

THE CLARIFIER

Volume 18 Number 1

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Notes from Recent IATA & API/IP Meetings

Update on Water Absorbing Monitors

1. **IP Draft Standard 1583 5th Edition** has been issued and will be valid thru Nov. 1, 2008. This is to give the manufacturers opportunity to develop new products.
2. All filter manufacturers confirmed at the meetings that ZERO ppm of Super Absorbent Media (SAP) migration from the filter monitor is not achievable - this has been put in writing by all of the manufacturers.
3. Two presentations at IATA Fuels Conference clearly showed that previously reported problems with blinding of aircraft engine filter cartridges were **not** due to SAP migration as suspected, but were caused by organic mud and microbial contamination.

Velcon Filters, Inc. would like to remind everyone that attention to housekeeping at all points in the fueling chain are critical.

4. The IATA Fuel Monitor Task Force report will be out in early 2007, at which time a new task force will be formed.

Update on Other API/IP Aviation-related Specifications

A. **API/IP Specification 1581 5th Edition** For filter/separator vessels **Addendum** (published December 2006)

1. The major change is a new allowance for low water systems (Type S-LW), for which effective performance against 0.5% water (rather than 3% water) will qualify the system.
2. As explained in the new Information Annex (Annex B), **the users should determine for themselves when it is appropriate to use Type S-LW Systems at their locations: "A user should conduct an appropriate risk assessment before specifying Type S or Type S-LW."**
3. This means that it is the customer who will make the decision as to which type of system to specify. This determination is not for the manufacturer to make.

B. **API/IP Specification 1596** - For the design & construction of aviation fuel filter vessels

C. **API/IP Recommended Practice 1550** - Maintenance and delivery of clean aviation fuel. Intended for aviation filter users/ system designers. (First edition in development, expected in 2nd quarter 2007)

D. **API/IP Draft Standard 1598** - For electronic sensors for monitoring aviation fuel quality (in development)

E. **API/IP Specification 1599** - For 2-inch dirt defense filters (in development - publication expected in mid-2007)

Please contact Velcon Filters, Inc. if you have any questions regarding any of these items.

Change Is a Good Thing! New Team Members

Robin Mason, VP Sales & Marketing, recently announced that Rick McKenna and Ben Taylor are now Senior Sales



Scott Thomas

Managers. Rick will be taking over inside sales at Velcon and Ben will be overseeing

outside sales. With such great change came the need for two more sales team members: John Sterzer and Scott Thomas. John has been with Velcon for over 10 years in the utility market and is excited to dive into the aviation market. Scott Thomas has worked in the aviation fueling business in various functions for over 15 years and is excited to join the Velcon Team. Both John and Scott are looking forward to working with many new and old friends in the aviation market as well as meeting new customers.



John Sterzer

Velcon

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Velcon Exhibiting at the Aviation Industry Show in Orlando



Show Dates & Hours:

Tues., March 20, 10:00 am - 5:00 pm

Wed., March 21, 10:00 am - 5:00 pm

Thurs., March 22, 10:00 am - 2:00 pm

In March, 2007, Velcon Filters, Inc. will be participating in the Aviation Industry Expo (formerly called AS3). This year the show is being held in the Orange County Convention Center. **Velcon's booth number is 1238.**

We look forward to seeing you there!

For more information please see

aviationindustryexpo.com

Q&A Correction

In the "Questions and Answers" section of the September 2006 Edition of the Clarifier, we had answered a question "What is the correct way to hookup the slug valve for a new filter separator installation." This customer was having problems with the slug valve closing and staying closed due to the vent connection on the float operated pilot valve being plugged. This specific customer was using a Cla-Val brand slug valve and float operated pilot valve which we failed to specify in the article. See our bulletin 1861-R1 04/06 online or in the "Technical Information" section of our catalog for detailed information on how to hookup the three most common brands of slug valves and float operated pilot valves, all of which use a different combination of letters for port identification. Also Velcon recommends plugging the automatic water drain valve port on the float operated pilot valve. For the slug valve to operate properly, it is very important that the vent port remain unrestricted.

New Concept in Portable Fueling

Velcon Filters, Inc. is proud to be a subcontractor on a major US Army TACOM contract for a new Modular Fuel System (MFS) to be used by the US Army. Velcon will be supplying the filter separator and monitor vessels to be used on each of the pumping modules. The MFS consists of (2) 600 GPM pumping modules and (14) fuel storage tank modules which, when set up in the field and connected by hoses, can fuel up to 16 aircraft simultaneously. The complete system is designed to be a portable and flexible modular design that can be easily moved to a designated location and set up for fueling

operations. When complete the unit is then packed up and moved to the next location. The MFS can be configured for the fueling of ground support vehicles as well as aircraft.

In November 2006, the US Army invited the contractor for the MFS project (DRS Technologies) and its subcontractors to a "VIP" Day at Fort Carson, CO, in

order to demonstrate the final, tested equipment. Many Velcon employees were able to view the whole project and to meet the soldiers who have been testing and will be using the MFS in the field.



Velcon's Horizontal Filter/Separator and Monitor Vessels



HEMTT transporting pump module & towing tank module



Pump module ready for connection by hoses to tank module



Velcon employees examining vessels at VIP Day

Velcon Contaminant Analyzer (VCA) Technology

The VCA is a laser sensing device that uses “Light Refraction” and “Light Scattering” technologies to detect levels of free water and solids in fuel independently and simultaneously. “Light Refraction” is the term used for the physical process of bending light as it passes through two types of media with different angles of refraction. Based on the amount or angle of refraction, the concentration of water can be correlated, based on laboratory calibrations. “Light Scattering” refers to the scatter or reflection of the light off solid dirt particles. A separate light sensor in the VCA is calibrated to take reflected light and correlate that with a concentration of dirt in the fuel, based on laboratory calibrations. The VCA is very sensitive to water or dirt, offering +/- 0.1 mg/l resolution on the dirt channel, and +/- 0.5 ppm on the water channel.

VCA Features

Deadman Control Feature - the ability of the VCA to send an alarm signal and disable the deadman on a refueling system and stop the fueling when contaminated fuel is sensed. The deadman control feature also triggers a visual alarm located on the top of the user display readout.

Data Logger - automatically records all of the fuelings of a particular vehicle for later review. The data card is conveniently located in the user display, which makes for quick and easy change out of the data card. Once the data card has been collected, it can either be reviewed by the customer or sent back to Velcon for review. The data card will typically have a capacity from 6-12 months depending on the frequency of use of the refueling vessel.

Project Update

VCA Denver - Denver Int'l Airport (DIA), continuous service since November 2005 without any malfunctions, customer issues or concerns in extreme weather conditions, from -12 F to +90 F through periods of snow, ice, rain and summer heat. A shutdown event has not occurred at DIA, but much good data has been collected to support that the VCA is functioning as intended.

VCA Dubai - Dubai Int'l Airport, has also seen extreme temperatures, in excess of +140 F, and is functioning

normally. Shut-off tests have shown that the VCA will shut off the fueling in cases of extreme contamination. Compressed air was used to simulate dirt in the fuel, which caused a shut down of the fueling.

New VCA Part Numbers

The VCA Series includes 3", 4" and 6" units, with both victaulic and flanged connections. To determine the pipe size application, connection and electronics package [standard, explosion

proof (ATEX, CE or UL)] please use the following part number scheme:

VCA-XXAB, where **XX** = 03, 04 or 06 for 3", 4" or 6" pipe diameters

A = V or F for victaulic or flanged connections
B = S, A, C, AC, U representing Standard, ATEX, CE, ATEX & CE, and UL listing respectively. (Currently only standard electronics are available.)

Example: To order a VCA for 4" pipe with flanged connections and standard electronics, the part number is “**VCA-04FS**”.

VCA Developments

A new application being developed for our 3" VCA is as a portable trolley-mounted unit. This unit would be a quality checkpoint between fuel delivery and holding tanks to guarantee the quality of the fuel received.

Velcon is also considering a larger VCA for a fixed pipeline application, primarily at the airport terminal inlet to check fuel quality as the fuel enters the airport.

Please contact Velcon for more details about the VCA and its many possible field applications.



Velcon Service Awards

Congratulations to these Velcon employees who have recently celebrated special anniversaries with Velcon:

10 Years

Jackie A. Nunn (CO)
Sandra B. Flamenco (CO)
Veronica L. Blessing (CO)
Jason C. Kornegay (AL)
Jerry W. Scher (AL)

5 Years

Richard A. Gardner (AL)
Willie J. Garret (AL)
Steven D. Kelly (AL)
Franklin L. Lackey (AL)
Richard G. Thornton (AL)

Holiday Shutdown

Please note that Velcon will be closed the following dates in 2007 due to holidays.

Presidents' Day
February 19, 2007

Memorial Day
May 28, 2007

Independence Day
July 4, 2007

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If you know anyone who would like to receive *The Clarifier*, fax their name, company and address to the address listed on the left.

We also welcome your comments and suggestions on topics covered in *The Clarifier*.

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