



Into Plane Filtration – FAUDI Aviation

18TH FEBRUARY 2025 – PRESENTED BY MATT FIELDER

01

What is / Who are sefiso?

sensors

filtration

solutions



sefiso brands

AVIATION



INDUSTRIAL



TRAINING



DIGITAL

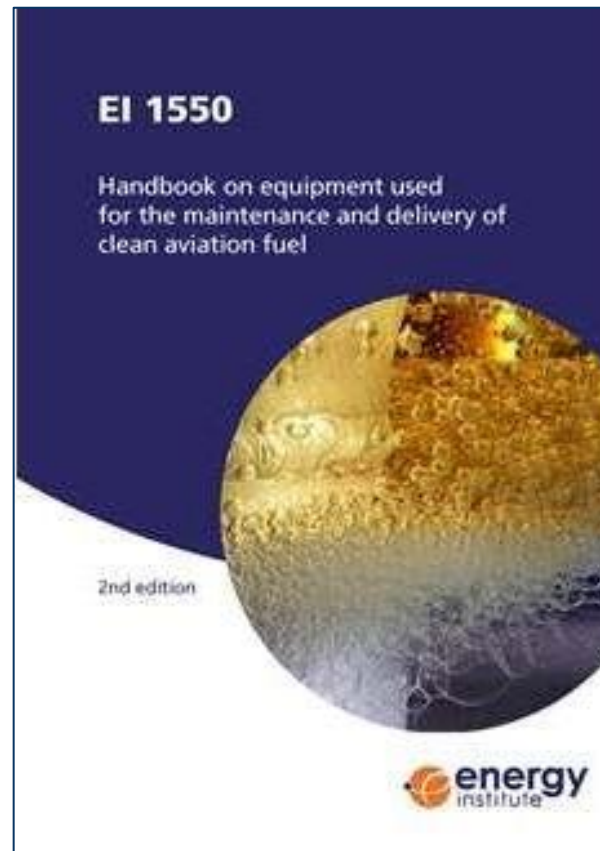


02

Into Plane Filtration – Monitor Replacement Strategies

Role of filtration?

**TO ENSURE CLEAN DRY FUEL
IS DELIVERED INTO PLANE!**



Time flies!

- 1938 – FRITZ FAUDI – 1ST AVIATION FILTRATION TO SPEAK OF..
- 1943 – WARNER LEWIS HAYPACK
- 1957 – VELCON FIBREGLASS COALESCER
- 1957 – BENDIX FILTER MONITOR – WATER TRIGGER
- 1973 – API 1581 1ST EDITION RELEASED
- 1978 – VELCON CDF LAUNCHED
- 1986 – ATA103 1ST EDITION RELEASED
- 2000 – API MERGES SPECIFICATION WITH EI
- 2003 – FAUDI AVIATION FOUNDED BY MARCUS WILDSCHUETZ
- 2007 – EI1598 & EI1599 & FIRST EDITION OF EI1550 RELEASED
- 2009 – FAUDI AVIATION AFGUARD LAUNCHED
- 2018 – EI1588 BARRIER FILTRATION INTRODUCED
- 2019 – FAUDI AVIATION FW24 EI1581 2" COALESCER QUALIFICATION
- 2020 – EI1583 MONITOR SPECIFICATION WITHDRAWN
- 2025 – MONITOR ELEMENTS CEASE TO BE!

Into-Plane Fuel Quality – EI Specifications



SPECIFICATION AND QUALIFICATION PROCEDURES

EI 1581 – Aviation Fuel Filter/Water Separator

EI 1583 – Aviation Fuel Filter Water Monitors **Withdrawn**

EI 1588 – Aviation Fuel Water Barriers

EI 1598 – Aviation Fuel Electronic Sensors

EI 1599 – Aviation Fuel Dirt Defense Filters

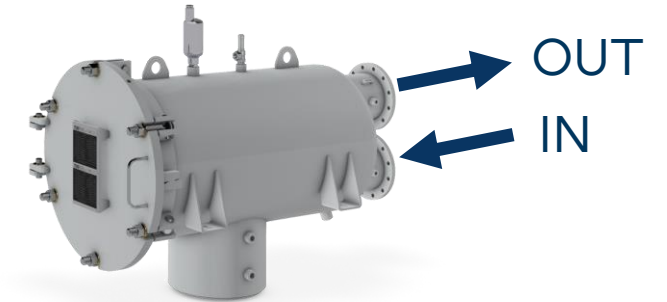
} Technology Combination



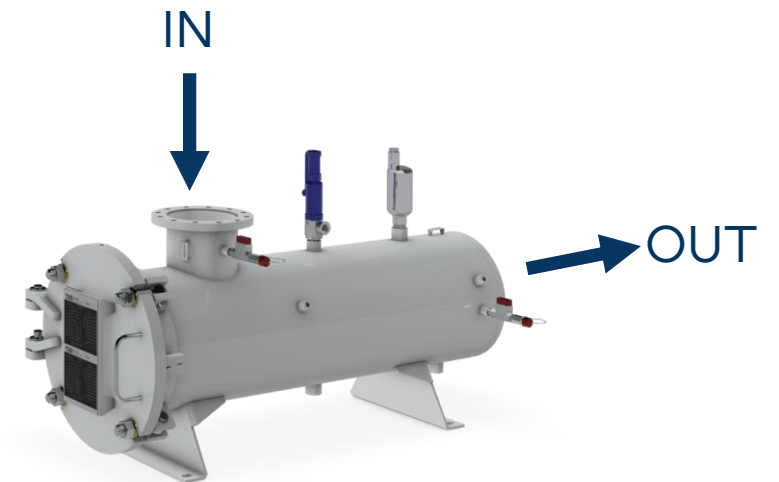
EI 1581 – Aviation Fuel Filter/Water Separators

FILTERS DIRT AND COALESCES WATER

- ▶ Known filter technology with known limitations
- ▶ Some vessels smaller than others
- ▶ FWS Larger/Heavier than Monitor vessels – 300 gpm
 - ▶ Monitor – 10" Diameter
 - ▶ FWS Standard 6" = 16" diameter
 - ▶ FWS 2" – 14" diameter
- ▶ Will require re-plumping, therefore engineering
- ▶ Requires the addition of a water defense system
- ▶ Wide variety in retrofit cost and time...



FWS

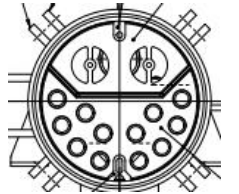


Monitor

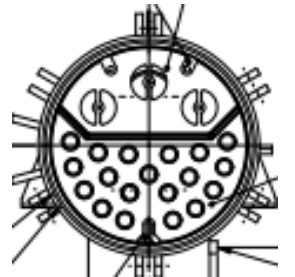
FW24 Filter Water Separators (EI1581 C-S-M)

- ▶ Qualified in 2019
- ▶ >2,000 vessels deployed to date
- ▶ Same filtration performance as historical 6" FWS
- ▶ Stainless or Aluminium only
- ▶ Compact and light mobile FWS vessels
 - ▶ 25 - 30% smaller and lighter than traditional
- ▶ Element stocking/availability made easy
 - ▶ Same 2" coalescer P/N no matter the flow rate
 - ▶ Same 4" separator P/N no matter the flow rate
- ▶ Manufactured in the USA & Europe

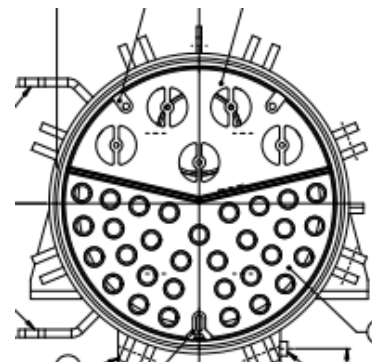
348 gpm
12 Coalescers
2 Separators



552 gpm
19 Coalescers
3 Separators



900 gpm
31 Coalescers
5 Separators



EI 1598 - Electronic Sensors

EI 1599 - Dirt Defense Filters

**CAPTURES DIRT WITH A MICROFILTER,
...ALARMS FOR EXCESSIVE FREE WATER**

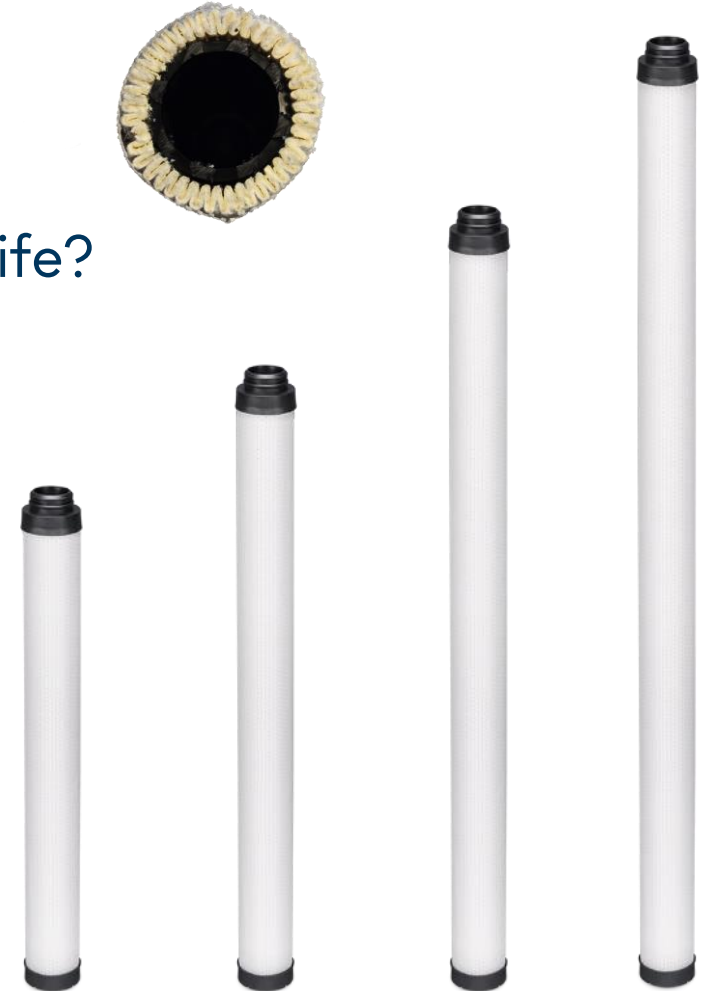
ADVANTAGES

- ▶ Uses existing Monitor Housing
- ▶ Seasoned experienced technology: > 4,500 installations in every climate
- ▶ Longer filter life: up to 7 years of service
- ▶ Known quality of fuel lifted to the airplane
- ▶ Consistent installation cost/time no matter the size/flow
- ▶ Requires site training for the new technology
- ▶ Yearly sensor recertification industry mandated requirement



Dirt Defense Filters - E11599

- ▶ Pleated filter with higher surface area than monitors
- ▶ Up to 7-year filter service
 - ▶ ATA103 currently allows only 3 years of installed life
 - ▶ A possible future modification to ATA103 to extend life?
- ▶ Available sizes with 2" diameter
 - ▶ 30", 25", 20" & 15"
- ▶ Same flow rate as monitors
- ▶ Manufactured in the USA



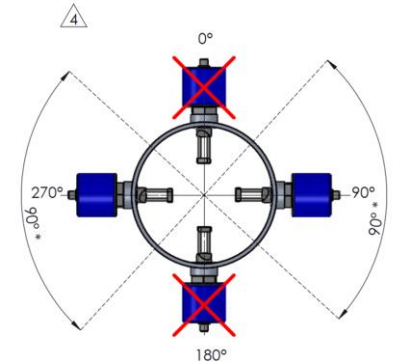
AFGUARD® - E11598

- ▶ Over ten years of field experienced
- ▶ 0 to 50 ppm (± 3 ppm) water in jet fuel detection
- ▶ Compatible with most electronic registers (LCIQ, TCS3000)
- ▶ Installation base
 - ▶ >4,500 AFGUARDS installed globally
 - ▶ 6 continents
 - ▶ >50 Countries
- ▶ Success
 - ▶ In every type of climate
 - ▶ >300 currently deployed in North America - Canada, Mexico & Caribbean
 - ▶ Thousands upon thousands of safe refuellings without flight delays



Product Installation

- ▶ AL/SS socket must be welded downstream from filter vessel
 - ▶ FAUDI Aviation provides instructions on sensor placement
 - ▶ Installation tool kit:
 - ▶ One needed per installation team/location
 - ▶ Drill, Welding Sockets, Tap, Torque Wrench, & Loop Tester



Remove Pipe



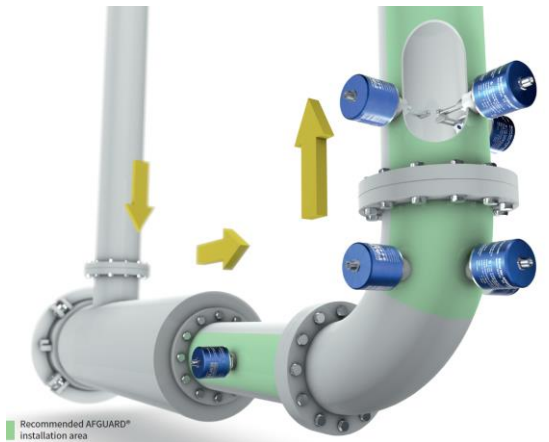
Drill Hole



Weld Socket

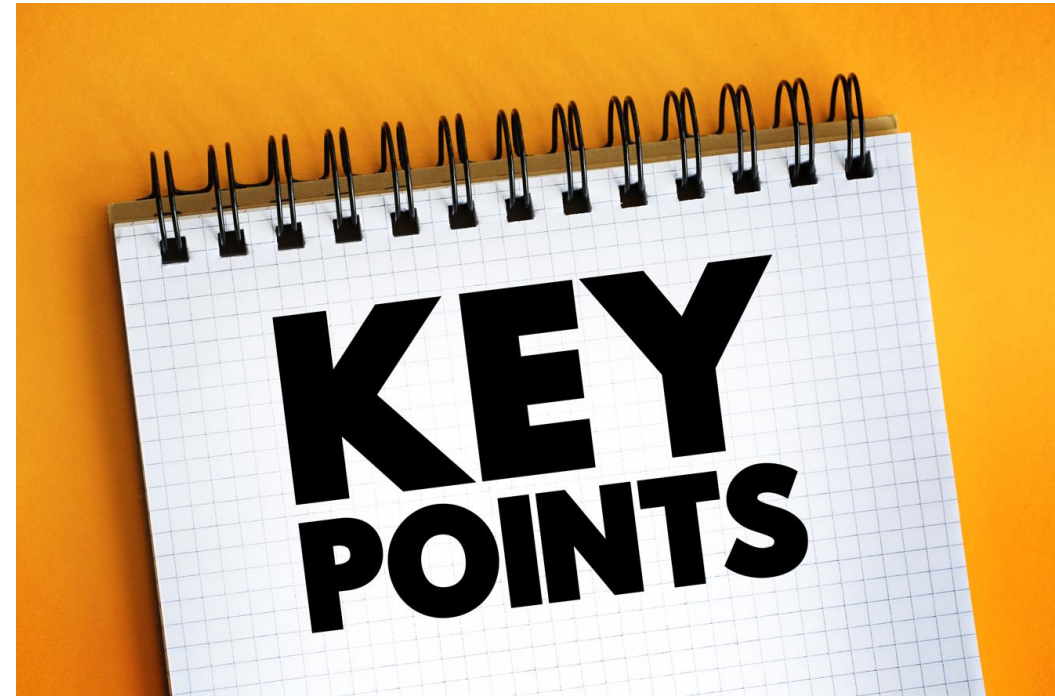


Tap Socket



Summary

- ▶ FAUDI Aviation multiple proven monitor replacement solutions
 - ▶ Over 2,000 FW24 vessels are currently in use globally
 - ▶ The AFGUARD® technology is currently deployed over 4,500 times on 6 continents without issue
- ▶ FAUDI Aviation is available to support you with their transition plan and execution
- ▶ Filter elements made in the USA.
- ▶ How can we help?



Thank You!
.....Any Questions?