

Weller® Zero-Smog Filter Systems

The Weller Zero-Smog Systems put an end to air pollution caused by soldering, adhesives and laser work. In all of these applications fumes or fine particles are released into the work place atmosphere which are hazardous to staff exposed to them.

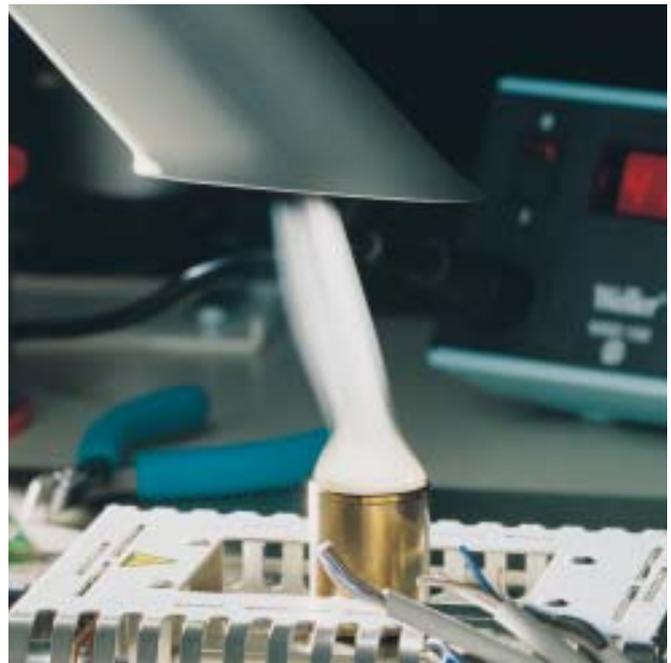
The Weller Zero-Smog Systems' combination of Pumps, electronic controls and filters removes this hazard.



Tip Extraction

Weller FE soldering irons have an integral smoke tube mounted in the handle of the iron which when soldering is positioned directly above the joint to collect any fumes generated. Fume extraction irons can be connected to Weller Zero-Smog systems WFE, WFEP bench mounted units driving upto 2 irons or WFE 20 mobile unit driving upto 20 irons.

Fume extraction attachments can be retro fitted to non fume extraction Weller soldering irons.



Volume Extraction

For applications where Volume extraction is more suitable, e.g. solder baths, hot air soldering, micro solders and gluing work, Weller offers the mobile systems WFE 2S and WFE 4S. The units purify the air at up to 8 workplaces. A wide range of accessories is available for each mobile system.



Zero-Smog Filter System

Weller Zero-Smog Systems have a three stage filter system for removing fine particles, fumes and gases produced in assembly operations. Filters to meet varying work place requirements are available.

- The main areas where filtration is required are
- Solder /flux fumes
 - Adhesive fumes
 - Pollutants resulting from laser applications

Fine dust filter as per DIN 24185 / EN 779

Filter class	medium filtration efficiency (dust) Am %	medium filtration efficiency (aerosols) Em %	Application
F5	> 97	40 - 60	for standard applications
F7	> 98	80 - 90	for applications with high flux content
F9	> 99	> 95	with pollution gases with high solids content e.g. soldering work with enamel-covered wire or laser tasks

HEPA filter DIN 24184, 24183 / EN 779 HEPA (High Efficiency Particulate Air) Filter

Filter class	Filtration efficiency %	Application
H13	> 99.95	Filter for ultra-clean rooms 1000-100

Filter process

1. Fine dust filter

For standard applications with little flux up to pollution gases with high solids content. Weller offers the filter classes F5, F7 and F9.

2. HEPA filter

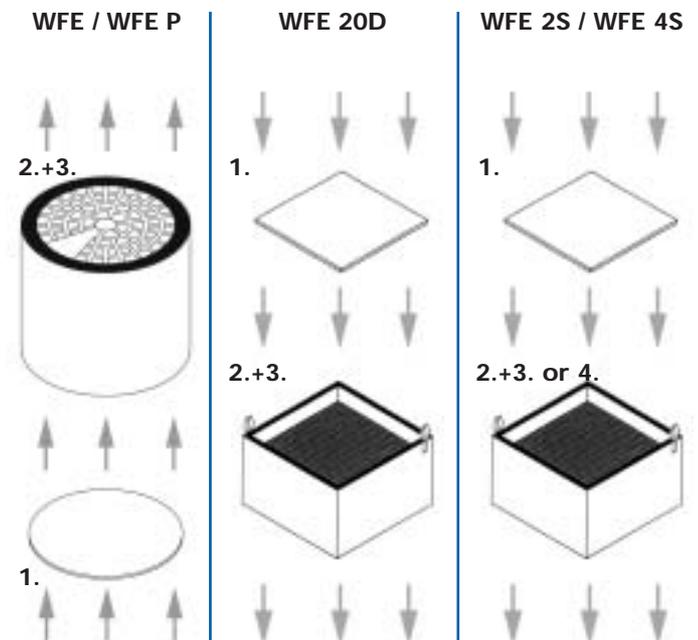
Filters particles up to 0.3 µm. Weller offers HEPA (High Efficiency Particulate Air) filters of class H13, medium filtration efficiency 99.95 %.

3. Wide band gas filter

For cleaning harmful fumes and vapours. The Weller wide band filter consists of 50 % active carbon and 50 % Puratex. Harmful gases with a high molecular weight are cleaned by the active carbon. Puratex is suitable for absorbing gases of lower molecular weight. Because of its composition, Puratex is able to convert a large number of chemical pollutants by means of molecular modification into non-polluting gases.

4. Gas filter (option)

The gas filter is used for extracting adhesive fumes and solvents. Experience has shown that filtering suspended particles is not so vital in this respect. The gas filter is filled with 50 % active carbon and 50 % Puratex. The HEPA H 13 is omitted.





Tip Extraction Extraction Units

WFE



WFE – Small, portable, quiet, compressed air driven, for stand alone application.

The Weller WFE is a small, portable unit designed for soldering fume extraction with up to two FE soldering irons. The 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.

The pre filter consists of a fine dust filter F7.

The compact main filter cartridge consists of a wide band gas filter (50% active carbon, 50% Puratex) and a HEPA filter of class H13. A compressed air cleaning filter removes additional odours 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 replacement of the filter cartridge. The FE soldering irons are connected directly to the unit - additional leads are not required.

Technical data WFE:

Height	200 mm
Diameter	140 mm
Weight	2,7 kg
Operating pressure	3,5 - 6 bar
Air consumption	30 l/min
Sound level	39 db(A) at 1 m distance
Max. vacuum	max. 20.000 Pa
Max. capacity	2 FE-soldering irons
Order No.:	005 36 402 99



Spare filter for WFE:

- Compressed air-cleaning filter 005 87 357 57
- Compact filter 005 36 410 99 consists of:
 - HEPA filter (H13)
 - Wide band gas filter (50 % active carbon, 50 % Puratex)
- Fine dust filter (F7) 005 36 421 99 (3 pieces)



WFE P

**New:
2 Power stages for
higher extraction
performance with
2 FE soldering irons.**



WFE P – small, portable, quiet, electrically driven, for central application

The Weller WFE P is soldering fume extraction unit runs with line voltage for one or two FE soldering irons. In contrast to the WFE, an electric, long-life and optimally soundproofed vacuum pump guarantees the required vacuum, this making the WFE P independent of compressed air. The vacuum pump has two power stages, which can be set by means of rocker switches according to the number of connected FE soldering irons. This saves energy. The motor is maintenance-free and has a thermal over load to protect the unit.

The WFE P has a three stage filter system comprising a F7 grade fine dust filter, and main filter consisting of a wide band gas filter (50% active carbon and 50% puratex) and a HEPA class 13 fine particle filter.

The Filter lift system allows fast and convenient main filter replacement.

FE irons are connected directly to unit additional leads are not required.

Technical data WFE P:

Height	295 mm
Diameter	140 mm
Weight	4 kg
Operating voltage	230 V / 50 Hz
Power input	50 W
Sound level	45 db(A) at 1 m distance
Max. vacuum	30,000 Pa
Max. capacity	2 FE soldering irons
Order No.:	005 36 386 99 (UK: 005 36 383 99)



Spare filter for WFE P:

- Compact filter 005 36 410 99 consists of:
 - HEPA filter (H 13)
 - Wide band gas filter (50 % active carbon, 50 % Puratex)
- Fine dust filter (F7) 005 36 421 99 (3 pieces)

Accessories for WFE and WFE P

For FE soldering irons and Stop + Go supports, see pages 8/9. Installation option see page 10.



Tip Extraction Accessories

FE Soldering Irons

Weller FE soldering irons are specifically designed for tip extraction applications. The smoke tube is integral with the handle and is normally placed over the joint when soldering but can be retracted when access to the joint is a problem and can be removed for cleaning. The irons are temperature controlled, ergonomic and allow precise handling. The electronically controlled irons can be driven

from any PU /PUD series power unit compatible with the rating of the iron or any rework station. FE 50M irons can only be driven from the P51 power unit. The range of iron power ratings and the extensive range of solder tips mean that there is an iron to suit all applications. The FE irons are supplied with a 5 mm-dia. burn proof hose 2.5 m long, all handles leads and hoses are ESD safe.

	Model / Description	Support	Order No.
	FE 50 Soldering pencil 50 W	AK 20, KH 20*	005 25 153 99
	FE 50 Soldering iron set with safety rest KH 20		005 33 150 99
	FE 50M Soldering pencil with Magnastat control system 50 W	AK 20, KH 20*	005 32 152 99
	FE 75 Soldering iron 80 W	AK 20, KH 20*	005 29 166 99
	FE 75 Soldering iron set with safety rest KH 20		005 33 151 99
	WSP 80 FE Soldering pencil 80 W	WPH 80	005 29 162 99
	FE 80 Soldering iron 80 W	AK 20, KH 20*	005 26 162 99

* Fume extraction funnels specific to FE irons are included in the scope of supply of the soldering irons for use with KH20 and KH 23 bench supports.

FE attachments

A range of FE attachments are available to fit to Weller soldering and desoldering irons to convert standard products to fume extraction versions. The attachments are

supplied with all necessary fittings and hoses. The performance of the retrofitted tools is not affected.

	Model / Description	Required Support	Order No.
	For WSP 80 Soldering pencil	WPH 80	005 29 167 99
	For WMP Soldering pencil	WPHM	005 29 177 99
	For MLR 21, MLR 80 Soldering pencil	WPH 80	005 29 127 99
	For LR 21, LR 82, TCP S Soldering iron	AK 20	005 25 125 99
	For W 61, W 101, WSP 150 Soldering iron	AK 1	005 25 125 99
	For WSF 80D5/8 Soldering tin feed system	AK S (included)	005 28 126 99
	For DS 22, DS 80, DSX 80 Desoldering iron	AK 20	005 13 125 99

Locking clip

The locking clip is used to disconnect FE soldering irons that are not required so that extraction power is not lost unnecessarily. The clip can be operated quickly and conveniently.



Order No.: 005 36 352 99

Extraction hose (spare)

Heat-resistant silicone hose, ø 5 mm for all FE soldering irons (sold by metre)



Order No.: 005 25 410 00

Supports and holders for FE soldering irons

			
AK 20	KH 20*	KH 23*	WPH 80
Support for FE 50, FE 50M, FE 75, FE 80	Support for FE 50, FE 50M, FE 75, FE 80 with FE attachment: LR 21, LR 82, TCPS	Support for FE 25, MLR 21FE	Support for WSP 80FE with FE attachment: MLR 21, WSP 80
005 15 030 99	005 15 020 99	005 15 023 99	005 15 140 99

* Fume extraction funnels specific to FE irons are included in the scope of supply of the soldering irons for use with KH20 and KH 23 bench supports

Stop + Go supports for FE soldering irons together with WFE and WFE P

The Weller Stop + Go supports are recommended accessories for FE irons using the WFE or WFE P extraction units. A fibre optic sensor switches the extraction unit on when the FE iron is removed from the bench support

and when the FE iron is replaced in the bench support, after a short delay to gather the fumes from any solder on the tip it switches the unit off. This reduces running costs.

FE soldering irons	Basic unit Stop + Go and a support with fibre optic sensor for: WFE (pneumatic)	for: WFE P (electric)	2. support with fibre optic sensor for extending the Stop + Go basic unit for 2 workplaces
FE 25 FE 50 FE 50M FE 75 FE 80	 KHP 005 15 086 99	 KHE 005 15 076 99	 KHE / P 005 15 080 99
WSP 80FE	 KHP 80 005 15 084 99	 KHE 80 005 15 083 99	 KHE / P 80 005 15 141 99

Cord support

The cord support keeps the cord of the soldering iron out of the direct working area. This allows an easy

handling of the soldering iron. Especially recommended for use with FE soldering irons.

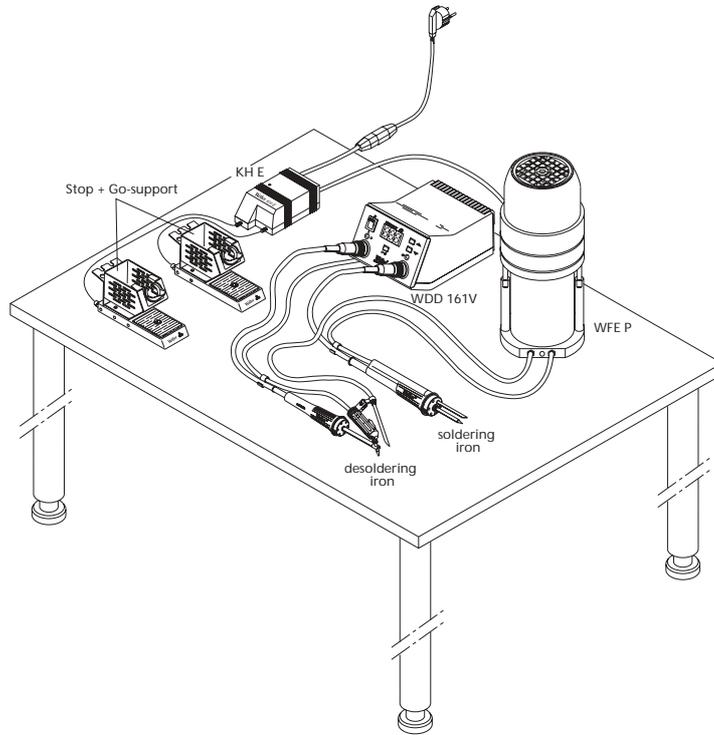


Modello / Descrizione	Codice articolo
Spring holder for AK 20	005 15 065 99
Spring holder for KH 23	005 15 066 99



Tip Extraction Accessories

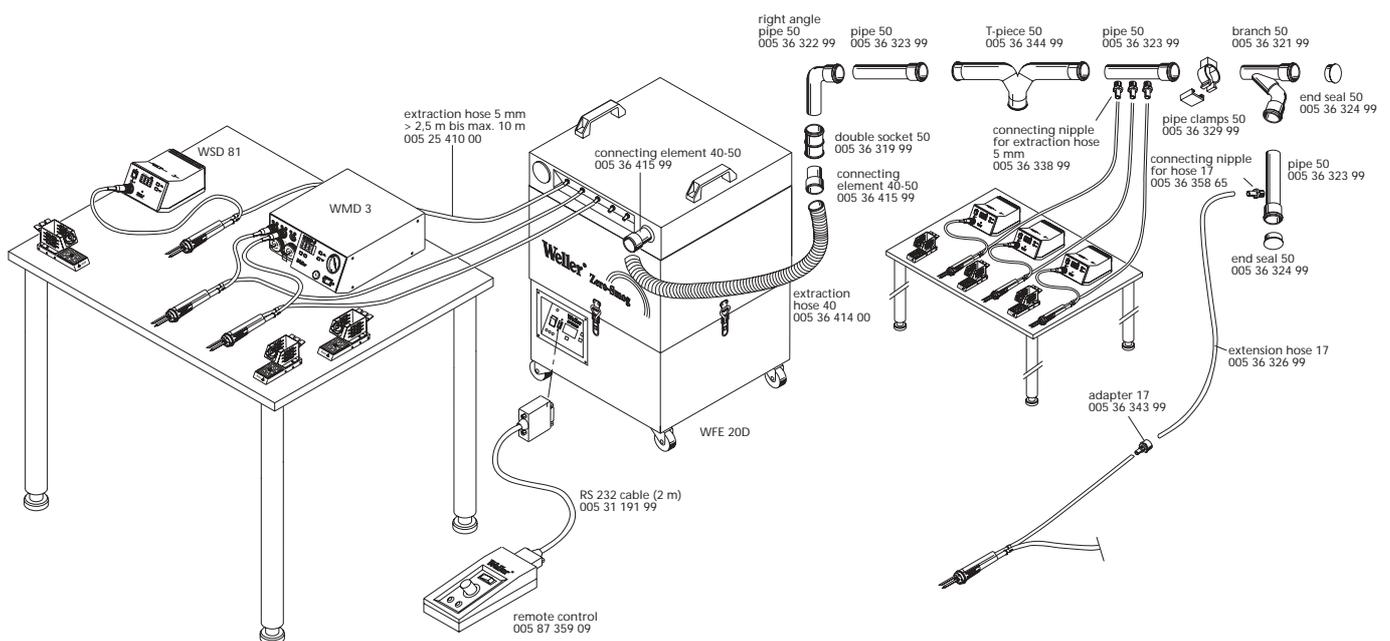
Installation option for a central system with WFE P



Installation option for a central and stand alone system with WFE 20D

central system

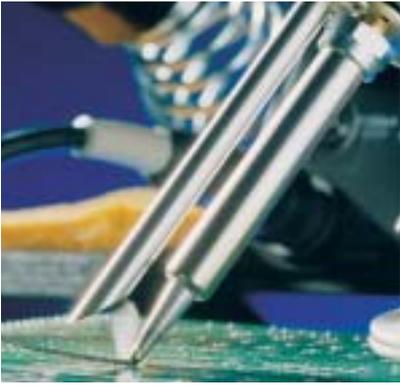
stand alone system with pipe system 50 upto ca. 200 m



Accessories for tip extraction

	Description	Order No.
	<p>Extraction hose 40,1 m, ø 40 mm dia., complete. With 2 connecting elements for direct connection of unit (WFE 20D) to pipe system 50, plastic, grey/black, flexible.</p>	005 36 316 99
	<p>Extraction hose 40, ø 40 mm dia. without connecting elements (sold by metre), plastic, grey/black, flexible.</p>	005 36 414 00
	<p>Connecting element 40-50 for connecting extraction hose 40 and pipe system 50, rubber, black.</p>	005 36 415 99
	<p>17 mm dia. x 5 m long extension hose. Used where the fume extraction iron is further than 2.5 m from the pipe system 50. Note connection nipple for hose 17 and adapter 17 will be required, plastic, transparent.</p>	005 36 326 99
	<p>Connection nipple for hose 17. Amend direction to read direct.</p>	005 87 358 65
	<p>Nut G 3/8" for connection nipple.</p>	005 87 358 66
	<p>Adapter 17. Adapts 17 mm dia hose to 5 mm dia hose on FE iron.</p>	005 36 343 99
	<p>Connection nipple for 5 mm dia extraction hose to connect FE irons directly to pipe system 50. The connection nipple is screwed at any point into the pipe system.</p> <p>Amend cap closure to Dust cap.</p>	005 36 338 99 005 87 350 50

Units for tip extraction



WFE



Portable solder fume extraction unit Compressed air-driven for up to 2 FE soldering irons.

Consists of:

- Extraction unit
- Compressed air cleaning filter
- Fine dust filter F7
- Compact filter
(consists of HEPA filter and wide band gas filter)

Order No. 005 36 402 99

WFE P



Portable solder fume extraction unit with built-in turbine for up to 2 FE soldering irons.

Consists of:

- Extraction unit
- Fine dust filter F7
- Compact filter
(consists of HEPA filter and wide band gas filter)

**Order No. 005 36 386 99
(UK: 005 36 383 99)**