



LAS



ASD



LRA



ACD



Technical Documentation

ULT 1200

Version 001



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Attachments:

- Technical drawing for single-tier device
- Technical drawing for double-tier device
- Interface diagram



Description of Product Series

The **product range in the ULT 1200 series** can be used for collection and filtration of harmful substances and unwanted substances in the form of dusts and gases. Suitable multi-stage filtration systems are available **for all industrial applications** to deal with different configurations of harmful or unwanted substances.

The harmful and unwanted substances produced in the relevant customer process are collected via collection elements directly at the point of creation and are then filtered by the units in the ULT 1200 series. Through targeted combination of the available individual filters, **highest separation rates** are achieved. The underlying filtration technology uses particle separation techniques for dusts and adsorption and chemisorption techniques for gaseous substances

Thanks to the high degree of purification, the filtered clean gas can be directed back to the working space (**recirculated air mode**). As a result, there are no thermal losses. If recirculated air mode is not desired, an optionally available pipe nozzle can be easily installed to quickly and simply reconfigure the setup so that the outlet air is discharged rather than being fed back in. The filtered clean gas is then directed into an **air outlet** system.

The units in the ULT 1200 series can be optionally combined with a **wide range of accessories**. Suitable accessory parts can be selected based on the individual requirements of the customer.

Features ULT 1200 Extraction and Filtration Unit

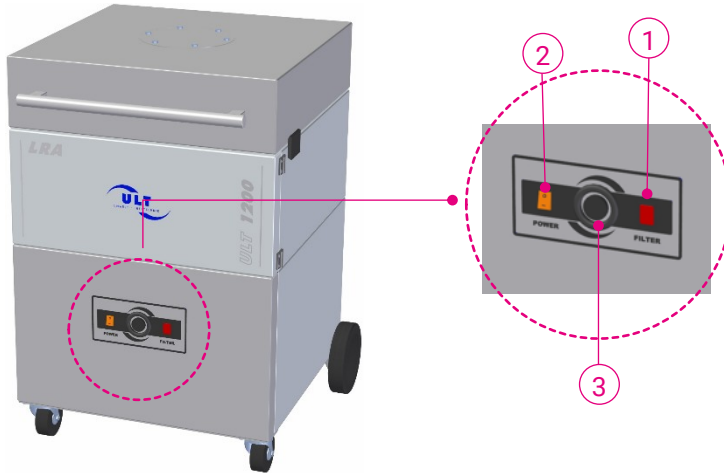
- Mobile unit with casters
- Replacement filters
- Robust sheet steel enclosure
- Powder coating 7035 light grey, RAL 7001 silver-grey





Equipment

Figure 1: Front operating panel



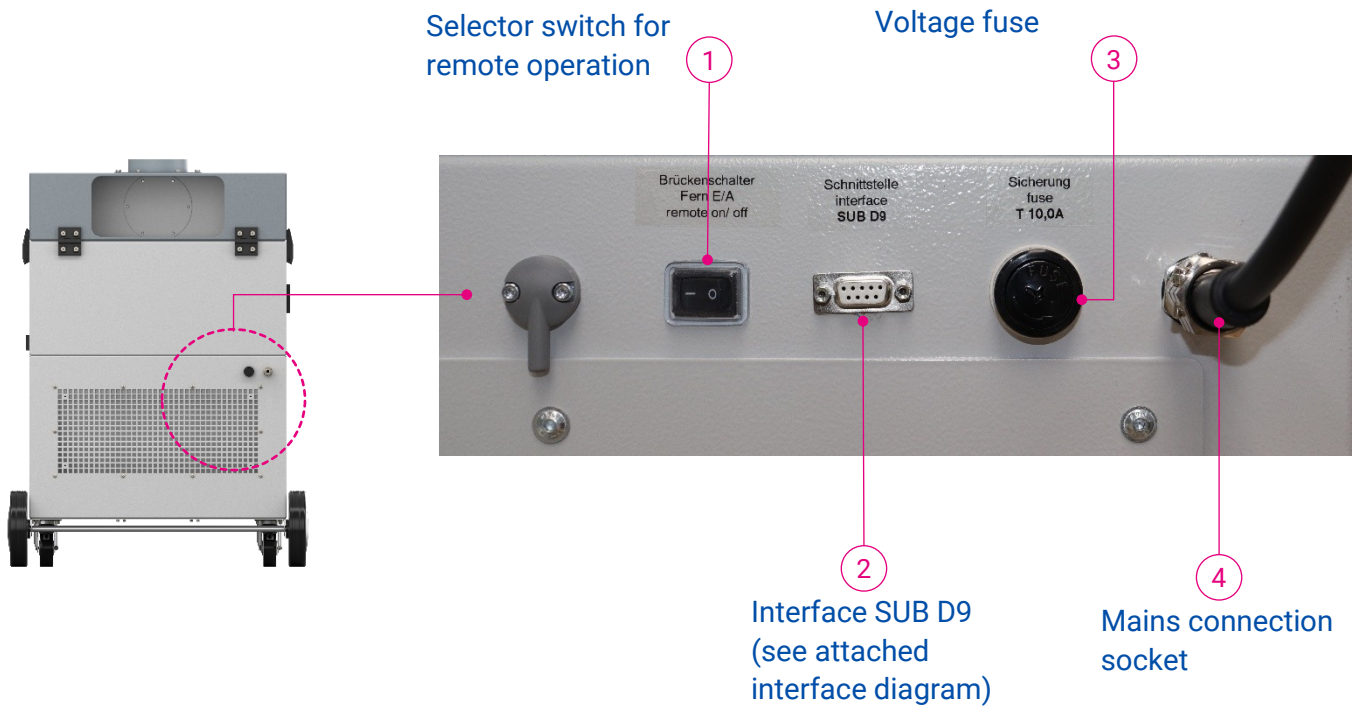
- ① **Particulate filter saturation indicator**
- Selectable assignments:
- If the particulate filter becomes saturated, the red indicator light will turn on

- ② **ON/OFF switch**

- ③ **Potentiometer**
- Direct control of the blower speed



Figure 2: interfaces on the rear





Technical Data ULT 1200

Table 1: technical data – ULT 1200

PARAMETER	UNIT	MD.18	MD.18D	MD.80
Max. volumetric flow rate	m ³ / h	1.500	1.700	1.490
Max. vacuum	Pa	2.940	3.350	1.800
Rated operating points	m ³ /h @ Pa	1.000 / 1.700	1.000 / 1.700	800 / 1.300
Rated operating points ACD A60	m ³ /h @ Pa	450 / 2.500	450 / 2.500	-
Protection class	IP	54	54	54
Sound level (@ 50 - 100% volumetric flow rate)	dB(A)	55 - 65	55 - 65	72
Vacuum generator type		EC-blower	EC-blower	AC-blower
Rated voltage	VAC	1~230	1~120	1~230
Rated frequency	Hz	50/60	50/60	50/60
Rated motor power	kW	0,86	1,20	0,75
Rated current	A	4,8	13	4,8
Volumetric flow rate controller		yes	yes	no
no particle filter saturation indicator		yes*	yes*	no
Minimum Volume Flow Indicator		no	no	yes
Operating hours counter		optional	optional	yes
Interface SUB D9	(1*)	optional	optional	optional
Digital device control integrated	(2*)	optional	optional	optional
Digital device control removed		optional	optional	optional
Air outlet DN 200	(3*)	optional	optional	optional
Dimensions (width x depth x height)	mm	Measurements are shown in the drawings		
Weight	kg	from 145 to 215 kg, depending on the filter setup		
Air intake versions:	Nozzle location Alternative: Nozzle location Montage location	1x Ø 150 mm Nozzle Back of the device, top 1x Ø 160 mm nozzle At the top of the device connector for Flextractor extraction arm Ø160 mm at the top of the device		
Air Outlet:	location Alternative: Nozzle location	Air outlet grille, Bottom of the rear back 1x Ø 200 mm Nozzle Bottom of the rear back		
Mains cable EU (CEE 7/7)	m	5,0 (Country-specific version selectable)		

* except ACD-Devices

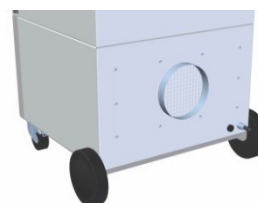
(1*)



(2*)



(3*)





Characteristic Curves (230 V)

Figure 3: Characteristic Curves for ASD MD.18 TH; ACD MD.18 A28 and ACD MD.18 A60

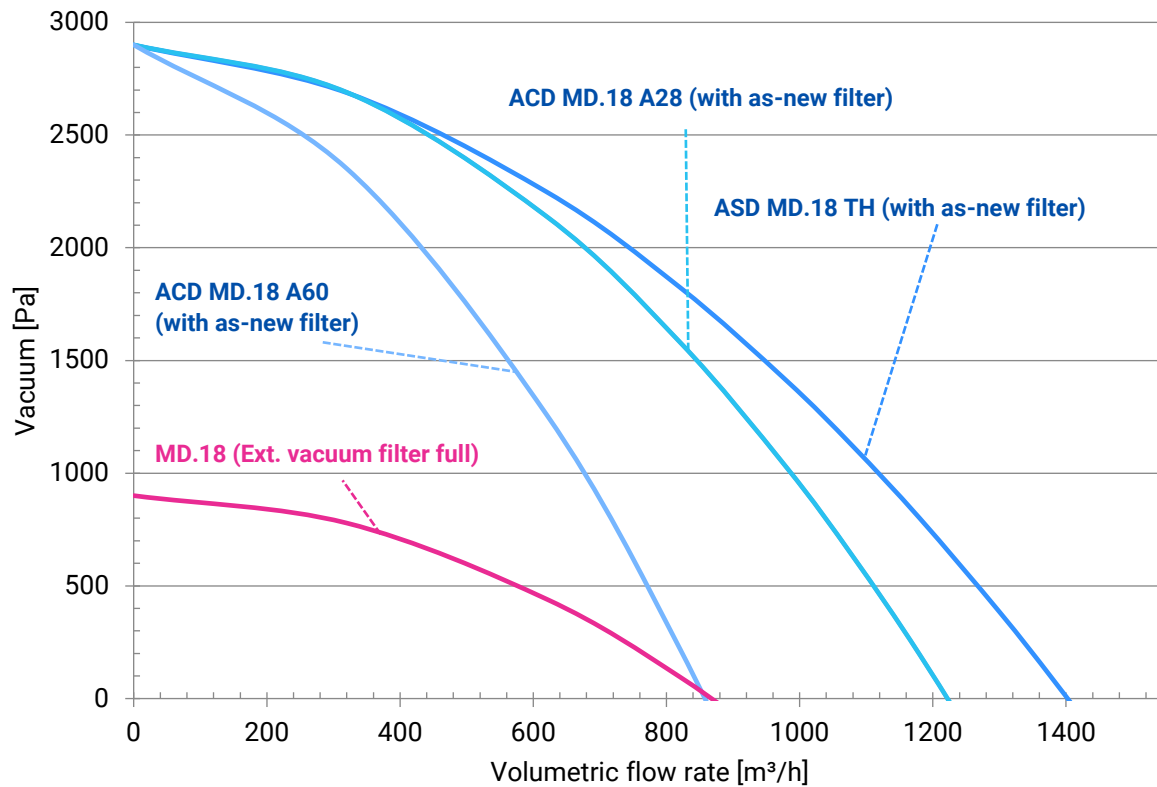
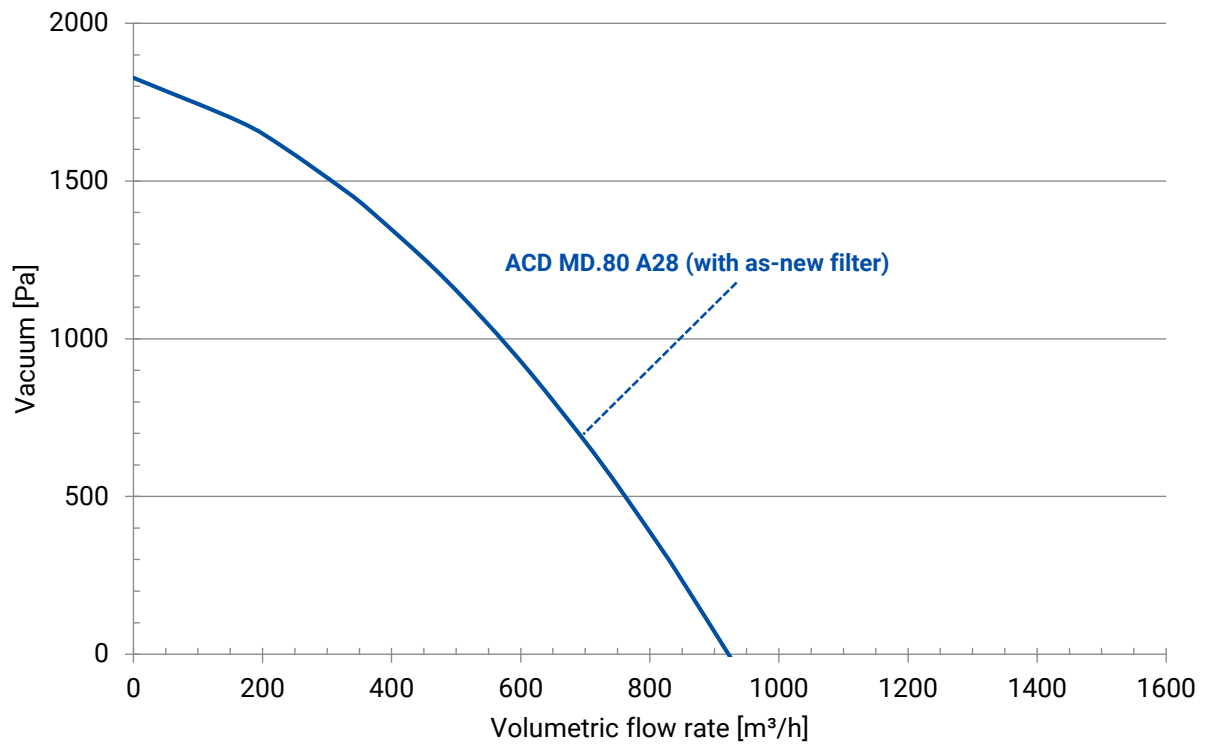




Figure 4: Characteristic curve for ACD MD.80 A28





ACD Series – Vapors, Odors and Gases

Area of Application

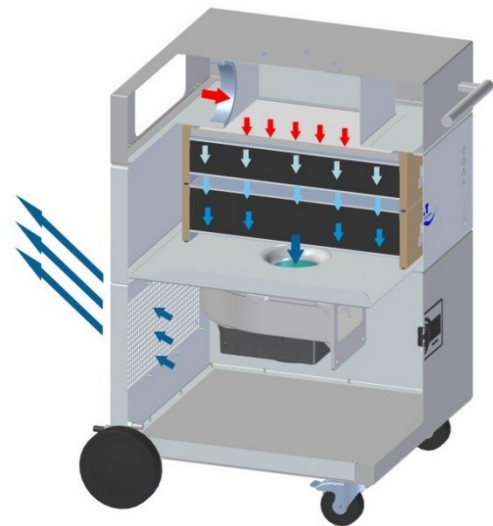
Gluing | Pre-treatment | Painting | Printing | Cleaning | Laminating | Casting

Operating Principle

On the clean gas side of the filter, an EC blower with a high-pressure reserve generates a volumetric flow rate that is matched to the target application. The volumetric flow rate can be individually regulated to a freely adjustable setting. The **raw gas** containing pollutants or harmful substances is thus reliably extracted.

The **coarse dust particles** are separated out in the first filter stage and retained. The separation (adsorption) of air impurities in the form of **gas or vapor** takes place in the activated carbon filter.

The filtration effect of the activated carbon is based on adsorption, i.e. the process by which (gaseous) substances adhere to the surface of the activated carbon. In general, physical adsorption does not involve any chemical changes to the substance being adsorbed. The filter design is matched to the nominal volumetric flow rate of the devices, and as a result the contact time is sufficient in order to achieve good adsorption behavior. For many gases and gas mixtures activated carbon is not suitable as an adsorbent. In these cases, chemisorption can be used as an alternative or additional separation method. Here, a chemical change takes place in the substances that are to be separated out.



● Raw gas ● Filtration ● Clean gas

If this method is used, the filter is filled with a mixture of activated carbon and chemisorption agent or the activated carbon is replaced altogether with chemisorption agent. Thanks to the high degree of purification, the **filtered clean gas** can be directed back to the working space (recirculated air mode). As a result, there are no thermal losses.

Recirculated air mode is not permitted when the equipment is used to extract substances that are carcinogenic, mutagenic, or toxic for reproduction. In these cases, the optional outlet nozzle should be mounted on the outlet side. The filtered clean gas must be directed via a connected pipe section into a central air outlet system.



Device Variants

Different filter combinations are available for the extraction and filtration of gases, odors, and vapors. The suitability of the filter materials that are available for separating out the impurities depends on the pollutants/harmful substances in question. For competent advice and help choosing the right filter material, please contact your local dealer or contact ULT AG directly via ult@ult.de.

The devices in the ULT 1200 series can be equipped with the following filter configurations based on the individual customer requirements:

ACD 1200 MD A28

Table 2: ACD 1200 MD A28

Part number/ complete unit:	MD.18: 1-00014 / MD.80: 1-00016
Filter for organic gases:	Main filter module A28
(1) Z-Line Filter G4	
Filter class:	ISO Coarse 90% according to ISO 16890
(2) Adsorption filter cassette A12	
Filter medium:	Activated carbon fill (12 kg)
(3) Adsorption filter cassette A16	
Filter medium:	Activated carbon fill (16 kg)



Table 3: ACD 1200 MD A28 (optional filter configuration)

Part number option:		9-00096
Filter for gas mixtures:		Main filter module AC36
(1)	Z-Line Filter G4	
	Filter class:	ISO Coarse 90% ISO 16890
(2)	Chemisorption filter cassette AC15 up	
	Filter medium:	Granulate fill with 50% activated carbon and 50% chemisorption agent (15 kg in total)
(3)	Chemisorption filter cassette AC21 bottom	
	Filter medium:	Granulate fill with 50% activated carbon and 50% chemisorption agent (21 kg in total)
Part number option:		9-00097
Filters for gaseous sulfur and nitrogen compounds:		Main filter module C41
(1)	Z-Line Filter G4	
	Filter class:	ISO Coarse 90% ISO 16890
(2)	Chemisorption filter cassette C19 up	
	Filter medium:	Granulate fill with 100% Chemisorption agent (19 kg)
(3)	Chemisorption filter cassette C26 bottom	
	Filter medium:	Granulate fill with 100% Chemisorption agent (22 kg)

ACD 1200 MD A60

Table 4: ACD 1200 MD.18 A60

Part number/ complete unit:		1-00013
Filter for organic gases:		Main filter module A60
(1)	Z-Line Filter G4	
	Filter class:	ISO Coarse 90% according to ISO 16890
(2)	Adsorption filter cassette A12	
	Filter medium:	Activated carbon – fill (12 kg)
(3)	Adsorption filter cassette A16	
	Filter medium:	Activated carbon – fill (16 kg)
(4)	Adsorption filter cassette A16	
	Filter medium:	Activated carbon – fill (16 kg)
(5)	Adsorption filter cassette A16	
	Filter medium:	Activated carbon – fill (16 kg)



ASD Series – Dust and Smoke

Area of Application

Grinding | Engraving | Polishing | Filling and Dosing Processes | Restoration

Operating principle

On the clean gas side of the filter, an EC blower with a high-pressure reserve generates a volumetric flow rate that is matched to the target application. The volumetric flow rate can be individually regulated to a freely adjustable setting. The raw gas containing pollutants or harmful substances is thus reliably extracted.

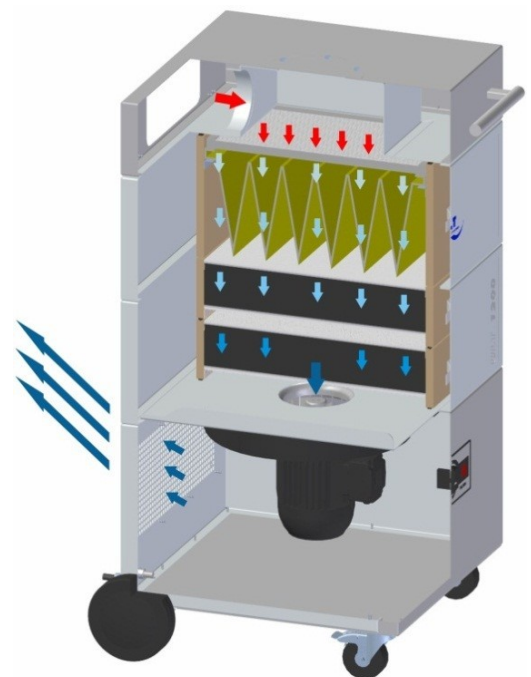
In production processes in which powdery substances are processed or in which materials are sawn, milled, or ground, dust will contaminate the working area. In addition, smoke can be generated in mechanical processes due to heating of the processed materials. **Dust and smoke** are harmful to health and will adversely affect the quality of production processes. As a result, it is important to remove these pollutants/harmful substances from the working area.

Two filter solutions with different filter cartridges for separation of the generated **particles** are available for this in the ASD series. By regularly changing the pre-filtration elements at shorter intervals it is possible to prevent premature saturation of the downstream HEPA H13 main filter element and preserve the functionality of the main filter for a long period of time.

Finest suspended solids are retained by the HEPA H13 filter of the particulate filter cassette H13. This guarantees a particle separation rate of 99.95%.

Thanks to the high degree of purification, the **filtered clean gas** can be directed back to the working space (recirculated air mode). As a result, there are no thermal losses.

Recirculated air mode is not permitted when the equipment is used to extract substances that are carcinogenic, mutagenic, or toxic for reproduction. In these cases, the optional outlet nozzle should be mounted on the outlet side. The filtered clean gas must be directed via a connected pipe section into a central air outlet system.



● Raw gas ● Filtration ● Clean gas



Device Variants

Different filter combinations are available for the extraction and filtration of air impurities in the form of dust and smoke. The suitability of the different filter combinations that are available for separating out the impurities depends on the machining process in question. For competent advice and help choosing the right filter combination, please contact your local dealer or contact ULT AG directly via ult@ult.de.

For the extraction and filtration of harmful substances from dust-generating processes, the devices of the ULT 1200 series can be equipped with the following filter configuration:

ASD 1200 MD.18 TH

An upstream pocket filter F7, in combination with a Z-line filter F7, retains the majority of the generated particles. Its large volume provides a high capacity for holding back coarse dust. At the same time, the large filter surface enables the separation of even the finest dust particles, even at high raw gas flow rates.

Table 5: ASD 1200 MD. 18 TH

Part number/ complete unit:		1-00039
Filter configuration for dust and smoke:		Main filter module TH
(1)	Pocket filter F7	
	Filter class:	ePM1 50% ISO 16890
(2)	Z-Line Filter F7	
	Filter class:	ePM1 65% ISO 16890
(3)	Particulate filter cassette H13	
	Filter class:	H13 HEPA-Filter, HEPA-Filter according to DIN EN 1822



LAS Series – Laser Smoke

Areas of the application

Laser cutting | Laser marking | Laser structuring | Laser engraving

Operating Principle

On the clean gas side of the filter, an EC blower with a high-pressure reserve generates a volumetric flow rate that is matched to the target application. The volumetric flow rate can be individually regulated to a freely adjustable setting. The raw gas containing pollutants or harmful substances is thus reliably extracted.

Laser smoke is produced in a wide range of different work processes in which lasers are used. This toxic, corrosive mixture of aerosols, gas, and nanoparticles represents a health hazard and has a negative impact on the quality of products and the machining process. Depending on the particular machining process, the resulting mixtures of substances that are produced and need to be removed from the raw gas can differ greatly.

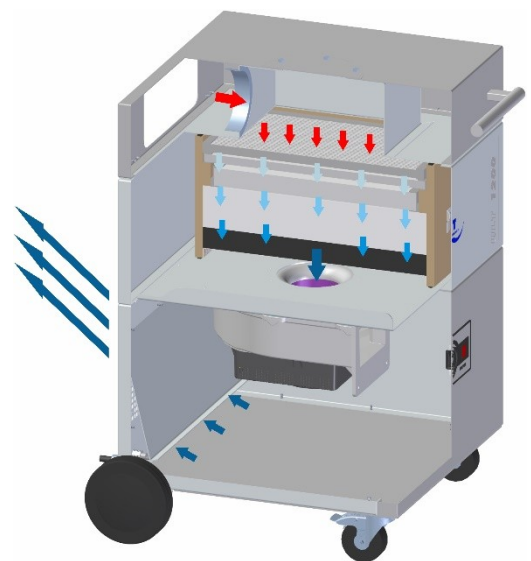
Filter solutions with different pre-filter combinations and an upstream expanded metal filter for separation of aerosols and particles are available for this in the LAS series. The expanded metal filter can be cleaned in an industrial washer and is therefore reusable. By regularly changing the pre-filtration elements at shorter intervals, it is possible to preserve the functionality of the main filter for an extended period of time.

Finest suspended solids are retained by the HEPA H13 filter of the particulate filter cassette H13. This guarantees a particle separation rate of 99.95%.

The separation (adsorption) of air impurities in the form of **gas or vapor** takes place in the activated carbon fill of the adsorption filter.

The filtration effect of the activated carbon is based on adsorption, i.e. the process by which (gaseous) substances adhere to the surface of the activated carbon. In general, physical adsorption does not involve any chemical changes to the substance being adsorbed. The design of the filter is based on the nominal volumetric flow rate of the units, while the contact time is designed for medium adsorption behavior.

Thanks to the high degree of purification, the **filtered clean gas** can be directed back to the working space (recirculated air mode). As a result, there are no thermal losses.



Raw gas Filtration Clean gas



Recirculated air mode is not permitted when the equipment is used to extract substances that are carcinogenic, mutagenic, or toxic for reproduction. In these cases, the optional outlet nozzle should be mounted on the outlet side. The filtered clean gas must be directed via a connected pipe section into a central air outlet system.

Device Variants

Various filter combinations are available for the extraction and filtration of harmful gas/dust mixtures from laser machining processes. The suitability of the different filter combinations that are available for separating out the impurities depends on the machining process in question. For competent advice and help choosing the right filter combination, please contact your local dealer or contact ULT AG directly via ult@ult.de.

The devices in the ULT 1200 series can be equipped with the following filter configurations based on the individual customer requirements:

LAS 1200 MD.18 K

A pre-filter combination consisting of an upstream expanded metal filter, a Z-line filter G4, and a Z-line filter F7 retains aerosols and particles, preventing premature clogging of the downstream H13 main filter element. This multi-stage filter setup is particularly well suited for the separation of dry laser fumes.

Table 6: LAS 1200 MD.18 K

Part number/ complete unit:	1-00075
Filter configuration for laser smoke:	Main filter module K
(1) Expanded metal pre-filter	
Metal fiber mesh, condensation filter	
(2) Pre filter set	
Z-Line Filter G4	
Filter class:	ISO Coarse 90% according to ISO 16890
(3) Z-Line Filter F7	
Filter class:	ePM1 65% according to ISO 16890
(4) Combination filter cassette H13A8	
(4.1) Particle filter H13	
Filter class:	H13 HEPA-Filter, HEPA filter according to DIN EN 1822
(4.2) Adsorptions filter A8	
Filter medium:	Activated carbon fill (8 kg)



LAS 1200 MD.18 THA16

An alternative configuration is available that uses a pocket filter for pre-separation. This setup is ideal for processes generating large volumes of sticky laser fumes, such as those from organic material processing. Thanks to its large volume, the pocket filter promotes condensation and agglomeration of separated aerosols and particles without causing filter blockage.

Table 7: LAS 1200 MD.18 THA16

Part number/ complete unit:		1-00074
Filter configuration for laser smoke:		Main filter module THA16
(1)	Expanded metal pre-filter Metal fiber mesh, condensation filter	
(2)	Pocket filter F7 Filter class:	ePM1 50% according to ISO 16890
(3)	Filter mat M5 Filter class:	ePM10 50% according to ISO 16890
(4)	Particle filter H13 Filter class:	H13 HEPA-Filter, HEPA filter according to DIN EN 1822
(5)	Adsorption filter A16 Filter medium:	Activated carbon fill (16 kg)



LAS 1200 MD.18 FHA16

A pre-filter, consisting of an upstream particulate filter cassette (F), captures aerosols and particles, effectively preventing premature clogging of the downstream H13 main HEPA filter element. This multi-stage filtration setup is particularly well-suited for the extraction of dry laser fume containing a high proportion of fine dust particles.

Table: 8: LAS 1200 MD.18 FHA16

Part number/ complete unit:		1-00153
Filter configuration for laser smoke:		Main filter module FHA16
		Expanded metal pre-filter (optional)
(1)	Particle filter cassette F	
	Filter class:	ePM1 80%, according to ISO 16980
(2)	Particle filter cassette H13	
	Filter class:	H13 HEPA-Filter, HEPA filter according to DIN EN 1822
(3)	Adsorption filter A16	
	Filter medium:	Activated carbon fill (16 kg)



LRA Series – Soldering Fumes

Areas of Application

Manual Soldering | Robot Soldering | Soldering Systems at Special Workplaces

Operating Principle

On the clean gas side of the filter, an EC blower with a high-pressure reserve generates a volumetric flow rate that is matched to the target application. The volumetric flow rate can be individually regulated to a freely adjustable setting. The raw gas containing pollutants or harmful substances is thus reliably extracted.

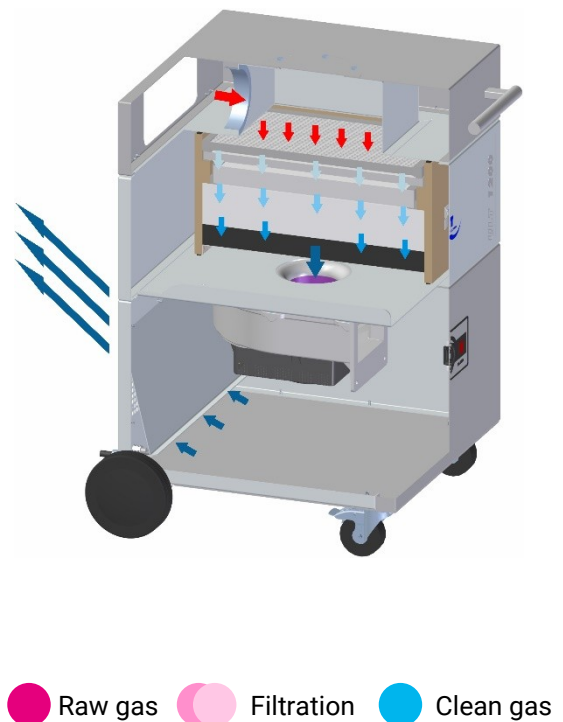
During soldering work, **soldering fumes** are formed from evaporating soldering flux, small amounts of solder, as well as outgassing substances from processed circuit boards and components. The fumes consist of a mixture of sticky aerosols, particles, and gases that need to be removed from the raw gas.

The filter configuration used for this has been specially designed for the application. An upstream expanded metal filter retains cooled-down sticky aerosols and prevents premature saturation of the downstream filter elements. The expanded metal filter can be cleaned in an industrial washer and can therefore be used multiple times.

Particles contained in the soldering fumes are separated in a multi-stage storage filtration system. Thanks to their depth effect, the filter pads used are particularly well suited to the separation of soldering fumes. A large proportion of the particles contained in the soldering fumes and of the aerosols still remaining in the raw gas is captured through adsorption at this point. Finest suspended solids are retained by the HEPA H13 filter of the particulate filter cassette H13. This guarantees a particle separation rate of 99.95%.

The separation (adsorption) of air impurities in the form of **gas or vapor** takes place in the activated carbon fill of the adsorption filter.

The filtration effect of the activated carbon is based on adsorption, i.e. the process by which (gaseous) substances adhere to the surface of the activated carbon. In general, physical adsorption does not involve any chemical changes to the substance being adsorbed. The design of the filter is based on the nominal volumetric flow rate of the units, while the contact time is designed for medium adsorption behavior.





Thanks to the high degree of purification, the **filtered clean gas** can be directed back to the working space (recirculated air mode). As a result, there are no thermal losses.

Recirculated air mode is not permitted when the equipment is used to extract substances that are carcinogenic, mutagenic, or toxic for reproduction. In these cases, the optional outlet nozzle should be mounted on the outlet side. The filtered clean gas must be directed via a connected pipe section into a central air outlet system.

Device Variants

The units in the ULT 1200 series can be equipped with the following filter configuration for extraction and filtration of harmful gas/dust mixtures from soldering processes:

LRA 1200 MD.18 K

Table 9: LRA 1200 MD.18 K

Product number / complete unit: 1-00093	
filter configuration for soldering fumes:	Main filter module K
(1) Expanded metal pre-filter	
Metal fiber mesh, condensation filter	
(2) Z-Line Filter G4	
Filter classes:	ISO Coarse 90% according to ISO 16890
(3) Z-Line Filter F7	
Filter classes:	ePM1 65% according to ISO 16890
(4) Combination filter cassette H13A8	
(4.1) Particle filter H13	
Filter class:	H13 HEPA-Filter, HEPA filter according to DIN EN 1822
(4.2) Adsorption filter A8	
Filter medium:	Activated carbon fill (8 kg)



Accessory items

Suction system DN150

hoses



Suction hose DN150, By the meter	Antistatic, without accessories	6-16401
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Hose accessories



spiral hose clamp	145-165 mm	6-06966
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Suction system DN160

hoses



Suction hose DN160, By the meter	antistatic, without accessories	6-16402
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Hose accessories



spiral hose clamp	155-175 mm	6-06954
End fitting DN160	antistatic	6-07282



Elements for extraction arm installation and intake nozzles



**swivel, 360 Degrees,
polyester-coated steel
black**

device assembly,
Extraction arms,
Flextractor accessories

CB-SU-160

Extraction arms



**jointed extraction arm
DN160m,
2 meter**
Resistant to welding fumes, oil
resistant

with wall bracket,
without capturing element
Flextractor accessories

CA2-160-
BPU301

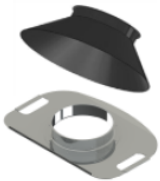


**extendable extraction arm
DN160m,
1,2-1,6 Meter**
Resistant to welding fumes, oil
resistant

without capturing element
Flextractor accessories

CT2-160-
BPU301

Collecting elements



Flared hood coated black

Flextractor accessories

CH-160-
Flared

Flat hood coated

Flextractor accessories

CH-160-Flat

Extraction arm set Flextraction



Articulated extraction arm
DN160,
3m, with slewing ring
abrasion, chemicals, welding
fume, oil and temperature
proof up to 90°C

Flextractor accessories

5-01587



incl.
flat hood, powder coated



incl.
flat hood, powder coated



Elements for extraction arm mounting for EX-applications



**360° swivel,
mild steel polyester coated
black**

Device mounting
extraction arm,
Flextractor accessory

XCB-SU-160

Extraction arms for EX-applications



**Extraction arm DN160m,
2 meters**

with wall mounting,
without collecting element

XCA2-160-
BPE322

ATEX certified

Flextractor accessory



**Telescopic arm DN160m,
1,2-1,6 meters**

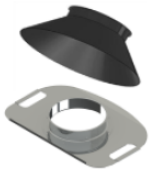
without collecting element

XCT2-160-
BPE322

ATEX certified

Flextractor accessory

Collecting elements for Ex- applications



Flared hood ATEX certified

Flextractor accessory

XCH-160-
Flared

Flat hood ATEX certified

Flextractor accessory

XCH-160-
Flat

Extraction arm set Flextraction ATEX



Articulated extraction arm
DN160, 3m, with slewing ring,
ATEX-certified
Chemicals and temperature
proof up to 80°C

Flextractor Accessoires

5-01588



incl.
flat hood, powder coated,
ATEX-certified



incl.
intake mesh
ATEX-certified



DN200 exhaust air system

Hoses



Suction hose DN200, per meter	antistatic, without accessories	6-16403
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Hose accesories



Spiral hose clamp	195-215 mm	6-06955
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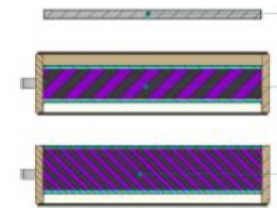


Replacement filter

ACD



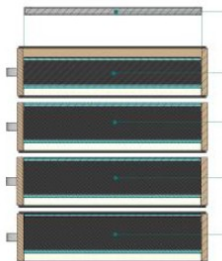
Filter A28		
Z-Line Filter G4-02		4-00310
Adsorption filter cassette A12 top		4-00401
Adsorption filter cassette A16 bottom		4-00399



Z-Line Filter G4-02		4-00310
Chemisorption filter cassette AC15 top		4-00414
Chemisorption filter cassette AC21 bottom		4-00415



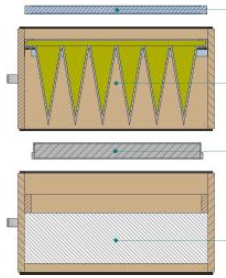
Z-Line Filter G4-02		4-00310
Chemisorption filter cassette C19 top		4-00417
Chemisorption filter cassette C26 Bottom		4-00416



Filter A60		
Z-Line Filter G4-02		4-00311
Adsorption filter cassette A12 top		4-00401
Adsorption filter cassette A16 bottom (3 pcs needed per device)		4-00399

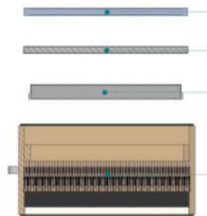


ASD

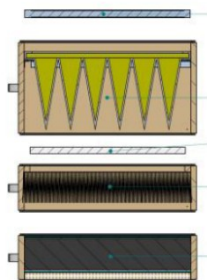


Filter TH	
Expanded metal filter (optional)	4-00312
Pocket filter F7	4-00181
Pocket filter F7 - Set of 10 pcs	4-00182
Z-Line Filter F7	4-00331
Particle filter cassette H13	4-00092

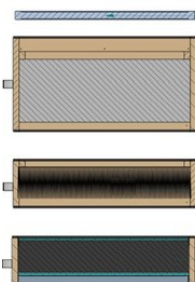
LAS



Filter K	
Expanded metal filter	4-00312
Z-Line Filter G4-02	4-00310
Z-Line Filter G4-02 - Set of 10 pcs	4-00311
Z-Line Filter F7	4-00331
Combined filter cassette H13A8	4-00096



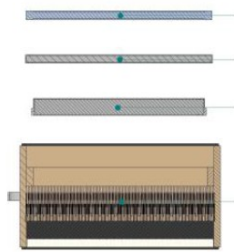
Filter THA16	
Expanded metal filter	4-00312
Pocket filter F7	4-00181
Filter mat M5	4-00246
Particle filter cassette H13	4-00094
Adsorption filter cassette A16 bottom	4-00399



Filter FHA16	
Expanded metal filter (optional)	4-00312
Particle filter cassette F	4-00828
Particle filter cassette H13	4-00094
Adsorption filter cassette A16 bottom	4-00399

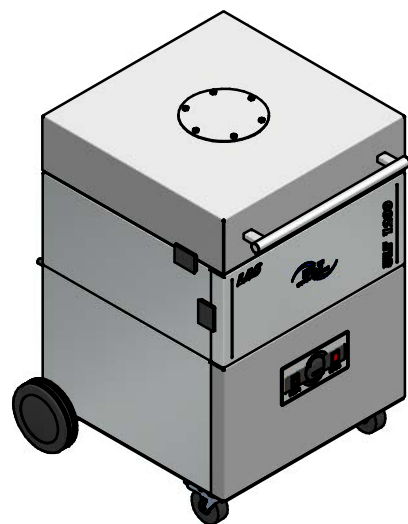
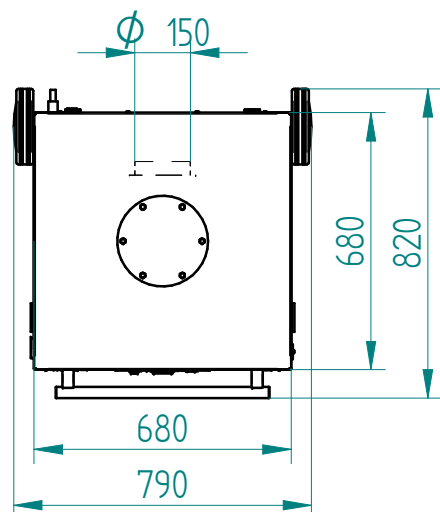
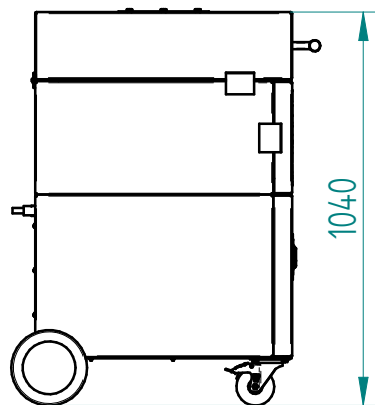
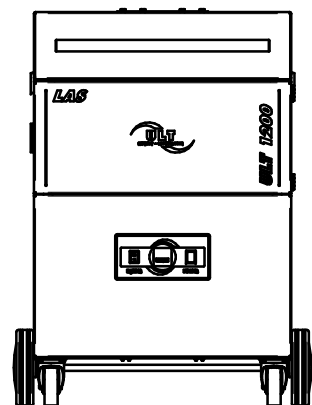


LRA



Filter K		
Expanded metal filter		4-00312
Z-Line Filter G4-02		4-00310
Z-Line Filter G4-02 - Set of 10 pcs		4-00311
Z-Line Filter F7		4-00331
Combined filter cassette H13A8		4-00096



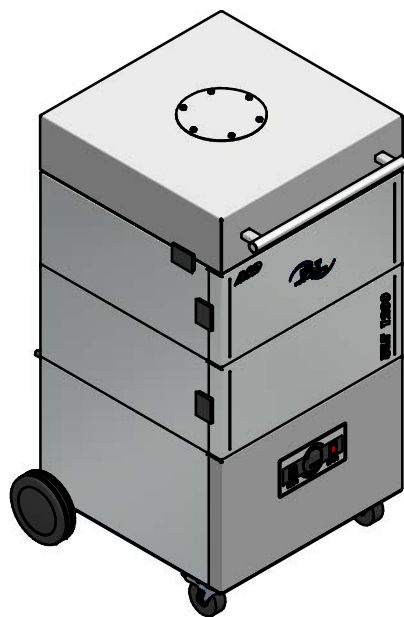
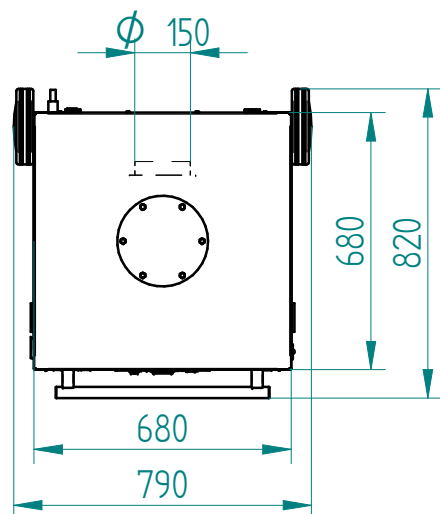
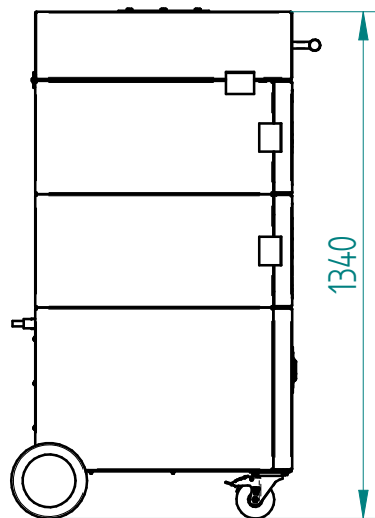
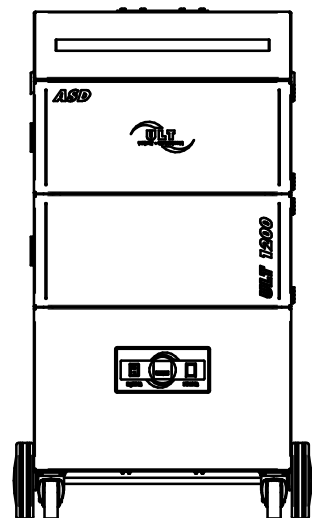


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				ULT AG Am Göpelteich 1 D-02708 Lobau		Benennung LAS 1200 MD K	
				2012	Datum	Name	Zeichnungsnummer:
				Bearb.	20.07.	RSCH	
001	Basis	20.07.12	RSCH	Gepr.			ULT 1200_00_129_006
Aus- gabe	Änderung	Tag	Name	Norm			Maßstab: 1 : 20





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002	Beschriftung	06.11.12	JSACZ	2012	Datum	Name	Zeichnungsnummer: ULT 1200_00_107_006	Maßstab: 1 : 20
001	Basis	03.04.12	RSEH	Bearb.	03.04.	RSEH		
Aus- gabe	Änderung	Tag	Name	Gepr.		Norm		



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