



The FAUDI Factsheet

Comparison of potential new filtration technologies with FAUDI Aviation DDF and EWS



Key Points

- Adoption of Dirt Defence Filter (DDF) with Electronic Water Sensor (EWS) into JIG Standards in June 2020 announced
- DDF and AFGUARD® (EWS) are available ex stock
- 1,500 AFGUARD® supplied globally
- Constantly growing network of Certified Installers

5 Year Savings

\$ 65,000



\$ 0

CDFX™
Barrier Filter

DDF and
AFGUARD®



Shell Aviation, Air BP and ExxonMobil Aviation are amongst those who have committed to the retrofit of FAUDI Dirt Defence Filter with AFGUARD® and retrofits are underway.

Tired of conflicting technical or specification statements from manufacturers?

Contact JIG directly:
info@jigonline.com

The aim of this factsheet is to provide transparent and verifiable information about potential filtration technologies intended to replace SAP-based Filter Monitors.

Parker Velcon CDFX™ Barrier Filter vs. FAUDI Dirt Defence Filter with AFGUARD® - Cost of Ownership

A five-year comparative cost of ownership concludes that the FAUDI technology of Dirt Defence Filter (DDF) and Electronic Water Sensor (EWS) is cheaper to own and operate than Parker Velcon's CDFX™ Barrier Filter. By using AFGUARD® in place of Chemical Water Detectors, end user has a return on investment and actually saves money.

	Parker Velcon CDFX™ Barrier Filter	FAUDI Dirt Defence Filters with AFGUARD®
Cost per Element	\$0.00013 ¹ x 1.17 m liters = \$152	\$0
Cost for 36 Cartridges in a Filter Monitor Vessel (4,000 lpm)	\$5,500	\$0
Lifetime for 36 Cartridges	Up to 1.17 m liters throughput ¹ x 36 = 42 m liters	5 years
Example with 80 m liters annual Throughput (typical Int. Airport)	72 Cartridges ² = \$11,000	\$0
Cost per Sensor	End user decision	\$10,000
Cost per Equipment and Labour	End user decision	\$10,000
Annual Recertification	End user decision	\$1,000/year
Cost of CWD	\$35,000 ³	\$0
5 Years Cost Comparison	\$90,000	\$25,000
		Saving \$65,000

Note: All costs in this table are approximated

Facet Filtration - Status of Water Containment Technology

Facet continue to promote their Water Containment Technology and even suggest going to field trial in August 2020. There is an unavoidable procedure before aviation filters reach industry endorsement. There needs to be an EI specification, followed by qualification to the specification and additional EI robustness challenges. In case of successful completion of these stages, the technology moves to an industry managed, global field trial for a minimum of 12 months. Once these stages are completed, the technology may be adopted into industry standards. Our best estimate of readiness for use, if the EI decide to prepare a specification, is year 2023.

Process step	CDFX™ Barrier Filter Parker Velcon	EI 15XX FACET Filtration	DDF and AFGUARD® FAUDI Aviation
1 - Filter Qualification	Completed		Completed
2 - Robustness Assessment	Completed(*) ⁴		Completed
3 - Field Trial	In preparation ⁵		Ongoing
4 - Evaluation of Results			Ongoing
5 - Adopt in Standards			Announced June 2020
6 - Development by Users (User Approval)			In preparation

FAUDI AFGUARD® - Electronic Water Sensor (EWS)

AFGUARD® differentiates between droplet sizes, varying droplet sizes downstream of different filtration technologies do not effect the accuracy of AFGUARD® or deadman shutdown.

1) Reference: Parker Velcon, The Clarifier, 16 April 2020
 2) 2 sets of 36 cartridges at 42 m liters each
 3) CWD ~\$1 per test; 80M liters/year = 220,000 liters/day = ~ 20 refuellings = 20 CWD tests = \$20/day = \$7,300/year

4) Completed (*): The EI letter to JIG dated 12 February 2020, clearly states that despite not reaching the throughput requirements of Robustness testing stage 2, CDFX™ Barrier Filters should move to field trial for an initial 3 month trial, prior to the 12 month trial.
 5) Initial 3 month trial, if considered viable technology then additional 12 months