WINSTON / ROYAL GUARD CORPORATION

Type 62 Liquid-Liquid Coalescer Separators

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. Applications include removing small amounts of water from oil, condensates, kerosene, gasoline, diesel, and other liquid products, in the refining, petrochemical, and oil and gas industries.

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. Removal of the discontinuous phase liquid is down to, or less than 10 ppm.

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 particulate loading is expected, a filtration unit such as a 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 separate any remaining water droplets from the continuous phase liquid flow. The treated cellulose pleated cartridge media is hydrophobic, allowing oil to pass through while repelling water. These separator cartridges are available in 5 and 25 microns ratings.

How it works: 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 the mass to fall out at this stage are removed by the second stage hydrophobic separator cartridges.

OPTIONS INCLUDE: Horizontal or vertical design, various vessel support styles, lifting eye(s), quick-opening closure for ease of element change-out, and other customer requirements.

ASME Code Certified: Winston/Royal Guard is an ASME Section Vlll, Division 1 Code certified manufacturing facility with National Board certification. Capabilities include all types of non-destructive testing with a rigidly controlled Quality Control system.

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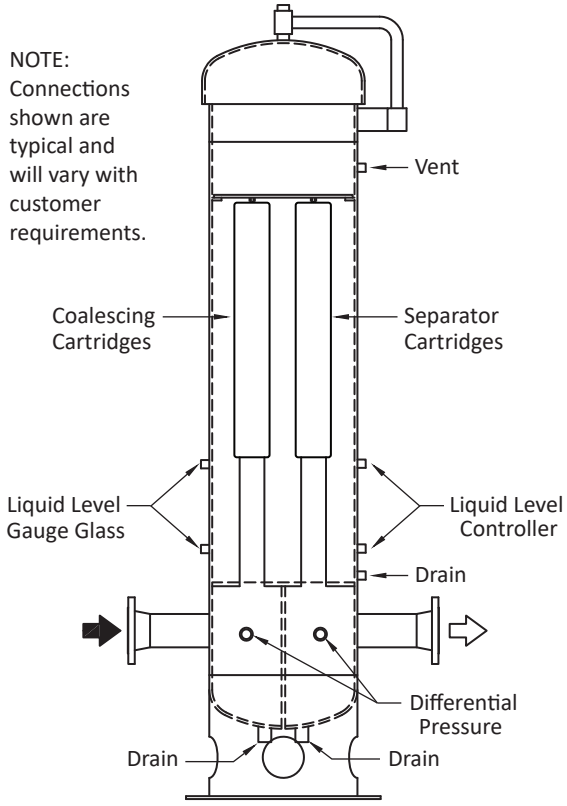
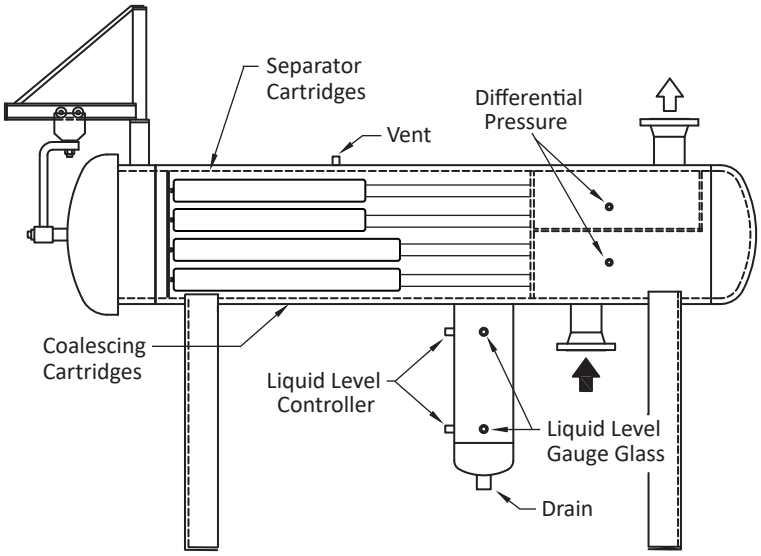
Coalescing cartridge on left with two pleated separator cartridges

Closure provides easy access to filter cartridges

Type 62V-CC-2S Vertical Two Stage



Type 62H-CC-2S Horizontal Two Stage



Specifications are subject to change without notice. 4-24-2019 (supersedes 3-14-2017)

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