

**ConDePhase<sup>®</sup>**  
**PLUS**

# Oil/Water Separator



For Compressor Condensate

It's not just the law...  
It's the right thing to do!

# Protect the Environment

## The ConDePhase® Plus Advantages

- Gravity separation for most compressor lubes including polyglycols
- Easy installation with no moving parts
- Patented External Activated Carbon Filter polishing unit provides additional effluent protection
- External Carbon Filter is easily changed without entering unit
- Tough, impact-resistant, high density polypropylene construction
- Two coalescing packs for extra filtration and longer lasting carbon filter

## Exceeds Most Environmental Standards

While some states push for even lower restrictions, for most states, 50 ppm is currently the standard concentration of oil allowed in water destined for sanitary sewers.

ConDePhase® Plus units, with their unique separation design and activated filter, have achieved water effluents containing less than 15 ppm of oil in most compressor oils and 50 ppm or less with polyglycols.

## Design Simplicity

The ConDePhase® Plus has no moving parts which makes it virtually maintenance free.

## Three Phase Separation

Here's how the ConDePhase® Plus combines three different separation methods for superior results:

Oily condensate enters the unique Expansion Chamber which allows air from automatic drains and ball valves, in blasts of 100 psi for five (5) seconds or less, to exit safely and the condensate to gravity flow into the unit.

1. Two large, turbulence-free Separation Chambers provide sufficient residence time for gravity to effect the separation process.

The condensate enters the first chamber, the effluent is forced to go through the coalescing filter pack where oil is coalesced and separated from the clean water. Clean water from the bottom chamber is gravity fed to the second chamber for duplication of the first chamber.

2. A second stage of gravity separation, plus coalescing polypropylene barrels, provides greater turbulence-free residence time for further separation
3. A large volume, External Activated Carbon Filter polishing unit provides clean, sheen-free water

As indicated above, coalescing, gravity separation and carbon absorption are the three separation methods used by the ConDePhase® Plus.

Some lubricants such as polyglycols and phosphate esters have a specific gravity equal to or greater than water. Because of this higher specific gravity, special equipment is required to effect separation of these fluids from water.

In addition, lubricants which are miscible with water, (polyglycols) or contain additives (ATFs), such as detergents, which cause the lubricant to form stable emulsions with water, cannot be separated using ordinary gravity separation devices.

The ConDePhase® Plus is not an ordinary device, and tests have shown the ConDePhase® Plus to deliver 50 ppms or less with polyglycols.

## Easy Care Patented (#5143611) External Filter

ConDePhase® Plus utilizes a patented External Activated Carbon Filter polishing unit to facilitate easy filter change without having to enter the unit and create internal turbulence. The external filter simplifies the problems associated with handling the spent carbon filter.

Depending on a number of variables (the most significant being the type of lubricant in use), a carbon filter will normally last from nine to twelve months,

(six to nine months with polyglycols).  
**Choosing the Correct Size Unit**

Four key factors must be evaluated when selecting the size ConDePhase® Plus unit to best fit your needs:

1. Compressor capacity, SCFM
2. Base stock of oil
3. ISO grade of oil
4. Additives present in the oil

To properly size the ConDePhase® Plus unit for each application requires careful consideration of these variables. Use of the ConDePhase® Plus sizing charts make this decision quick and easy.

Remember, oily condensate can originate from a number of locations in the air compressor system: compressor, inter-cooler, after-cooler, separators, receivers, dryers and filters.

For greater efficiency and additional savings, they can all be piped together before connecting the ConDePhase® Plus unit.

## Free Technical Assistance

To assist you in selection of the proper unit, Summit Industrial Products provides our distributors with detailed design criteria. Our distributors will be happy to help you select the proper unit.

Summit provides technical support to help design non-standard systems. Laboratory evaluation of specific lubricant separation applications and disposal problems are also offered.

If you have any questions concerning ConDePhase® Plus, please contact your local distributor for assistance.

## ConDePhase® Plus Delivers Superior Results

1. Eliminate environmental contamination
2. Reduce the cost of disposal contractors
3. Provide greater separation efficiency than old-fashioned settling tanks
4. Easy installation and maintenance
5. Greater durability

## Compressor Condensate Disposal

In many cases it is illegal to dispose of untreated compressor condensate by putting it into sewers or surface draws. You have two legal choices for properly disposing of oily compressor condensate. They are as follows:

1. Pay a licensed contractor to pick up and dispose of the used compressor condensate. This process is extremely expensive and inconvenient.
2. The ConDePhase® Plus oil/water separator is simple, automatic and the most economical solution for oily compressor condensate disposal.

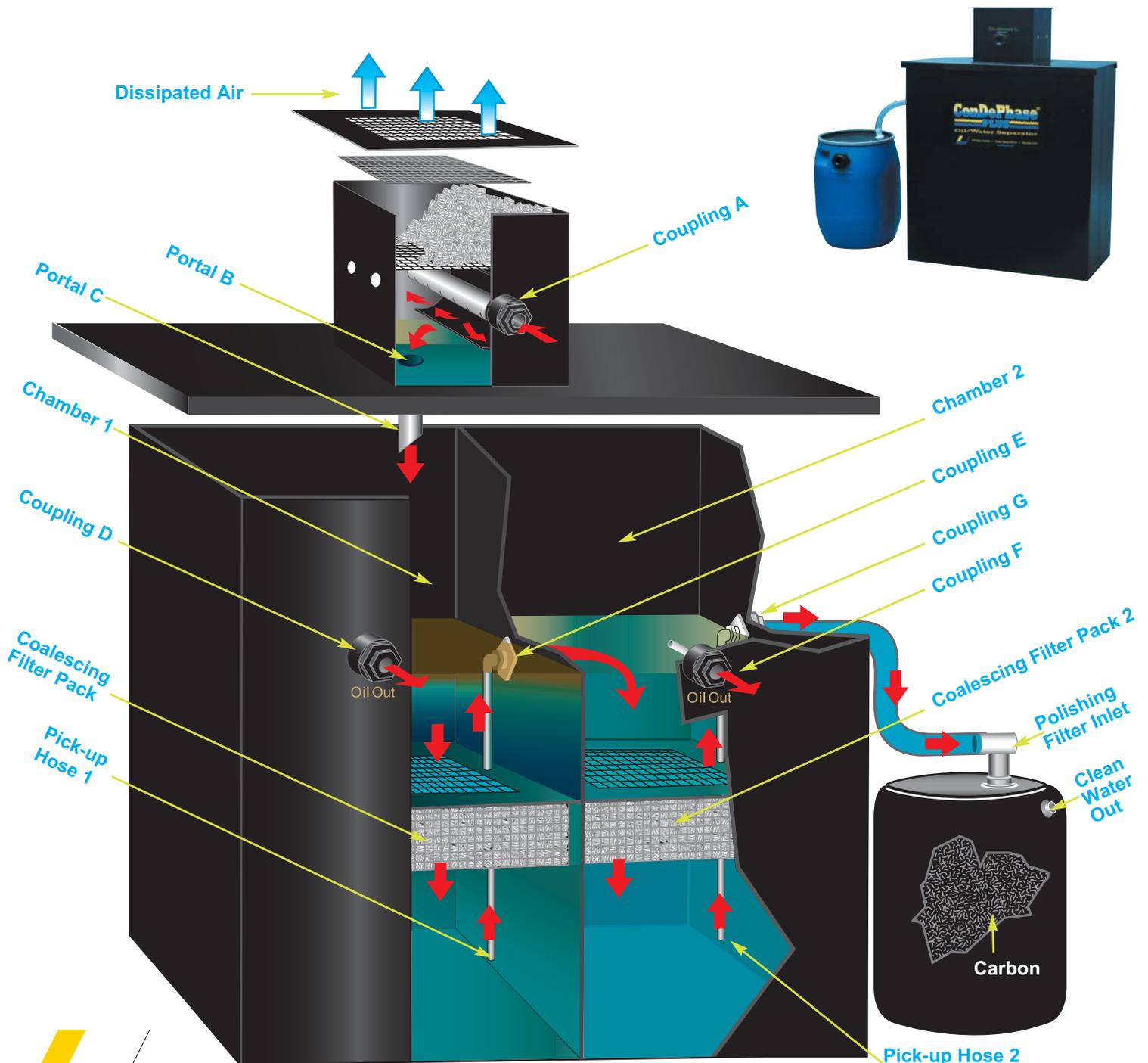
# with ConDePhase® Plus

## How ConDePhase® Plus Operates

The condensate enters the **Expansion Chamber** through **Coupling A**. The air is dissipated through the top which allows the oily condensate to gravity flow from **Portal B** into the main tank through **Portal C**. The condensate then enters into **Chamber 1** where the condensate flows through the first **Coalescing Filter Pack**.

The small particles of oil coalesce, joining to form larger “drops.” Because oil has a lower specific gravity than water, the oil then rises to the top and exits through **Coupling D**. The oil that is accumulated is ready for environmentally safe disposal.

Meanwhile, “separated” water slowly sinks to the bottom where it is collected by the **Pick-up Hose 1**. From there the water travels through **Coupling E** to **Chamber 2** for further separation. The effluent then travels through the **Coalescing Filter Pack 2** to remove the maximum gravity separable oil. The separated oil in **Chamber 2** exits through **Coupling F** for proper disposal. The water then exits **Chamber 2** through **Pick-up Hose 2**, passing through **Coupling G** and proceeding to the **Patented Exterior Activated Carbon Filter Polishing Unit**.



# ConDePhase® Plus & Super Capacity Oil/Water Separator Specifications

Model Number	Tank Capacity (Gallons)	Dimensions (Height x Length x Width)	Condensate Inlet Connection	Oil Drain	Water Drain	Weight
ConDePhase® Plus-7.5	7.5	22 3/4" x 18 3/4" x 10" inches	1/2 Inch	3/4 Inch	3/4 Inch	17 Pounds
ConDePhase® Plus-15	15	30-1/4 x 23-1/2 x 11-3/4 Inches	1/2 Inch	3/4 Inch	3/4 Inch	33 Pounds
ConDePhase® Plus-30	30	34-1/4 x 27-1/2 x 13-3/4 inches	1/2 Inch	3/4 Inch	3/4 Inch	56 Pounds
ConDePhase® Plus-80	80	48-1/4 x 31-1/2 x 15-3/4 inches	1/2 Inch	3/4 Inch	1 Inch	130 Pounds
ConDePhase® Plus-160	160	52-1/4 x 42-1/2 x 20-3/4 inches	1/2 Inch	3/4 Inch	1 Inch	170 Pounds
ConDePhase® Plus-200	200	54 x 48 x 24 Inches	1/2 Inch	3/4 Inch	1 Inch	185 Pounds
ConDePhase® Plus-300	300	60 x 57 x 28 inches	1/2 Inch	3/4 Inch	1 Inch	215 Pounds
ConDePhase® Plus-400	400	72 x 57 x 29 inches	1/2 Inch	3/4 Inch	1-1/2 Inch	280 Pounds

# ConDePhase® Plus External Activated Carbon Filter Specifications

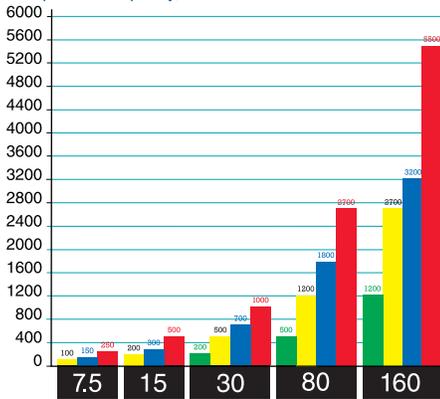
Filter Number	ConDePhase® Model	Filter Size	Dimensions ( H x W )	Water Out Connection	Weight
CPF-002	ConDePhase® Plus-7.5	2 Gallons	9.5" x 9.5" inches	3/4 Inch	7 Pounds
CPF-003	ConDePhase® Plus-15	3-1/2 Gallons	11-1/4 x 12 Inches	3/4 Inch	13 Pounds
CPF-005	ConDePhase® Plus-30	5 Gallons	15 x 12 Inches	3/4 Inch	20 Pounds
CPF-016	ConDePhase® Plus-80	16 Gallons	24 x 16 Inches	1 Inch	56 Pounds
CPF-030	ConDePhase® Plus-160, 200 & 300	30 Gallons	32 x 20 Inches	1 Inch	116 Pounds
CPF-055	ConDePhase® Plus-400	55 Gallons	39 x 22 Inches	1-1/2 Inch	220 Pounds

# ConDePhase® Plus Sizing Charts

## STANDARD MODELS

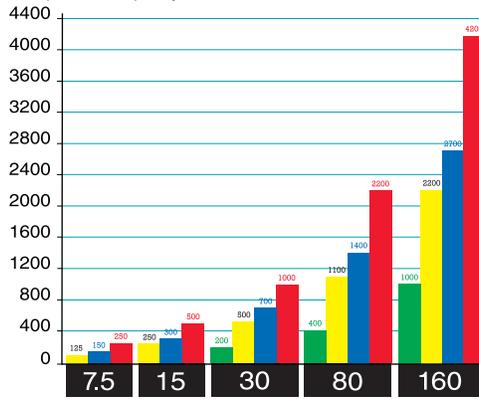
### ISO 32 & 46 LUBRICANTS

Compressor Capacity, SCFM



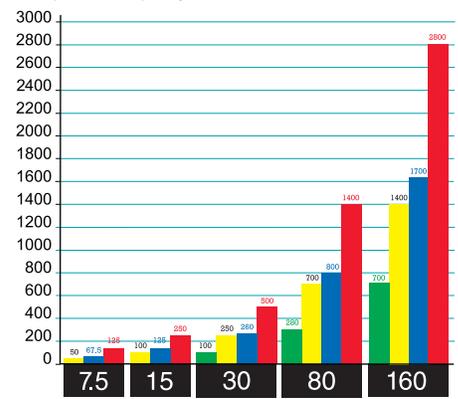
### ISO 68 LUBRICANTS

Compressor Capacity, SCFM



### ISO 100+ LUBRICANTS

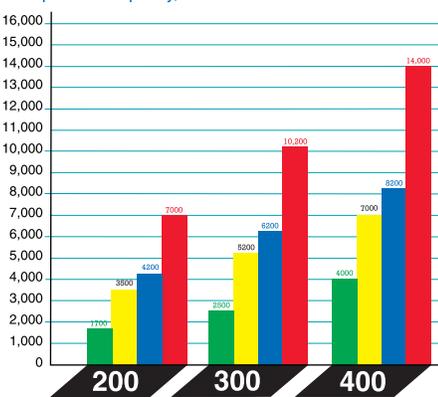
Compressor Capacity, SCFM



## SUPER CAPACITY MODELS

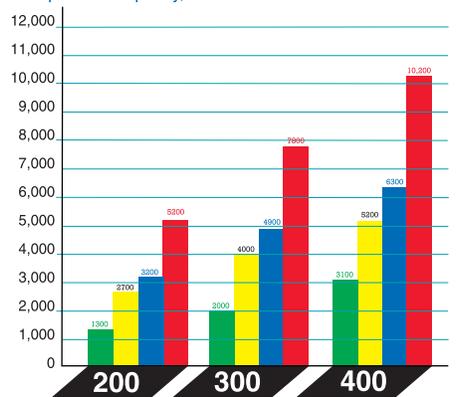
### ISO 32 & 46 LUBRICANTS

Compressor Capacity, SCFM



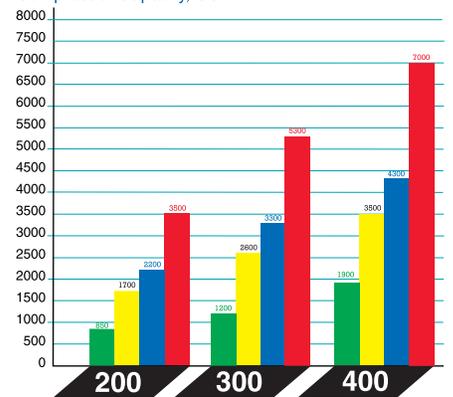
### ISO 68 LUBRICANTS

Compressor Capacity, SCFM



### ISO 100+ LUBRICANTS

Compressor Capacity, SCFM



■ Polyglycol   
 ■ Petroleum   
 ■ Diester/Polyolester   
 ■ PAO