

DeconFilter™ Pro S

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Optimized filtration technology

The DeconFilter Pro S focuses on extracting and reducing the amount of carcinogenic PAH substances in the Solo Rescue and DeconWasher Pro S wastewater. During tests at a fire department and firefighter training facility in southern Sweden, wastewater samples were taken from the Solo Rescue decon washer after several training exercises and rescue operations. They were then sent to an external third-party laboratory for testing.

The tests were conducted to look specifically at the reduction of a group of 16 PAHs that has been considered to be high priority pollutants. These 16 PAHs are of environmental concern because of their potential toxicity in humans and other organisms and their prevalence and persistence in the environment. Several PAHs are probable or known carcinogens. The result showed that the amount of these 16 PAHs had been reduced by up to 98%.

To achieve these results, we use a multi-stage custom filtration, including a lint filter, particle filters, and an active carbon filter. This allows us to catch particles of various types and sizes and prevents them from being flushed down the drain.

The perfect complement to the Solo Rescue and DeconWasher Pro S

The DeconFilter Pro S was developed to work seamlessly with the Solo Rescue and DeconWasher Pro S and fits perfectly on the right side of the machines using a special filter rack. It is also possible to mount the filter system on the wall for convenience if needed. The Solo Rescue filter system comes with an external water tank, including a lint filter and drain pump. This is not required for the DeconWasher Pro S since this is already built into the machine.

Safe and easy filter maintenance

To ensure the efficiency of the filter system, we recommend using a filter kit replacement four times per year. However, depending on the type of fire and how often the water in the machine is changed, the filter lifetime may vary.

To make the filter exchange as easy and safe as possible, it has an open design that allows you to reach the filter cartridges on the side of the machine effortlessly.

Optimized cleaning process requires an optimized filter system

When we first developed the Solo Rescue decon washer our goal was to develop a decontamination solution that could help reduce firefighter's exposure to carcinogens and other hazardous substances in a quick, easy and safe way. We ended up doing a great job and our machines have now been shipped throughout the world to countries on four different continents. However, the optimized cleaning process did not mean our job was completed. The contaminated water also needs to be taken care of after the wash, and that is why we developed the DeconFilter Pro S.

What happen to the contaminated water?

The most common solution for taking care of the contaminated water today, whether it is from manual washing or from using a Solo Rescue decon washer, is to simply flush it down the drain where it eventually will end up at the local wastewater treatment plant. However, most wastewater treatment plants do not have a specified procedure to extract these PAH compounds, which will eventually result in them contaminating the surrounding environment and ecosystem.

Because of the toxic nature of these chemical compounds, we decided that this is not good enough. Even though our primary focus is to improve the health of firefighters and help them avoid toxic chemicals, we could not ignore the negative indirect effects that contaminated wastewater could have on the local environment, and decided to do something about it. The solution we came up with was the DeconFilter Pro S.

Technical specifications

Dimensions (H x W x D)	Extend the width of the machine by approximately 300 mm
Weight (empty)	70 kg
Filter tank volume	130 liters
Voltage	220-240 V
Fuse	10 A
Frequency	50 Hz
Power	0,55 kW
Drain hose connection	3/4" (19 mm)
Minimum drain capacity min.	35 l/min.
Drain outlet height on wall max.	1,5 m
Filtration technology	Multi stage custom filtration including lint filter, particle filters and active carbon filter
Pump	Stainless steel, high temp, handle solids up to 10 mm.
Capacity	Up to 3 Solo Rescue Decon Washers
Options	Wall mount accessory
Filter change recommendation	Every three months, or according to indicator. More often depending on application.

