

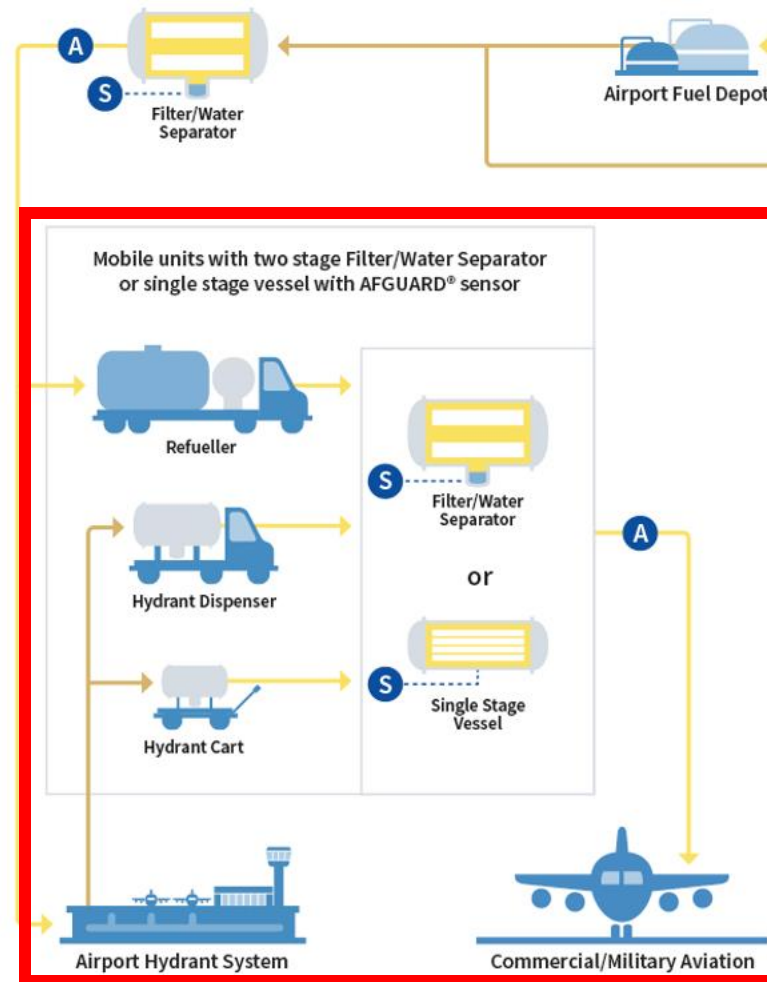
IAEF Baku

MAY 2025

CONTENT

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2. Quality level at into plane level
3. EI 1581 7th ed
4. EI 1588
5. EI 1599+EI 1598
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INTO PLANE



QUALITY LEVEL INTO PLANE

| Location | Contaminant limit | | Authority | Comments |
|------------|----------------------------|--|---|--|
| | Water | Particulate (gravimetric) | | |
| Into-plane | Clear and bright | | IATA Guidance Material | After-fuelling check |
| | 30 ppm | 1,0 mg/l | | Rejection limit for monthly equipment check |
| | Clear and bright | 0,44 mg/l | Canadian General Safety Board 3.23-2005 | |
| | 15 ppm (maximum allowable) | A2, B2, and G2 (Dry) <u>A3, B3, and G3 (wet)</u> <u>0.5 mg/l</u> | ATA 103 | Colorimetric interpretation of a gravimetric membrane. |

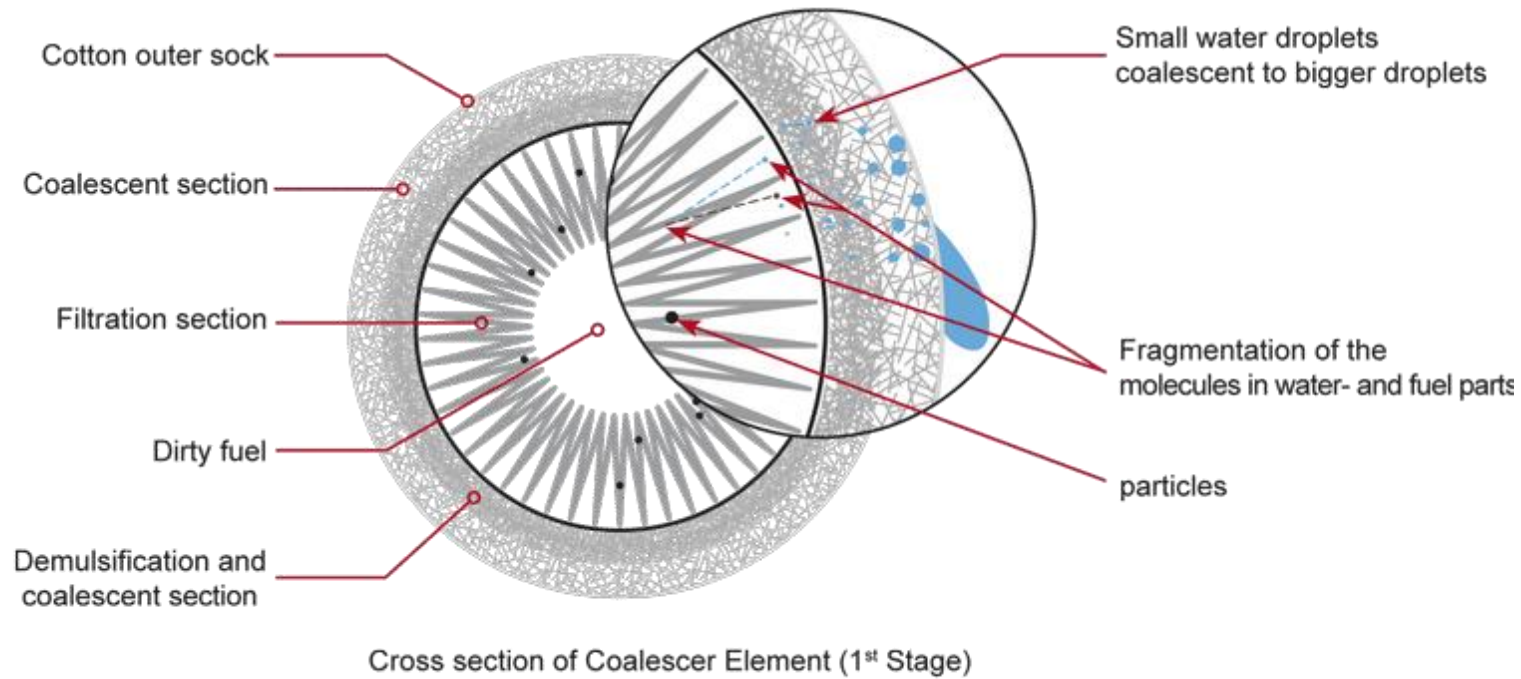
FILTRATION SPECIFICATIONS FOR INTO PLANE

- Filter water separator (EI 1581 / EI 1582)
- Water barrier (EI 1588)
- Dirt defence + EWS (EI 1599 + EI 1598)
- (EI 1587)

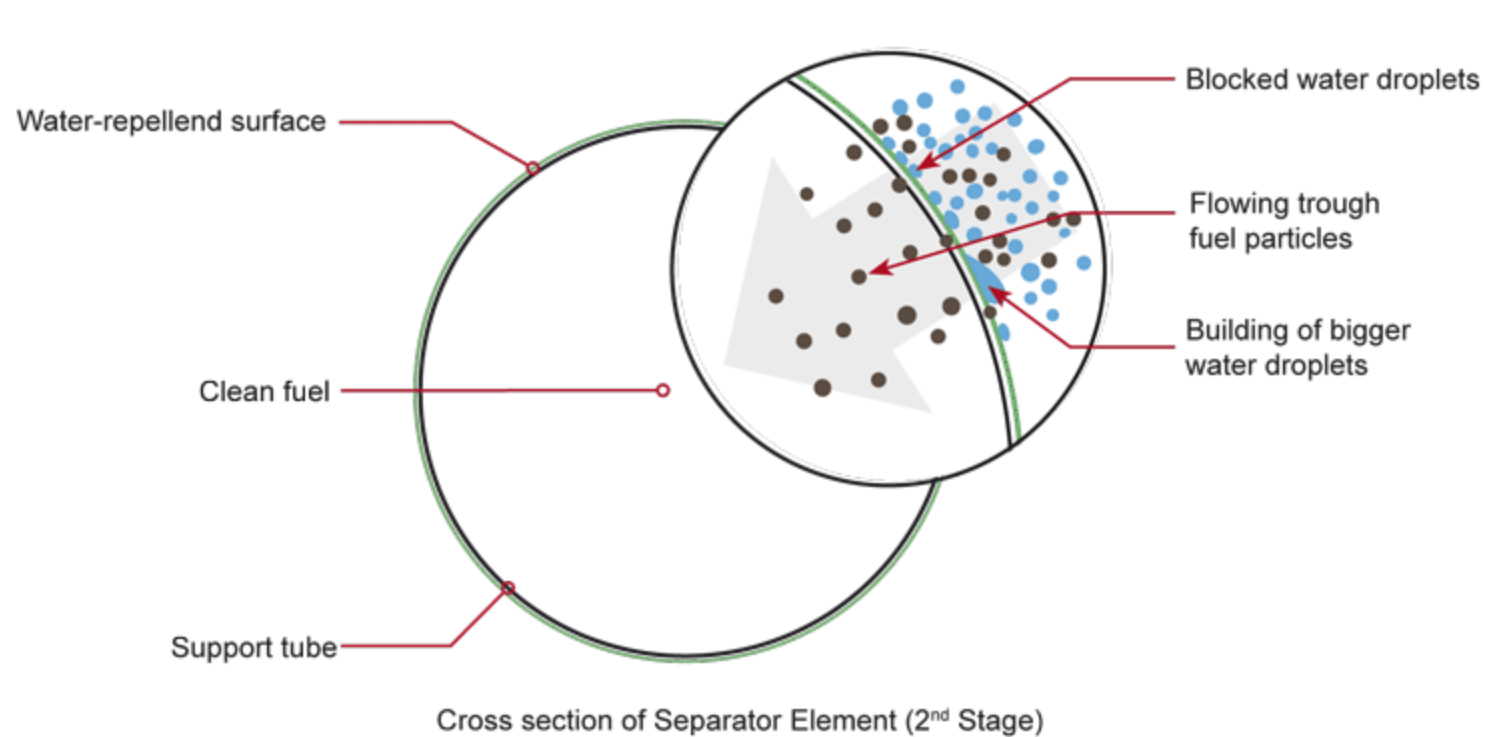
FILTER/WATER SEPARATORS

- ▶ Filter/water separators consist of a two-stage system designed to remove free water and particulates from aviation fuels
- ▶ Available to operate in commercial aviation fuel (defined as category C), military aviation fuel (defined as category M)
- ▶ Intended for use at mobile filtration (e.g. into plane) points where low levels of free water and particulate in fuel can be expected (S-LW and S-M)
- ▶ The test procedures to qualify a system are described in EI 1581
- ▶ In EI 1582 it is described how similarity is looking like, and which parameters must be meet to qualify the actual(candidate) system versus a tested one

FILTER/WATER SEPARATORS



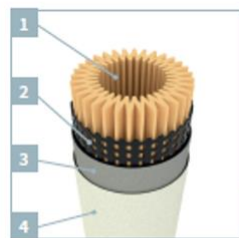
FILTER/WATER SEPARATORS



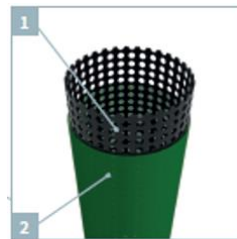
EI 1581 FILTER WATER SEPARATOR

FWS with 2" coalescer and 4" Separator

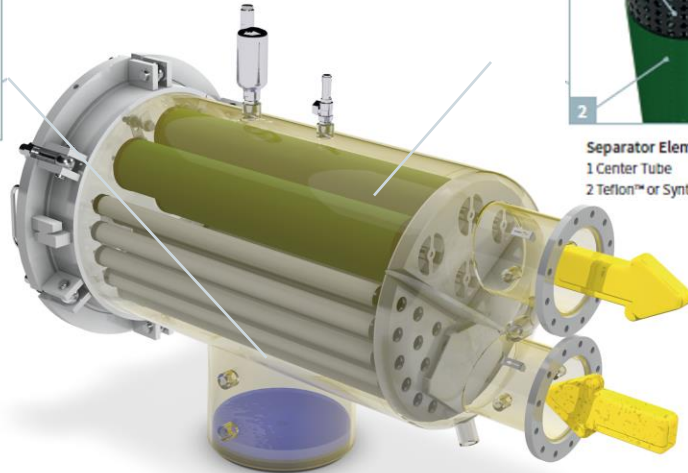
| Approved manufacturer | 1. Stage (Coalescer) | 2. Stage (Separator) |
|-----------------------|----------------------|----------------------|
| FAUDI Aviation | P2.X-XXX-X | 60.X-XXX-XX |



Filter/Coalescer Element
1 Pleated Paper
2 Center Tube
3 Coalescer Wrap
4 Cotton Sock



Separator Element
1 Center Tube
2 Teflon™ or Synthetic Screen



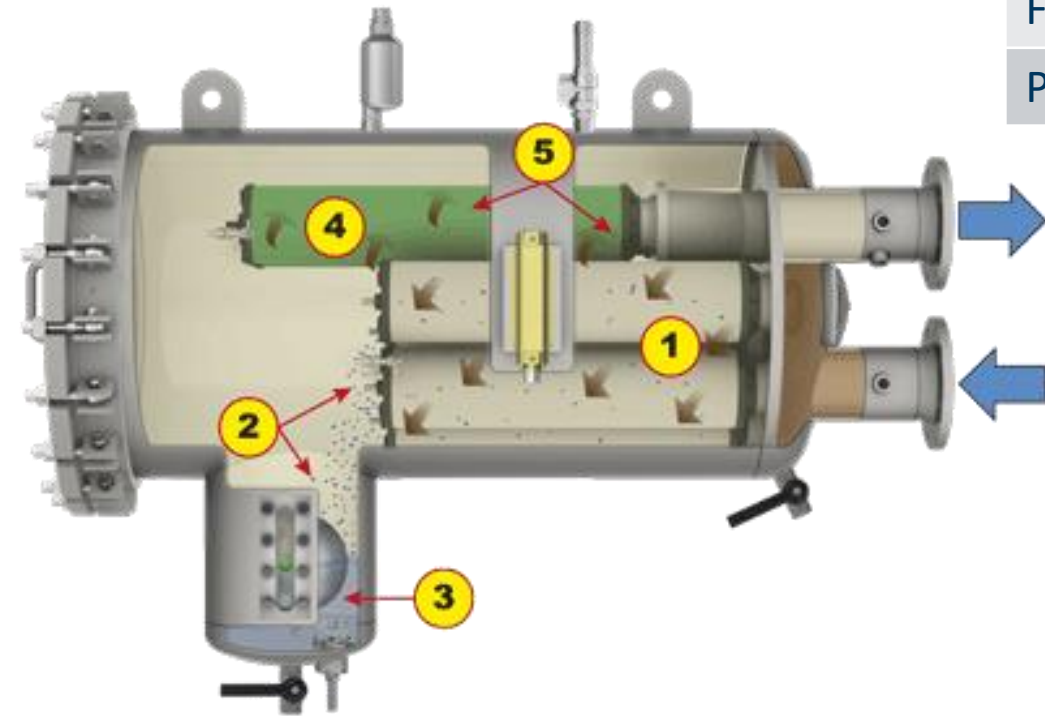
Qualified to C-S-M and M-S-M

Do not mix manufacturers!!!

Always use similarity to confirm compliance!!!

EI 1581 FILTER WATER SEPARATOR

FWS with 6" coalescer and 3", 4" or 6" Separator



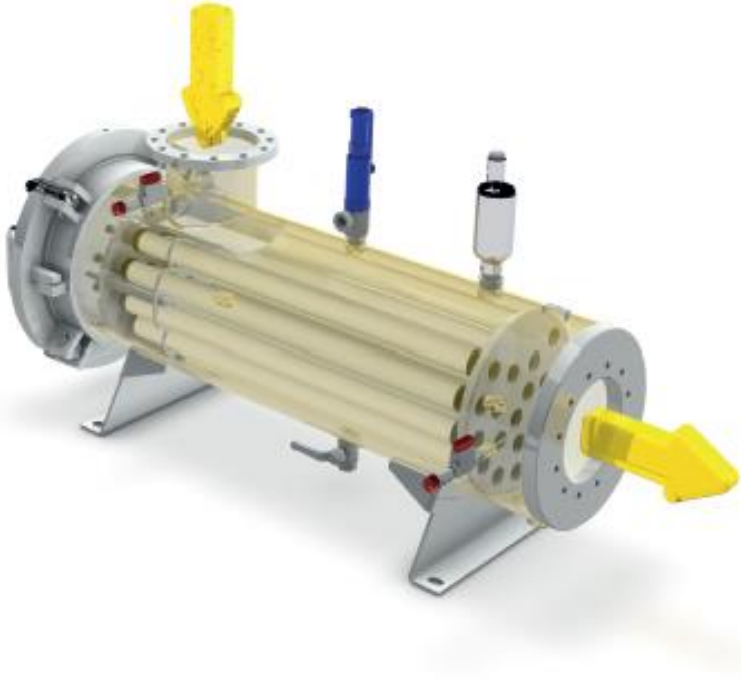
| Approved manufacturer | 1. Stage (Coalescer) | 2. Stage (Separator) |
|------------------------|----------------------|----------------------|
| Facet Filtration Group | CAA-XX-XXX | SS/STXXXXXX-X |
| FAUDI Aviation | T.X-XXX | 60.X-XXX-XX |
| Parker Velcon | I-XXXXXX-XX | SO-XXX-XX |

Qualified to C-S-LW for civil application

Do not mix manufacturers!!!

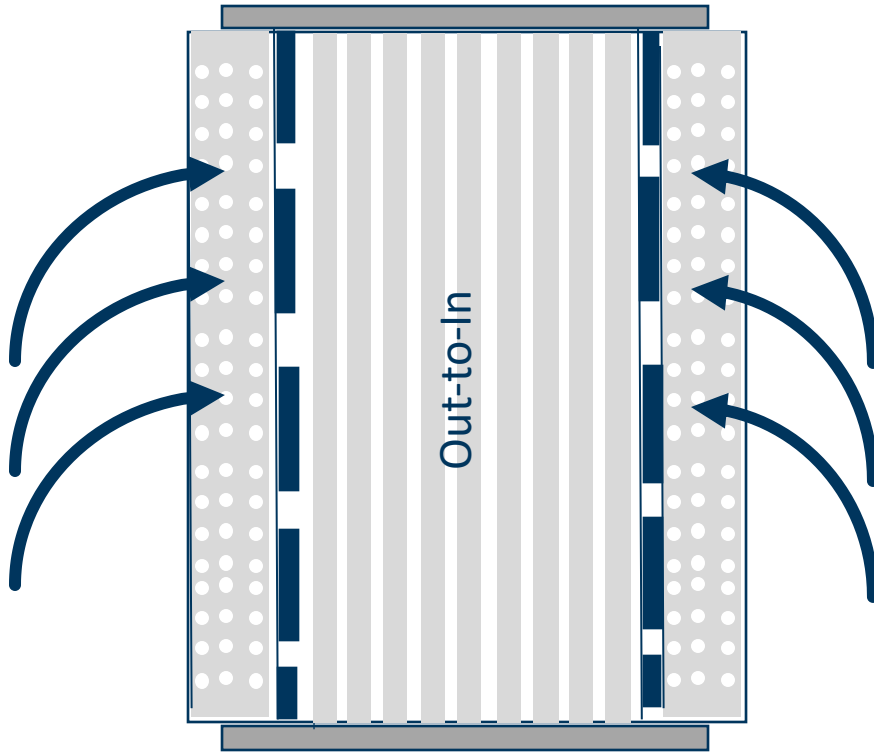
Always use similarity to confirm compliance!!!

EI 1588 WATER BARRIER



- ▶ Continuously removes particulate and separates free water from aviation fuels
- ▶ Emulsified water droplets are blocked by a porous hydrophobic material
- ▶ Blocked water coalesces on the hydrophobic surface, falls off to drain
- ▶ Elements of 50 mm (2 inch) nominal diameter up to 76 cm (30 inch) nominal length flowing out-to-in
- ▶ Nominal flow rate of 2.5 litres/sec/m (1.0 gpm/inch length)

EI 1588 WATER BARRIER



EI 1588 WATER BARRIER



| Approved manufacturer | |
|------------------------|-----------|
| Facet Filtration Group | FWB-XXX |
| Parker Velcon | CDFX-XXXX |

Drop in solution to replace 2" monitor elements
Description CDFX-XXXB or FWB-XXX

EI 1599 + EI 1598 DIRT DEFENCE AND EWS

- ▶ Dirt Defence Filters qualified to EI 1599
- ▶ Operate in conjunction with an EI 1598 free water sensor
- ▶ EI 1598 quantitative electronic water sensor – mandatory



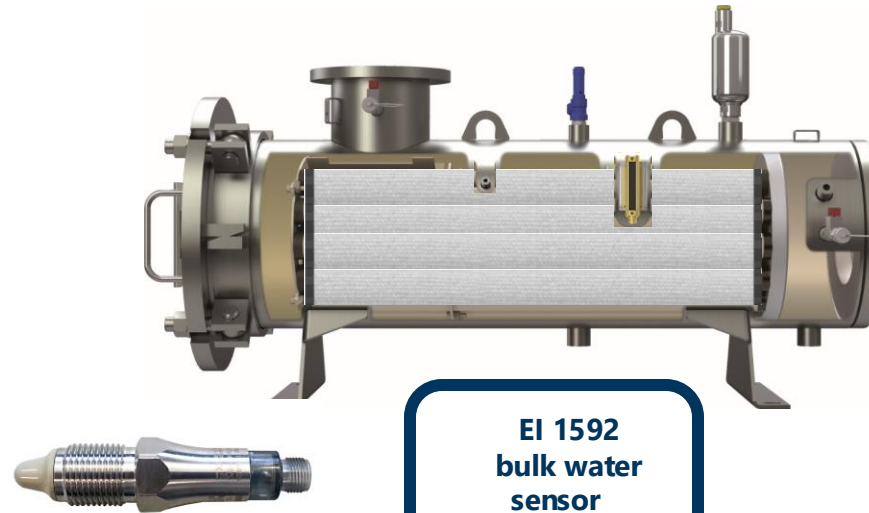
**EI 1592
bulk water
sensor
(5% to 100%)**

**EI 1598
quantitative
water sensor
(0-30ppm
and 100%)**



EI 1599 + EI 1598 DIRT DEFENCE AND EWS

- ▶ Dirt Defence Filters qualified to EI 1599
- ▶ Operate in conjunction with an EI 1598 free water sensor
 - ▶ EI 1598 quantitative electronic water sensor – mandatory
 - ▶ EI 1592 bulk water sensor – optional



**EI 1592
bulk water
sensor
(5% to 100%)**

**EI 1598
quantitative
water sensor
(0-30ppm
and 100%)**



EI 1599 + EI 1598 DIRT DEFENCE AND EWS

| Approved manufacturer | Diameter Dirt defence | EWS acc. EI 1598 | Dirt defence |
|-----------------------|-----------------------|------------------|--------------|
| FAUDI Aviation | 2" | AFGUARD® | DDO2.X-XX-X |
| FAUDI Aviation | 6" | AFGUARD® | DDO6.X-XX-X |



QUESTIONS?





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