

## AQUACON® AD - FILTRATION & WATER ABSORPTION

### Particulate & Water Protection from Diesel & Biodiesel (FAME)

#### Benefits

- More reliable fuel injector performance by reducing particulates which can cause cascading damages
- Reduced operating costs due to repair of equipment damaged by particulate and water contaminants
- Reduced engine maintenance due to fewer components being damaged by contaminants
- More efficient fuel consumption due to fewer inhibiting particulate and water contaminants
- Removes water contaminants and prevents further flow of water into the engine

#### Description

Even when the utmost care is taken, contaminants will be introduced as fuel is transported from the refinery to its point-of-use. Common contaminants, including pipe scale, silica, metal debris and water, can quickly deteriorate fuel cleanliness far beyond engine manufacturer's minimum requirements for fuel cleanliness.

Velcon's Aquacon Diesel (AD) filters can remove both particulate and water contaminants in fuels to meet stringent downstream ISO 4406 and ASTM D975 cleanliness standards for both diesel or bio-diesel fuels. The AD design incorporates multiple layers of both high efficiency long-life particulate capturing and water absorbing media.

#### Tiered Ratings

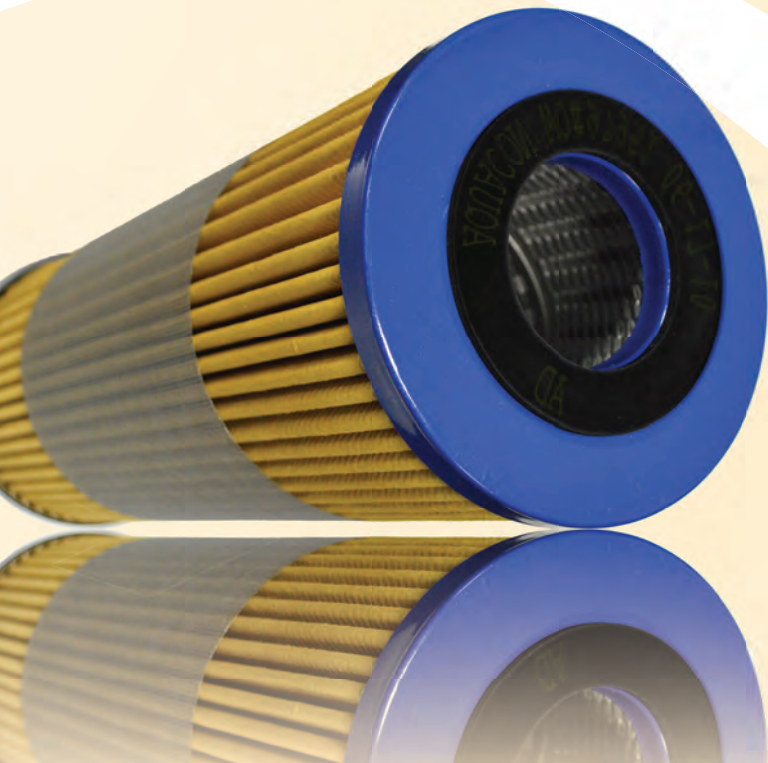
- Velcon's 2, 4 or 6 micron rated AD filters are excellent solutions for delivering fuel ready for dispensing while assuring both ISO 4406 and ASTM D975 cleanliness levels are consistently met. Each progressively tighter AD filter rating adds additional particle removal capability and lowers ISO 4406 particle counts.
- The 10, 25 and 40 micron rated filters are ideal for managing fuel contamination entering and leaving terminal storage tanks throughout the fuel transfer process.

#### Product Specifications

- All filter components are compatible with Diesel and Biodiesel blends
- Recommended change out pressure – 25 psid (1.7 bar)
- Water absorbance will increase differential pressure to the change out pressure
- Buna-N sealing materials are standard
- Maximum Operating Temperature – 160 °F (71°C)
- Internal Core Diameter 3.5 inches (89 mm)
- All AD products will remove both free and emulsified water from both diesel and biodiesel fuel to levels below 50 ppm.
- The water absorbing technology used in AD filters is not effective in the presence of fuels containing high concentrations of alcohol.

#### Water Absorbance Versus Water Coalescing

AD filters are designed to remove both water and particulate from either diesel and biodiesel fuels. AD filters are ideal for use in biodiesel and blended fuels where high levels of surfactants (glycerin) could disrupt water coalescing. When continual removal of water from petroleum based fuel is required, the application of water coalescing technology is optimal.

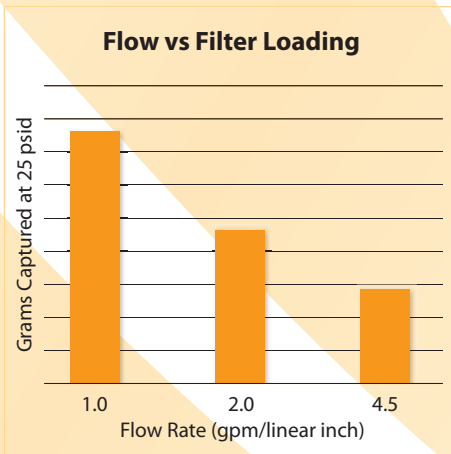


## System Sizing

Velcon is a recognized leader in the development and application of water absorbing and filtration technology. Our 60 years of experience has proven that the successful implementation of coalescing systems is dependent on the initial system sizing and configuration. Many companies commonly under-size filtration systems while increasing filtration flow rates in order to minimize up-front costs. Sizing a filtration system solely on flow while failing to account for incoming fluid contamination levels results in reduced filter life and high operating costs. Velcon's extensive bulk fuel handling experience and our state-of-the-art fuel testing laboratory have quantitatively proven that increased system/housing will allow for

lower flow rates per filter while dramatically extending the service life of the elements. **Systems "sized for life" commonly see a full repayment of the additional system cost through operating savings.** Using Velcon's proprietary software, **SizeRight™**, for system sizing, we can help you select the right housing and elements for your application based on your ISO 4406 cleanliness requirements and specified change-out interval while also providing you estimated yearly operating cost.

For additional information on this powerful tool, please contact Velcon or our local representative to have your filtration system **SizeRight™** for your specific needs.



### ISO Code vs Mass

ISO Code	lbs/yr (kg/yr)
24/22/20	1609 (730)
22/20/18	564 (256)
17/15/13	20 (9.1)
12/9/7	4 (1.8)

**Notes:**

1. Values are based on usage of +3.5M Liter of fuel per year
2. Field results may vary

## AD Part Numbering

Velcon recommends use of threaded base endcaps for ease of installation and to minimize components.

	O.D. in (mm)	Length in. (mm)	Rating (µm)	Endcap	Compatible Housings
AD —	5	12 – 12 (305)	2, 4,	TB (Threaded base)	VF-61 VF-62
	5.5 (143)	24 – 24 (610)	6, 10, 25, 40		
AD —	6	14 – 14 5/8 (371)	2, 4,	TB (Threaded base)	VF Series
	6 (152)	29 – 29 1/8 (740)	6, 10,		
		36 – 36 (914)	25, 40		
		44 – 44 1/8 (112)			
		56 – 56 1/8 (143)			

### Example:

AD-5122

Variables that often change for the AD part numbers when placing an order are the length and the µm ratings; as seen in the case of the above example with number 12 (length) and number 2 (µm rating).

CLEANDiesel™



Products are sold and serviced by a worldwide network of representatives. To order, contact Velcon corporate headquarters or a local Velcon representative:

### Corporate Headquarters

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