SWK-2000 Series

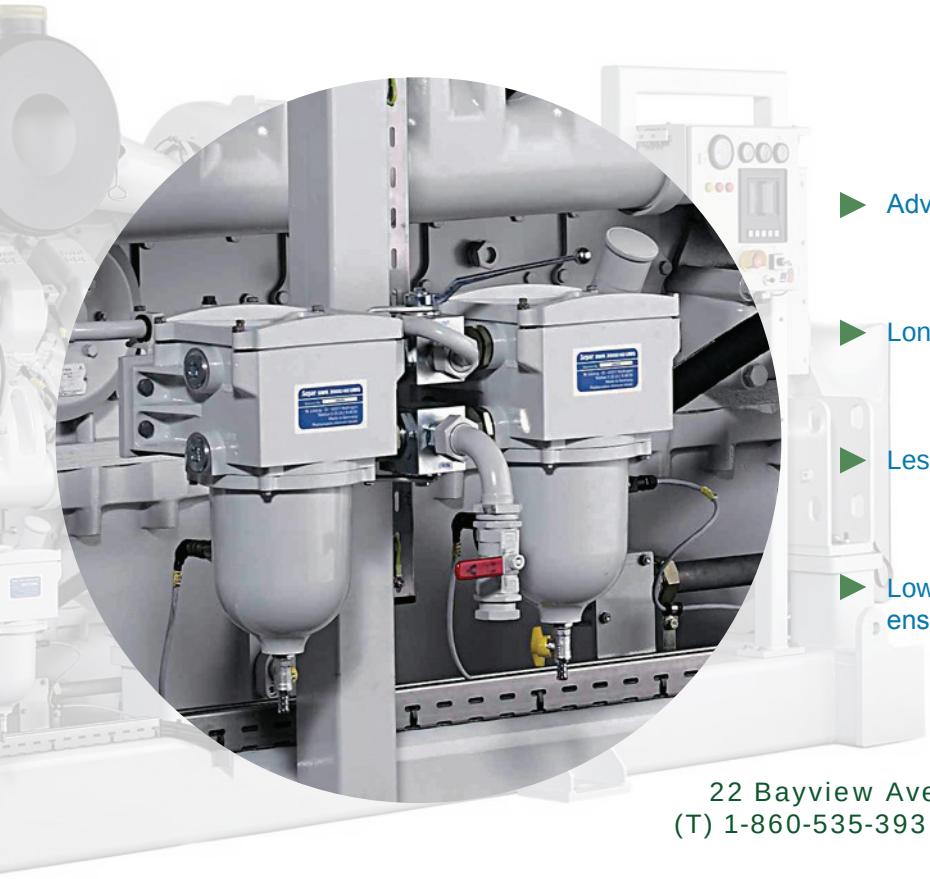
Diesel Filtration

To Keep Engines Running

The Separ 2000 Series is a line of fuel water separators designed to accommodate newer and more demanding diesel engines. They are manufactured from high quality, non-corroding aluminum alloy castings, heavy polycarbonate or metal bowls and stainless steel hardware. Fuel systems are protected and engine failure is avoided by the filters' ability to separate harmful particulate and water from diesel fuel.

Fuel water separators feature five stages of filtration and are available with flow rates from 79 to 2,060 GPH for appropriate integration into any size fuel system. The benefits include a small physical size, high flow rate, low restriction, multiple inlet/outlet configurations and long-life filter elements. A 30 micron element is installed (standard) and replacements are available in 10 and 60 micron stainless. Backflushable (cleanable) elements reduce down time and costly element changes.

Duplex systems contain two filters. When the primary filter is in need of maintenance, the fuel system can continue to operate by use of the secondary filter. This reduces down time and increases dependability.



- Advanced filtration for diesel engine reliability
  99.9% Water separation (certified TUV report using SAE J1839) and removes sludge build-up
- Longer element life
  Filter separates most debris and large particles before reaching the element
- Less element replacements
  User can backflush filter up to 5 times before replacing element
- Low restriction reduces wear on fuel pumps and ensures full RPMs

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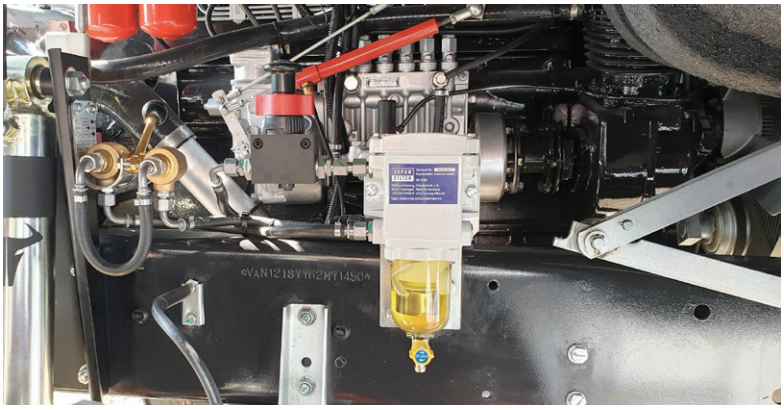
Fuel Water Separator For Diesel Engines

- Recreational boats
- Emergency/standby generators and engines
- Bulk fuel storage on farms and industrial plants
- Reserve storage for vehicle fleets
- Automotive industry - trucks, buses, mobile cranes, etc.
- Construction and agricultural equipment
- Workboats



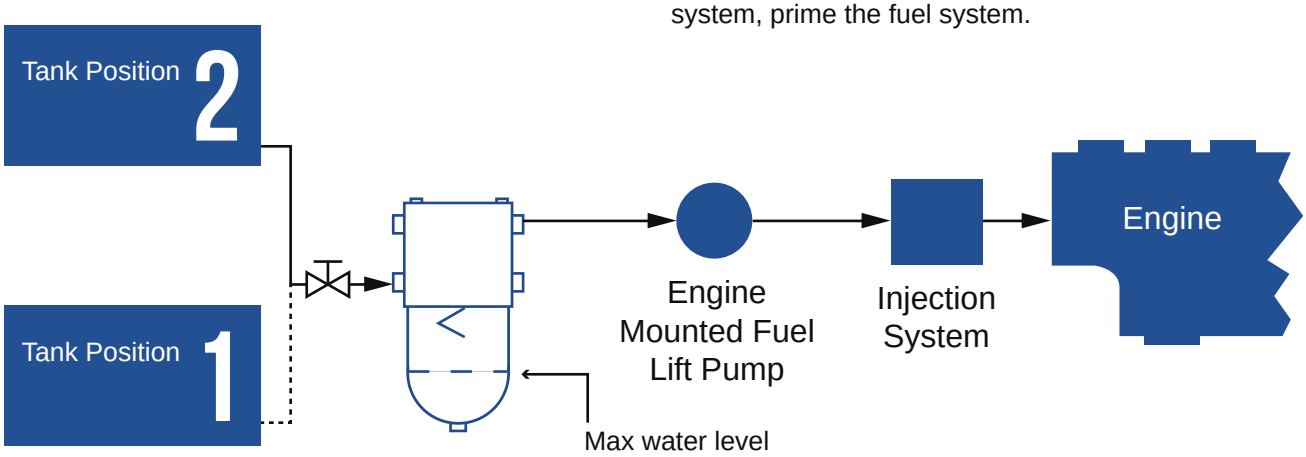
Compact and Easy Installation

The separation and filtration process occurs by a unique and patented concept which is applied throughout the range of the SWK-2000 Series.

The filter should be installed on the suction side of the fuel system, between the fuel feed tank and the engine-mounted fuel lift pump.

The ideal position for the filter is the same height as the lift pump. However, if the top of the fuel tank is above this position, a “full flow” ball valve should be fitted before the filter so that the fuel flow can be shut off to allow filter maintenance.

In applications where the fuel level is below the filter, it is still advisable to install a “full flow” ball valve to prevent backflow. After filter installation on the fuel supply system, prime the fuel system.



5-Stage Filtration

High Efficiency | Low Flow Restriction | Extended Element Life

STAGE 1
The diesel fuel enters the filter through either inlet port A or B. The second inlet (not used) should be sealed with the plug provided.

From the inlet port, fuel flows through the interior vane system which imparts a circular motion to the fuel.

STAGE 2
Still in the circular motion, fuel reaches the bowl section, where water droplets and heavier particles are forced to the wall of the bottle and eventually settle at the bottom.

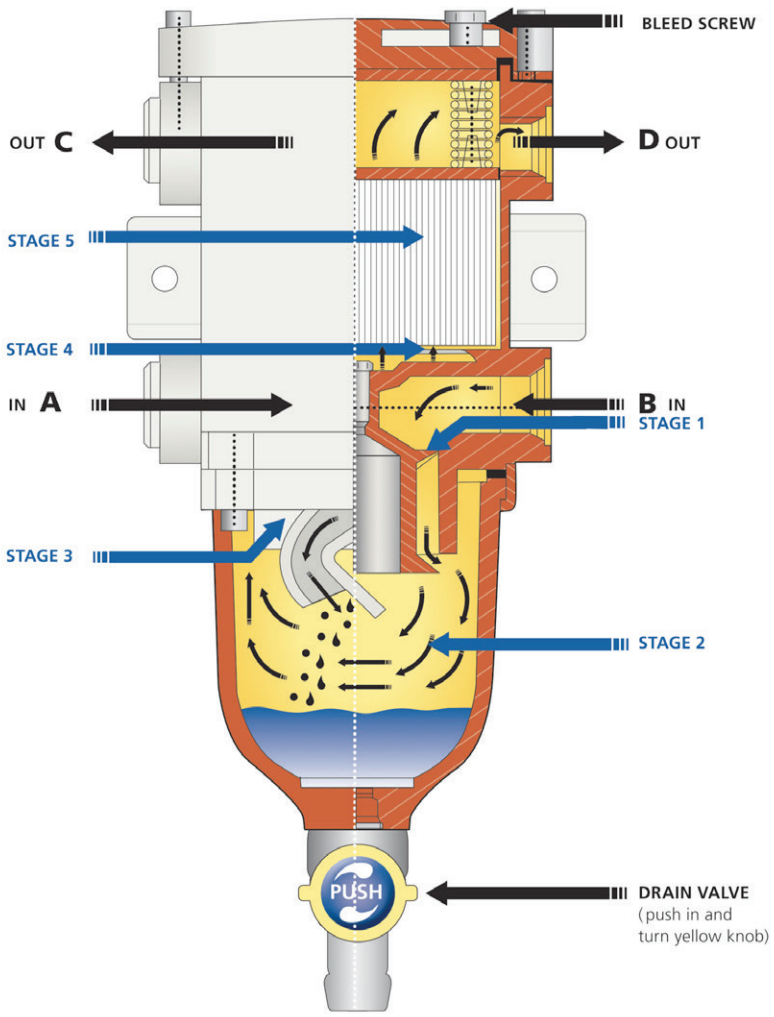
STAGE 3
In this stage, the fuel passes the vane system positioned on the “outside” of the central housing. Due to the differing length of the vanes and the two-fold rapid change of flow direction, smaller water droplets and particles will settle on the vanes. When the accumulation is heavy enough, it will fall to the bottom of the bowl. At this point, a major portion of the contaminants in the fuel have been separated.

STAGE 4
Just below the filter element, the flow area is increased significantly thus reducing fuel flow rate. This calming effect allows even smaller water droplets and particulate to fall out and settle on the inner surfaces of the housing, forming larger droplets which eventually fall into the bottom of the bowl by gravity.

Due to the previously described pre-separation process, the major portion of water and particulate present in the fuel will be in the bowl or on the inner surfaces of the filter. Thus, greatly extending the filter element life.

STAGE 5
The final filtration of the remaining water and particulate still contained in the fuel will be removed by a replaceable element. These filter elements are produced from a special filter media and are available in different pore sizes. The clean fuel leaves the filter through outlet port C or D.

The second outlet port (that is not used) should be sealed with the plug provided.



Sizing the SWK-2000

The flow rate of the filter must higher than the maximum capacity of the engine-mounted lift pump (not the engine's burn rate).

For example, if the maximum flow rate of the engine-mounted lift pump is 126 GPH, then the corresponding filter is the SWK-2000/10 with a maximum flow rate of 158 GPH.

A duplex assembly is recommended in applications requiring continuous diesel power (e.g. vessels with only one propulsion engine or generators used for prime power).

Filter Assembly

Model #	Maximum Flow Capacity	Single Assembly Inlet / Outlet	Duplex Assembly Inlet / Outlet
SWK-2000/5	79 GPH	1/2" Female O-ring Boss	12 mm with 1/2" Male JIC Flare Fittings
SWK-2000/5/50	79 GPH	1/2" Female O-ring Boss	12mm with 1/2" Male JIC Flare Fittings
SWK-2000/10	158 GPH	5/8" Female O-ring Boss	15mm with 1/2" Male JIC Flare Fittings
SWK-2000/18	285 GPH	3/4" Female O-ring Boss	22mm with 3/4" Male JIC Flare Fittings
SWK-2000/40MK	634 GPH	Metric M33x2 Female O-ring Boss	35mm with 1 1/4" Male JIC Flare Fittings
SWK-2000/130MK-G	2,060 GPH	2" NPT Pipe	2" Female NPT

Filter Assembly Options

U	=	Duplex Assembly
M	=	Metal bowl*
K	=	Contacts for water level indication
D	=	Clear bowl with heat shield
S	=	Potential-free probe for water level indication
H	=	Heated filter (12V or 24V)**

**Standard for SWK-2000/40M and /130MK-G*
***For SWK-2000/5/50, /10, and /40 only.*

Accessories

Indicators for filter maintenance.

Compatible With Model #	Gauge Kit *Measure restriction.*		Visual Water Alarm *Requires Contacts (K) option.*		Audio Water Alarm *Requires Contacts (K) option and Visual Alarm Indicator.*
	Single Filter	*Duplex Filter (includes 2pcs)*	*12V*	*24V*	
SWK-2000/5 and SWK-2000/5/50	14-0001	14-0001-02	16-30090	16-30091	03-0612
SWK-2000/10	14-0002	14-0002-02			
SWK-2000/18	14-0003	14-0003-02			
SWK-2000/40	14-0004	14-0004-02			
SWK-2000/130	Included	Included			

Replacement Elements for SWK-2000 Series

Compatible with diesel fuel and biodiesel. Fits single and duplex filter versions.

Model	Element			Lid Gasket
	Part Number	Description	Dimensions	
SWK-2000/5	00510	10 micron	3 x 3 1/8 x 1 3/16 in *76 x 79 x 30 mm*	10367
	00530	30 micron		
	00560S	60 micron stainless		
SWK-2000/5/50	00510/50	10 micron	3 3/16 x 3 1/4 x 2 1/8 in *81 x 82 x 54 mm*	10367
	00530/50	30 micron		
	00560/50S	60 micron stainless		
SWK-2000/10	01010	10 micron	3 1/2 x 3 5/8 x 2 1/8 in *89 x 92 x 54 mm*	10362
	01030	30 micron		
	01060S	60 micron stainless		
SWK-2000/18	01810	10 micron	5 13/16 x 5 7/8 x 2 1/8 in *148 x 149 x 54 mm*	30421
	01830	30 micron		
	01860S	60 micron stainless		
SWK-2000/40	04010	10 micron	7 11/64 x 7 11/64 x 2 in *182 x 182 x 51 mm*	30440
	04030	30 micron		
	04060S	60 micron stainless		
SWK-2000/130	*Requires 4 elements per filter*			
	01810	10 micron	5 13/16 x 5 7/8 x 2 1/8 in *148 x 149 x 54 mm*	30387
	01830	30 micron		
	01860S	60 micron stainless		

Elements listed above are not applicable to heated filters. Please contact us directly for pricing and availability.

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