

# Providing clean air in your workplace.

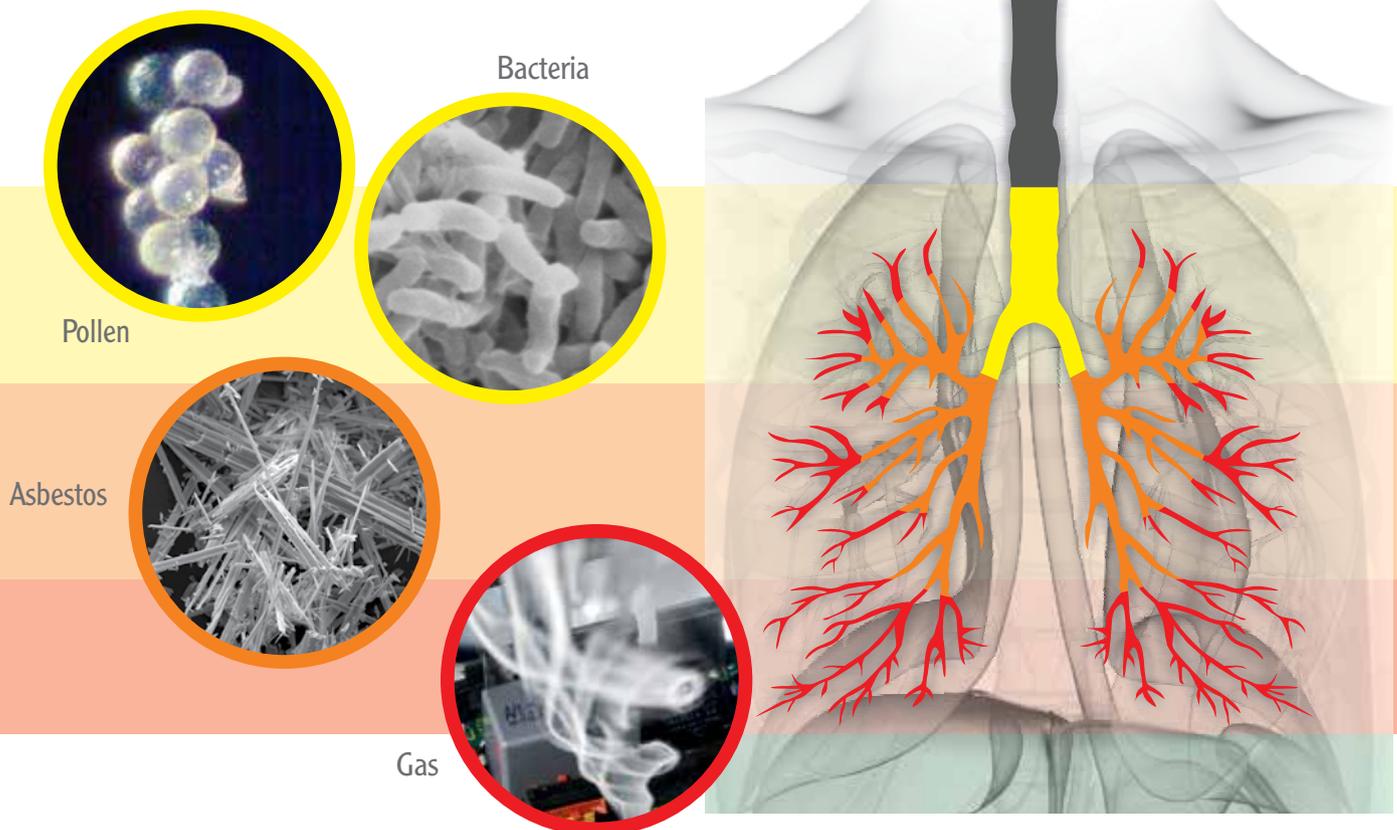
Fume Extraction Solutions

**Weller<sup>®</sup>FT**  
FILTER SYSTEMS



## Soldering and adhesive applications produce **harmful particulates and gases**

### Effects of fine dust and gas fumes on the lungs



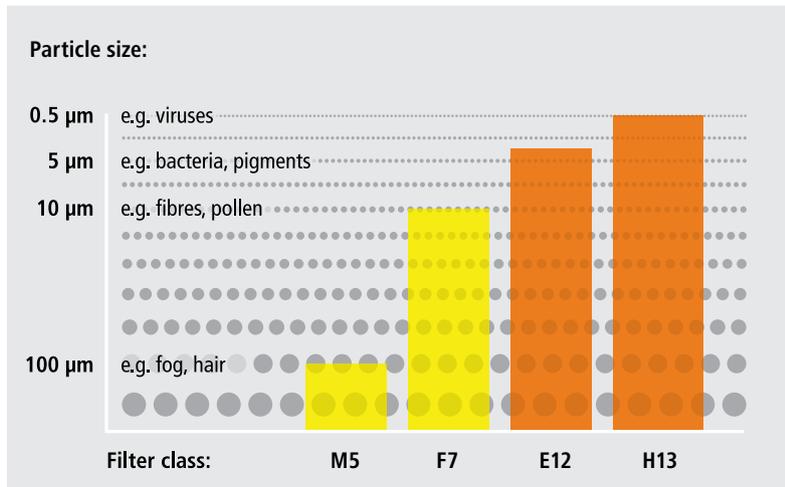
In workplaces that involve the use of soldering and adhesives applications, particulates and gases are released that can be harmful to people and the environment. It is a common misconception that lead-free soldering is safer and more ecologically sustainable. Smoke from lead-free soldering contains fine dust particles because of the higher working temperatures required and because higher percentages of flux can be used in the soldering process.

In many countries legal regulations governing clean air in the work place require that hazardous substances are removed from the air in order to avoid harmful effects on people and machines.

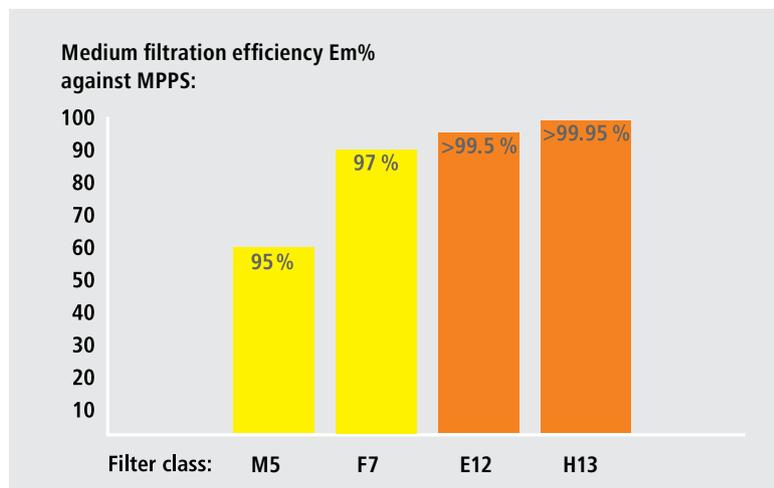
To protect the operator it is important to use an extraction system that is able to separate these particles and gases and then recirculates the cleaned air back into the work place. This also saves energy and reduces energy costs.

- > The smaller the particles, the deeper they penetrate into the respiratory system
- > The smallest particles travel via alveoli into the bloodstream
- > The deeper the particles penetrate, the greater the health risks

## WellerFT offers the **highest efficiency dust filters** to remove large to very small particles



Filter Class M5, F7: Fine dust filter as per EN 779:2012  
 Filter Class E12/H13: According EN 1822:2009 HEPA (High Efficiency Particulate Air) Filter



### What are dust filter classes?

Filters are classified based on the size of the particle that they can keep from returning back into the environment. The smaller the particles are, the deeper they penetrate into the respiratory system. The smallest particles travel via alveoli into the bloodstream. The top graph shows filter classes and the size of the particles they can efficiently filter. Particles are measured in microns, which is one millionth of a meter.

Each filter class is assigned an efficiency rating based on the ability to filter MPPS (Most Penetrating Particle Size). HEPA filters have efficiencies of at least 99.95% at 0.3 microns. The most penetrating size is a function of the structure of the filter medium, the velocity of the airflow through the filter, and the physical and chemical nature of the particles.

– Source: HEPA Corporation

Group	Filter class	Integral value	
		Degree of separation	Transmittance degree
EPA	E10	85%	15%
	E11	95%	5%
HEPA	E12	99.5%	0.5%
	H13	99.95%	0.05%
	H14	99.995%	0.005%

} **WellerFT ultrafine particulate filters**

## Choose a WellerFT filter configuration customized to fit your workplace

WellerFT Zero-Smog® systems are specifically designed for continuous operation in industrial environments. Care and attention at the design stage plus careful component choice and a high quality manufacturing process have given Weller®FT extraction systems a worldwide reputation for reliability and longevity.



### Filter classification

according to EN norm EN 1822:2009

#### Medium / Fine dust pre-filters

For standard applications with a small amount of flux and pollution gases with high solid content, Weller®FT offers filter classes M5 or F7.

#### EPA / HEPA Compact filters

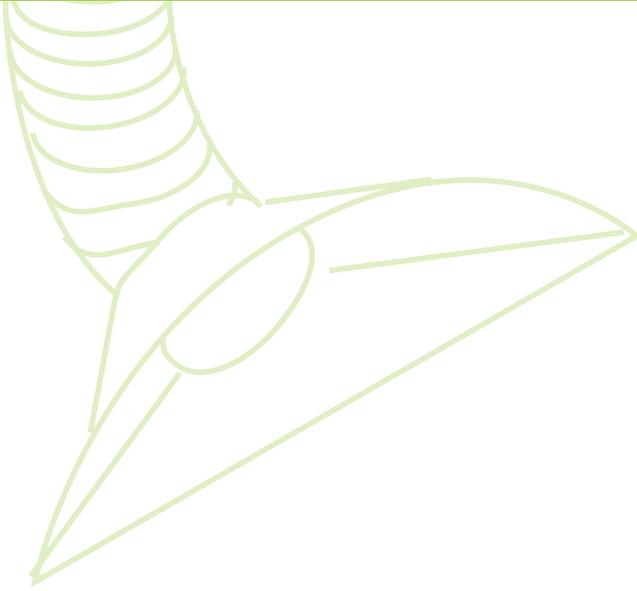
- **Particle filter class H13 or E12** with deposition performance according to EN 1822:2009
  - > 99.955% in MPPS (particles 0.16 µm)
  - > 99.994% @ particles 0.3 µm

#### • Wide band gas filter (optional)

#### Gas filters

For cleaning harmful fumes and vapors, Weller wide band gas filters consist of varying levels of chemical absorption media to meet the demanding needs of the market requirements.

# Volume Extraction



## Areas of application

- › Hand soldering processes
- › Soldering machines, robots, solder baths
- › Adhesive fumes
- › Clean room applications (product specific – see Technical Data chart, pages 12 and 13)
- › Microscope workplaces
- › Other fume emitting processes

**For wide application areas,  
choose volume extraction systems**



## Characteristics

- › For applications over a wide working area
- › Mobile units suitable for stand alone applications
- › All units equipped with maintenance-free brushless turbine
- › Connects to external air outlet (only ZS4V/6V)
- › Vacuum force up to 3,000 Pa for efficient volume extraction
- › Flexible extraction arms for ease in placement



Available  
Q3-15



up to 2 workplaces



up to 2 workplaces



up to 2 workplaces

	ZeroSmog2	MG130	MG100S
Dimensions L x B x H (mm / in)	360 x 330 x 415 mm 14.17 x 12.99 x 16.33 in	460 x 210 x 500 mm 18.11 x 8.26 x 19.68 in	460 x 210 x 610 mm 18.11 x 8.26 x 24.15 in
Weight (kg / lb)	9 kg / 19.8 lb	11 kg / 24.3 lb	15 kg / 33.1 lb
Voltage	120 V. 60 Hz	100–240 V. 50/60 Hz	100–240 V. 50/60 Hz
Noise level at 1 m *	50 dB (A)	48 dB (A)	48 dB (A)
Electrical power	200 W	100 W	100 W
Max. blower vacuum	3,000 Pa	2,300 Pa	2,300 Pa
Max. blower capacity	220 m <sup>3</sup> /h	140 m <sup>3</sup> /h	140 m <sup>3</sup> /h
Pre-filter	Medium dust filter M5	Fine dust filter F7	–
Compact filter	Particle filter E12 + gas filter (active carbon foam) low	H13 particle filter + gas filter (50% active carbon + 50% Chemisorb)	H13 particle filter + gas filter (50% active carbon + 50% Chemisorb)
Gas filter volume	low	low	high
Particle filter separation degree MPPS	> 99.5%	> 99.95%	> 99.95%

\* At typical operating speed

## Selection guide based on particle and gas filter capacity

Application	ZeroSmog2	MG130	MG100S
Hand soldering	++	++	+++
Heavy duty soldering (solder bath, selective wave)	+	+	+
Soldering	+	++	+++
Gluing, Cleaning, Filling	+	++	+++
Finedust	++	++	+
MEK (Methyl Ethyl Ketone)		+	+++
VOC (Volatile Organic Compounds)		+	+++
Cleanroom			+++

+ short term use ++ medium term use +++ long term use

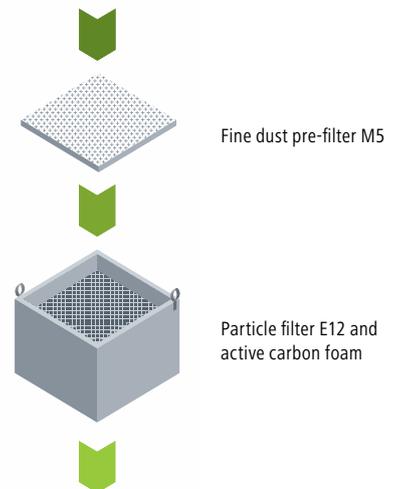
# Zero Smog 2

This small, economical system is fully armed to zero in on fumes.

Available  
Q3-15

### Applications

- > Hand soldering
- > Heavy duty and general soldering
- > Gluing, cleaning, filling



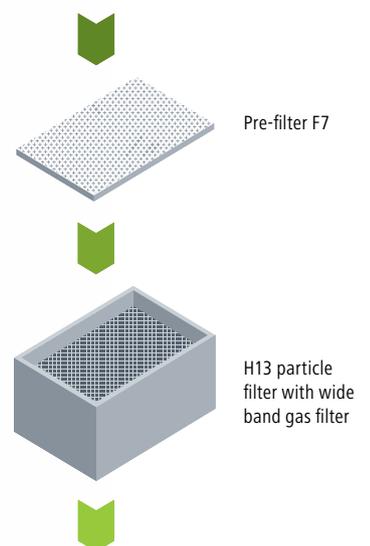
## MG130

Air purification right at your elbow.



### Applications

- > Hand soldering
- > Heavy duty and general soldering
- > Gluing, cleaning, filling
- > Fine dust
- > MEK
- > Cleanroom



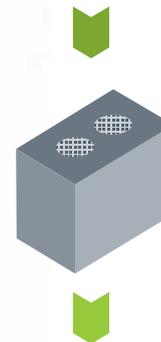
## MG100S

Handles large volumes of gas fumes and vapors for up to 2 workplaces



### Applications

- > Hand soldering
- > Heavy duty and general soldering
- > Gluing, cleaning, filling
- > Fine dust
- > MEK
- > VOC



H13 particle filter  
and wide band gas  
filter

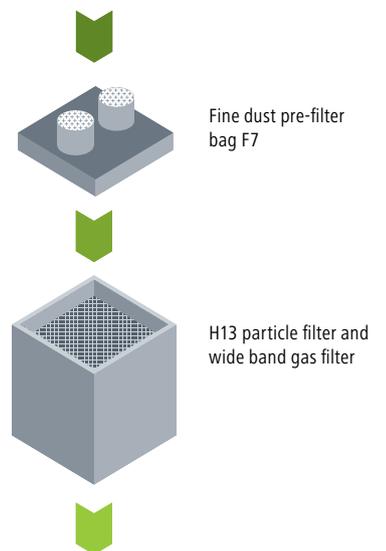
## MG140

The portable, powerful MG140 eliminates heavy-duty gas and particle emissions



### Applications

- > Hand soldering
- > Heavy duty and general soldering
- > Gluing, cleaning, filling
- > Fine dust
- > MEK
- > VOC
- > Clean room



The MG140 is suitable for applications with large volumes of gas and particle filtration, e.g. soldering, adhesives, cleanroom work.

It can be moved easily between different work areas. Variable speed and alarm function for filter exchange can be set via the remote control.

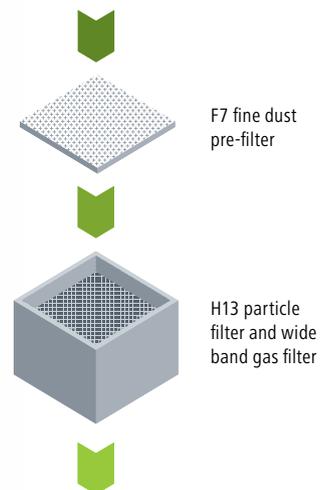
## Zero Smog® 4V

### Energy-efficient fume extraction system provides clean air for up to 4 workplaces



#### Applications

- > Hand soldering
- > Heavy duty and general soldering
- > Gluing, cleaning, filling
- > Fine dust
- > MEK
- > VOC



The fume extraction unit Zero Smog® 4V (ZS4V) is easy to install and operate. The kit is supplied with one flexible hose, one attachment arm with funnel and one bench mount bracket ready for installation at the workplace. A powerful, maintenance-free turbine provides continuous fume extraction at a maximum air extraction rate of 230 m<sup>3</sup>/h. When setting the Constant Flow Control, the adjustable turbine speed avoids unnecessary waste of power and saves energy.

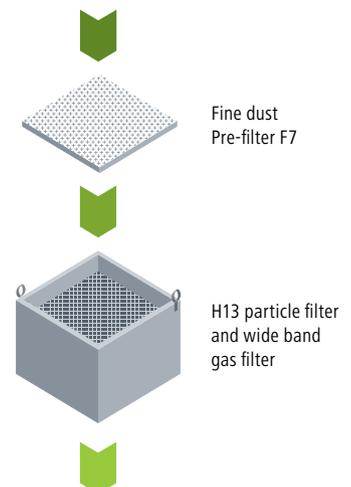
## Zero Smog® 6V

Quiet, small but powerful ZS6V provides continuous clean air for up to 8 workplaces



### Applications

- > Hand soldering
- > Heavy duty and general soldering
- > Gluing, cleaning, filling
- > Fine dust
- > MEK
- > VOC



The fume extraction system Zero Smog 6V (ZS6V) 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 ZS6V result in low servicing requirements and long system life. To increase filter lifetime and save on energy, the ZS6V is fitted with a constant flow control (CFC) – depending on the number of connected workplaces. To extend the capacity an external pre-filter can be fixed directly to the ZS6V.

The powerful, maintenance-free variable speed turbine is controlled electronically and has a maximum blower capacity of 615 m<sup>3</sup>/h.

### The ZS6V has 3 operating modes:

#### 1. Standard speed control

Selected by the user irrespective of the load on the system.

#### 2. Speed limiting control

The turbine 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.

# Funnel and Nozzle Kits



Model Number	<b>KIT 1 ALFA FUNNEL NOZZLE*</b>	<b>KIT 1 SLOPED NOZZLE</b>	<b>KIT 1 SLOPED MICRO NOZZLE</b>	<b>KIT 1S SLOPED NOZZLE</b>	<b>KIT 1S FUNNEL NOZZLE</b>	<b>WFE2ES KIT 1 FUNNEL NOZZLE</b>	<b>MG100S KIT 1 FUNNEL NOZZLE</b>
Order Number	T0053657199	T0053657299	T0058762770	T0053657999	T0058762763	WFE2ESKIT1	U-100-1056-ESD

 <b>Funnel nozzle</b> Ø 60mm ALFA	+				+	+	+
 <b>Sloped nozzle</b> Ø 60mm FT-NL		+		+			
 <b>Sloped nozzle</b> Ø 32mm T0058762834			+				
 <b>Extraction arm</b> Ø 60mm X 0.7m 0F07				+	+		
 <b>Extraction arm</b> Ø 60 mm X 1.0 m 0F10	+	+				+	+
 <b>Extraction arm</b> Ø 32mm X 1.0m T0053658099			+				
 <b>Stop valve w/ brackets</b> T0053657499	+	+	+	+	+	+	+
 <b>Extraction hose</b> Ø 60mm x 3m 700-3051-ESD	+	+	+	+	+	+	+
 <b>Adapter w/ O-rings</b> 50mm to 60mm T0058762753	+					+	

\*Kit 2 ALFA Funnel Nozzle contains 2 of everything in Kit 1 above. Order No. 100-120 V T0053664299

# Easy-Click-60 Volume Extraction Arms

## > With funnel nozzle



### Kit 1 ALFA Funnel Nozzle



Order No.	Description
<b>T0053657199</b>	Easy-Click-60 extraction arm with funnel, width 230 mm, height 100 mm, flexible arm, Ø 60 mm, length 1 m, with stop valve
Consists of:	
T0053657499	Stop valve with bench mounting brackets
700-3051-ESD	Extraction hose, flexible, 3 m, Ø 60 mm
OF10	Extraction arm Ø 60 mm, 1 m
ALFA	Funnel nozzle

## > With sloped nozzle



### Kit 1 Sloped Nozzle



Order No.	Description
<b>T0053657299</b>	Easy-Click-60 extraction arm with sloped nozzle, Ø 60 mm, length 1 m, stop valve
Consists of:	
T0053657499	Stop valve with bench mounting brackets
700-3051-ESD	Extraction hose, flexible, 3 m, Ø 60 mm
OF10	Extraction arm Ø 60 mm, 1 m
FT-NL	Sloped nozzle

## > Extraction arm for applications with limited space, such as under a microscope



### Kit 1 32 Sloped Nozzle



Order No.	Description
<b>T0058762770</b>	Easy-Click-60 extraction arm with sloped nozzle Ø 60 mm, length 1 m, Ø 32 mm, stop valve
Consists of:	
T0053657499	Stop valve with bench mounting brackets
700-3051-ESD	Extraction hose, flexible, 3 m, Ø 60 mm
T0053658099	Extraction arm Ø 32 mm, 1 m
T0058762834	Sloped Nozzle

## Extraction Arm Nozzles



Order No.	Description
ALFA	<b>Easy-Click-60 funnel nozzle*</b> 225 mm x 100 mm
ALFA-T	<b>Easy-Click-60 transparent funnel nozzle*</b> 225 mm x 100 mm



\* To be mounted on an aluminium extraction arm without flexible hose, Adapter Z is needed.  
See Extraction Arms Accessories next page.



## WF32 Extraction Arm



Order No.	Description
T0053658099	<b>ESD microscope extraction arm,</b> flexible, Ø 32 mm, aluminium nozzle sloped 45°, length 1 m



## Flexible Extraction Arm, Ø 60 mm



Order No.	Description
0F07	Flexible, adjustable arm, length 0.7 m incl. connection (female) in both ends
0F10	Flexible, adjustable arm, length 1.0 m includes connection (female) in both ends
0F15	Flexible, adjustable arm, length 1.5 m includes connection (female) in both ends

## Accessories



Order No.	Description	
T0058762767	<b>Easy-Click-60 hose connector male, straight</b> for WFE 2S, WFE 4S, ZS 4V, ZS 6V and pre-filter box	 ESD safe
T0058762769	<b>Easy-Click-60 hose connector male, angle 90°</b> for WFE 2S, WFE 4S, ZS 4V, ZS 6V and pre-filter box	 ESD safe
T0058762755	<b>Easy-Click-60 male adapter</b> for hose extension, Ø 60 mm	
T0058762772	<b>Easy-Click-60 female adapter</b>	
T0058762773	<b>Easy-Click-60 male adapter 90°</b>	
T0058762768	<b>Easy-Click-60 hose connection female 60 mm</b> for flexible hose T005 87 620 36	

## Accessories installation volume extraction



Order No.

Description

T00536574 99

**Easy-Click-60 Stop valve**

Table connector for 60 mm (2.36 in) flex arm and extraction tube including air flow valve and 2 bench mounting brackets, male / male



ESD safe



T00536575 99

**Bench mounting brackets, 2 x**

Maximum width of clamp 100 mm (3.93 in),  
Ø 100 mm (3.93 in), metal



T0058762765

**Easy-Click WFV 60 Stop valve**

male/female for extraction arms without valve

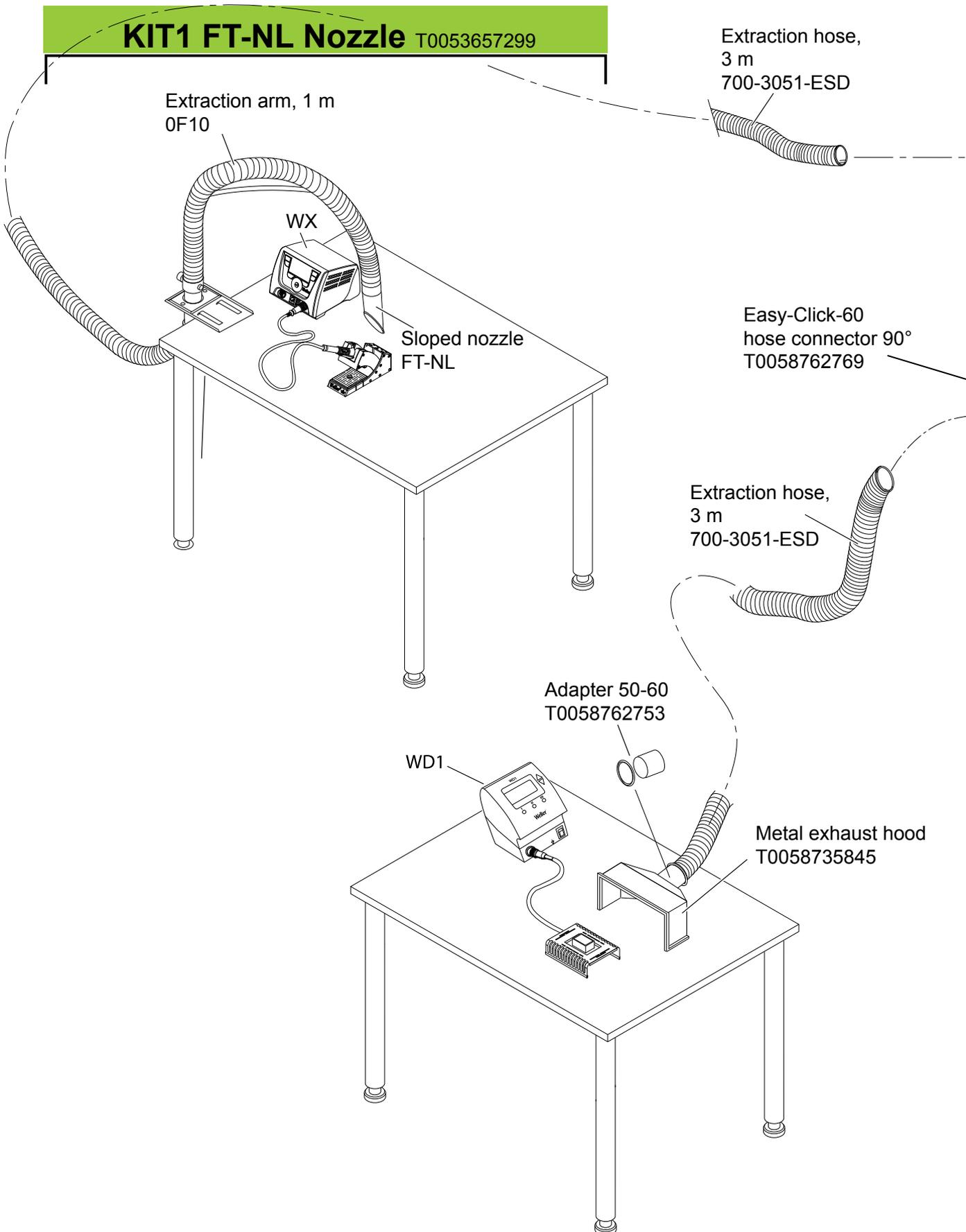


T0058762808

**Replacement butterfly valve plate**

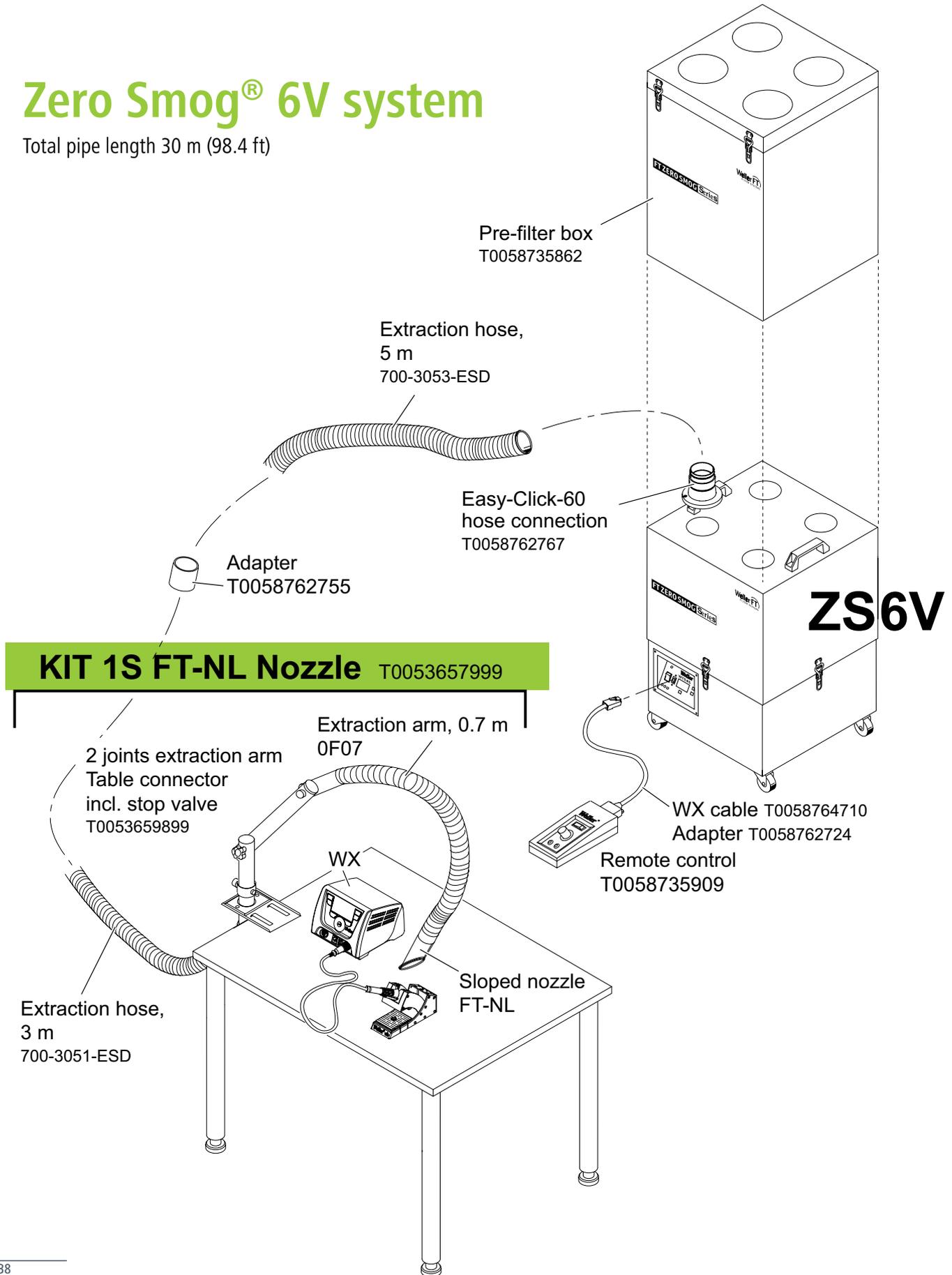
for stop valve

# Installation Options with Easy-Click System



## Zero Smog<sup>®</sup> 6V system

Total pipe length 30 m (98.4 ft)



# Extraction Hoods

## WEHT Extraction Hood Top

### What's included:

WEHT Extraction hood, top source  
 > 700-3051-ESD Extraction Hose Easy-Click 60, 3 m

Order No. **FT91000022**

### Technical Data

Housing	PET not ESD safe
Dimensions (L x W x H)	860 x 510 x 460 mm 33.8 x 20.0 x 18.1 in



## Extraction Hood Top Source

Weller®FT WEHT top source extraction hood for applications where fumes spread rapidly due to a drafty work environment. The hood can enclose the source, enabling fumes to be captured before they contaminate the workplace.



## Extraction Hood Bottom Source

Weller® WEHB bottom source extraction hood for gluing or cleaning applications where gases from solvents or glue, lighter than air have to be extracted from below. The workplace is covered with a punched stainless steel plate.

## WEHB Extraction Hood Bottom

### What's included:

WEHB Extraction hood, bottom source  
 > 700-3051-ESD Extraction Hose Easy-Click 60, 3 m

Order No. **FT91000023**

### Technical Data

Housing	PET not ESD safe
Dimensions (L x W x H)	860 x 510 x 460 mm 33.8 x 20.0 x 18.1 in

**To guarantee sufficient extraction results an extraction unit with minimum 230 m<sup>3</sup>/h must be connected to the hoods (Weller®FT Zero Smog®4V).**

# Extract noxious fumes right at the source with Weller®FT tip extraction!

Weller® FE (Fume Extraction) soldering irons have a smoke tube adapted to the handle. When soldering the tube is positioned directly above the tip and collects any fumes produced. Fume extraction irons can be connected to the Weller®FT WFE2P system.



## Characteristics

- › FE (Fume Extraction) soldering irons extract fumes directly at the soldering tip.
- › Less airflow and high vacuum, up to 30,000 Pa for efficient fume extraction.





## Universal FE attachments

Order No.	Description
T0052918699	<b>FE attachment with tube Ø 6.5 mm</b> for WSP80, WP80, WP65, WP120
T0052918599	<b>FE attachment with tube Ø 4.5 mm</b> for WMRP and WSP80, WP80, WMP, for fine soldering applications
T0058744875	<b>FE Clip Set for FE attachment, tube Ø 4.5 mm</b>
T0058744876	<b>FE Clip Set for FE attachment, tube Ø 6.0 mm</b>
T0058765798	<b>FE attachment with tube Ø 6.5 mm, WXP120</b>
T0058765799	<b>FE attachment with tube Ø 6.5 mm, WXP65</b>

## Safety rests for FE75 series irons with the WFE2P

Weller safety rests are recommended accessories for FE irons using the WFE2P extraction units.



Order No.	Description
T0051515299	<b>WDH30 Safety rest</b> For FE75 fume extraction irons

## Accessory for WFE2P

Order No.	Description
T0058735050	<b>End cap</b> to close off to connection nipple 5 mm

# Filter Compatibility



		Model Number Order Number	ZS2 ZEROSMOG2	MG100S U-100-1000-ESD	MG130 U-130-1055-ESD	MG140 U-145-1000-ESD	MG140 CLEANROOM U-145-1002-ESD	
PRE-FILTERS		T0058735837						
		T0058735937						
		T0058762703	++					
		T0058735836						
		T0058735938						
		145-4000				+	+	
		130-2010			+			
		500-4000						
		T0058735860						
		T0058735924						
		T0053642199						
	COMPACT FILTERS		T0058762701 SET WITH GAS FILTER	+				
			T0058735838					
			T0058735936					
100-2000-ESD				+				
145-2000-ESD						+	++	
130-2000-ESD					+			
T0053641099								
F01								
W/SPECIALTY FILTERS			145-2003-ESD MEK				++	
			100-2003-ESD MEK		++			
			145-2002-ESD CLEAN ROOM				++	+
			100-2002-ESD CLEAN ROOM		++			
			145-2012-ESD SOLVENTS / VOC				++	
			100-2012-ESD SOLVENTS / VOC		++			
GAS		T0053640799 ADHESIVE						
		T0058735835						
		T0058735895	++					

# Filter Compatibility – Legacy Systems



		WFE2ES	WFE2S	WFE2X	WFE4S	WFE8S	WFE20D
PRE-FILTERS	M5	T0058735837			++		
		T0058735937		++			
		T0058762703	++				
	F7	T0058735836				+	
		T0058735938		+			+
		T0053659499					+
COMPACT FILTERS	E12 GAS	T0058762701 SET WITH GAS FILTER	+				
		T0058735838				+	+
	H13 GAS	T0058735936		+			
		T0053659599					+
		100-2000-ESD			+		
		100-2003-ESD MEK			++		
		100-2002-ESD CLEAN ROOM			++		
		100-2012-ESD SOLVENTS / VOC			++		
GAS	GAS	T0058735835			++		
		T0058735895	++	++			

Easy to replace filters!

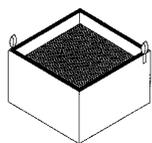


How to change a Weller®FT filter?  
See the movie on [www.youtube.com/wellersoldering](http://www.youtube.com/wellersoldering)

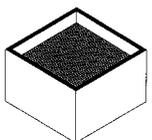




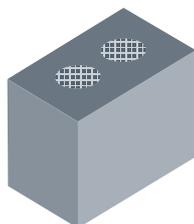
Order No.	Description
140-2000-ESD	Particle filter E12 for MG140



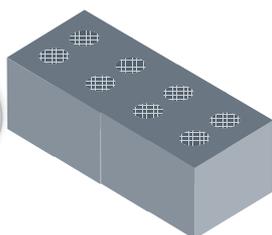
Order No.	Description
T0058762701	Filter set: WFE2ES with E12 particle filter and ten M5 prefilters (gas filter – 10% active carbon foam filter) for WFE2ES and ZS2V



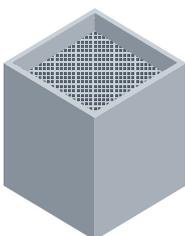
Order No.	Description
T0058735838	H13 particle filter and wide band gas filter (50% active carbon, 50% Chemisorb) for WFE4S / WFE20D / ZS6V
T0058735936	H13 particle filter for WFE2S, ZS4V



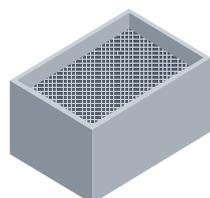
Order No.	Description
100-2000-ESD	H13 particle filter and wide band gas filter (50% active carbon, 50% Chemisorb) for MG100S and WFE2X
100-2003-ESD	H13 particle filter and MEK gas filter MG100S and WFE2X
100-2012-ESD	H13 particle filter and solvents / VOC gas filter MG100S and WFE2X
100-2002-ESD	H13 particle filter and cleanroom gas filter MG100S and WFE2X



Order No.	Description
T0053659599	H13 particle filter and wide band gas filter (50% active carbon, 50% Chemisorb) for WFE8S



Order No.	Description
145-2000-ESD	H13 particle filter and wide band gas filter (50% active carbon, 50% Chemisorb) for MG140
145-2002-ESD	H13 particle filter and Cleanroom gas filter MG140
145-2012-ESD	H13 particle filter and solvents / VOC gas filter MG140
145-2003-ESD	H13 particle filter and MEK gas filter MG140



Order No.	Description
130-2000-ESD	H13 particle filter and wide band gas filter (50% active carbon, 50% Chemisorb) for MG130

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