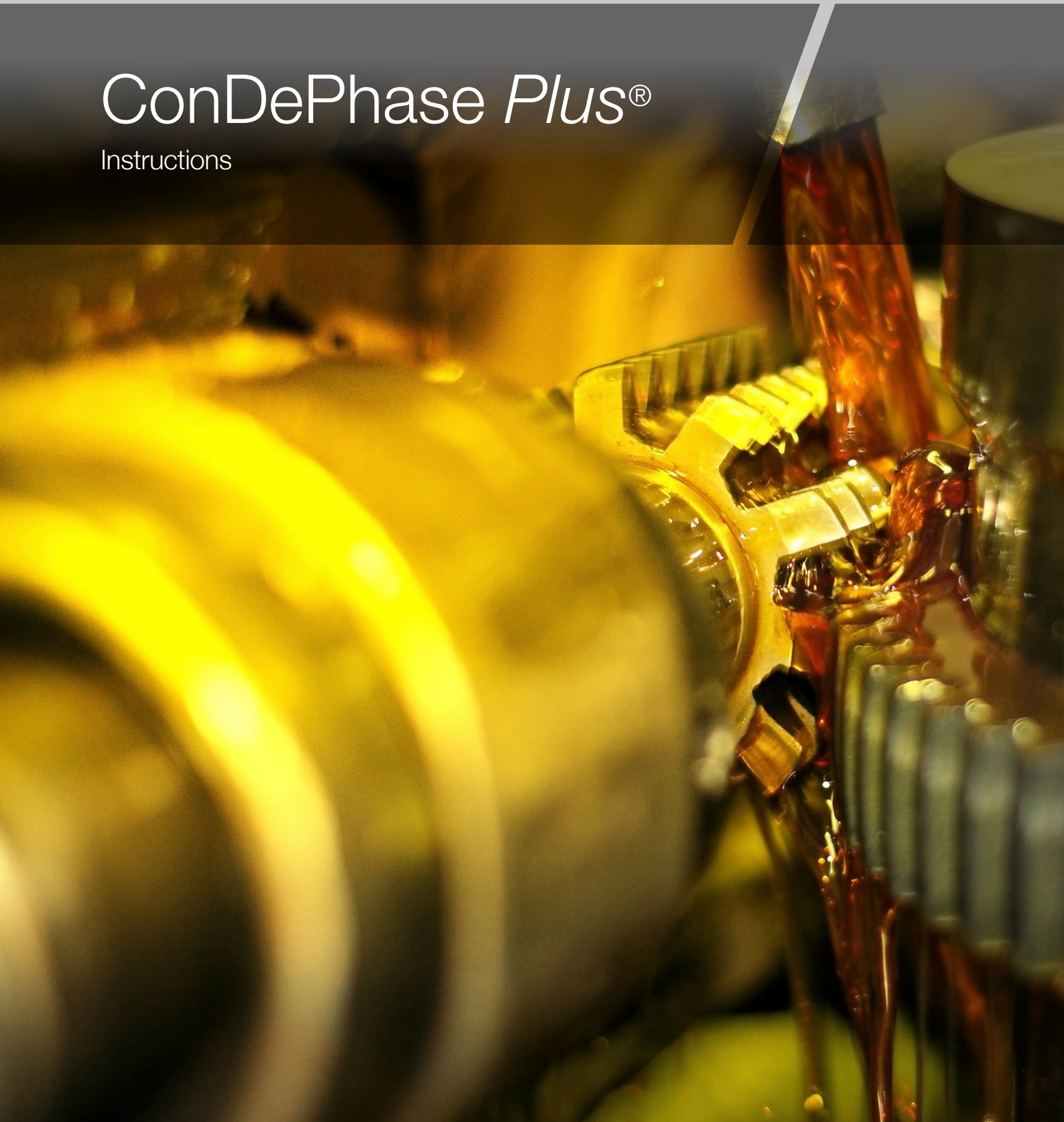




ConDePhase *Plus*®

Instructions



Instructions for Initial Start-Up of ConDePhase *Plus*® Units

CAUTION: The ConDePhase *Plus* must be placed on a level surface for proper operation.

CAUTION: When attaching hose, pipe or fittings to the ConDePhase *Plus* unit, care should be taken to avoid applying excessive torque to the polypropylene fittings that are welded into the tank body. Use a back up wrench to insure no damage is done to the ConDePhase *Plus* unit when attaching the appropriate hose, pipe or fittings.

CAUTION: The integral Expansion Chamber is designed to take periodic flow of air and liquid from a compressed air system drains and traps, either float or solenoid valve timer actuated. The maximum duration of in flow should not exceed five (5) seconds. The maximum air pressure introduced into the Expansion Chamber should not exceed 150 psig. The maximum pipe size to the “Condensate In” fitting on the Expansion Chamber should not exceed ½ inch.

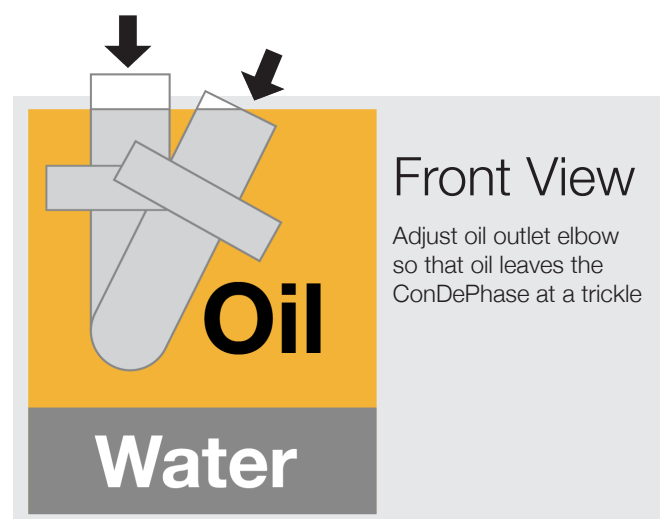
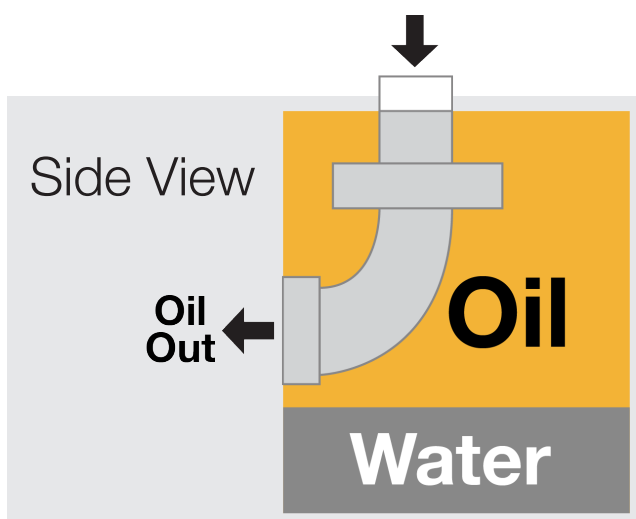
NOTE: Inside the main ConDePhase *Plus* unit are two (2) adjustable 90° elbows located on the inside of the “Oil Out” couplings. The elbows threaded into the “Oil Out” couplings are preset at the factory at approximately 45° from vertical. These elbows may require re-positioning depending on the base stock of the lubricant or lubricants being used in the compressor or compressors this ConDePhase *Plus* is servicing. In most cases, the 45° from vertical should be maintained.

After a period of time, a layer of oil will begin to accumulate on the surface of the water in the chambers. As this layer becomes deeper (3 to 4 inches) the elbows on the inside of the chambers

threaded into the inside of the “Oil Out” couplings may need to be adjusted to insure that a slow trickle of oil will be leaving the ConDePhase *Plus* unit. This is done by twisting the elbows to a slightly more horizontal position (see sketch). Should you find that water is being discharged through these elbows in addition to the oil, these elbows should be twisted to a more vertical position. This will allow a thicker strata of oil to form and should prevent water from leaving through these elbows. (To adjust these elbows it is necessary to remove the main unit’s lid). Should water continue to leave through the “Oil Out” elbows, it could mean that the flow path is obstructed and causing a fluid back-up. Consult “Unusual Conditions” for solution to the problem.

NOTE: Each new unit is shipped with an instruction packet and three (3) lengths of clear tubing with male hose barbs in one end.

1. Place the ConDePhase *Plus* Unit and the carbon filter on a level surface.
2. Thread the appropriate size hose barb and clear tube into the female threaded fitting labeled “Water Out”. Attach the carbon filter per the instruction sheet provided.
3. Thread the remaining hose barbs and clear tube into the female threaded fitting labeled “Oil Out”. **It is important for the flow to be downward.** Place the end of the tubes in an appropriate receptacle (such as a pail or bucket) to collect the oil.
4. Clean water must be used to fill the ConDePhase *Plus* unit. This can be done by filling each chamber.
5. Fill the unit until water flows from the “Water Out” connection and hose to the carbon filter.
6. The unit is now ready for normal operation.



Filter Instructions

NOTE: Each new or replacement ConDePhase Plus Carbon Filter is shipped with two (2) ea. male hose barbs and an instruction sheet.

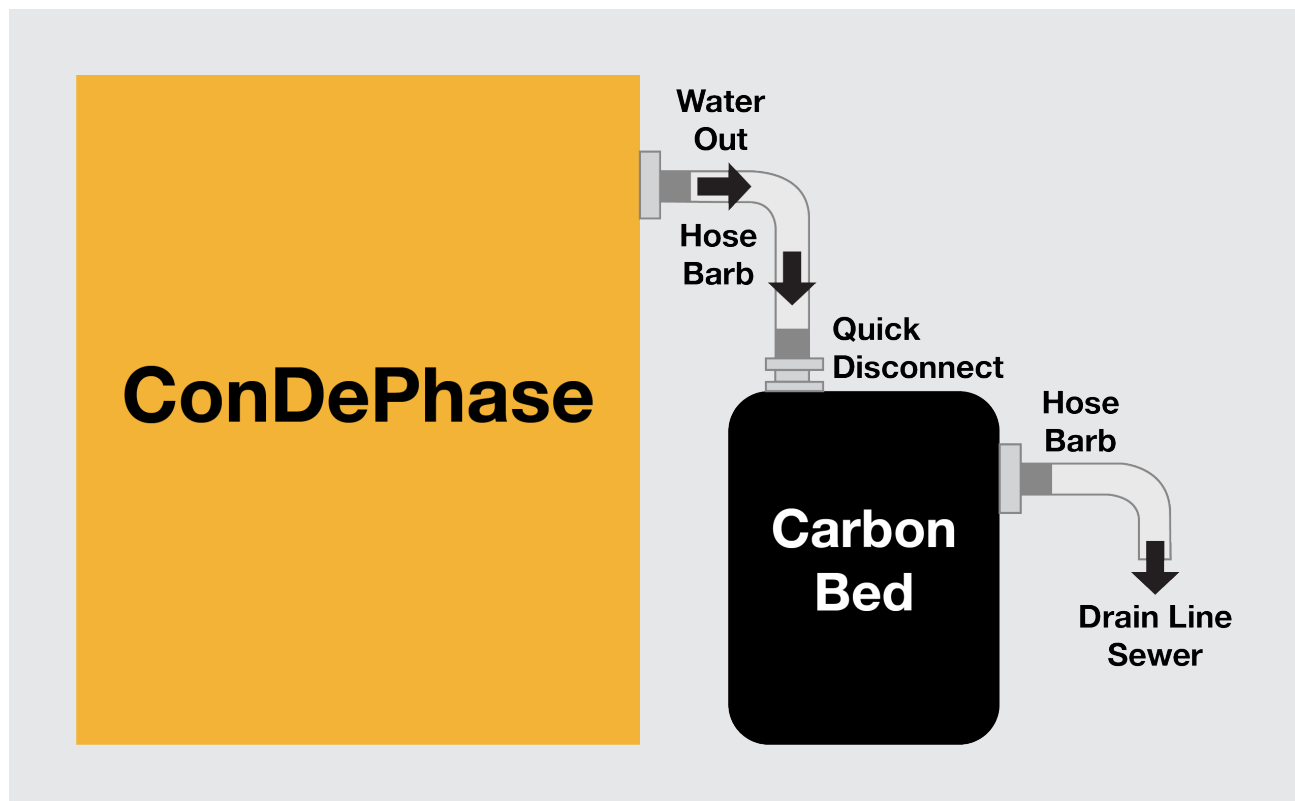
The ConDePhase Plus carbon filter is quickly installed or changed using the following procedure:

1. The ConDePhase Plus carbon filter **must** be pre-wetted thoroughly before being connected to the ConDePhase Plus unit. Use a water hose to fill the filter with water until water flows from the fitting on the side of the filter. Discontinue filling and shake the filter to allow any trapped air to escape from the carbon. Refill with water. The carbon filter is now ready to be connected to the ConDePhase Plus unit.
2. If a male hose barb is not already installed, thread one into the top connection of the carbon filter (labeled, "Water In").
3. Connect the clear hose from the ConDePhase Plus unit connection (water out) to the hose barb on the filter labeled "Water In."

4. Thread the remaining hose barb (provided) into the connection on the side of the filter labeled "Water Out." Connect a hose or tube (not provided) to the hose barb. **(NOTE: It is important for the flow to be downward)**. This water may be sent to a drain or collected.
5. To replace a filter, disconnect from the old filter by pulling the hose off the hose barb (Water In) and push the hose onto the hose barb of the new filter (Water In). Remove the "Water Out" hose and install on new filter. Pre-wet new filter thoroughly.

The new carbon filter is now in service. (See diagram below)

NOTE: For most lubricants, ConDePhase Plus carbon filters should be replaced every 9-12 months and every 6-9 months for polyglycol based lubricants.



Cleaning Instructions

(Read Instructions completely before beginning the cleaning process)

It is recommended that a complete cleaning of the ConDePhase *Plus* be done once a year.

The following procedure should be used for the cleaning process:

1. Using an ordinary garden hose, slowly fill the top of the Expansion Chamber with clean water in order to flush out the oily condensate of the Expansion Chamber and into the main unit.
2. Remove the lid of the main unit and pump out water down to the polypak filter in both chambers.
3. Remove the polypak filter in each chamber by removing the two screws on each filter and lifting the polypak filter from unit.
4. Place the polypak filters in an appropriate receptacle to prevent oily water from dripping onto the ground.
5. Pump out the remaining water in each chamber.
6. Using clean water (and a detergent, if necessary), wipe down the sides and bottom of the ConDePhase *Plus* unit. If a detergent is used, rinse off completely.

7. Using an appropriate size container, place the polypak filters inside and rinse thoroughly with clean water, or if necessary, clean water and a detergent type cleaner.
8. Once cleaned, put the polypak filters back inside the ConDePhase *Plus* using the screws previously removed, and tighten in place.
9. Fill unit with clean water until water flows out the Water-Out exit into the carbon filter.
10. Unit is now ready to be put back in service.

NOTE: If just water is used to clean the polypak filters, this water can now be slowly fed back into the ConDePhase *Plus* through the top of the expansion chamber. If a detergent was used, do not put this water back into the unit. The detergent will cause an emulsion and hinder the performance of the unit. Dispose of this water according to Federal, State and Local regulations.

Emulsion Removal

Some lubricants create emulsions that will gradually increase until they adversely affect the performance of the unit. Most of these emulsions are water-in-oil emulsions and are predominately lubricant. To restore the unit to proper operation, the emulsion will need to be removed.

To remove the emulsion, first isolate the ConDePhase *Plus* unit from the compressed air system. Then disconnect clear hose from unit ("water out") at the filter ("water in"). Slowly add fresh water into the ConDePhase *Plus* through the water out discharge at a rate equivalent to no more than one complete volume displacement

per hour, i.e., if the unit is a ConDePhase *Plus* 30 unit (30 gallon), then 30 gallons per hour. The emulsion will exit the unit through the lubricant discharge couplings and should be collected for proper disposal. When the emulsion has been removed, reconnect the clear hose to the filter ("water in") and place the unit back in service.

Unusual Conditions

Problem I

Water is building up in the unit and exiting through the “oil out” line.

Possible Solutions

- A. Check to make sure the “water out” line is not obstructed or has been inadvertently elevated.
- B. Examine the carbon filter to be sure it has not become obstructed with lubricant or other debris. Bypass the filter and see if the unit returns to normal levels. If it does, replace carbon filter.
- C. Check the “oil out” adjustable level tubes to be sure they are in proper adjustment. (Unit lid must be removed for this check)
- D. If the condition persists, contact your local distributor.

Problem II

Water is exiting the unit through both the “water out” and “oil out” lines.

Possible Solutions

- A. Check the “oil out” adjustable level tubes to be sure they are in proper adjustment. (Unit lid must be removed for this check)
- B. Check to be sure the “water out” line is not partially obstructed or has been inadvertently elevated.
- C. Examine the carbon filter and be sure it has not become partially obstructed with lubricant or other debris. Bypass the filter and see if the unit returns to normal levels. If it does, replace the carbon filter.
- D. If the condition persists, contact your local distributor. It may be that the unit is not large enough for the application.

Problem III

Filter life is very short and oily water is exiting from the carbon filter.

Possible Solutions

- A. Check the “oil out” adjustable tubes to be sure the oil level is not excessive and lubricant is reducing the water separation time. Adjust the tubes to a more horizontal position. (Unit lid must be removed for this check)
- B. Make sure the “oil out” line is not plugged or obstructed in some manner.
- C. Check to see if a stable emulsion has formed and the unit needs to be purged of the emulsion. Follow instructions under *Emulsion Removal*.
- D. When the above malfunction has been corrected, replace carbon filter.

Frequently Asked Questions

Q. How often do I clean the main unit of the ConDePhase *Plus*?

A. Summit recommends you back-flush the unit when you change the filter. A complete draining and cleaning is recommended every two (2) years.

Q. How often should I change the filter and where do I buy a replacement filter?

A. For most lubricants, the filter needs to be changed every 9-12 months. For polyglycols, the filter needs to be changed every 6-9 months. Replacement filters are available from your Summit Distributor.

Q. How do I know when my filter needs changing?

- A. There are three ways to know your filter needs changing:
1. Water is coming out the "Oil Out" connection
 2. Take a small sample of water from the "Water Out" of the carbon filter. If you can see an oil sheen on the top, the filter needs changing.
 3. Send a 6oz. sample from the filter once a quarter to Summit for a free analysis.

Q. What is causing a mist to come out the top of my expansion chamber?

A. The automatic drains are probably going off for too long a duration. Drains should be set to go off for no longer than five (5) seconds with no greater than 125 psi.

Q. I've just changed my filter and still getting oily water from the filter. What is going on?

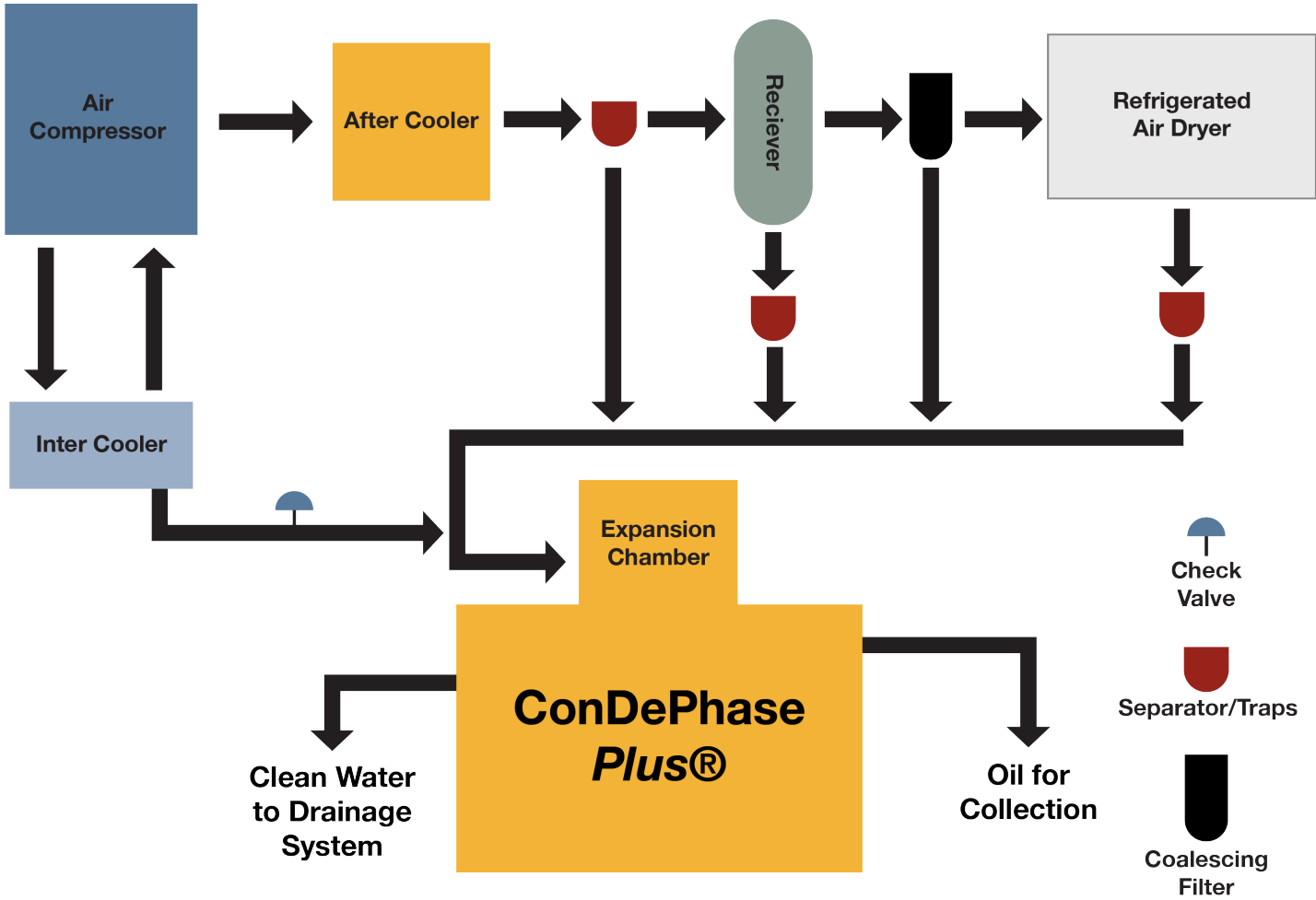
A. New filters must be pre-flooded with clean water before attaching to the ConDePhase *Plus*. Without pre-flooding with clean water, the charcoal will tend to channel the condensate through the filter without sufficient absorption time.

Q. How do I dispose of the carbon filter?

A. ConDePhase filters are disposed of in the same manner as the air compressor separators and filters. These are usually licensed companies approved for handling oily waste.

The Information contained in this document is the result of careful testing in our laboratories, complemented by selected literature. It does not in any way constitute a Guarantee, nor does it serve as a license to operate any patent. Due to widely varying conditions of product use, which are beyond our control, it is strongly recommended that the product be tested for suitability.

ConDePhase *Plus*® Installation





9010 CR 2120 | Tyler, TX 75707
1.800.749.5823
www.klsummit.com

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