

Aviation *Aquacon*® Spin-On Filters

ACO-40501SPP, ACO-40901SPP

Remove Dirt and Water from Jet Fuel and Avgas



ACO-40501SPP
Mounted to SPH-2
Head

ACO-40901SPP
Mounted to SPH-4
Head



ACO-40901SPP
Mounted to SPH-5
Parallel Flow Head

FEATURES

- Convenient Spin-On Design
- Removes free and emulsified water removal to less than 5 ppm, typical
- Filters out dirt and other particles to a 1/2 micron nominal rating
- Choice of four mounting head styles

DESCRIPTION

ACO-40501SPL is the popular 3 3/4" diameter x 5 1/2" long size. The ACO-40901SPL is 3 3/4" diameter x 8 1/2" long. Four mounting head styles are offered for use with these two cartridges. Refer to the back side of this sheet for details.

When an *Aquacon*® spin-on cartridge reaches its water holding capacity, its accordion pleats swell and cause an increase in the differential pressure which signals the operator to change the cartridge.

Solid contaminants are removed by the cartridge's two particulate filter media layers. The pleated accordion style design provides a

large surface area for maximum dirt holding capacity. Models are offered for particle filtration down to 1/2 micron size with 98% plus efficiency. Performance is not affected by the presence of common surface active agents.

These cartridges also effectively filter out dirt, rust, and other particles. (See caution below.)

CAUTION

DO NOT USE WITH PRE-MIXED FUEL CONTAINING ANTI-ICING ADDITIVES.

AVIATION AQUACON® ACO-40501SPL AND ACO-40901SPL SPIN-ON FILTERS

CARTRIDGE TECHNICAL INFORMATION

Maximum Operating Pressure: 50 psi
 Maximum Operating Temperature: 200°F
 1/2 micron nominal filtration rating at 98+% efficiency.
 Cartridges do not remove soluble (dissolved) water.
 Gaskets are Buna-N.

	ACO-40501SPL	ACO-40901SPL
Diameter:	3 3/4"	3 3/4"
Length:	5 1/2"	8 1/2"
Weight:	1 1/4 lbs.	1 1/2 lbs.
Thread:	1"-12 NF	1 3/8"-12 NF



ACO-40501SPL
and ACO-40901SPL

HEAD STYLES AND FLOW RATES



SPH-2



SPH-3



SPH-4



SPH-5

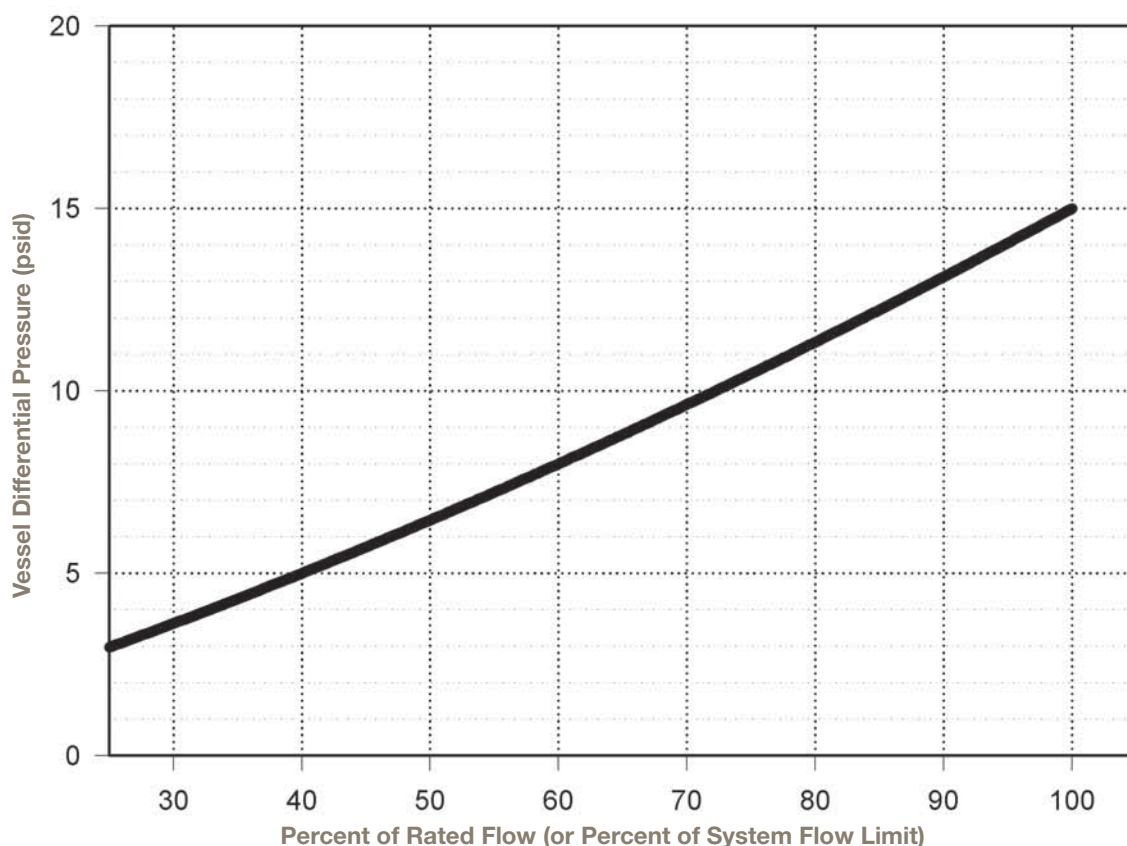


Head Part Number	Use with Aquacon® Cartridge(s)	Inlet/Outlet Size	Inlet/Outlet Face-to-Face	Head Weight, Lbs	US-GPM
SPH-2	1 ea. ACO-40501SPL	3/4" NPT	3 3/4"	1	10
SPH-3	1 ea. ACO-40901SPL	3/4" NPT	3 3/4"	1	15
SPH-4	1 ea. ACO-40901SPL	1/2" NPT	2 3/4"	1	7
SPH-5	2 ea. ACO-40901SPL	1/2" NPT	7"	1 3/4"	15

NOTES

- Differential pressure across head and cartridge at recommended maximum flow is 5 psi or less.
- SPH-2, -3, -4, and -5 are die cast aluminum 380 alloy.
- SPH-4 and -5 have dual inlets/outlets for plumbing flexibility.
- SPH-5 allows parallel flow through two cartridges.
- Heads have no internal bypass. Flow will stop if cartridges plug-up.
- Mounting holes on SPH-4 and -5 are 5/16".
- SPH-3, -4, and -5 have steel bushings or nipples for adapting to ACO-40901SPL. They are permanently fastened with Loctite® 271.

Cartridge Changeout Curve



Parker Velcon recommends changing coalescer and monitor cartridges when the differential pressure reaches 15 PSID and the filter/separator is being operated at its rated flow. The system, however, will often be operating at lower flow rates with a corresponding lower differential pressure. If, for example, a 600 GPM filter/separator shows a differential of 12 PSID at 300 GPM and the flow rate increases to 600 GPM, the differential would be about 28 PSID, which is considerably above the recommended pressure drop for changing cartridges.

Therefore to know the pressure differential characteristics at lower flow rates for a set of coalescer

cartridges which are plugged to the extent that the differential pressure would read 15 PSID. The graph reflects differential pressure and percentage of rated flow information for Parker Velcon cartridges.

EXAMPLES:

A 1000 GPM filter/separator operating at 600 GPM (60% of rated flow) with a differential pressure less than 8 PSID, the cartridges do not require changing. If the differential pressure is 8 PSID or more, however, the elements are due for a changeout.

EXCEPTION:

If the system in the Example is limited to a maximum flow of 750 GPM by pump capacity or some other factor then 750 GPM should be considered 100% of rated flow rather than higher rating of the filter/separator. In this case, the 600 GPM flow would be 80% of rated flow and the differential pressure at this rate can be as high as 11.50 PSID without changing elements.

NOTE:

Decals of the above graph can be obtained from Parker Velcon at 719-531-5580 and requesting decal #1979. These labels can be affixed to the vessel near the differential pressure gauge.