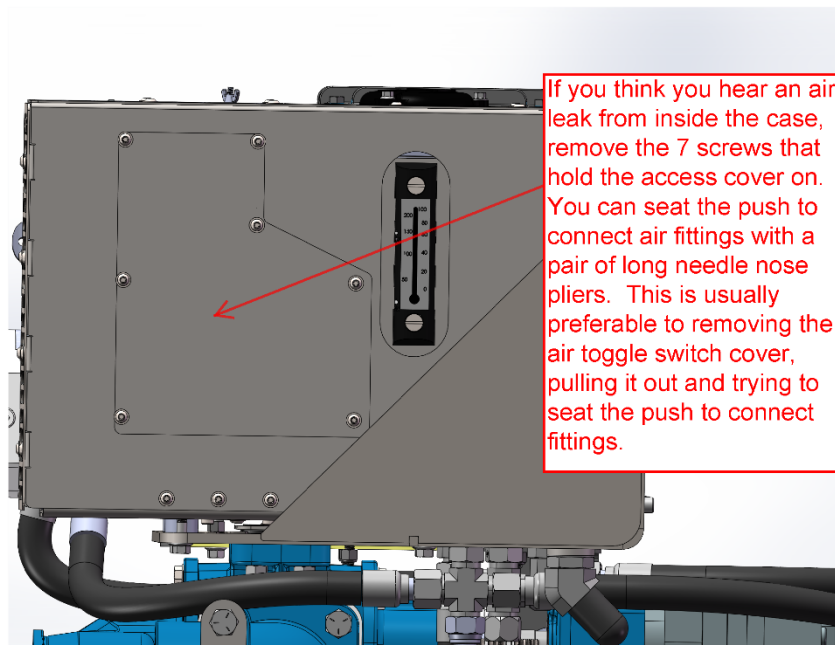
*SS5 compressor has the shaft couple set improperly.*

Improper clearance set on shaft couple causing interference fit with motor face – see page 30 of IOM for proper positioning of couple.





Air Toggle switches:  
- Debris and corrosion can build up and prevent air toggle switch from fully engaging - clean switch.  
- Actuate switches back and forth and listen for air leaks



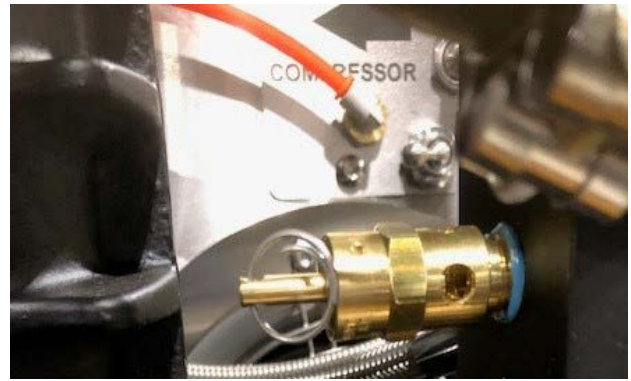
If you think you hear an air leak from inside the case, remove the 7 screws that hold the access cover on. You can seat the push to connect air fittings with a pair of long needle nose pliers. This is usually preferable to removing the air toggle switch cover, pulling it out and trying to seat the push to connect fittings.

**The Compressor operates, but does not build pressure:**

For example: Air switch is in the compressor position, the compressor appears to be running fine, however air gauge reads zero.

*Make sure the air manifold ball valve is closed after the compressor starts to run.*

*Pop off valve ring stuck (see below):*



As you can see the pop off valve has a ring that allows you to manually bleed the air manifold. Occasionally the valve will open, and the ring will capture itself, keeping the valve in the open position.

*Check downstream air connections.*

**Oil leak coming from compressor/compressor motor shaft coupling.**

*Check the motor shaft seal as well as the compressor shaft seal. (Page 26 IOM)*

We have included individual trouble shooting and maintenance guides for all Polar Pac components in the PP2 IOM:

TGHC-20: PAGE 17 OF IOM

SS5 PISTON COMPRESSOR: PAGE 31 OF IOM

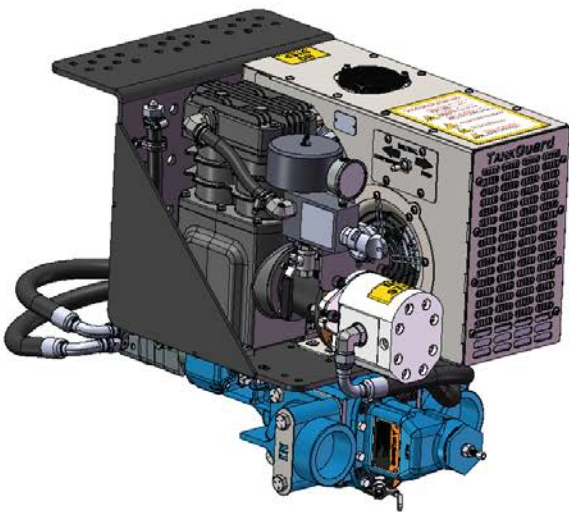
SV200: PAGE 34 OF IOM

RANGER PRODUCT PUMP: PAGE 43 OF IOM

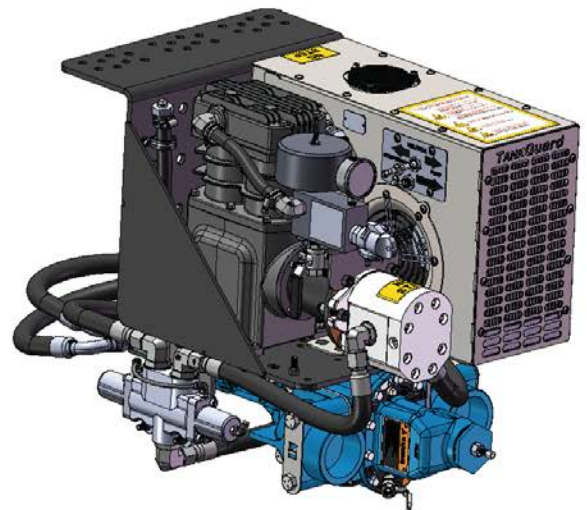
BLACKMER VANE PUMP: PAGE 49 OF IOM

VIKING PRODUCT PUMP: PAGE 57 OF IOM

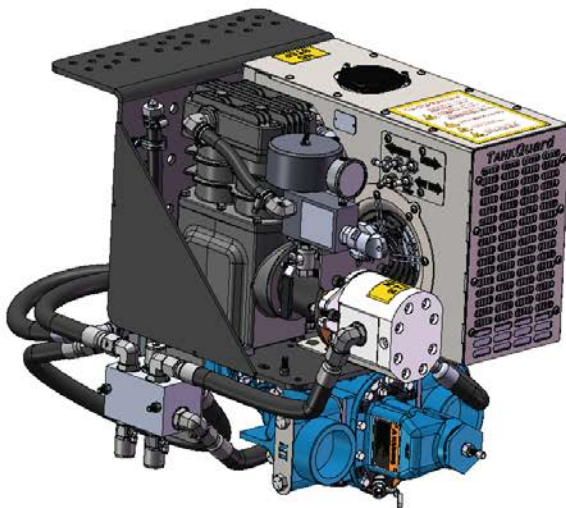
## Product Identification Guide:



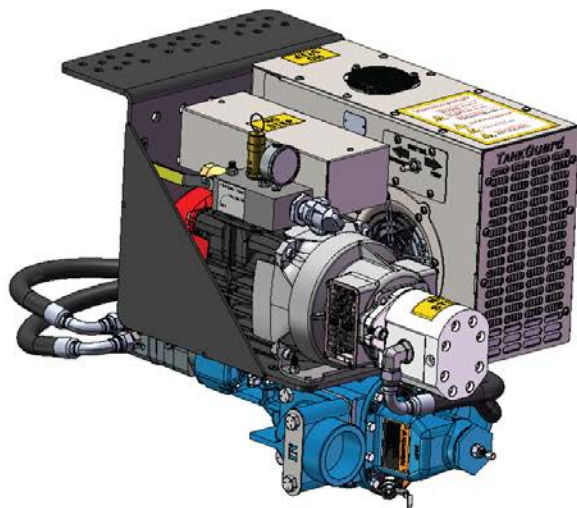
**PP2-GP**



**PP2-GP-AC**

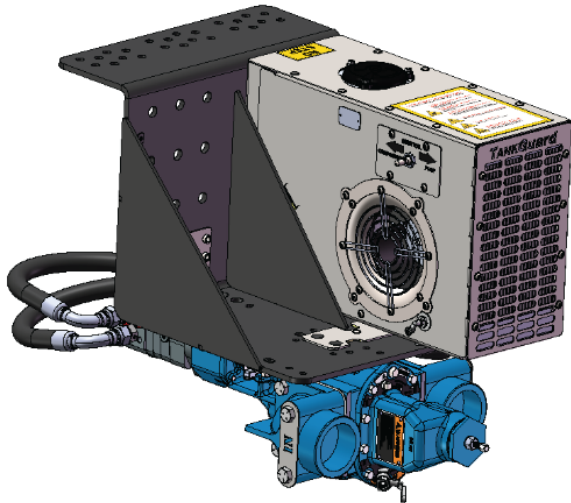


**PP2-GP-AC-R**

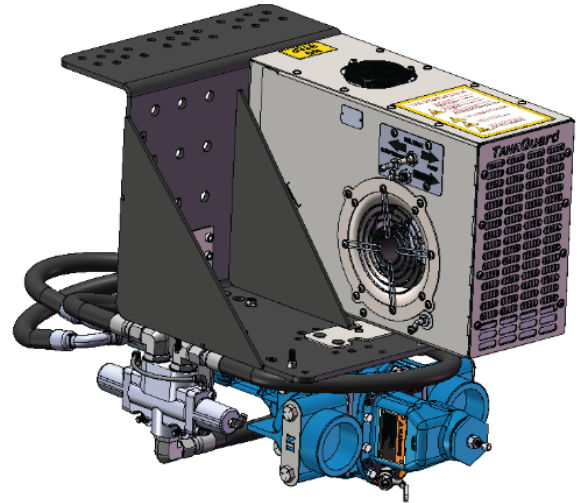


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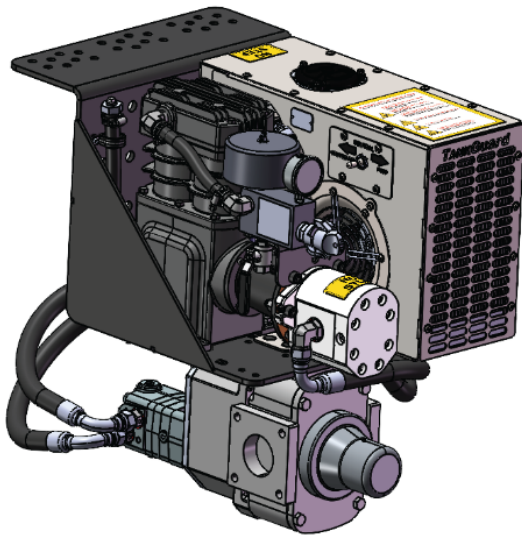




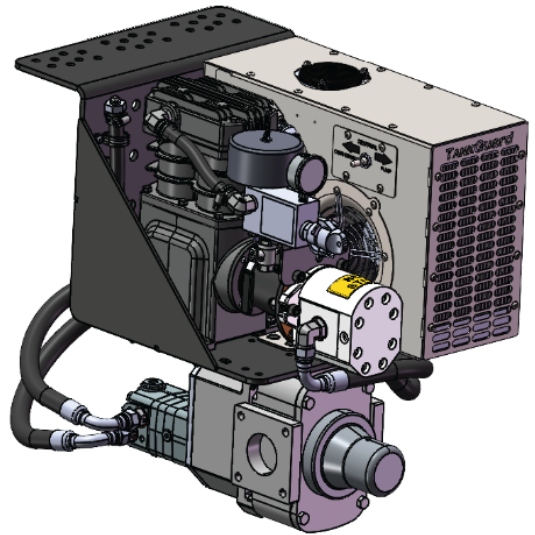
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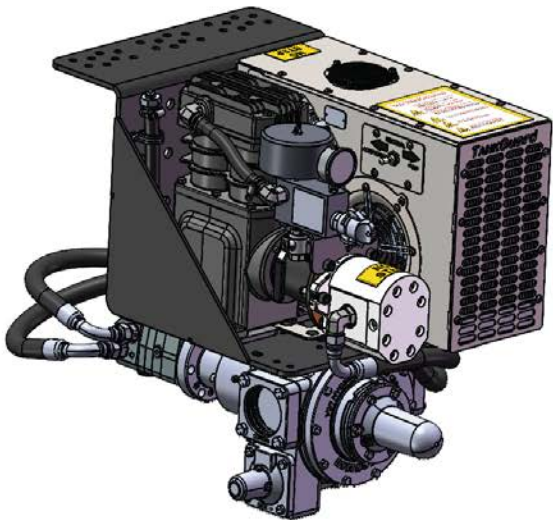
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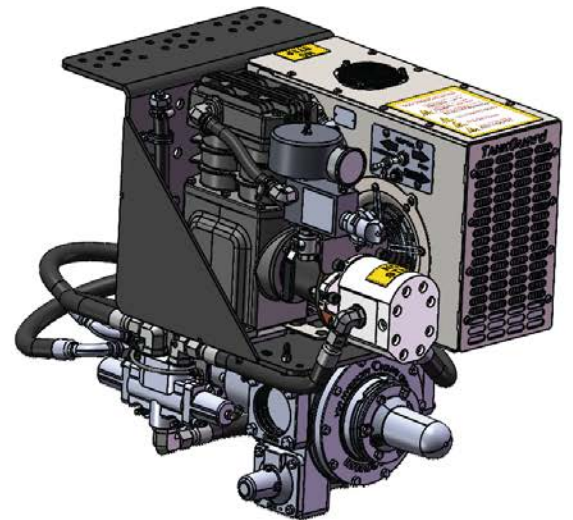
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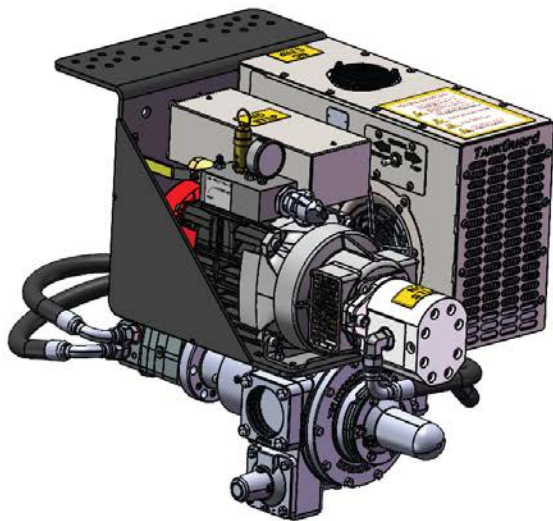
**PP2-SP-ACID**



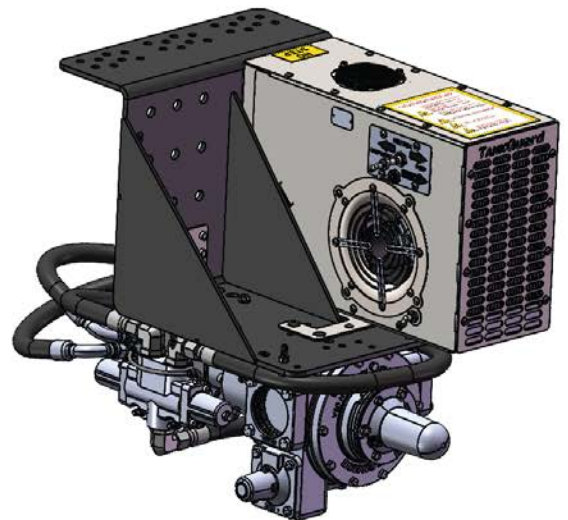
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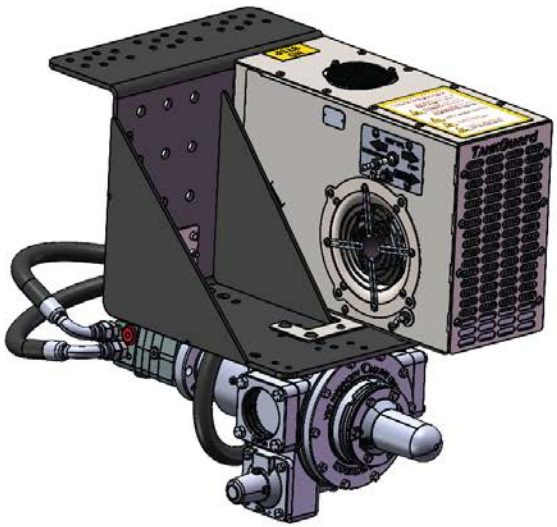
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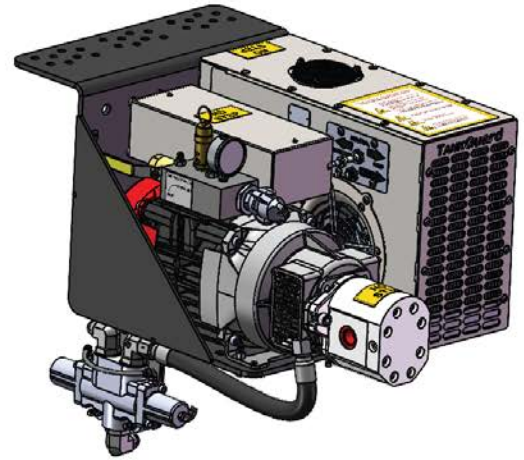
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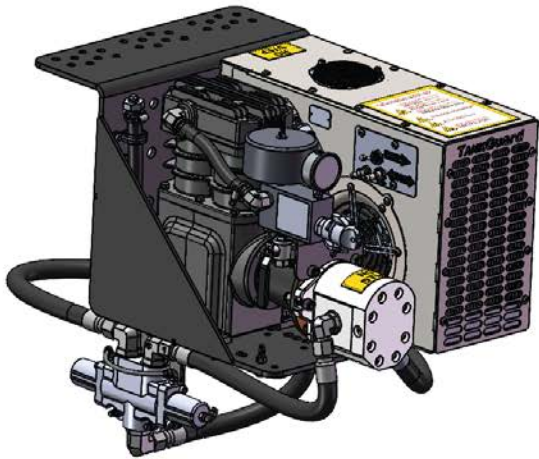
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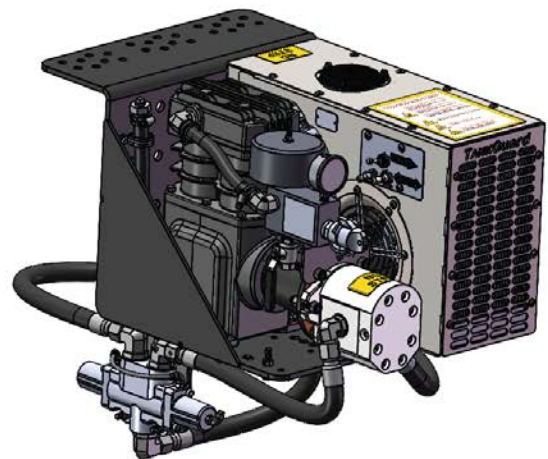
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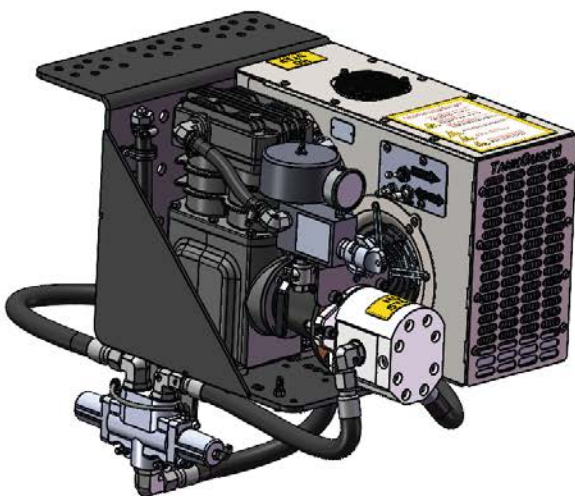
**PP2-XV-AC**



**PP2-XP-ACR**



**PP2-XP-AC**



**PP2-XP**