

# SAP Free Fuel Monitors

CDF-X and ACO-X Series

2" & 6" OD EI 1588 Qualified Aviation  
Monitor Elements



## Next Generation Monitor Elements:

Since the introduction of aviation fuel monitor cartridges in aviation, super absorbent polymers (SAP) have been the essential materials used in the final stage of airport ground fueling systems for protection of on-board systems from water contamination. The material's ability to absorb and chemically lock in water also have it's challenges: media migration downstream.

Parker Velcon's new SAP Free barrier technology eliminates the uncertainty of SAP downstream by removing SAP from the equation while still providing the efficiency and water removing performance you can rely on from a fuel monitor cartridge.



### Pending

- EI 1588 Specification
- Product Development
- EI 1588 Qualification
- Field Trials

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## Product Features:

- **INNOVATIVE BARRIER TECHNOLOGY**  
Water and dirt are prevented from bypassing downstream allowing only clean dry fuel
- **PERFORMANCE TO MEET CURRENT EI SPECIFICATIONS**  
Defense against emulsified water and full slug protection
- **COST AND RESOURCE EFFICIENT**  
Fits current deployed monitor housings without the need for costly retrofitting or addition of electronic sensors
- **INCREASED TIME BETWEEN CHANGEOUTS**  
Unlike SAP materials, our new barrier technology does not swell and constrict flow
- **NO MORE MEDIA MIGRATION CONCERNS**  
Zero uncertainties about SAP media migration or extractables downstream and in fueling systems
- **COMPATIBLE MATERIALS**  
Utilizes industry known materials of construction (nylon, PTFE and urethane)

ENGINEERING YOUR SUCCESS.

# Surface/Barrier Technology

The new surface/barrier technology provides a drop-in solution for today's 2" and 6" monitors. Exterior dimensions and endcap styles remain the same while media technology are exchanged with new barrier technology. This allows for use with current monitor housings without the need for expensive and costly retrofitting of filtration systems on fuel carts and fueling trucks.

Our barrier technology is:

- Effective against low-water emulsions
- Effective against total water submersion
- Effective when introduced to water slugs at or greater than 101.5 psid (7 bar)

- Effective in Category M Fuels
- Extreme dirt efficiency

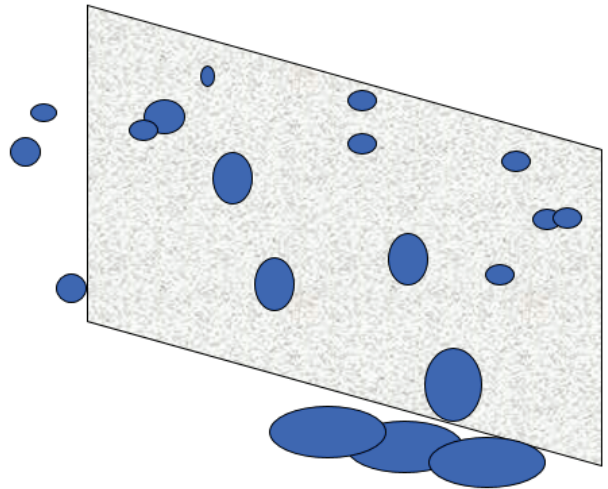
## How Our New Barrier Technology Works

Like a microfilter, our barrier technology filter and prevents water from bypassing downstream

- Water impede and coalesce on the hydrophobic surface of the barrier media
- Water droplets are blocked by a hydrophobic material that is porous to fuel

- Barrier efficiency depends on

- Droplet size distribution
- Hydrophobic surface properties
- Pore size distribution
- Interfacial Tension (IFT)
- Differential Pressure (DP)



## A Cost Effective Solution

Electronic sensors have proven to be effective at monitor and control of particulates and water contaminants in ground fueling when implemented properly.

Cost and time required for implementation of sensors are barriers preventing many into plane fueling companies from integrating sensors into their operations.

With our barrier technology filtration equipments are already designed to accommodate current SAP monitor cartridges. Parker Velcon's SAP Free cartridges are dimensional fit and form replacements for existing 2" and 6" monitor cartridges.

- No additional change in operation procedures or re-training of personnel required other than specification of the new elements
- No additional modification of monitor housings are required

to implement the new SAP Free barrier technology.