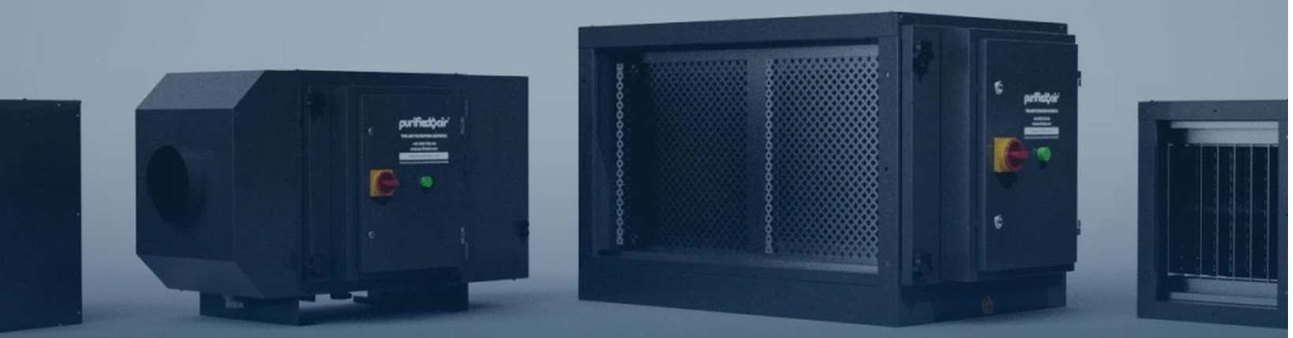


INDUSTRIAL AIR FILTRATION AND COOLANT RECOVERY

For CNC shops and manufacturers across the US.

ESPi oil mist and smoke extraction

Ambient and media air filtration

Wogaard coolant and oil recovery

PRODUCT BROCHURE | VERSION 2.0

total-filtration.com

CLEANER SHOP AIR. MORE COOLANT BACK IN THE MACHINE.

Industrial air filtration and CNC coolant recovery from a US-based supplier.

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WHAT YOU GET FROM TFUSA

US BASED

A US company with sales and support here in the US, and Wogaard stock held in Florida.

BUILT FOR MACHINE SHOPS

Products picked for CNC machining and metalworking fluids.

LOWER RUNNING COSTS

Washable ESPi collector plates, and coolant you recover instead of buying new.

HELP WHEN YOU NEED IT

We help you choose, size and install the right unit, then supply the parts after.

BUILT AROUND US MANUFACTURING

Total Filtration USA LLC supplies industrial air filtration and CNC coolant recovery equipment to manufacturers across the US. We distribute proven products from two specialist manufacturers: Purified Air of the UK for air filtration, in business since 1984 with more than 50,000 installations worldwide, and Wogaard of Denmark for coolant recovery. Our founding team brings over 40 years of manufacturing and engineering experience.

TOTAL FILTRATION USA LLC

Winter Garden, Florida

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total-filtration.com

ONE PARTNER FOR THE LIFE OF THE SYSTEM

One US point of contact from the first conversation through installation, parts and consumables. We only distribute proven products from specialist manufacturers.

Up to 99%

ESPi filtration efficiency

Electrostatic capture of oil mist and smoke down to 0.01 micron.

Up to 50%

Less coolant bought

Wogaard units send chip-bin coolant back to the machine sump.

Up to 90%

Less fluid to dispose of

Less wet waste in the chip bin means less to haul away.

Figures are the manufacturers' published maximums. Results vary by machine, fluid and process.

PRODUCT OVERVIEW

Capture oil mist at the source, clean the general shop air and recover coolant from the chip bin.



ESPi ELECTROSTATIC UNITS

Purified Air ESPi units extract oil mist, smoke and fumes on or next to the machine. From 353 cfm on a single CNC up to 2,354 cfm per unit, plus centralized systems for whole shops.



AMBIENT AND MEDIA FILTRATION

ESPi AAC ambient air cleaners are suspended overhead to clean general shop air. The MFi 2500 adds HEPA media filtration for smoke, mist and fine particulate.



WOGAARD COOLANT RECOVERY

Coolant Saver and Oil Saver units pull fluid from the chip bin and send it back to the machine sump, running off the machine's own coolant pump.

WHERE ESPi UNITS ARE USED

ESPi units remove oil mist, smoke and fumes from most metalworking fluids, right at the source.



TYPICAL APPLICATIONS

- CNC turning and milling
- Swiss-type sliding head lathes
- Grinding
- High-pressure coolant machining
- Fine finishing
- Multi-machine cells and full shop floors

Send us the machine type, the fluid and the duty cycle, and we'll recommend the right unit.

CAPTURE AT THE SOURCE

A unit on the machine catches mist and smoke before it spreads across the shop.

PROTECT PEOPLE AND MACHINES

Cleaner air helps protect operators and sensitive equipment, and supports OSHA PEL compliance for metalworking fluids (29 CFR 1910.1000).

HOW ESPi FILTRATION WORKS

No disposable primary filter cartridges. The collector plates come out, get washed and go back in.

1

DIRTY AIR IN

The fan pulls oil mist, smoke and fumes from the machine.

2

CHARGE

A high-voltage field puts an electrical charge on each particle.

3

COLLECT

Charged particles stick to oppositely charged collector plates.

4

CLEAN AIR OUT

Clean air goes back into the shop or is vented outside.

Up to 99%

Particle removal efficiency

0.01 micron

Captures very fine particles

Low

Energy demand

Washable

Reusable collector plates

LOWER CONSUMABLE SPEND

No primary filter cartridges to buy and replace. Washable plates keep running costs down.

OPTIONAL HEPA AFTER-FILTER

Available on the ESPi 600, 1000 and 1700 when you want to send the cleaned air back into the shop.

ESPi 600 AND ESPi 1000

Compact oil mist, smoke and fume extraction for individual machine tools, small shops and sliding head machines.



- Up to 99% efficiency, down to 0.01 micron
- Built-in fan
- Low vibration
- Effective on most metalworking fluids
- Optional HEPA after-filter for recirculating air
- Mount on the machine or on a stand

MODEL	MAX AIRFLOW	W x H x D	WEIGHT	POWER	HEPA
ESPi 600	353 cfm	24.6 x 16.5 x 15.3 in	66 lb	230 W	Available
ESPi 1000	589 cfm	24.6 x 23.6 x 15.3 in	90 lb	280 W	Available

MOUNT IT ON THE MACHINE OR ON A STAND

ALSO IN THE RANGE: ESPi 1700

A multi-cell unit for higher-volume CNC work, fine finishing and high-pressure machining. 1,000 cfm, in 3-cell (125 lb, 530 W) or 4-cell (149 lb, 550 W) versions, with HEPA available.

ESPi 2000 AND ESPi 4000

Higher airflow for larger machines, heavy oil mist and high-volume production.



- Up to 99% efficiency, down to 0.01 micron
- Built-in fan and modular design
- Low vibration and variable airflow
- Mount on the machine, on a stand, or vent outside through a transition
- Washable collector plates
- HEPA after-filter not available on these models

MODEL	MAX AIRFLOW	W x H x D	WEIGHT	POWER	HEPA
ESPi 2000	1,177 cfm	24.0 x 26.4 x 42.3 in	146 lb	540 W	No
ESPi 4000	2,354 cfm	41.2 x 26.4 x 42.3 in	291 lb	1,080 W	No

CENTRALIZED ESPi FOR WHOLE SHOPS

In-duct modular units from 1,500 to 6,000 cfm (ESPi 1500, 3000, 4500 and 6000) for multiple machines and large shop floors. Centralized units must be interlocked with the extract fan. Larger systems are sized to order.

AMBIENT AND MEDIA FILTRATION

For general shop air, fine smoke and jobs better suited to media filtration.



ESPi AMBIENT AIR CLEANER (AAC)

A suspended electrostatic unit that cleans general shop air. The manufacturer reports it can cut airborne particulate by about 80%. Because it filters the heated or cooled shop air instead of exhausting it, it can also lower heating and cooling costs.

MODEL	AIRFLOW	WEIGHT	POWER
2000 AAC	1,177 cfm	134.5 lb	540 W
4000 AAC	2,354 cfm	280 lb	1,080 W



MFi 2500 MEDIA FILTER

HEPA media filtration, up to 99.95% efficient, for smoke, oil mist and particulate. Side mounted on a gallows bracket, on a stand, or installed separately.

MAX AIRFLOW	1,477 cfm
W x H x D	24.0 x 26.4 x 42.6 in
WEIGHT	150 lb
POWER	540 W
FINAL FILTER	MERV 17 (HEPA H14)

SUPPORT AND SELECTION

We help size the right equipment for your process, your mounting options and the space you have.

1

ASSESS

We look at the process, the fluid, the machine enclosure, the duty cycle and how much mist it makes.

2

SIZE

We work out the airflow, duct losses, filter method and mounting.

3

INSTALL

Machine mount, stand or ducted layout, set up with safe access for service.

4

MAINTAIN

Collector plate cleaning, inspections, replacement parts and consumables for the life of the system.

US-BASED TECHNICAL SUPPORT | PARTS AND CONSUMABLES | SERVICE GUIDANCE

WOGAARD COOLANT AND OIL SAVERS

Pull coolant or oil out of the chip bin automatically and send it back to the machine sump.

COOLANT SAVER

For soluble coolant



- Up to 50% less coolant bought
- Up to 90% less coolant disposal
- No external power
- Payback in about 5 months

OIL SAVER

For neat oil on sliding head machines



- Up to 50% less neat oil bought
- Up to 90% less neat oil disposal
- No external power
- Payback in about 5 months

$599 EACH | BUY ONLINE AT TOTAL-FILTRATION.COM/SHOP | SHIPS IN 3 TO 5 BUSINESS DAYS

HOW IT RUNS

The Wogaard venturi uses pressure from the machine's coolant pump to send recovered fluid back to the sump, so there is no separate pump and no electrical hookup. Each unit has a 1-year manufacturer warranty. In the Mettis Aerospace case study, one machine was losing about $2,100 a year in coolant and disposal, and the unit paid for itself in under 15 weeks.

HOW COOLANT RECOVERY PAYS BACK

Coolant leaves the machine on the chips and pools in the bottom of the chip bin. A Wogaard unit sends it back.

1

WET CHIPS

The machine makes chips that are wet with coolant.

2

INTO THE BIN

The chip conveyor drops the chips in the bin, and the coolant goes with them.

3

RECOVER

The Wogaard vacuum cup pulls coolant from the bottom of the bin.

4

RETURN

The recovered coolant goes back to the machine reservoir.

EXAMPLE SAVINGS ESTIMATE

$7,650
saved per year

$638
saved per month

5 months
estimated payback

Based on 5 machines, 2.4 gal of coolant per machine per day, 250 days a year, $2.00/gal mixed coolant, $1.00/gal disposal, 85% recovery and $599 per unit. Results vary by machine and shop. Run your own numbers at total-filtration.com/cnc-coolant-saver-calc.

INSTALLATION AND ACCESSORIES

Coolant Saver and Oil Saver units are designed for self-install in 30 to 45 minutes with the supplied guide. For bigger shops our team can fit about 8 machines per shift. Accessories: safety bracket, vacuum cup protector and extra fittings for non-standard layouts.

Wogaard customers include Renishaw, Seco Tools, Mettis Aerospace and Progressive Technology.

COOLANT SAVER KIT

For soluble coolant on machines with chip conveyors. It also handles neat oil up to 12 cSt on sliding head machines with low-rated pumps.



WHAT'S IN THE KIT

- Coolant Saver unit
- Filtered vacuum cup with about 10 ft (3 m) of 1/4 in (6 mm) PU hose, extendable to about 33 ft (10 m)
- About 5 ft (1.5 m) of 1/2 in (12 mm) outlet hose
- 1/2 in and 3/4 in tee and straight fittings
- Step-by-step install guide and technical support
- 1-year warranty

PART NO. 144-1000

US kit, supplied with US fittings.

SPECIFICATIONS

Operating pressure	1 to 45 bar (15 to 650 psi) maximum
Suction	-0.5 to -0.8 bar, valve controlled
Collection rate	About 1 liter (0.26 gal) per minute
Vacuum cup distance	Up to about 33 ft (10 m) from the unit

OIL SAVER KIT

For neat oil on Swiss-type sliding head lathes with low-pressure pumps.



WHAT'S IN THE KIT

- Oil Saver unit
- Filtered vacuum cup with check valve and about 10 ft (3 m) of 1/4 in (6 mm) PU hose, extendable to about 16 ft (5 m)
- About 3.3 ft (1 m) of 1/2 in (12 mm) outlet hose
- 1 in tee and straight fittings for the larger hoses on sliding head machines
- Step-by-step install guide and technical support
- 1-year warranty

PART NO. 145-1000

US kit, supplied with US fittings.

SPECIFICATIONS

Recommended viscosity	Up to 22 cSt recommended (23 to 32 cSt depends on pump pressure)
Operating pressure	Low-pressure pumps up to 10 bar (145 psi)
Suction	-0.1 bar, valve controlled
Vacuum cup distance	Up to about 16 ft (5 m) from the unit

TALK TO US ABOUT YOUR SHOP

Tell us about the machines, the process, the fluid you run and how you extract mist today. We'll recommend the right equipment and send you a quote.

TOTAL FILTRATION USA LLC

Winter Garden, Florida

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BUY WOGAARD UNITS ONLINE

total-filtration.com/shop

ESTIMATE YOUR SAVINGS

total-filtration.com/cnc-coolant-saver-calc

BECOME A DEALER

total-filtration.com/partners



WHY BUY FROM TFUSA

- Authorized US distributor for Wogaard
- Wogaard stock held in Florida
- Ships in 3 to 5 business days
- Secure online checkout
- Replies within one business day

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