

SUNGOV	MODEL FCS COALESCER FILTER SEPARATORS	CATALOG: PF-03
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SUNGOV's coalescer filter separators are high efficiency liquid/gas & liquid/liquid separators for removal of fine sized water/oil droplets in fluid streams. They are ideally used after bulk liquid separation using traditional separators. They are designed to overcome the limitations* of traditional separators namely:

- Suitable for separation of liquid droplets of size > 10 µm only
- Suitable for separation of liquids only in unstable emulsions (high surface tension between fluids)
- Suitable for separation of liquids at rated fluid velocities only

Features:

- Hydrophobic (water repellent) as well as oleophobic (oil repellent) filter media for wide application
- Integrally surface treated filter media for better coalescence performance
- Stainless Steel supported filter element design for robust strength
- Quick open cover design as standard for easy element change out
- Differential pressure indicator as standard for element change out notice
- Vessel design as per ASME Sec VIII Div 1 (latest ed). Code Stamping (U Stamp) as option
- Vessel welding by ASME Sec IX qualified welders as standard

Comparison of Coalescer Filter Separators with Traditional Separators:

Coalescer Filter Separators	Gravity Separators / Knock Out Drum	Baffle Separators / Vane Separators	Demister / Mesh Pad Separators	Centrifugal Separators
Uses specially structured media of very fine pores and adsorptive surfaces for coalescence of fine droplets in to heavier droplets and finally settling under gravity	Uses natural gravitational force to help droplets settle down	Uses specially designed flow path barriers like baffles / vanes. Due to higher densities, droplets do not change direction and fall under gravity	Uses specially structured media to create flow path barriers similar to baffles but with a greater surface area and closer pores	Uses centrifugal force (achieved through tangentially directed flow in to a conical shaped chamber) to separate droplets which is of different density
Suitable at rated velocity and lower velocities. Efficiency increases with reduction in velocities	Suitable at rated velocity and lower velocities. Efficiency increases with reduction in velocities	Suitable at rated velocity only. Efficiency decreases with reduction in velocities	Suitable at rated velocity only. Efficiency decreases with reduction in velocities	Suitable at rated velocity only. Efficiency decreases with reduction in velocities
Suitable for emulsions with surface tension less than 20 dyne/cm (up to 1 dyne/cm)	Suitable for emulsions with surface tension greater than 20 dyne/cm	Suitable for emulsions with surface tension greater than 20 dyne/cm	Suitable for emulsions with surface tension greater than 20 dyne/cm	Suitable for emulsions with surface tension greater than 20 dyne/cm
Requires small floor space	Requires the highest floor space	Requires significant floor space	Requires small floor space	Requires smallest floor space

* Compiled from public sources