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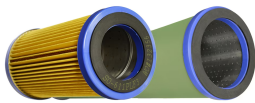
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# Separator Cartridges - Filter/Separator 2nd Stage Elements

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Part # SO-624VA5



Parker Velcon SO Series Separator cartridges for use as the second stage in filter/separator vessels prevent water from re-entering the fuel downstream.

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## Technical Specifications

Filter Type:	Separator	Application:	Aviation & Industrial
Certificates:	E11581	Application:	Aviation and Industrial
Seal Material:	Buna-N	Tube Type:	Variable
Maximum Operating Temperature:	93.3 °C, 200 °F	Media:	TCS
pH Range:	Continuous Operation: 5 - 9	End Cap Configuration:	Blind
Brand:	Velcon	Length (inch):	24
Flow Rate:	Depends on fluid viscosity and application. See brochure for more information.	Inside Diameter (inch):	3.5
		Outside Diameter (inch):	6

[Safety Warning](#)

## Item Information

### Features

- Optimum 2nd stage water removal
- Choice of Teflon® Coated Screen, Synthetic or Pleated Paper Media
- Field proven performance
- Largest selection of replacement elements

### General

Separator Cartridges are employed as the second stage in filter/separator vessels. Their sole function is to repel coalesced water drops produced by the first stage cartridges while allowing hydrocarbon fluids to pass through. Water drops settle into the filter/separator sump and are not carried downstream. All particle filtering is done by the first stage coalescer cartridge.

### How Separator Cartridges Work

Flow direction is from outside-to-inside. The top photo insert shows water being repelled by the hydrophobic separator medium on the cartridge's outside surface. Hydrocarbon fluids, on the other hand, easily pass through and exit the separator cartridge. Cartridges with three different types of repelling media are offered:

Teflon Coated Screen (TCS) Cartridges are, by far, the most popular type of separator cartridge. With proper cleaning and inspection (see Velcon Filter Wash) most effective TCS elements can be reused over many coalescer cartridge changeout cycles. And, TCS cartridges generate considerably less static charge than pleated paper cartridges. These features have made them the preferred choice for aircraft fueling applications.

Pleated Paper Cartridges cannot be reused and are replaced at every coalescer cartridge changeout. They are often used with diesel and other fuel oils which may contain materials that adhere to TCS cartridges and cannot be cleaned off. Synthetic Media Cartridges can be cleaned a maximum of two times. They are intended for customers who do not want to take the time to clean separators.

### Separator Cartridge Performance

Maintaining a uniform flow along the length of the cartridge optimizes performance and reduces the number of cartridges required. Flow is controlled by a tube, inside each cartridge, through which the hydrocarbon fluid exits the cartridge and the filter/separator vessel. Two styles of inner tube are offered.

Cartridges with uniform hole pattern inner tubes are adequate for many applications. However, where optimum flow distribution is required, cartridges with variable hole pattern inner tubes are recommended. When converting older equipment, a lesser number of variable hole pattern cartridges is usually required. Operating costs will therefore be reduced.

### Separator Cartridges

Model number system. Refer to box at right and table below. Note that "C" in the code always means a Uniform hole pattern inner tube with TCS media, and "V" means Variable hole pattern with TCS media. Blind caps have a hole for the tie rod.

### General Specifications

- TCS medium is 200 mesh stainless steel screen coated on both sides with green Teflon. The screen is lockseam folded and fastened with an internal aluminum clip.
- Pleated medium is silicone treated resin impregnated paper with a protective outer aluminum screen jacket.
- Tubes are aluminum.
- End caps are aluminum and/or glass filled nylon.
- Gaskets are Buna-N.
- pH range is 5 to 9.
- Maximum operating temperature is 200°F.

## CAD Drawings + Files



## Related Documents



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