TOTAL FILTRATION USA



COMMERCIAL KITCHEN ESP RANGE

Electrostatic precipitators, odor control and filter units for kitchen exhaust.

1,500 to 6,000 CFM per ESP

Up to 98% to 0.01 micron

Odor control up to 90%

PRODUCT BROCHURE | VERSION 1.0

total-filtration.com

CLEAN AIR FOR US KITCHENS

Total Filtration USA LLC supplies commercial kitchen exhaust filtration across the US. Our range captures grease, smoke and cooking odors in the extract duct, using electrostatic precipitators (ESPs), UV and ON100 odor control, and modular filter units (MFUs). The units are built by a manufacturing partner that has made electrostatic precipitators since 1984.

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 KITCHEN EXHAUST
Units designed for kitchen extract ductwork, from one restaurant to multi-site chains.

LOWER RUNNING COSTS
Washable ESP 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
Grease and smoke, down to 0.01 micron.

Up to 90%
Odor reduction
With UV-C or UV-O after the ESP.

IP65
Enclosure rating
ESP units, with an integral grease sump.

Figures are the manufacturer's published data. Results vary by cooking type, airflow and installation.

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HOW KITCHEN ESP WORKS

ESP units sit in the kitchen extract ductwork, after the canopy grease filters. The extract fan pulls cooking fumes through the ESP, which charges the particles and collects them on plates.

1

DRAW IN

The extract fan pulls grease, smoke and cooking fumes through the canopy filters.

2

CHARGE

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

3

COLLECT

Particles stick to the grounded plates. Oil and grease drain to the integral sump.

4

DISCHARGE

Cleaner air moves on to odor control or the exhaust.

Up to 98%
Filtration efficiency

0.01 micron
Smallest particle captured

Modular
Combine units for any extract volume

WHY AN ESP

Grease buildup in extract ducts is a major cause of kitchen fires. An ESP captures grease and smoke before they reach the duct run, which cuts duct cleaning and helps keep smoke away from neighbors.

TYPICAL APPLICATIONS

Quick service and fast casual restaurants
Casual and fine dining
Hotels and resorts
Stadiums, arenas and airports
Food processing facilities

SUPPORTS NFPA 96 COMPLIANCE

ESP systems support compliance with NFPA 96 (Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations) by reducing grease buildup in the ductwork. We can advise on sizing and positioning for your local authority and insurer.

ESP RANGE

In-duct ESP modules for kitchen extract. Four sizes from 1,500 to 6,000 CFM, combined to suit any extract volume.



WHERE IT FITS

- Kitchen extract ductwork, after the canopy grease filters
- Single restaurants through to large turnkey projects

KEY FEATURES

- Up to 98% efficiency down to 0.01 micron
- Integral sump collects oil, grease and smoke particles
- IP65 rated for outdoor installation
- Reduces grease buildup in the duct run
- Low power draw, from 20 W per unit

INTERLOCK REQUIRED

Every unit must be interlocked with the extract fan.

SPECIFICATIONS

Models	ESP 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
Grease collection	Integral sump
Filtration efficiency	Up to 98%, down to 0.01 micron
Enclosure	IP65, rated for outdoor installation
Controls	Must be interlocked with the extract fan

UV AND ON100 ODOR CONTROL

Installed after the ESP, these units treat the cooking odors that particulate filters cannot capture.



WHERE IT FITS

- Urban, residential and mixed-use sites with strict odor conditions
- Downstream of an ESP in the kitchen extract duct

KEY FEATURES

- UV-C: 8 to 24 lamps inside the duct, in modules of 8
- UV-O: mounted outside the duct, easy to retrofit

- UV-C and UV-O reduce cooking odors by up to 90%
- ON100: ELIMINODOR® vapor reduces odors by up to 75%
- ON100 adds no pressure drop to the extract system

UV LAMP SERVICE

Replace UV-C lamps once a year to keep rated performance.

SPECIFICATIONS

UV-C models	UV-C 1500 / 3000 / 4500 / 6000
UV-C max airflow	1,500 / 3,000 / 4,500 / 6,000 CFM
UV-C dimensions	W 17.7 / 35.4 / 53.1 / 70.9 x H 24.8 x D 25.2 in
UV-C weight	91 / 133 / 177 / 225 lb
UV-C power	560 / 560 to 1,120 / 1,120 to 1,680 / 1,680 to 2,240 W
UV-O 500	Up to 3,178 CFM, W 24.0 x H 11.8 x D 7.9 in, approx. 24 lb, 140 W
UV-O 1000	Up to 5,297 CFM, W 59.9 x H 13.8 x D 15.9 in, approx. 111 lb, 640 W
ON100	Up to 8,815 CFM, W 15.7 x H 19.7 x D 9.8 in, approx. 27 lb, 40 W
UV-O dwell time	2 to 6 seconds recommended
Controls	UV-C and UV-O must be interlocked with the extract fan

MFU FILTERS AND SUPPORT

Modular filter units for passive filtration, and a US team that helps from selection to service.



MFU MULTI FILTER UNITS

In-line filter boxes that hold any mix of panel, bag, HEPA and carbon filters. Use them alone for lighter cooking or alongside an ESP.

AT A GLANCE

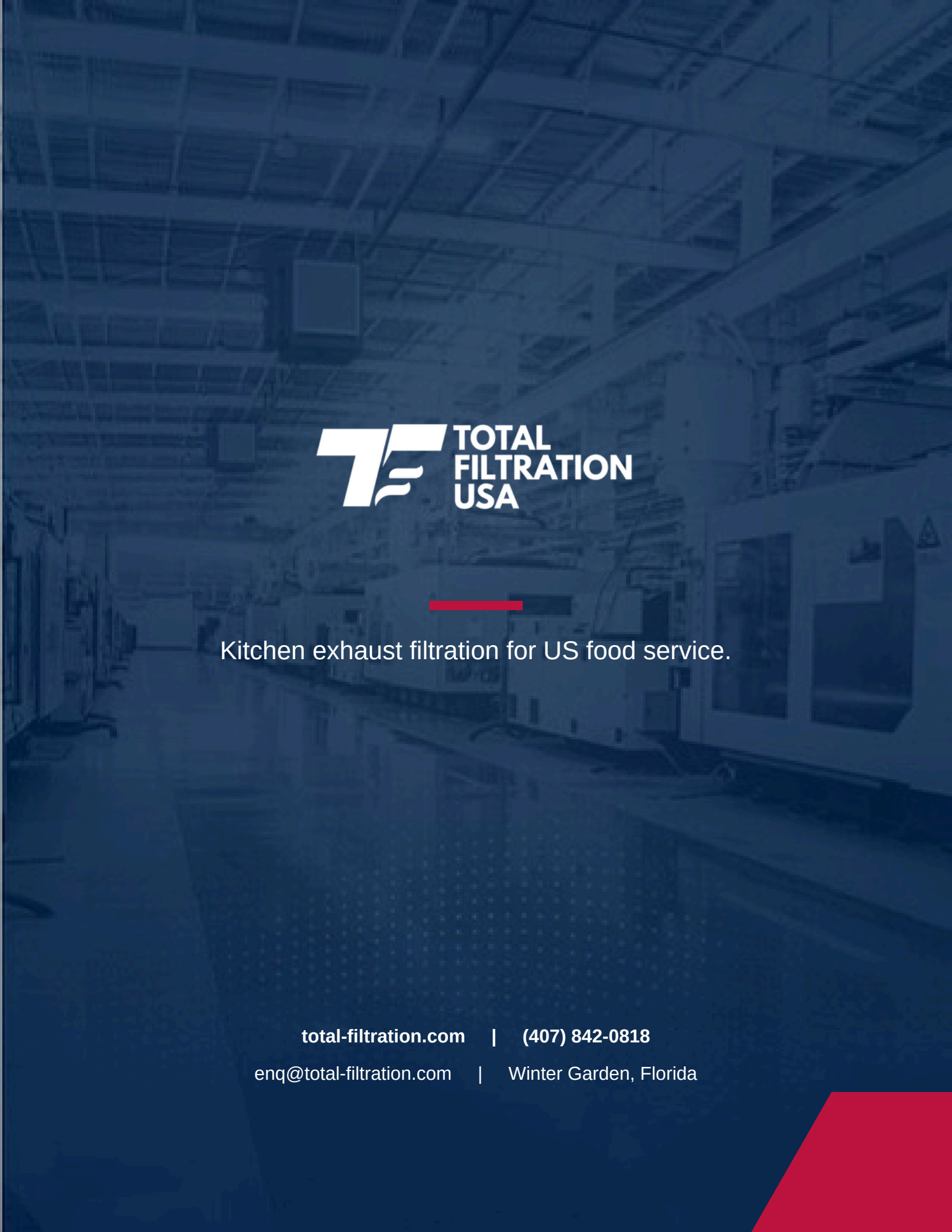
MFU 1200	W 49.0 x H 24.8 x D 36.4 in, 172 lb
MFU 1800	W 74.2 x H 24.8 x D 36.4 in
HEPA filters	Up to 99.97% at 0.3 micron

SUPPORT AND SELECTION

We help you choose the right mix of units for the menu, the airflow and the site.

1. **ASSESS**
   We look at the cooking type, extract airflow, discharge point and neighbors.
2. **SIZE**
   We size the ESP modules and choose the odor control and filter stages.
3. **INSTALL**
   We provide install guidance and can recommend qualified install partners in most US regions.
4. **MAINTAIN**
   Wash ESP plates, replace UV-C lamps yearly and change MFU filters. We supply the parts.

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



Kitchen exhaust filtration for US food service.

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