TOTAL FILTRATION USA



ESPi CENTRALIZED IN-DUCT ESP

Modular in-duct electrostatic filtration for central extraction systems.

1,500 to 6,000 CFM per unit

Up to 98% to 0.01 micron

Modular to 35,000+ CFM

PRODUCT BROCHURE | VERSION 1.0

total-filtration.com

CLEAN AIR FOR US MACHINE SHOPS

Total Filtration USA LLC supplies industrial air filtration to manufacturers across the US. Our ESPi range captures oil mist, smoke and fumes at the machine. The units are built by a manufacturing partner that has made electrostatic precipitators since 1984, and our founding team brings over 40 years of manufacturing and engineering experience.

ONE PARTNER FOR THE LIFE OF THE SYSTEM

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

WHAT YOU GET FROM TFUSA

US BASED
A US company with sales and technical support here in the US.

BUILT FOR MACHINE SHOPS
Systems sized for whole shop floors, from a few machines to a full plant.

LOWER RUNNING COSTS
Washable plates instead of disposable main filters, so there is less to buy and throw away.

HELP WHEN YOU NEED IT
We help you choose, size and install the right unit, then supply the parts after.

Up to 98%
Filtration efficiency
Oil mist, smoke and fumes, down to 0.01 micron.

35,000+ CFM
System capacity
Combine 1,500 to 6,000 CFM modules to suit.

IP65
Enclosure rating
With a built-in sump and drain.

Figures are the manufacturer's published data. Results vary by machine, fluid and process.

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HOW ESPi CENTRALIZED WORKS

ESPi Centralized units sit in the ductwork of a central extraction system. Your extract fan pulls air from the machines through the ESP modules, which charge the mist and collect it on plates.

1

DRAW IN

The extract fan pulls mist, smoke and fumes from the machines into the ductwork.

2

CHARGE

A high-voltage ionizer gives each particle an electrical charge.

3

COLLECT

Particles stick to the grounded plates. Oil collects in the built-in sump and drains away.

4

RETURN

Clean air goes to exhaust or back into the workspace.

Up to 98%
Filtration efficiency

0.01 micron
Smallest particle captured

Modular
Scales to 35,000+ CFM

WHY CENTRALIZED

One in-duct system can serve many machines across a large factory floor. Modules combine to match the extract volume, so the system can grow with your shop.

TYPICAL APPLICATIONS

Multiple CNC machines on one system
Large factory floors
Defense contractors
Central extraction systems

SUPPORTS OSHA COMPLIANCE

ESPi systems support compliance with OSHA permissible exposure limits (PELs) for mineral oil mist and airborne particulates (29 CFR 1910.1000). They also help protect your people, your machines and your indoor air quality.

ESPi CENTRALIZED

In-duct ESP modules for central extraction. Four sizes from 1,500 to 6,000 CFM, configurable to 35,000+ CFM.



WHERE IT FITS

- Multiple machines on one central extraction system
- Large factory floors and defense contractors

KEY FEATURES

- Up to 98% efficiency down to 0.01 micron
- Modular: combine units to suit the extract volume
- IP65 enclosure with built-in sump and drain
- Access doors for removing and washing the plates
- Low power draw, from 20 W per unit

INTERLOCK REQUIRED

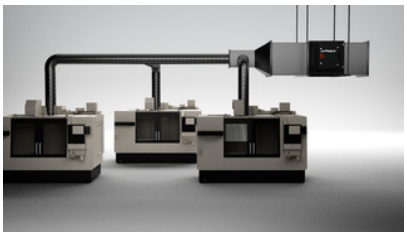
Every unit must be interlocked with the extract fan.

SPECIFICATIONS

Models	ESPi 1500 / 3000 / 4500 / 6000
Max airflow	1,500 / 3,000 / 4,500 / 6,000 CFM
Width	17.7 / 35.4 / 53.1 / 70.9 in
Height x depth	24.8 x 25.2 in (all sizes)
Weight	122 / 188 / 260 / 338 lb
Max power consumption	20 / 30 / 40 / 50 W
Electrical supply	220/240 V, 50/60 Hz
Filtration efficiency	Up to 98%, down to 0.01 micron
Enclosure	IP65, with built-in sump and drain
Controls	Must be interlocked with the extract fan

INSTALLATION AND SUPPORT

ESPi Centralized fits in-line with your extraction ductwork, and our US team helps from design to service.



HOW IT'S INSTALLED

The units fit in-line with the shop ductwork, and modules combine to handle the extract volume you need.

AT A GLANCE

Position	In-line, in the extract ductwork
Fan	Interlocked with the extract fan
Larger systems	Contact us above 6,000 CFM

SUPPORT AND SELECTION

We help you choose the right unit for the machine, the process and the space around it.

1. **ASSESS**
   We look at the machines, the processes, the ductwork and the extract fan.
2. **SIZE**
   We size the system and choose the mix of 1,500 to 6,000 CFM modules.
3. **INSTALL**
   We provide install guidance and can recommend qualified install partners in most US regions.
4. **MAINTAIN**
   Remove the plates through the access doors and wash them. We supply replacement plates and parts.

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



TOTAL FILTRATION USA

Industrial air cleaning for US manufacturers.

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