

# SERVICE BULLETIN

December 6, 2017

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## USE OF SAP FILTER MONITOR IN AVIATION FUEL

In recent weeks, several aviation industry groups (notably IATA, A4A, JIG & EI) have made statements regarding their concerns around possible downstream extractables/shedding of SAP (super absorbing polymer) from fuel filter monitor elements that utilize SAP media. From these statements, there has been misinterpretation on the status of what is acceptable regarding the use of fuel filter monitors for aviation fueling. The following information serves to provide clarity and further educate our community concerning usage of fuel filter monitor element with SAP media.

The concerns regarding SAP began with a working group established by the International Aviation Transportation Authority (IATA) to gain a greater understanding of what level of SAP was having an impact on aviation fuel and airline community. This working group recently published a communication on a recommended way forward (see [www.iata.com](http://www.iata.com)) in an effort to minimize the possible shedding of SAP materials.

Each of the industry organizations mentioned herein are in the process of making formal statements – or already have – on the key go-forward actions for fuel systems which utilizes SAP based fuel monitors elements. The following “best practices” represent the collective recommendations of these organizations:

- Fuel filter monitors to meet new 7<sup>th</sup> edition criteria from the Energy Institute (implementation period TBD)
- Maximum allowable monitor vessel differential pressure – 15 psid (1 bar)
- Differential pressure switches for use on fuel filter monitor housings
- Change all nozzle hose-end strainers to 100 mesh
- Regular cleaning of the hose end strainer (final procedure and timing TBD)

Parker’s Velcon Aviation Filtration Division supports the work the industry has conducted to mitigate potential risk for air travel. We continue to work with all our industry partners to advance the cause of safe air travel and secure uploading of clean dry fuel.

The following are Parker's go-forward actions for our EI1583 fuel filter monitors

- Velcon P/N CDF-2XXP: Our current qualified 2-inch fuel filter monitor has been grandfathered into the EI 7th edition based on the test results recorded during the 6th edition testing. We have updated our literature to reflect this change ([www.velcon.com/cartridges/?pg=cdf](http://www.velcon.com/cartridges/?pg=cdf))
- Velcon P/N ACO-6XX01P: We are currently working to upgrade our 6-inch out-to-in fuel filter monitor (ACO) to the 7th edition standards, and we believe this work will be completed in the first quarter of 2018 if not sooner. Once completed, we will issue a separate notification of this change, and update our literature likewise.
- Velcon P/N ACI-6XX01P: We will not be upgrading our in-to-out flowing 6-inch fuel filter monitor to the 7th edition, and we will no longer take orders for this product as of March 31, 2018. Since we are not aware of any other manufacturers who will offer this product as a 7<sup>th</sup> edition, we encourage the users of this product to configure these vessels as a filter water separator. Please contact us for support as you reconfigure your vessels.

#### Parker's Product Development – Life After SAP / EI1583

You may be asking what will fill the gap for fuel filter monitors in the field currently? Our Velcon filtration business has been developing the next technology beyond SAP fuel filter monitors for several years and we have several exciting technologies we will be launching in 2018!

**WATER & SOLIDS BARRIER TECHNOLOGY (EI1588)** – This will be the most straight forward solution for the market as a ***drop-in fuel filter monitor replacement technology***. Our new technology ***will not require any modifications to fuel filter monitor housings*** and will provide the user security against emulsified water, water slugs and solids, while containing zero SAP. The Energy Institute will be releasing a new specification (EI1588) in the first quarter of next year and we are driving to have these new products qualified and into field trials soon after its release. We are confident that we will be able to support the aviation fueling industry's urgent need to provide a truly drop-in technology that will easily back-fill all the SAP fuel filter monitor elements currently in use.

Over the next few months we will be providing you updates and insight into the industry. In addition, we'll shed some light on how this new technology works, the true benefits of this technology verse the current SAP technology and other alternative technologies being suggested by the industry.



**ELECTRONIC WATER SENSING (EI1598)** – We are also progressing work on an economical EI1598 qualified electronic water sensor. This sensor can be used with an EI1599 dirt-defense filter as another alternative for SAP fuel filter monitor applications. It can also be used with any fueling system design to monitor free water. Our device has been designed to easily integrate into common pipe connections (1/4" NPT) and wired directly into the Deadman circuit or a PLC to halt fueling when sensing free water above the allowable limit. Although free water sensing technology has been available previously (Velcon Contamination Analyzer and competitive devices), the cost of implementing this technology has been out of reach for most users until now. Our new water sensing technology is scheduled to be released in the first half of 2018. Once again, we will be providing you with updates throughout the development process.

Our new technologies provide you with industry approved products to enhance your fueling operations while providing maximum safety and peace of mind. If you have questions or comments, please contact one of our highly-qualified customer service representatives at **(719) 531-5855** or send an e-mail to **[vfsales@parker.com](mailto:vfsales@parker.com)**.

Sincerely,

The Parker Velcon Leadership Team