

An underwater photograph showing a diver's helmet and a stream of bubbles rising from the top. The water is clear and blue. The text 'Sofi' is overlaid in white, with the 'O' being a large circle that frames a portion of the helmet and bubbles.

Sofi

FILTRATION

**We give our customers
uncompromised competitive edge
with modern water treatment
solutions.**



Sofi Filter[®]

Patented Innovative Technology



Novel Cross Flow Design

Our cross flow design allows for high flux while keeping particles from fouling the filter element.



Sustainable Filter Element

Our filter elements are made of metal and thus durable and have a long lifetime.



Ultrasonic Self-cleaning

Assisted by ultrasound and back pulsing, we can keep our filter medium clean and performing to your desired needs.



Customer benefits



Low-cost Maintenance

You do not have to manually exchange wearables saving you time and money while promoting process and occupational safety.



Chemical Free

We don't need to use chemicals for cleaning thus saving you money and promoting process and occupational safety.

Solutions for different needs

Technical specifications

SOFI FILTER UNIT	SF200	SF1000	CONTAINER
CAPACITY m3/h	0.5 – 5	5 – 35	40 – 280
CAPACITY gpm	2.2 – 22	22 – 154	176 – 1233
SEPARATION SIZE um	0.3 – 500		
METHOD	Patented High Cross-Flow Filtration		
SELF-CLEANING FEATURES	Backpulse & Integrated Ultrasonic		
FEED PRESSURE	0.5 – 1.5 bar (50-150 kPa)		
TEMPERATURE (max.)	85°C (185°F)		
pH RANGE	1 – 14		
MATERIAL OF CONSTRUCT	Stainless Steel 316L, Duplex, Super Duplex		
WEIGHT (approx.)	40 kg/88 lbs	200 kg/440 lbs	40' HQ Container
MEASURES cm (approx.)	50x50x100	100x200x100	
MEASURES in (approx.)	19.7x19.7x39.4	39.4x78.7x39.4	

Power Generation

Smarter water reuse

Our compact water recycling technology gets you to your record high energy production. Increase in energy recovery & efficiency, and save in water consumption & costs by using purified water in the district heating network instead of discharging.

CASE EXAMPLE

Waste-to-energy plant, Finland

Two SF1000 filters provided a turnkey solution to treat the excess condensate water so that it can be reused in the process.

Our Sofi Filter® combined with reverse osmosis purified the condensate water for re-use in the local district heating network. Energy recovery was increased and the need for make-up water from the local water supply network was decreased leading to both increased revenue and decreased costs.

The prior practice was to discharge the scrubber water resulting in energy loss.

- Flowrate 7-17 m³/h
- Temperature 85°C
- Feed solid concentration 10-20 mg/l

“ Payback is less than a year

– Customer Feedback

Increase in plant energy output up to 10%.



Mining & Metals

Recovery of valuables and water

Our high-performance Sofi Filter® recovers additional valuable minerals from your process waters. And with no chemicals.

- Treat thickener overflow before discharge to recover valuables and meet stringent environmental permitting limits
- Process filtrates from conventional filters to ensure high-quality water for circulation
- Treat process water at hot rolling mills to minimize contaminants

Our Sofi Filter® responds to your needs to separate low concentrations of very fine particles – all the way down to 0.5 micrometers.

CASE EXAMPLE

Zinc electrolysis, Finland

A Sofi Filter® was installed to separate unwanted particles of gypsum and calcium sulfate before feeding the liquid into zinc electrolysis.

- Temperature: 30°C
- Total process flow: 360 m³/h
- Feed solid concentration: 600 mg/l
- pH: 2



“ After testing the Sofi Filter® I am convinced of its capability to separate the unwanted suspended solids in our electrolysis process.

– Customer Feedback

Other Industries

Fit-for-purpose solutions

Minimize operational costs, decrease downtime, and generate higher yields with our innovative technology. Our containerized solutions offer you convenience when you:

- need mobile solutions,
- operate remote sites or
- need dedicated protection against the elements.

Being automatically self-cleaning and having a highly durable steel filter medium makes our Sofi Filter® also low maintenance for you.

CASE EXAMPLE

Tunneling wastewater, Finland

The Sofi Filtration container unit was used for the treatment of tunneling wastewater prior to discharge to meet environmental permitting limits. Containerized units are especially useful at construction sites.

- Flowrate: 70 000 m³/y
- Feed solid concentration: 400 mg/l
- Discharge solid concentration: < 90 mg/l



“ We are very happy with the system, especially since it is fully automatic and does not require our attention.

– Customer Feedback

sofi

FILTRATION

We are a Finnish clean-tech company who design state-of-the-art filtration technology to ensure clean water for our future generations.

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