



# K-FLOW Engineering

## Filtration & Separation



**FWS Series**  
**Filter Water Separators**  
Design acc. to EI 1581 standard

Continuous filtration without interruption [Filtration & separation specialist](#)

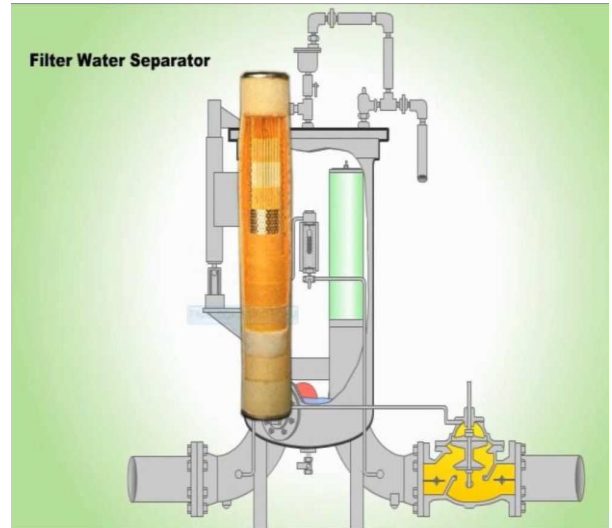
# FWS filter water separators

## Applications :

- \* Diesel , gasoline
- \* Aviation fuel Jet A1 , Jet A ,
- \* alcohol gasoline
- \* Bio-Diesel

## Installations :

- \* Airport
- \* Tank farm
- \* Power station
- \* Airforce base
- \* Oil refinery
- \* Oil terminals
- \* Harbor
- \* Diesel engines

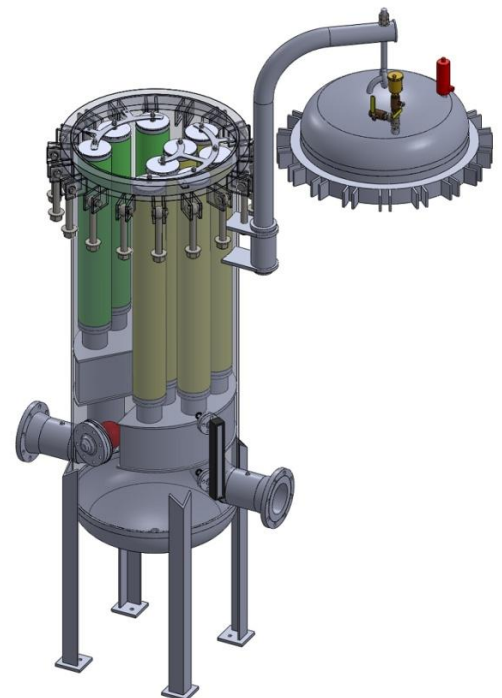


## Introduction :

FWS series filter water separators, is a two stages design, Acc. to EI 1581 lately edition , Category C , type S standard to design, first stage is coalesce elements and second stage are separator elements.

1<sup>st</sup> stage –Tiny droplets of water contact and adhere to strands of fiberglass, flow pushes the droplets along the strand until they reach an intersection of strands where they combine with other droplets ( coalesce ) into large drops .

These large drops are then carried to the outside surface of cartridge having a higher specific gravity than the hydrocarbon fluid , they release and settle to the bottom of the vessel .

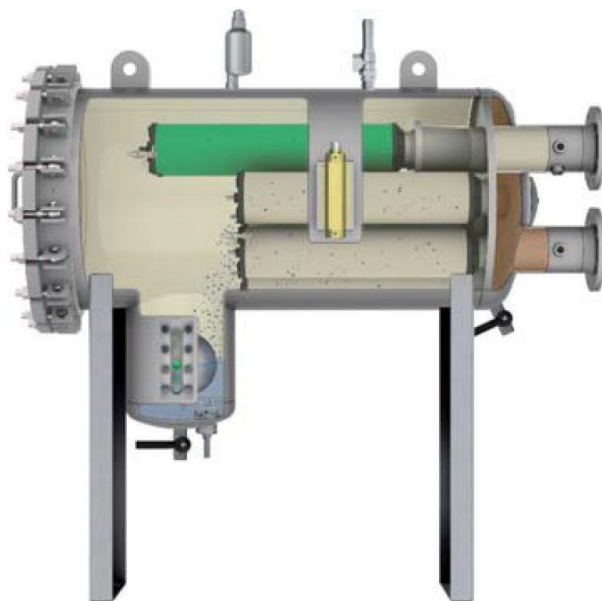


2 nd. stage – The fuel flows from the coalesce element and enters the separator element from outside to inside . The separator element is manufactured from hydrophobic material and is designed to repel small water droplets that may be carried over from the coalesce element . These small water droplets are retained on the separator element surface until they combine with other droplets and become large enough to fall because of higher density of water into the water collection sump . FWS series filter water separators are very efficiency separator and can remove the particulates and free water from the fuel oil.

It is strongly recommend to install the micro-filter before the FWS filter water separators to extend the service life of coalesce element .

Vessel code design -Acc. to the EI 1596 lately edition standard .

Our aviation fuel filter water separators are under the license of Faudi , Germany and all internal parts are qualified to EI 1581 lately edition standard.



Options :

- \* Automatic air eliminator
- \* Differential pressure measuring device
- \* Pressure relief valve
- \* Water slug control valve
- \* Rate of flow control valve
- \* Oil & water interface control
- \* Water sump heater
- \* Sampling probe connection on outlet and inlet .
- \* Surface finish according to the EI 1541 protective coating lately edition standard
- \* With inlet & outlet pressure gauges
- \* With water level indicator
- \* With drain valve

# Coalescer elements

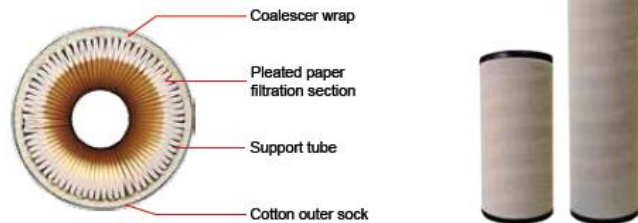
## RCC & P Series

### Applications :

High flow coalesce filter elements , suitable for

Oil refinery , oil terminals , tank farms , airport

Aviation fuel terminal , tested and approved to EI 1581 category C , type S & S-LW lately standard .



Flow direction

Inside to outside

Type of filter elements

Coalescer filter elements

Nominal filtration rating

0.5 , 1 , 2 , 5 , 10, 25  $\mu\text{m}$

Nominal Length incl. Seal

285 , 369 , 473 , 565 , 733 , 848 , 971 , 1099 & 1428 mm

Media

Multi-layered pleated media and fiber glass double open ends or single open end with 1/2" bolted end ,.

End caps

Plastic injection , glass fiber with nylon filled

Gaskets

Buna-N

Adhesive

Thermosetting PVC

Test - / Bust Pressure

5.2 bar

Operating temperature rating

- 30 to 80  $^{\circ}\text{C}$

Change-out differential pressure

1.1 bar  
152 mm ( 6" )

Outside Diameter

Flat sealed or Screw / Thread based

Endcap Design

4 elements per carton

Packaging

Each element individually sealed in polybag & box

Recommended Service time

24 months ( maximum )

Recommended Storage Time

Acc. to EI specification ( date of manufacturing , ID-Number , etc. )



K-Flow Engineering Co., Ltd

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# Separator Elements

## RSC / 60 Series

**Application :**

Optimum 2<sup>nd</sup>. stage water removal, Choice of Teflon Coated screen , Synthetic or pleated paper media . Field proven performance  
 Large selection of replacement elements  
 Tested and approved to spec. EI 1581 lately edition Category C , type S and S-LW



Flow direction  
 Type of elements  
 Nominal filtration rating  
 Outside Diameter  
 Nominal length  
 Filter media  
 Endcap Design  
 End cap  
 Gasket  
 Collapse pressure  
 Maximum temperature range  
 Change-out differential pressure  
 Packaging  
 Labeling of end caps

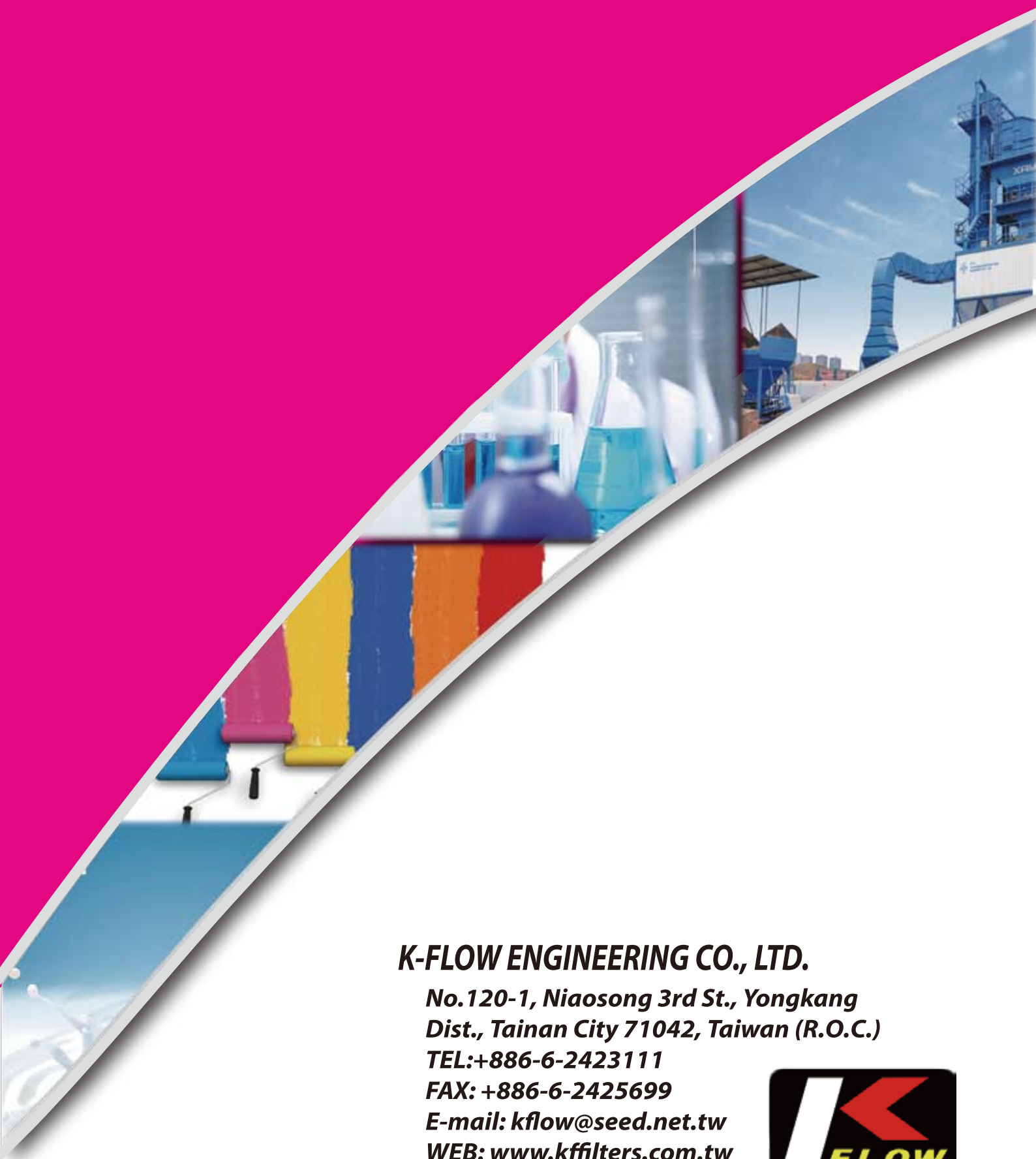
From outside to inside  
 Disposable type and cleanable type  
 75 µm  
 78 , 114 & 152 mm ( 3” , 4” & 6” )  
 See table A  
 Teflon coated screen , synthetic mesh or silicone treated paper  
 Open end & screw / thread based  
 Plastic injection , glass fiber with nylon filled  
 Buna-n  
 5. 2 bar  
 121 °C  
 1.1 bar  
  
 4 elements per carton , each element individually sealed in polybag  
 Acc. to EI specification ( date of manufacturing , ID-Number,etc. )

Table A - mm

O.D.	Nominal length ( without seal )							
78 (3’’)	235	279	300	362	407	430	526	565
114(4’’)	626	700	727	756	820	842	900	965
152 (6’’)	1093	1130	1204	1226	1244	1290	1422	



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