

Cost Savings in Aviation Fuel Sump Testing

Market Application Publication
for Velcon Sump Recovery Systems
SRS-04DFS

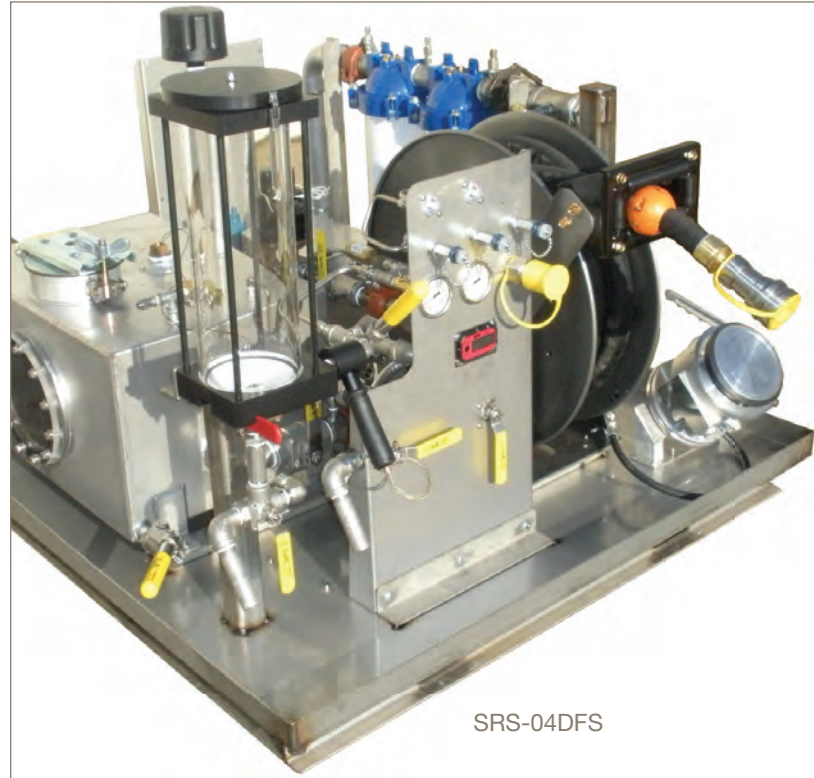


Customer Value Position

At airports across the US, fuel is delivered from storage to awaiting aircraft either by truck or via a hydrant system. The connection between the hydrant system and the aircraft is a hydrant cart – a device that controls the fuel pressure, monitors the quantity of fuel delivered and filters the fuel prior to delivery to aircraft.

The filters job is to prevent particulate going downstream and to separate water from the fuel. Particulate matter is trapped inside the filter and small water droplets are coalesced into larger droplets. Since water is heavier than the fuel, it falls into a collector referred to as the filter sump.

According to ATA-103 Standard for Jet Fuel Quality Control at Airports Revision 2009, the sump of each filter is required to be sampled under pressure on a daily basis. The sample size is usually around 1 USG. At most US airports, hydrant carts are required to be disconnected from the hydrant system when not fueling aircraft. Developing the pressure necessary to perform the test is problematic.



SRS-04DFS

Contact Information: Product Features:

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- Meets fuel sampling requirements in ATA-103 Standard for Jet Fuel Quality Control at Airports Revision 2009
- Return of Investment usually measured in months or, perhaps, weeks depending on the number of hydrant carts in use.
- Completely closed circuit system – no fuel wasted
- A positive displacement pump is used to create pressure and recirculate fuel on board the SRS.

- The hydrant coupler is connected to the SRS and a special adaptor is installed on your hydrant cart filter to create the circuit.
- Sampled fuel is filtered to meet EI quality before returning to the fuel system
- Trailer or pickup truck mounting options available

Applications:

- Aircraft Hydrant Cart
- Commercial Aviation Fueling



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Customer Value Proposition (cont'd)

After this inspection, the samples are collected at a central facility for re-use or disposal. Many facilities lack the systems to properly process and re-use the fuel; often the fuel is given away or sold at a considerable loss. With Jet-A fuel prices exceeding \$4.00/USG, the cost of this throw-away fuel can be excessive. For example, it is not uncommon to find 25 hydrant carts in use at many airports. According to ATA-103, a sample is taken from each unit every day resulting in at least 25 USG of fuel to contend with daily. Since airports operate continuously, the operator would have over 9000 USG to dispose of annually.

At Velcon, we have developed a turn-key Sump Recovery System that provides sufficient vessel pressure for sampling using fuel from the previous test as a primer.

Using this sampling method, very little fuel requires disposal – only contaminated samples and expansion fuel.



Results:

SRS Savings vs. Sale to Transmixer

Cost of Fuel	\$4.00/USG
Price from transmixer	\$.75/USG
Number of hydrant carts	25
USG/month resold to transmixer	750 USG
\$4.00 x 750 USG	\$3,000.00 per month, \$36,000 per year
\$0.75 x 750 USG	\$562.50, per month, \$6,744 per year
Annual net savings	\$29,256

Specifications & Ordering Information for SRS-04DFS

- Electrical System: 12 VDC (optional 110 VAC system available)
- 20 gallon, stainless steel reservoir tank
- 15 GPM pumping system includes (2) filters
- 66”D x 48”W x 38”H, approximately 400 lbs.