



The
S.E.A.
Group



RESCUE
INTELLITECH

DeconFilter™ Pro S

Developed to safely reduce carcinogens in your wastewater.
The easy and safe way of filtering contaminated water from
the Solo Rescue Decon Washer.



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 does not mean our job is complete. The contaminated water also needs to be taken care of after the wash, and that is why we developed the **DeconFilter™** Pro S.

Long-time exposure leads to higher risk of developing cancer

Several studies (such as the LeMasters Meta-Analysisⁱ, the NIOSH Studyⁱⁱ and the Nordic Studyⁱⁱⁱ) have all shown that firefighters are subject to an increased risk of being diagnosed with and dying from certain types of cancer. Further studies^{iv} have found that dermal exposure to PAH particles is one of the reasons for this. When washing contaminated equipment in the Solo Rescue Decon Washer the machine will extract cancer-causing PAH particles from the surface of the equipment into the wash tank, thereby ensuring minimal dermal and respiratory exposure. This leads to a safer work environment for the firefighters. However, we also need to take care of the contaminated water after the washing is finished.

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 particles, which will eventually result in them contaminating the surrounding environment and ecosystem.

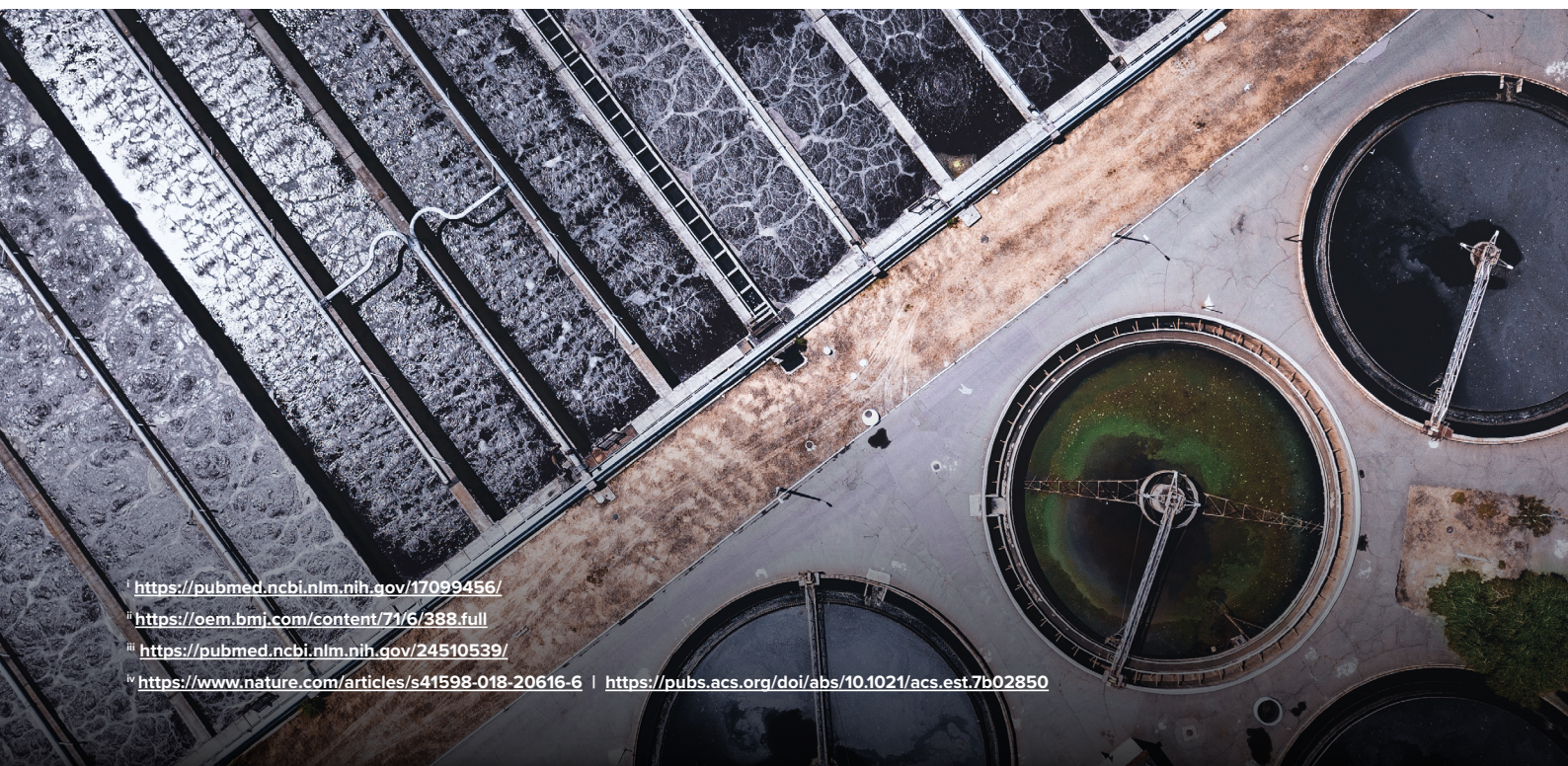
Because of the toxic nature of these chemical compounds, we decided that this is not good enough. Even though our primary focus is to improve the health of firefighters and help them avoid toxic chemicals, we could not ignore the negative indirect effects that contaminated wastewater could have on the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

ⁱ <https://pubmed.ncbi.nlm.nih.gov/17099456/>

ⁱⁱ <https://oem.bmj.com/content/71/6/388.full>

ⁱⁱⁱ <https://pubmed.ncbi.nlm.nih.gov/24510539/>

^{iv} <https://www.nature.com/articles/s41598-018-20616-6> | <https://pubs.acs.org/doi/abs/10.1021/acs.est.7b02850>





Optimized filtration technology

The **DeconFilter™** Pro S is focused on extracting and reducing the amount of carcinogenic PAH particles in the filtered Solo Rescue 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 a number of training exercises and rescue operations, and were then sent to an external third-party laboratory for testing. These lab tests showed that the **DeconFilter™** Pro S was able

to reduce the amount of PAH M and PAH H compounds (both of whom are currently being classified as carcinogenic by the Swedish EPA) in the wastewater by up to 98 %, or below detection level*.

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

* Depending on the burnt materials these numbers may vary. [See full report here.](#)

The perfect complement to the Solo Rescue Decon Washer

The **DeconFilter™** Pro S has been developed to work seamlessly with the Solo Rescue Decon Washer. It fits perfectly on the right side of the machine and only extends the width by approximately 30 cm / 12 inches. It comes equipped with a specially designed connection that you attach directly to the drain on the Solo Rescue Decon Washer, and it has a capacity to connect up to three Solo Rescue Decon Washers to each filter system. It is also possible to mount the filter system on the wall for convenience.



Safe and easy filter changes

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

To make the filter exchange as easy as possible, we chose an open design that allows you to easily reach the filter cartridges on the side of the machine. Simply replace the old filters with new ones from our filter exchange kit.





5 Reasons To Invest in the DeconFilter Pro S

- Protect the environment by reducing carcinogens in the wastewater
- Easy and safe filtration
- Perfect complement to the Solo Rescue Decon Washer
- Simple and convenient exchange of filters
- Space efficient

Technical data

Dimensions H x W x D	1800 x 300 x 750 mm
Weight (empty)	70 kg
Filer tank volume	130 liters
Power supply	5 m cable with plug included
Voltage	230V single phase
Fuse	10 A
Frequency	50Hz
Total power	0,55 kW
Drain hose connection	19 mm (3/4")
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 10mm.
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.



RESCUE Intellitech disclaims any and all liability for any damages or injury to persons, property or otherwise resulting from misuse or failure to follow instructions found in the Owners Manual, failure to wear hand and face protection when changing filter cartridges, and or replacing filters with cartridges that are not supplied by RESCUE Intellitech or their appointed representatives.



We take decontamination seriously. You should too!

Research and statistics all tell us the same story. Today's firefighters are being exposed to dangerous toxic chemicals that cause long term health problems, and even deaths. Unfortunately, fires will keep occurring and firefighters will always have to be ready when that happens. Their job is to protect us, and we have made it our mission to help protect them. Reducing the amount of toxic chemicals and carcinogens that firefighters are exposed to on a daily basis is one of several critical aspects of ensuring a safe work environment and firefighters' long-term health. With the Solo Rescue Decon Washer, your fire department can reduce toxic chemicals and carcinogens in a quick, easy and safe way. By adding our **DeconFilter™ Pro S** to that process, you will also reduce the number of toxins you flush down the drain and prevent them from spreading further.