

THE CLARIFIER

Volume 12 Number 2

June 2001

Velcon Introduces New Web Site

Velcon Filters, Inc. Announces New Web-Based Preventive Maintenance Site to assist aviation fuel-handling operators in their ability to provide safe, clean aviation fuel.

May 1, 2001

Colorado Springs, CO —Velcon Filters, Inc., an industry leader in the aviation fuel filtration market, announces today that its Web-based asset management system and maintenance scheduler, GroundSupportCentral.com, will go into operation on May 5, 2001.

GroundSupportCentral.com will be a complementary service for Velcon customers. The Web site will facilitate the management of assets, spare parts, maintenance schedules, and order placement. Users of the site will also have access to ATA compliant inspection forms and checklists, as well as their own unique vessel similarity data.

Multi-site users will have the ability to track maintenance and view assets for any of their locations worldwide. The site's online tools will allow all users to easily enter,

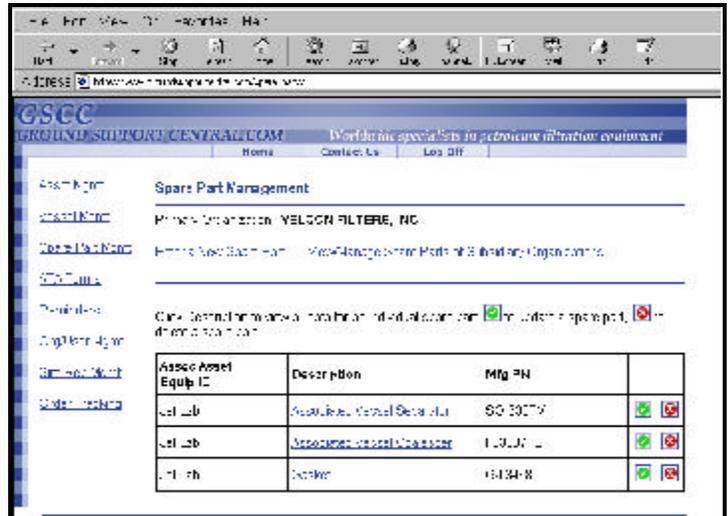
view, and update their own information, which will be stored on a Velcon server. Users will be able to create and print customized reports of their data. Sophisticated security technology will protect user information from unauthorized access and accidental deletion.

GroundSupportCentral.com will enable fuel-handling companies to centralize and protect their preventive maintenance data while making it accessible to approved office and field personnel. In addition, the site will provide a unique automated "Reminder System," a powerful method of tracking and reporting on the

variety of filtration tasks and reminding maintenance personnel of scheduled maintenance tasks.

"GroundSupportCentral.com will assist aviation fuel-handling companies in streamlining maintenance operations and centralizing critical data," Dave Taylor, president of Velcon Filters.

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Ground Support Central Web Site: groundsupportcentral.com
("www." not required)
Velcon's Web Site: www.velcon.com



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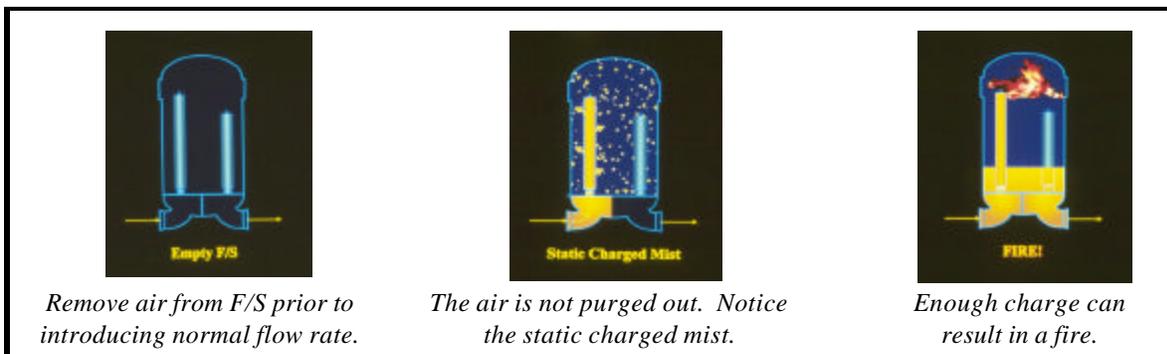
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More Fires in Filter Vessels

We have recently heard of at least two more incidents where there have been internal fires in Filter/Separator vessels upon start-up. We again caution operators that when new elements have been installed, or the vessel has been drained for inspection, the vessel is full of air and has to be filled SLOWLY. This slow filling applies to all types of filter vessels, but is particularly important when inside-to-out flow coalescers, FI filters, or ACI type **Aquacon**[®] cartridges are installed.

With coalescers, FI filters, or ACI cartridges installed, if the vessel is filled rapidly, highly static charged mist will be mixed in the air. This can be charged high enough to result in a static discharge that can ignite the air/mist mixture. The air will have enough oxygen to sustain the fire. Some people might think that if they have static dissipator (Stadis 450) in the fuel, the charge will bleed off rapidly with no danger of a fire. Static dissipator in the fuel may actually make the rapid filling of the vessel more susceptible to having a fire! This is because there is no relaxation time available for the additive to dissipate the charge, and these additives generally increase the amount of static charging. Also, in a mist the droplets are not connected and therefore the static dissipator does not protect against static discharge.



Here is the procedure for filling the vessel when it is full of air (and new or passed-inspection elements):

1. Close the downstream outlet valve
2. Close the drain valve(s)
3. Open the manual air eliminator (if so equipped)
4. Slightly crack open the inlet valve
5. Start the pump
6. Take 10-15 minutes to fill the vessel
7. When fuel spurts out of the manual air eliminator the vessel is full. When no more air comes out of the automatic air eliminator, the vessel is full.
8. Close the manual air eliminator (if so equipped)
9. Open the inlet valve fully
10. Slowly open the outlet valve

A more detailed procedure is the D.2 FILTER ELEMENT INSTALLATION PROCEDURE contained in ASTM Manual 5, The Manual of Aviation Fuel Quality Control Procedures. This booklet can be ordered from ASTM in the United States (tel: 610-832-9585).

It is also possible to pump lots of air into the Filter/Separator vessel when unloading a transport delivery (bridger) truck. Pumping dry one or more compartments or changing from one compartment to another can lead to air pumped downstream. Where this situation can occur, it is recommended that a coarse air eliminator be installed in the piping upstream of the F/S vessel to remove this air.

Remember: air in F/S vessels can lead to internal fires (even lids blown off!). Burned elements will not function properly, and a fire in a F/S vessel will involve an expensive re-epoxy job on the vessel. FILL SLOWLY, and be aware of the possibilities of too much air coming from transport trucks.

Frequently Asked Questions & Answers

Q I notice on the latest vessels coming from Texas that the hydrostatic test pressure seems to be too low. For example, a 150 psi design pressure vessel is showing a hydrostatic test pressure of 195 psi instead of 225 psi. What is going on?

A On January 1, 2000 the ASME Code, section UG-99 STANDARD HYDROSTATIC TEST, was revised to have the hydrostatic test run at 1.3 times the maximum allowable working pressure (i.e., design pressure) instead of at 1.5 times the maximum allowable working pressure. Thus, our hydrostatic test pressure will now be 1.3 times the design pressure.

The ASME Code was revised to be more in line with the European equivalent. The ASME Code also allows higher allowable stresses in steel vessels. You might notice that some of the flat lids on our vessels are a bit thinner because of this change in the ASME Code. This will help to reduce cost and weight slightly on some vessels. —

Pre-Mixed Jet Fuel in Drums

Proper fueling of aircraft from drums is contained in various procedures. One specific procedure is contained in Section 7 of the CSA International General Instruction No. 1, B836-00, dated May 2000, titled: "Storage, Handling, and Dispensing of Aviation Fuels at Aerodromes."

If the above procedure were followed exactly in every into-plane fueling from drums, we are confident that no water would be pumped from the drums into the aircraft. However, we suspect that a number of operators do not follow this procedure, believing that any water present will be stopped by the water absorbing cartridge. This might be true in plain Jet Fuel with no FSII (Fuel System Icing Inhibitor, or anti-icing additive) pre-mixed in the fuel.

When FSII is properly blended into the Jet Fuel, followed by the fuel loaded into a drum, conditions are OK until water gets into the drum. Water can get into the drums if they are stored upright. Rainwater collecting at the top of a drum can easily leak past the bung caps. This water, settled at the bottom of the drum, will attract FSII out of the fuel. Within 24 hours, the FSII concentration in water can be as high as 15-20%. After a week it can be a 50% water, 50% FSII mixture. **A water slug containing 20% or more FSII will pass right through a water absorbing cartridge!**

Pre-Mixed Jet Fuel in Drums, (Continued)

Thus, when you have pre-mixed Jet Fuel (containing FSII) in your drum, it is extremely important to follow the correct procedure to remove the water from the bottom of the drum (see Figure 1); then to tilt the drum towards the small bung (see Figure 2) to insure any residual water or dirt at the bottom does not get sucked up in the dip tube ("stringer"). You have to ask the question: **Is it worth some extra time to fuel properly from a drum with pre-mixed Jet Fuel, or do you want to chance some FSII/water slug getting into your aircraft???**

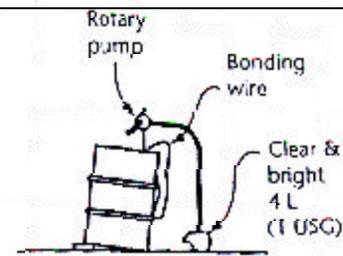


Figure 1

- ◆ Tilt drums toward large bung using blocks.
- ◆ Loosen bungs – large and small.
- ◆ Dip using water-finding paste ("Modified" type)

Those drums with contamination shall be pumped off with a rotary "fine stringer" equipped hand pump, which has been properly bonded prior to reopening.

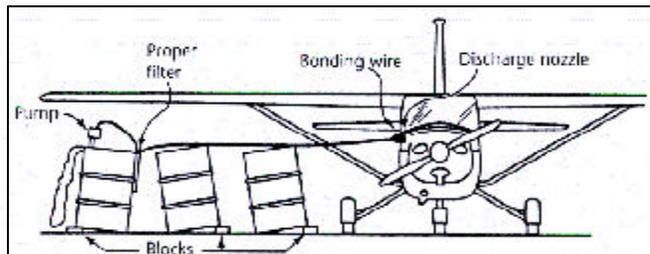


Figure 2

- ◆ When all drums are purged of contaminants and tilted towards small bung, the drums are "quality checked and ready".
- ◆ Mount filter-separator or filter/monitor on side of drum, bonding properly.
- ◆ Open large bung and insert pump stringer to bottom.
- ◆ Bond discharge nozzle to aircraft before operation.
- ◆ Commence delivery.

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AS³ 2001 – Followup

The following people were the lucky recipients of the Colorado Wildlife Critters which were raffled off at the AS³ Show in Long Beach in early May. Congratulations!

Linda Barker
Business Aviation
Sioux Falls, SD

Donna Sanford
West Star Aviation, Inc.
Grand Junction, CO

Janet Lewis
Carver Aero, Inc.
Muscatine, IA

In Memory...

Dudley J. Luntsford III



Dudley Luntsford, founder and president of Fjord Fueling Aviation Products, Inc. passed away after suffering a heart attack. Dudley was a longtime friend and distributor of Velcon Filters. We hope you will join us in offering condolences to his family and friends. He will be greatly missed.

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

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