

# THE CLARIFIER

Volume 14 Number 1

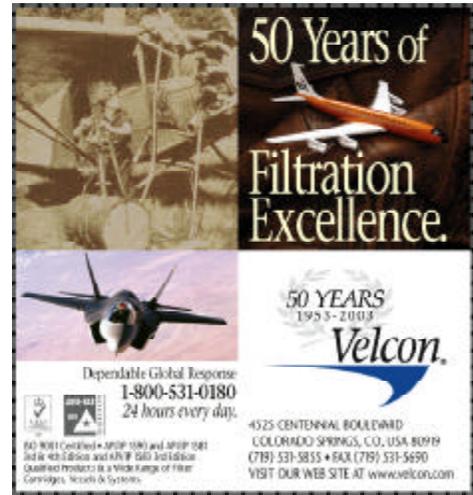
March, 2003

## Velcon Celebrates 50 Years



Dave Taylor, President (foreground), and other Velcon employees at the Colorado Springs' headquarters.

**Mission statement:**  
Velcon is committed to going above and beyond to offer customers around-the-clock service by providing support 24 hrs a day, 365 days a year.



### At its Global Headquarters in Colorado Springs, Velcon Filters, Inc. is celebrating 50 years of successful jet fuel filtering.

Since the beginning of the jet age in the early 1950's, Velcon has helped to provide clean, safe aviation fuel to thousands of airports on every continent including Antarctica. All major international airports employ Velcon products to filter, purify and remove water from jet fuel every step of the way between the refinery and the aircraft. Velcon now supplies more replacement cartridges to purify jet fuel than any other company in the world. Velcon is always a leader, serving on international boards setting

quality and safety standards for the industry worldwide.

### A History of Innovation Excellence.

Founded in 1953, the company's first products were fabricated fiberglass components for the 2.75 Rocket and were sold to the United States government.

Continual improvements in research and development led to the creation of a proprietary fiberglass filter coalescer in 1957. This revolutionary product was initially introduced to both Military and Commercial Aviation Fuel markets and subsequently to pipelines and refineries. Constant innovation and a focus on customer

satisfaction led Velcon to develop the threaded base cartridge. This feature sped up installation of cartridges, eliminating the need for many loose items that were difficult to handle, particularly in cold climates. Recently Velcon also introduced a static charge reducer (SCR) to reduce the potential of fires during fueling of aircraft. In addition to the aviation market,

Velcon has developed products such as **Aquacon**® and Superdri® to handle filtration and separation of fluids in the industrial and electrical/utility markets. In October, 2000, Velcon also earned certification to ISO 9001:1004. Commitment to quality continues to be a significant part of Velcon's mission.

### CONTENTS

Temporarily Out Of Service.....	2
API/IP 1583, API/IP 1581 5th Edition Qualifications.....	2
FAQ - Hydrokit Expiration Date Extension.....	3
Check Downstream When Cartridges Plug-Up.....	3
Clarifier Notice.....	3
Service Awards, AS <sup>3</sup> /GSE Tradeshow.....	4

### DID YOU KNOW...

"Velcon" comes from the words Velocity Control, which describes an innovation in the design of separator flow control tubes.



## Temporarily Out of Service

Occasionally, filtration equipment is taken out of service for short periods of time. It is important to handle this equipment properly, so that filtration performance is not compromised on restart.

Velcon recommends that the filter cartridges remain fully submerged in fuel. This could mean that the filter vessel is just left full of fuel, if that is possible. If the vessel must be drained, remove all of the filter cartridges and resubmerge them completely into a tank or barrel of clean, dry fuel within a few hours.

This is critically important for any water removing filters, such as coalescers or monitors. In the case of monitors, if these filters had previously absorbed some water and if they dry out, then the water absorbing media can degrade and allow wet product through when re-wetted. In the case of coalescers they can become ineffective if allowed to dry out.

If the vessel is left full of fuel, do NOT continue daily sumping (or 'sump sampling' for locations outside of the USA) of the vessel. This drains fuel from the vessel. This will cause the upper part of the cartridges (or upper cartridges if horizontal) to dry out, again possibly rendering them ineffective on restart.

**Conclusion–**

**DO NOT ALLOW USED FILTER ELEMENTS TO DRY OUT IF THEY ARE TO BE RE-USED**

## API/IP 1583 Qualification Announcement

During the week of September 23, 2002, Velcon Filters successfully completed the following API/IP qualifications:

### **API/IP-1583 Third Edition for Aviation Fuel Filter Monitors with Absorbent Type Elements.**

We qualified our **ACO-xxx01L** Series. During the last year, we have identified some alternative materials and it was therefore necessary for us to receive API/IP qualification. We will still be selling our "K" series elements, but since many users were changing from coalescers to water absorbing cartridges, we wanted to have the benefit of alternative sources for materials for better availability.



*New ACO-60901L Cartridge can be used in conjunction with ACO-K Series Cartridges*

*During the coming months when you order "K" series, we may elect to supply our "L" series – the decision will be based on availability. The cartridges perform the same, both series are qualified, and they can be combined in a vessel.*

## API/IP 1581 5<sup>th</sup> Edition Qualification

API/IP 1581 5<sup>th</sup> Edition Monogram Program, Part 3 – Full Scale Test Report  
**Specification and Qualification Procedures for Aviation Jet Fuel Filter/Separators**

On December 18, 2002 at Velcon Filters' Test Lab in Colorado, Velcon passed the first API/IP 1581 5<sup>th</sup> Edition Full Scale Test for the Monogram Program. This test consisted of a horizontal end-opposed HVS2628M containing 10 I-6284A4TB coalescers, 8 SO-616GS separators, and a third stage of 5 CDF-215K monitor elements, with a flow rate of 600 GPM, for Type S, Category M100. Qualification was achieved at 0.5% maximum water injection using API-IP 1581 5<sup>th</sup> Edition exception contained in Section 4.4.5.4. This test was run for the Canadian National Defence.

## Frequently Asked Questions & Answers

Q  
A

Can I use a Hydrokit after its expiration date?

All Hydrokit boxes should have an information card included that gives information on extending the shelf life of hydrokits. If you do not have this card - here is the information:

We do not recommend using Hydrokit vials after expiration date shown on inner carton unless useful life is extended for additional 6 month periods by the following procedure:

1. Fill sample bottle half full of fuel. Follow steps A-C outlined below. Fuel level should exceed the "Min. Fill" line on the vial. If the fuel level does not exceed the "Min. Fill" line, discard the vials.
2. If the fuel level exceeds the "Min. Fill" line send 4 **unused** vials from the lot, indicating lot number and expiration date shown on carton to:

Velcon Filters, Inc.  
4525 Centennial Blvd.  
Colorado Springs, CO 80919 USA  
Attn: Hydrokit QC

If determination is made that the lot meets specification, you will be notified that life can be extended by six months.

- A. Fill the bottle half full with sample of fuel. Take sample directly from the flowing fuel line of a fueling unit downstream of the filter/separator or at the fuel delivery nozzle, making sure that no precipitation or condensation enters the bottle.
- B. Insert plastic needle holder into the bottle immediately, white section down.
- C. Immediately insert the glass vial with the stopper pointed down onto the needle in the plastic needle holder. Press vial firmly onto needle forcing needle through stopper. Hold the vial in this position until fuel flow stops.

Note: If fuel does not enter vial or fills less than described below, discard vial and fuel sample and start test again from "A" above with a new vial.

## Check Downstream When Water Absorbing Cartridges Plug - Up

When water absorbing cartridges are triggered shut by a water slug, there is a small amount of leakage through the cartridges while the cartridges are shutting down the flow. Per API/IP Specification 1583, "Specifications and Qualification Procedures for Aviation Fuel Filter Monitors with Absorbent Type Elements," the total fluid leakage through the cartridges shall not exceed 1% of the rated flow through the cartridges. This 1% leakage is not exceeded in Jet Fuel without additives. However, when the fuel is treated with anti-icing additive (FSII, Di-EGME, Prist®) the amount of leakage downstream can be greater, depending on the amount of the anti-icing additive in the water. The FSII tends to slow down the water absorbing feature of the cartridges. Therefore, when the cartridges are shut down by a water slug, the lines downstream of the cartridges should be checked to insure that any water that leaked past is removed before resuming operations with a new set of cartridges. Any aircraft involved in fueling when an element shutdown occurs should also be checked for the possibility of water reaching the aircraft. The tank and lines upstream of the water absorbing cartridges should also be checked to determine where the excess water came from, and the lines and tank should also be purged of water.

## Clarifier Notice

Velcon Filters is concerned about the environment, and about the use of paper products. However we are also aware that many of our readers do not have access to a computer and are using the technical information provided in our newsletters "in the field." Therefore, we would like to offer to everyone on our mailing list the option of either continuing to receive the Clarifier via hard copy (as everyone does now) or receiving an email message simply stating that our latest newsletter has posted to our web site, which you will then be able to download if desired. If we do not hear from you we will continue to send the hard copy. If you would prefer not to receive hard copy, but to be alerted by email instead, please send us an email stating so to [vfsales@velcon.com](mailto:vfsales@velcon.com). Be sure to include your name and address so that we can update our database appropriately.

## Velcon Service Awards

Several of Velcon's employees have recently or will soon earn their service awards:

### 5 Years of Service ~

Veronica Blessing, *Designer I*  
Jackie Nunn, *Marketing Services Clerk*  
Sandra Menjivar, *Production Intermediate*  
Denise Canfield, *IP General Manager*  
Brandon Welsh, *Network Engineer*

### 10 Years of Service ~

Rick McKenna, *Sales Manager*

### 15 Years of Service ~

Peggy Bailey, *Production Supervisor*  
Ben Taylor, *Sales Manager*



May 13 - 15, 2003  
Las Vegas Convention Center  
Las Vegas, Nevada USA

Be sure to visit Velcon's booth at the Las Vegas Convention Center in May at the combined AS3 / GSE Show! **Stop by booth # 8088.** This will be the place to sign up for an F-35 poster if you haven't received one yet, and also to register for a drawing for our unique stuffed wildlife. Registration to the show is free. Pre-register at GSE's web site ([www.gseexpo.com](http://www.gseexpo.com)). [www.as3.com](http://www.as3.com) also works and connects to the same site.

Velcon Filters, Inc.  
Attn: Robin Mason  
4525 Centennial Blvd. Colorado Springs, CO 80919-3350  
Phone: (719) 531-5855  
Fax: (719) 531-5690  
e-mail: [vfsales@velcon.com](mailto:vfsales@velcon.com)



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*.

Velcon Filters, Inc. is an Equal Opportunity Employer

PRSRRT STD  
U.S. POSTAGE  
PAID  
COLO SPRGS, CO  
PERMIT NO. 623

4525 Centennial Blvd  
Colorado Springs, CO 80919-3350

