

Liquid-Liquid Coalescer Separators Type 62-CC-2S



Effective Separation of
Two Immiscible Liquids



Separation of:

- Water from Gasoline and Kerosene
- Caustic from Fuels
- Water from Oil and Naphtha
- Other immiscible liquids with dissimilar densities

WINSTON / ROYAL GUARD CORPORATION



Liquid-Liquid Coalescer Separators

Type 62-CC-2S

Liquid-Liquid Coalescer Separators are two stage units and utilize coalescing cartridges and separator cartridges for the separation of aqueous solutions from hydrocarbon liquids

The Winston/Royal Guard **Type 62-CC-2S Liquid-Liquid Coalescer Separator** employs coalescer and separator cartridges for effective separation of two immiscible liquids such as water from a hydrocarbon liquid. Applications include removing small amounts of water from oil, condensates, kerosene, gasoline, diesel, and other liquid products in the refining, oil and gas, and related industries.

Applications include separation of:

- Trace amounts of water from gasoline and kerosene
- Caustic from fuels
- Water from oil and naphtha
- Other immiscible liquids with dissimilar densities

In the liquid-liquid coalescer separator, hydrocarbon liquid (continuous phase) mixed with small amounts of aqueous or non-aqueous liquid (discontinuous phase) passes through two types of cartridges for effective liquid separation.

The first stage cartridges coalesce dispersed water droplets until they are large enough for most to settle to the bottom of the vessel by gravity. Ultra-fine solids are captured in these cartridges and are removed with the cartridge change-outs. The liquid flow moves through each coalescing cartridge from inside to outside, and therefore less surface area is available with which to retain solids. If heavy solid particulate loading is expected, a filtration unit such as the **Type 61V Liquid Filter** should be installed upstream of the liquid-liquid coalescer separator so as to maintain peak efficiency of the coalescer cartridges and extend the time between cartridge change-outs.

The second stage separator cartridges remove any remaining water droplets from the continuous phase liquid flow. The Silicone treated cellulose cartridge media is hydrophobic, allowing oil to pass through while repelling water.

Coalescer Operation: As the liquid emulsion flows through the first stage coalescing cartridge media from inside to outside, dispersed water droplets attach to the media fibers. As the flow continues, additional water droplets attach to the fibers and merge, or coalesce, with other droplets. This coalescing process continues until the droplets have grown large enough to release from the media and exit the cartridges into the vessel interior. With a higher specific gravity, and thus a greater density than the hydrocarbon liquid, most of the water droplets fall to the bottom of the vessel by gravity and are collected in the vessel's boot, or collection chamber. Any remaining small droplets that do not have enough mass to fall out at this stage are removed by the second stage hydrophobic separator cartridges.

Along with specific customer requirements some of the many options available are:

- Custom nozzle orientation
- Horizontal or vertical design
- Steel base mounting
- lifting eyes
- quick-opening closure
- Valve and control packages



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Type 62-CC-2S

Coalescer and Separator Cartridges for effective removal of trace amounts of aqueous solutions from a liquid hydrocarbon stream

Provided in the Winston/Royal Guard Type 62-CC-2S Liquid-Liquid Coalescer Separator for effective separation of two immiscible liquids such as water from a hydrocarbon. Applications include removing small amounts of water from oil, condensates, kerosene, gasoline, diesel and other liquid products in the refining, oil and gas, and related industries.



Operating Specifications:

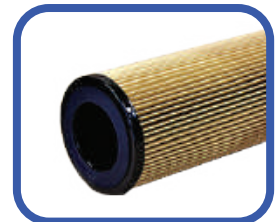
- pH range: 5 – 9
- Recommended differential pressure for cartridge change-out: 15 PSI
- Recommended maximum operating temperature: 250 ° F
- Buna-N gaskets are standard (options: Viton or EPR)
- Tinned steel core and optional end cap with bolting hole

WCTL6--R Series, the first stage **coalescer cartridge** coalesces the dispersed phase into droplets large enough for most to drop out of the continuous phase and fall to the bottom of the vessel by gravity.



- Fiberglass media with cotton sock exterior wrap
- Flow direction is inside to out
- Micron ratings: 0.5, 1, 5, 10, or 25
- Effluent remnant: 10 ppm
- Standard dimensions: 6" O.D. with 3-1/2" I.D.
Lengths are 11", 14-1/4", 22", 28-3/4", 33-1/4", 36", 44", 56"
- Typical part number to reflect the length and micron rating: **WCTL636R (5)**

WCTL6--PC Series, the second stage **separator cartridge** is hydrophobic, allowing hydrocarbon to pass through the pleated media while repelling small water droplets that do not have enough mass to initially drop out of the flow.



- Silicone treated cellulose media
- Flow direction is outside to in
- 5 micron rating
- Standard dimensions: 6" O.D. with 3-1/2" I.D.
Lengths are 11-1/4", 14-1/2", 16-1/2", 22-1/4", 28-1/4"
- Typical part number to reflect the length: **WCTL628PC**

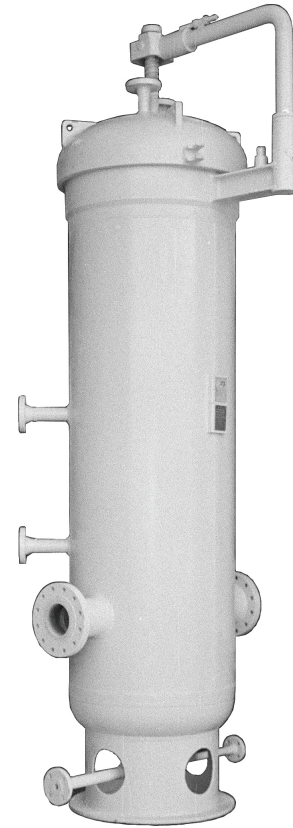
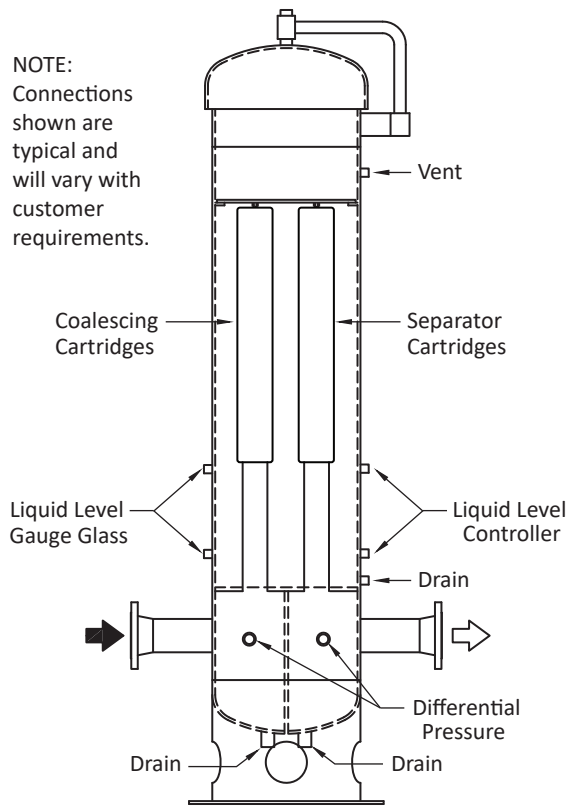
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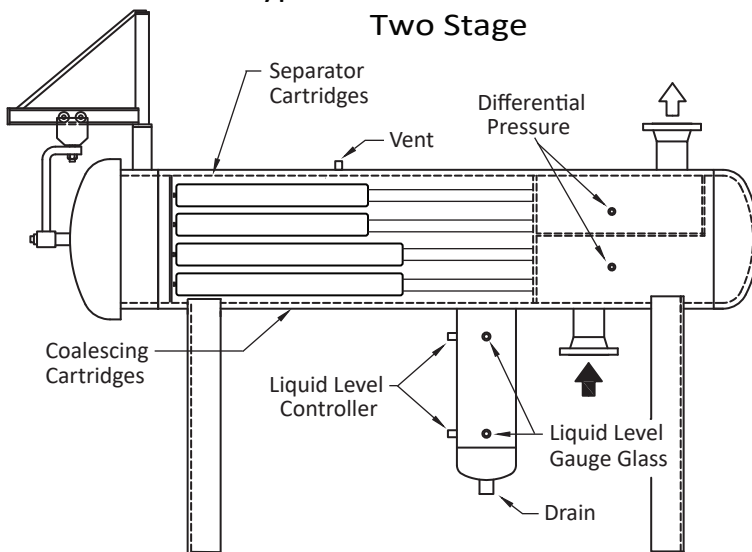
Type 62-CC-2S Liquid-Liquid Coalescer Separators

Type 62V-CC-2S Vertical Two Stage

NOTE:
Connections shown are typical and will vary with customer requirements.



Type 62H-CC-2S Horizontal Two Stage



Closure provides easy access to filter cartridges

Specifications are subject to change without notice. 10-15-2021 (supersedes 7-15-2021)

WINSTON / ROYAL GUARD CORPORATION

P. O. Box 1145 • White Oak, Texas 75693 USA

Phone (800) 527-8465 • (903) 757-7341 • Fax (903) 759-6986

Winston-RoyalGuard.com • e-mail: sales@winston-royalguard.com

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