



Weller[®]

Fume Extraction Solutions

We care for your working environment.

**COOPER** Tools



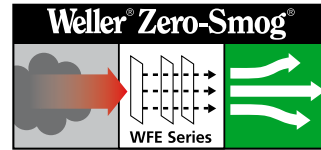


Weller® Zero-Smog® Systems offer two solutions for fume extraction:

Tip Extraction



Volume Extraction



Tip Extraction

Suitable for applications involving a small working area, such as hand soldering. Weller FE (Fume Extraction) soldering irons have a smoke tube integrated into the handle. The tube is positioned directly above the joint and collects any fumes produced. Fume extraction attachments can also be retro-fitted to non-fume extraction Weller soldering irons.

- Lower cost per workstation
- Collects pollution directly at source
- Up to 20 collection points per system (Up to 200 m apart)
- Unobtrusive; provides easy access to work piece
- Silent operation
- Minimal air movement

Volume Extraction

Suitable for applications involving a wide working area, such as solder baths, hot air soldering, micro solders, and gluing. Weller offers various mobile systems that purify the air at up to eight workstations.

- Larger areas can be covered
- Low maintenance
- Mobile
- Quick & easy installation
- Economical for between one and eight workstations
- Remote control

Volume Extraction Units



- WFE 8S
 - Up to eight workstations,
 - Small solder ovens; selective and reflow soldering equipment
 - Integrated pre-filter



- WFE 4S
 - Up to eight workstations



- WFE 2X
 - Up to two workstations



- WFE 2S
 - Up to four workstations



- WFE 2ES / WFE 2CS
 - Up to two workstations

Characteristics

- For applications where extraction over a wide working area is required.
- Mobile units suitable for stand alone and central applications.
- All units equipped with maintenance-free brushless turbine.
- Connectable to external air outlet.
- Low vacuum (up to 2,800 Pa) and high volume for efficient volume extraction.
- Maximum bridging distance 30 m (WFE 4S using Weller Pipe System 75 -see page 27) equally distributed to all connected exhausts.
- Cost savings through automatic air flow control which provides each workstation with intelligent air flow regulation regardless of the connected workstations.
- Filter condition monitoring on the unit or by remote control (accessory).
- Wide range of extraction arms and nozzles available to achieve optimal workstation configuration.

Areas of application

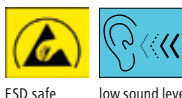
- Hot air soldering
- Soldering machines, robots, solder baths
- Laser processing
- Adhesive dispensing
- Clean room applications (on request)
- Microscope workstations
- Other fume emitting processes



Volume Extraction

WFE 8S

Powerful fume extraction unit
with large integrated pre-filter



ESD safe low sound level

The WFE 8S fume extraction unit can be connected to up to eight extraction arms. This makes the unit suitable to use as a small central system in applications such as soldering, adhesives, clean-room work, and laser work. It is also capable for connection to small, selective reflow and soldering ovens. The large integrated pre-filter makes the WFE 8S very suitable for lead-free soldering as it is able to catch a large quantity of particles. The WFE 8S is a mobile system that is simple to install – it does not require any permanent installation.

Its high quality components keep service needs to a minimum. The combination of low running costs and a flexible system independent of fixed installations produces a unit with a very low cost of ownership.

The WFE 8S can be connected so that it exhausts air. This is an advantage in applications where re-circulation is not allowed. To further increase the filter lifetime and save energy, the WFE 8S has an automatic airflow control – depending on the number of connected workstations.

Attributes

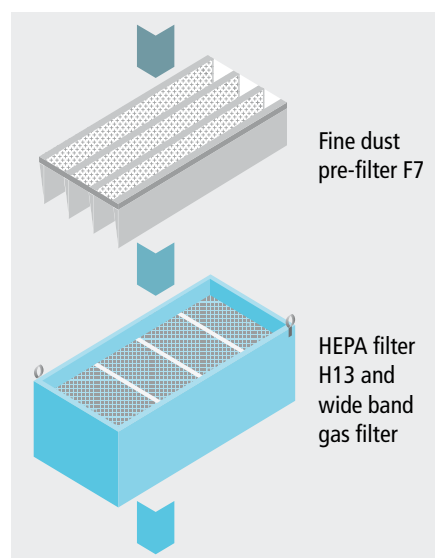
- Mobile fume extraction unit purifies air at up to eight workstations
- Large built-in pre-filter
- The adjustable pressure control guarantees optimal air flow regulation for each workstation – independent of the number of connected workstations
- Electronic filter control and easy filter exchange
- Four wheels to allow easy movement of the unit
- Noise-dampened metal housing
- Quick and simple installation

Technical Data	
Maximum capacity	8 workstations; small and medium sized reflow, wafer, and other selected equipment
Maximum extraction rate	615 m³/h
Sound level	< 55 db (A) at 1 m distance
Operating voltage	230/120 V / 50/60 Hz
Power input	450 VA
Maximum vacuum	2.800 Pa
Dimensions (L x W x H)	402 x 796 x 1016 mm 15.9 x 31.3 x 40 in.
Weight	68 kg / 150 lb.

WFE 8S includes:

- WFE 8S Fume Extraction Unit 230/120 V / 50/60 Hz with built-in pre-filter
- Compact filter
Consists of: HEPA filter H13, wide band gas filter (50% active carbon, 50% Puratex)

Order No. 230V 005 36 586 99
Order No. 120V WFE8S



WFE 4S

Mobile fume extraction unit purifies air at up to eight soldering workstations



Attributes

- Mobile fume extraction unit purifies air at up to eight workstations
- The adjustable pressure control guarantees optimal air flow regulation for each workstation independent of the number of connected workstations
- Electronic filter control and easy filter exchange
- Four wheels to allow easy movement of the unit
- Remote control with alarm function
- Noise-dampened metal housing
- Quick and simple installation



ESD safe



low sound level

The WFE 4S fume extraction system is user-friendly with quick and simple installation and filter exchange. It has a low noise emission level and is small and convenient to locate within the work area.

The high quality components used in the WFE 4S result in low servicing requirements and long system life. To increase filter lifetime and save on energy, the WFE 4S is fitted with an automatic airflow speed control – depending on the number of connected workstations. To extend the capacity an external pre-filter can be fixed directly to the WFE 4S.

The powerful maintenance-free variable speed turbine is electronically controlled and has a maximum capacity of 615 m³/h. It has 3 operating modes:

1. Standard speed control – selected by the user irrespective of the load on the system.
2. Speed limiting control – the pump speed is automatically varied to match the load on the system.
3. Economy control – the rate of fume absorption is maintained at a constant value. The operating hours and the filter condition are recorded for maintenance purposes.

WFE 4S includes:

- WFE 4S Fume Extraction Unit 230/120 V / 50/60 Hz
- Compact filter
Consists of: HEPA filter H13 and wide band gas filter (50% active carbon, 50% Puratex)
- Fine dust pre-filter F7

Order No. 230V 005 36 256 99

Order No. 120V WFE4S

Pre-filter to extend capacity of WFE 2S, WFE 4S, WFE 2X



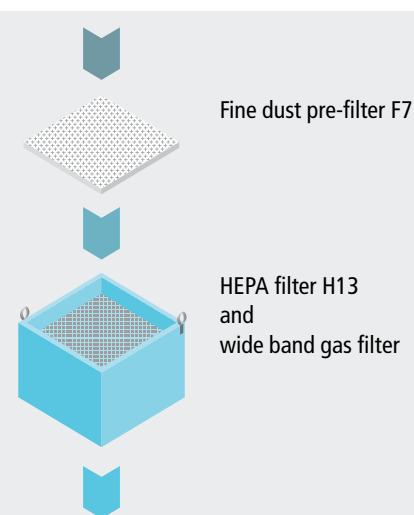
The pre-filter is recommended for use with solder bath, automatic soldering, laser, or other major dust-emitting applications. It acts as a first stage in the filter process, increasing the lifetime of the main filter units. The pre-filter can be fixed directly to the top of the WFE 4S or in conjunction with the WFE 2S and WFE 2X as an external part of the fume extraction system.

Pre-filter includes:

- Filter box
 - (2) hose connections 75
- Filters must be ordered separately (see pg. 17)

Order No.

005 87 358 62



Option: WFE 4S with gas filter

- Compact filter for adhesive fumes; consists of wide band gas filter (50% active carbon, 50% Puratex)
- Fine dust filter F7

Order No. 230V 005 36 496 99

Order No. 120V WFE4SG

Technical Data	
Maximum capacity	8 workstations
Maximum extraction rate	615 m ³ /h
Sound level	51 db (A) at 1 m distance
Standard connection	pipe system 75
Operating voltage	230/120 V / 50/60 Hz
Power input	450 VA
Maximum vacuum	2.800 Pa
Dimensions (L x W x H)	450 x 450 x 650 mm 17.7 x 17.7 x 25.6 in.
Weight	21 kg / 46.3 lb.

Volume Extraction

WFE 2X

Mobile fume extraction unit purifies air at up to two workstations



ESD safe



low sound level

The WFE 2X fume extraction unit is suitable for applications with a high demand for gas and particle filtration, e.g. soldering, adhesives, clean room work, and laser.

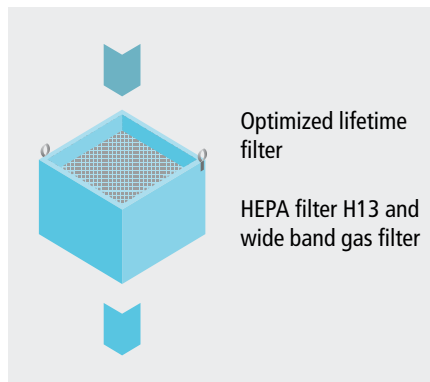
It can be placed on a trolley and moved easily between different workstations. Variable turbine speed and alarm function for filter exchange can be set via the remote control. For applications which produce a large quantity of particles, e.g. lead-free soldering, an external pre-filter can be fitted to increase the lifetime of the main filter. To make cleaning easier, the WFE 2X can be suspended under the work table with special fittings (optional accessory). An RS 232 interface makes it possible to integrate the software with other process equipment.

Technical Data

Maximum capacity	2 workstations
Maximum extraction rate	140 m³/h
Sound level	< 52 db (A) at 1 m distance
Operating voltage	100 – 240 V / 50/60 Hz
Power input	100 W
Maximum vacuum	2.300 Pa
Dimensions (L x W x H)	210 x 460 x 660 mm 8.3 x 18.1 x 26 in.
Weight	15 kg / 33 lb.

Attributes

- Mobile fume extraction unit purifies air at up to two workstations
- Electronic filter control and easy filter exchange
- Wireless remote control with alarm function
- Noise-dampened metal housing
- Quick and simple installation
- Trolley available as accessory
- Minimized footprint
- Switching power supply fits all global voltages
- Optimized lifetime filter



Optimized lifetime filter

HEPA filter H13 and wide band gas filter

WFE 2X includes:

- WFE 2X Fume Extraction Unit 100-240 V / 50/60 Hz
- Compact filter
Consists of: HEPA filter H13, wide band gas filter (50% active carbon / 50% Puratex)

See accessories for WFE 2X on page 16.

Order No. 230V	005 36 588 99
Order No. 120V	WFE2X

WFE 2X Kit 1



Portable fume extraction kit for one work station, flex arm

WFE 2X Kit 1 includes:

- 005 36 588 99 WFE 2X Fume Extraction Unit 100-240 V / 50/60 Hz
- 005 36 572 99 KIT 1 WF Angled 60 for volume extraction consists of:
005 36 578 99 Extraction arm
005 36 577 99 Angled nozzle
005 36 574 99 Stop valve
005 365 75 99 Bench mounting bracket
005 36 576 99 Extraction hose

Order No. 120V	WFE2XKIT1
----------------	-----------

WFE 2X Kit 1S



Portable fume extraction kit for one workstation, articulated arm

WFE 2X Kit 1S includes:

- 005 36 588 99 WFE 2X Fume extraction unit 100-240 V / 50/60 Hz
- 005 36 579 99 KIT 1 WF 60 Angled articulated extraction arm for volume extraction consists of:
005 36 598 99 Articulated extraction arm
005 36 573 99 Angled nozzle
005 365 75 99 Bench mounting bracket
005 36 576 99 Extraction hose
005 36 578 99 Extraction arm

Order No. 230V	005 36 587 99
Order No. 120V	WFE2XKIT1S

WFE 2S

Mobile fume extraction unit
available in two kits



ESD safe



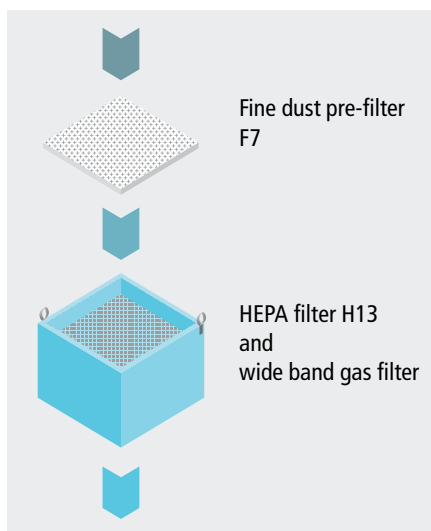
low sound level

The fume extraction unit WFE 2S is easy to install and operate. It is designed as a smaller, central system and is supplied complete with flexible hose, arm, and bracket, ready for installation. A powerful, maintenance-free pump provides continuous fume extraction at a maximum air extraction rate of 230 m³/h. A built-in microprocessor controls the adjustable pump speed, avoiding unnecessary waste of suction power and saving energy. To optimize the degree of pollutant separation, the WFE 2S can be modified with filters for different applications.

Technical Data	
Maximum capacity	4 workstations
Maximum extraction rate	230 m ³ /h
Sound level	48 db (A) in 1 m distance
Standard connection	pipe system 50
Operating voltage	120/230 V / 50/60 Hz
Power input	275 VA
Maximum vacuum	2.700 Pa
Dimensions (L x W x H)	320 x 320 x 395 mm 12.6 x 12.6 x 15.5 in.
Weight	19 kg / 41.8 lb.

Attributes

- Two kits available
- Mobile fume extraction unit purifies air at up to four workstations
- Electronic filter control and easy filter exchange
- Four wheels allow easy movement of the unit
- Remote control with alarm function
- Noise-dampened metal housing
- Quick and simple installation



WFE 2S includes:

- WFE 2S Fume Extraction Unit 120/230 V / 50/60 Hz
- Compact filter
Consists of: HEPA filter H13, wide band gas filter (50% active carbon / 50% Puratex)
- Fine dust pre-filter F7

Order No. 230V 005 36 266 99

Order No. 120V WFE2S

Option: WFE 2S with gas filter

- Compact filter for adhesive fumes. Consists of: wide band gas filter (50% active carbon / 50% Puratex)

Order No. 230V 005 36 466 99

Order No. 120V WFE2SG

WFE 2 Kit 1



Portable fume extraction kit for one work station

WFE 2 Kit 1 includes:

- 005 36 266 99 WFE 2S Fume Extraction Unit 120/230 V / 50/60 Hz
- 005 36 572 99 KIT 1 WF Sloped 60 for volume extraction consists of:
005 36 578 99 Extraction arm
005 36 577 99 Angled nozzle
005 36 574 99 Stop valve
005 365 75 99 Bench mounting bracket
005 36 576 99 Extraction hose

Order No. 230V

005 36 436 89

Order No. 120V

WFE2SKIT1

WFE 2 Kit 2



Portable fume extraction kit for two work stations

WFE 2 Kit 2 includes:

- 005 36 266 99 WFE 2S Fume Extraction Unit 120/230 V / 50/60 Hz
- 2 x 005 36 572 99 KIT 1 WF Sloped 60 for volume extraction consists of:
2 x 005 36 578 99 Extraction arm
2 x 005 36 577 99 Angled nozzle
2 x 005 36 574 99 Stop valve
2 x 005 365 75 99 Bench mounting bracket
2 x 005 36 576 99 Extraction hose

Order No. 230V

005 36 456 89

Order No. 120V

WFE2SKIT2

Volume Extraction

WFE 2ES / WFE 2CS

An economical solution
to fume extraction



Portable fume extraction kit for one workstation

The Fume Extraction Unit WFE 2ES is easy to install and operate. It is designed as a smaller central system and is supplied complete with flexible hose, arm and bracket, ready for installation.



Technical Data	
Maximum capacity	2 workstations
Maximum extraction rate	220 m³/h
Sound level	55 db (A) at 1 m distance
Operating voltage	230V / 50Hz (115V / 60Hz)
Power input	115 VA
Maximum vacuum	1.800 Pa
Dimensions (L x W x H)	320 x 320 x 395 mm
	12.6 x 12.6 x 15.5 in.
Weight	9 kg / 19.8 lb.

WFE 2ES includes:

- 005 36 506 99 WFE 2ES Fume Extraction Unit
- Compact filter
Consists of: HEPA filter H12, active carbonate foam
- Fine dust pre-filter F 5
- 005 36 571 99 KIT 1 WF Funnel 60 for volume extraction consists of:
 - 005 36 578 99 Extraction arm
 - 005 36 573 99 Funnel nozzle
 - 005 36 574 99 Stop valve
 - 005 365 75 99 Bench mounting bracket
 - 005 36 576 99 Extraction hose

Order No. 230V 005 36 516 89

Order No. 120V WFE2ES KIT1

Option: Arm with sloped nozzle

- 005 36 572 99 KIT 1 WF Angled 60 for volume extraction consists of
 - 005 36 578 99 Extraction arm
 - 005 36 577 99 Angled nozzle
 - 005 36 574 99 Stop valve
 - 005 365 75 99 Bench mounting bracket
 - 005 36 576 99 Extraction hose

Option: WFE 2CS with speed control

Order No. 230V 005 36 526 99

Order No. 120V WFE2CS

Attributes

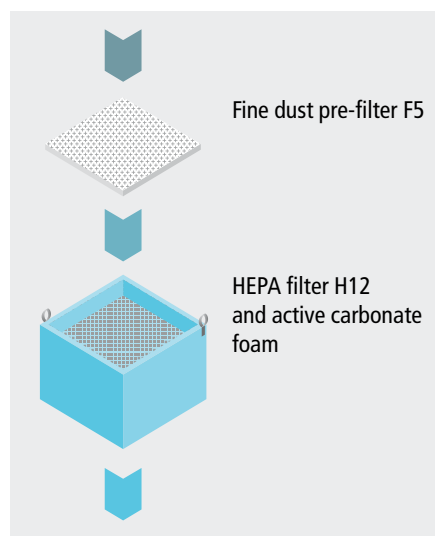
- Mobile fume extraction unit purifies air up to two workstations
- Easy filter exchange
- Quick and simple installation
- Optional speed control (WFE 2CS)



ESD safe



low sound level



Tip Extraction



Tip Extraction

Weller® FE (Fume Extraction) soldering irons have a smoke tube integrated into to the handle. When soldering, the tube is positioned directly above the joint and collects any fumes produced. Fume extraction irons can be connected to Weller Zero-Smog Systems WFE, WFE P (both bench mounted units driving up to two irons) or WFE 20D – a mobile unit driving up to 40 irons.

A safety rest with Stop + Go function switches the extraction system on when the FE soldering iron is removed from the safety rest and off after a short delay when the iron is replaced (WFE and WFE P only). Fume extraction attachments can be retro-fitted to non-fume extraction Weller soldering irons.



Tip Extraction Units

Characteristics

- FE (Fume Extraction) soldering irons extract fumes directly at the soldering tip.
- Less airflow and high vacuum, up to 12,000 Pa for efficient fume extraction.
- Maximum bridging distance 200 m, WFE 20D requires Weller pipe system 50.
- Filter condition warning – LED on the unit or remote control via RS 232 and PC (WFE 20D).
- Variable electronically controlled pump speed, adjustable at the unit or by remote control via RS 232 and PC (WFE 20D).

Areas of application

- Hand soldering
- Small solder baths



- WFE 20D
- up to 20 workstations



- WFE P
- up to two workstations



- WFE
- up to two workstations

Tip Extraction



WFE

Small, portable, compressed air driven fume extraction unit



ESD safe



low sound level

The fume extraction unit WFE requires clean and oil-free compressed air. The vacuum is generated by a maintenance-free compressed air converter. The contaminated air is purified by a pre-filter and main filter system. A compressed air cleaning filter removes additional odors caused by the compressed air. This highly efficient filter system makes the WFE a genuine air recovery system. The filter-lift system allows fast and convenient filter cartridge replacement. The FE (Fume Extraction) soldering irons are connected directly to the unit – additional leads are not required.

Technical Data

Maximum capacity	2 FE soldering irons
Sound level	< 39 db (A) at 1 m distance
Maximum vacuum	20,000 Pa
Operating pressure	3.5 - 6 bar
Air consumption	30 l/min.
Height	200 mm (7.8 in.)
Diameter	140 mm (5.5 in.)
Weight	2.7 kg / 5.9 lb.

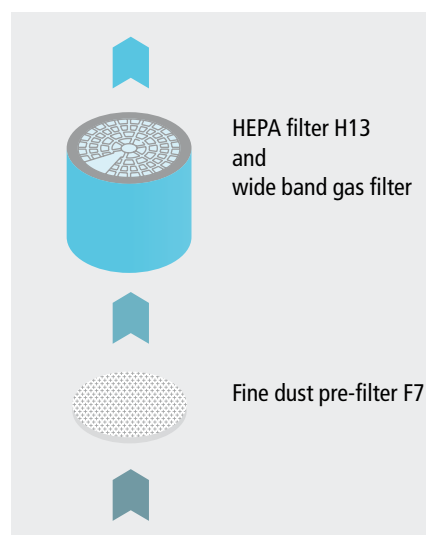
WFE includes:

- WFE Fume Extraction Unit
- Compressed air cleaning filter
- Compact filter
Consists of: HEPA filter H13, wide band gas filter (50% active carbon, 50% Puratex)
- Fine dust filter F7

Order No. 230V 005 36 402 99

Attributes

- Up to two FE soldering irons can be connected
- Maintenance-free compressed air converter
- Portable unit for stand-alone applications



WFE P

Small, portable, electrically driven fume extraction unit



ESD safe



low sound level

The Weller® WFE P is a line voltage fume extraction unit designed to run with one or two FE (Fume Extraction) soldering irons. The WFE P has an electric, long-life, soundproofed vacuum pump to produce the required vacuum – it does not need a compressed air supply. The vacuum pump has two power settings which can be selected by means of rocker switches, depending on the number of FE soldering irons connected to the unit. This saves energy. The motor is maintenance-free and has a thermal overload to protect the unit. The filter-lift system allows fast and convenient main filter replacement. FE soldering irons are connected directly to unit – additional leads are not required.

Technical Data

Maximum capacity	2 FE soldering irons
Sound level	< 45 db (A) at 1 m distance
Operating voltage	230 V / 50 Hz
Power input	70 W
Maximum vacuum	30,000 Pa
Height	295 mm (11.6 in.)
Diameter	140 mm (5.5 in.)
Weight	4 kg / 8.8 lb

WFE P includes:

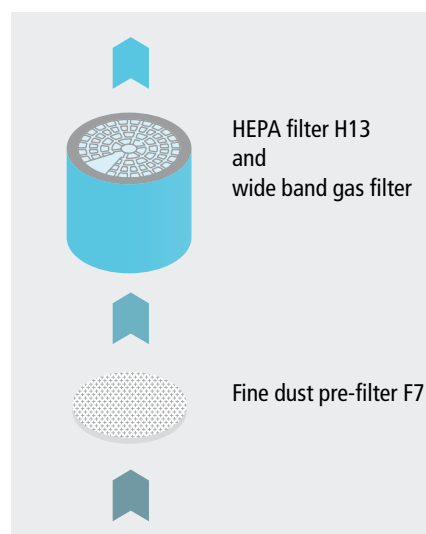
- WFE P Fume Extraction Unit
- Compact filter
Consists of: HEPA filter H13, wide band gas filter (50% active carbon, 50% Puratex)
- Fine dust filter F7

Order No. 230V 005 36 386 99

Order No. 120V 005 36 232 99

Attributes

- Up to two FE soldering irons can be connected
- Electric vacuum pump to produce the required vacuum
- Two power stages for higher extraction performance with two FE soldering irons
- Portable unit for stand-alone applications



WFE 20D

Mobile, powerful, electronically driven fume extraction unit



ESD safe



low sound level

Up to five Weller® FE (Fume Extraction) soldering irons can be connected directly to the fume extraction unit WFE 20D. Using the Pipe System 50 (available as an accessory) up to 40 FE soldering irons can be supported by the unit. The powerful maintenance-free turbine generates a vacuum of 12,000 Pa and is electronically

controlled. Operating hours and filter contamination level are also recorded electronically. The filter system achieves a filtration rate of 99.95% as per EN 1822 with a particle size of 0.12 µm.

Technical Data	
Maximum capacity	40 FE soldering irons
Sound level	< 51 db (A) at 1 m distance
Operating voltage	230 V / 50 Hz 120 V / 60 Hz
Power input	630 VA
Maximum vacuum	12.000 Pa
Max. delivery rate	100 m³/h
Dimension (L x W x H)	450 x 450 x 695 mm 17.7 x 17.7 x 27.3 in
Weight	45 kg / 99 lb.

WFE 20D includes:

- WFE 20D Fume Extraction Unit
- Compact filter
Consists of: HEPA filter H13, wide band gas filter (50% active carbon, 50% Puratex)
- Fine dust filter F7

Order No. 230V 005 36 476 99

Order No. 120V WFE20D

Characteristics

- Two operating modes:
Mode 0: Vacuum regulated to 12,000 Pa
Mode 1: Extraction performance can be set from 20% to 100% with the control buttons.
- Electronic filter check (LED) through differential pressure measurement.
If the specified degree of contamination is exceeded, the unit switches off.
- Electronic filter operation status display.
For better management of filter change intervals – the filter operating hours can be pre-specified. The need for filter change is indicated in advance, allowing adequate time for filter procurement and replacement. Interface RS 232 for remote monitoring or remote control.
- Remote control available as an accessory.

Attributes

- Up to 40 FE soldering irons can be connected
- Electrically driven, maintenance free turbine produces the required vacuum
- Four wheels allow easy movement of the unit
- Mobile unit for central and stand alone applications
- Central installation for pipe systems up to 200 m

