LAS ASD LRA ACD MED RES LAB

Technical Documentation

ULT JUMBO Filtertrolley

Version 003

air quality

Contents

Description of Product Series

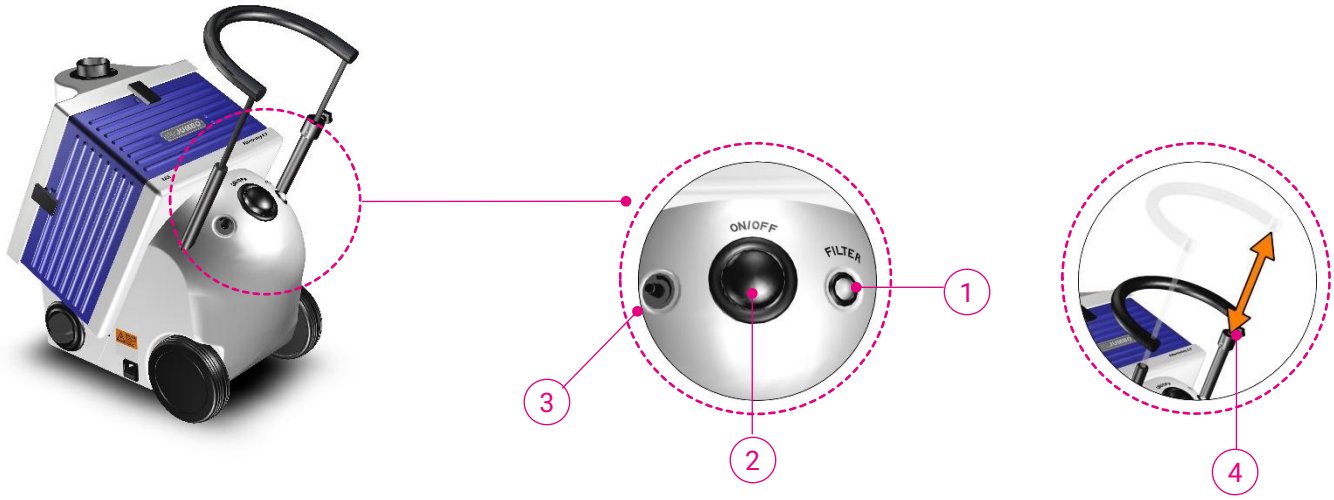
The units in the series of the JUMBO Filtertrolley product range are suitable for collecting and filtering contaminants and impurities in the form of dusts and gases. There are suitable multi-level filtering systems for every possible industrial application and the most diverse compositions of harmful or unwanted substances.
The contaminants and impurities generated during the customer's process are collected directly from the point of origin via the collection elements and filtered by the JUMBO Filtertrolley product range. High precipitation rates are achieved thanks to the targeted combination of the available single filters. The underlying filter technology uses the principles of particle separation for dust and the principle of adsorption for gaseous substances.
Thanks to the high degree of cleaning, the filtered clean gas can then be returned to the working area (recirculated-air operation). This avoids any loss of heat.
The JUMBO Filtertrolley can be optionally combined with a diverse range of accessories. The right accessories can be selected according to the customer requirements.

Features of the JUMBO Filtertrolley extraction and filtration unit

- An **exchangeable filter system** – low-contamination removal
- **Low replacement filter costs** hanks to the multi-level filter system with competitively priced prefilter elements with increased absorption capabilities
- **Very low energy consumption** thanks to energy-efficient electronics
- The electrical equipment provided enables **worldwide use**: operable at 230 V or 100 - 120 V
- Integrated sound insulation ensures that the device **operates extremely quietly**
- Central on/off switch
- Exhaust position freely selectable
- Continuously adjustable air flow controller
- Filter clogging indicator with indication of clogging of the intake and exhaust openings
- Impact-resistant ABS plastic housing
- Unit is **mobile** with wheels and a telescopic handle
- Standard extraction openings 1x Ø50; optional 1x Ø75
- Alsident extraction arms can be directly mounted

Equipment

Figure 1: Front operating panel



1

Loaded particle filter indicator

- When the particulate filter is saturated, the indicator lights up (red)

2

On/Off switch

3

Potentiometer

- Direct control of the blower speed

4

Retractable telescopic handle

Figure 2: Interfaces

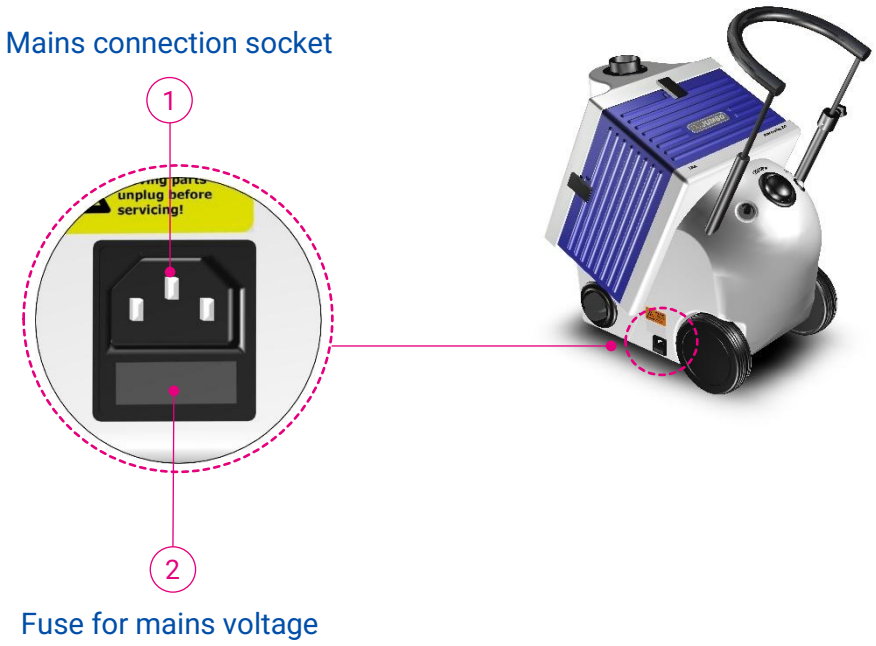


Figure 3: Air intake versions

Standard configuration
1x intake nozzle Ø 50 mm

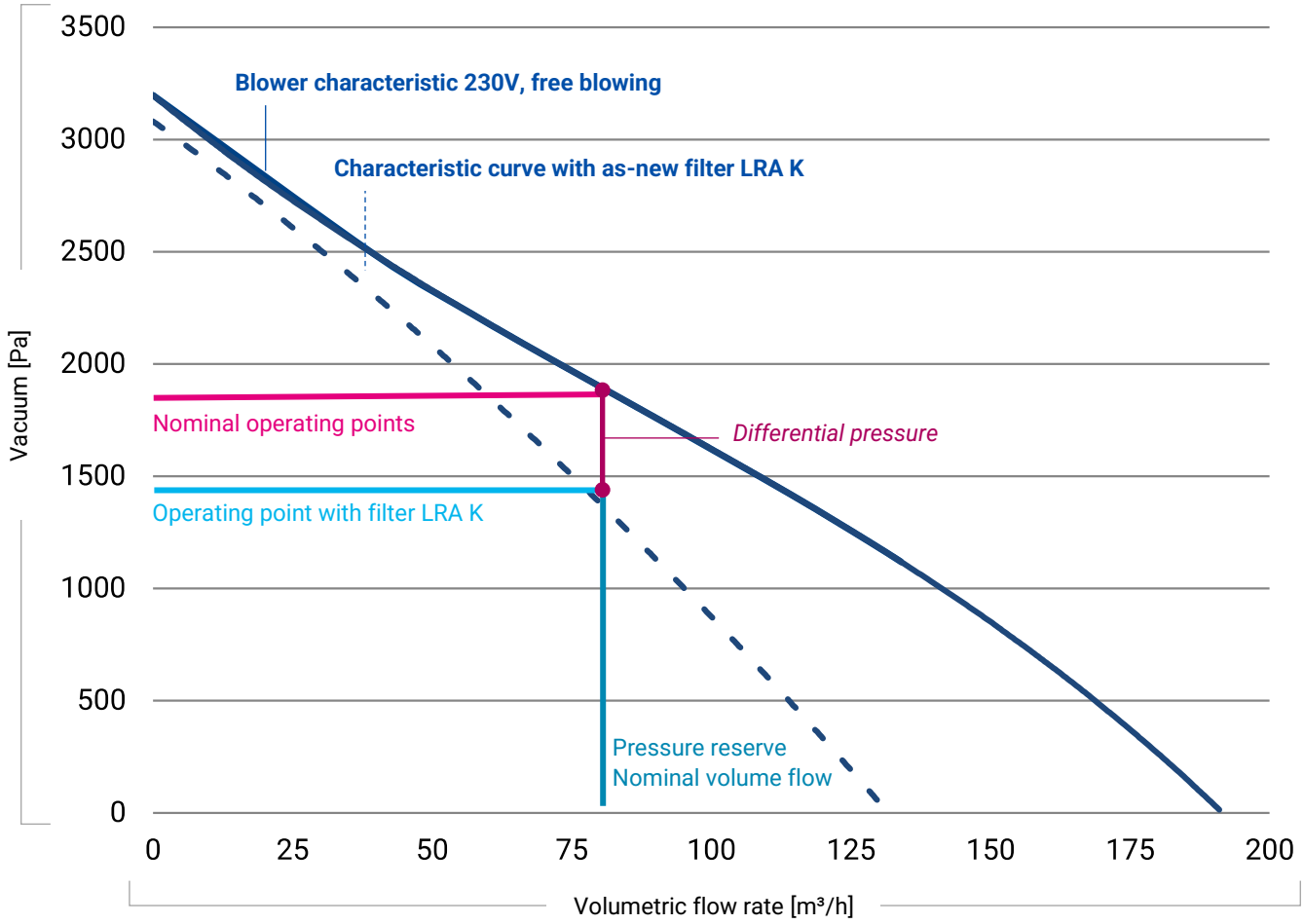
Option (for ACD, LAS, LRA only)
1x intake nozzle Ø75 mm

Technical Data ULT JUMBO Filtertrolley

Table 1: Technical Data ULT JUMBO Filtertrolley (230V) / (100-120V)

PARAMETER	UNIT	230V	100 – 120V
Volumetric flow, max.	m³ / h	190	150 (100V) – 160 (120V)
Vacuum max.	Pa	3.200	2.500 (100V) – 2.700 (120V)
Rated operating point	m³/h @ Pa	80 @ 1.900	65 @ 1.300 (100V) 80 @ 1.400 (120V)
Protection rating	IP	54	54
Noise level (@ 50 - 100% air throughput)	dB(A)	49 - 54	49 - 54
Vacuum generator type		EC- blower	EC- blower
Rated voltage	VAC	1~230	1~100 - 120
Rated frequency	Hz	50/60	50/60
Motor rating	kW	0,15	0,15
Rated current	A	1,0	2,0
Air flow controller		yes	
Loaded particle filter indicator	optical	yes	
Interface SUB D9		no	
Dimensions (Width x Depth x Height)	mm	340 x 450 x 530 - 850	
Weight (without filter)	kg	approx. 21	
Max. filter weight	kg	approx. 15	
Air intake versions:	Standard Option	1x ∅ 50 mm nozzle 1x Ø 75 mm nozzle	
	Connection options	Hose connection or arm installation	
Extracted air outlet::		2 adjustable exhaust nozzles	
	Location	On the bottom on both sides	
Mains power cable	m	3,0	

Figure 4: Characteristic Curves and Operating Modes (230 V)



Application ACD – Odor, Gas and Vapors

Areas of application

Adhesive Bonding | Priming | Painting/Printing | Cleaning | Laminating | Casting

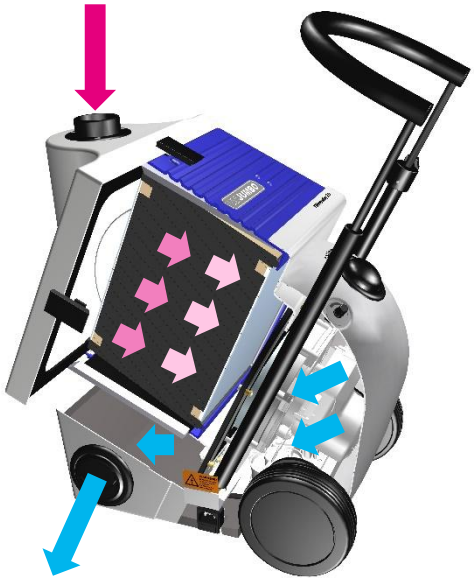
Functional principle

An EC blower generates a volumetric flow suitable for the application on the clean-gas side of the filter. The volumetric flow can be controlled individually and steplessly. In this way, the pollutant-laden raw gas is extracted in a reliable manner.

The coarse-dust particles are precipitated and held back in the first filter stage. The precipitation (adsorption) of gaseous and vaporous air contaminations takes place in the activated carbon filter.

The filter effect of the activated carbon is based on adsorption, i.e. on the depositing of (gaseous) substances on the surface of the activated carbon. In general, no chemical changes of the adsorbed substance take place in physical adsorption. The filter construction is adapted to the nominal volumetric flow of the devices so that the contact period is sufficient for achieving a good adsorption response.

Activated carbon is not suitable as an adsorption medium in the presence of a multitude of gases and gaseous mixtures. The chemisorption adsorption process can be used in such applications, either as an alternative or as a supplement. A chemical alteration of the substances to be precipitated takes place in this connection.



Raw gas Filtration Clean gas

When this procedure is used, the filter is filled with a mixture of activated carbon and chemisorption medium or the activated carbon is replaced in its entirety by the chemisorption medium.

Thanks to the high degree of cleaning, the filtered clean gas can then be returned to the working area (recirculated-air operation). This avoids any loss of heat.

Recirculated air operation is not permitted for the suctioning and filtration of carcinogenic, mutagenic or reprotoxic substances.

Device variants

A variety of filter combinations is available for the suctioning and filtration of gases, odors and vapors. The available filter materials exhibit different suitabilities for precipitation, depending on the contaminant present. For expert advice for the selection of the correct filter medium, please contact your local dealer or ULT AG directly using ult@ult.de.

In accordance with customer-specific requirement, the JUMBO Filtertrolley series of units can be equipped with the following filter attachments:

FILTERTROLLEY 2.0 ACD

Table 2: Filtertrolley 2.0 ACD

Part number for complete device:	1-00017
Filter set-up for organic gases:	Main filter A6
(1) Adsorption filter cassette A6	
Filter medium:	Activated carbon bed (6 kg)

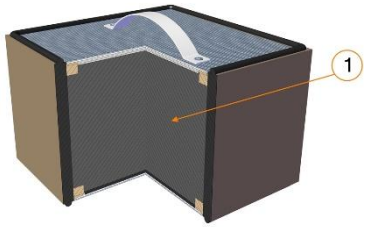


Table 3: 50 vol% Chemisorption für ACD

Part number of option:	9-00117
Filter for gas mixtures:	Main filter module AC8
(1) Chemisorption filter cassette AC8	
Filter medium:	Granulate bed made of 50 vol% activated carbon and 50 vol% chemisorption medium (total 8 kg)

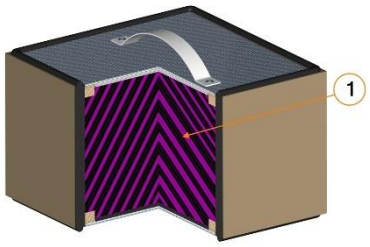
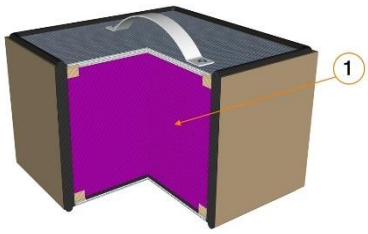


Table 4: 100% Chemisorption für ACD

Part number of option:	9-00118
Filter for gaseous sulfur & nitrogen compounds:	Main filter module C10
(1) Chemisorption filter cassette C10	
Filter medium:	Granulate bed made of 100% chemisorption medium (10 kg)



Application ASD – dust and smoke

Areas of application

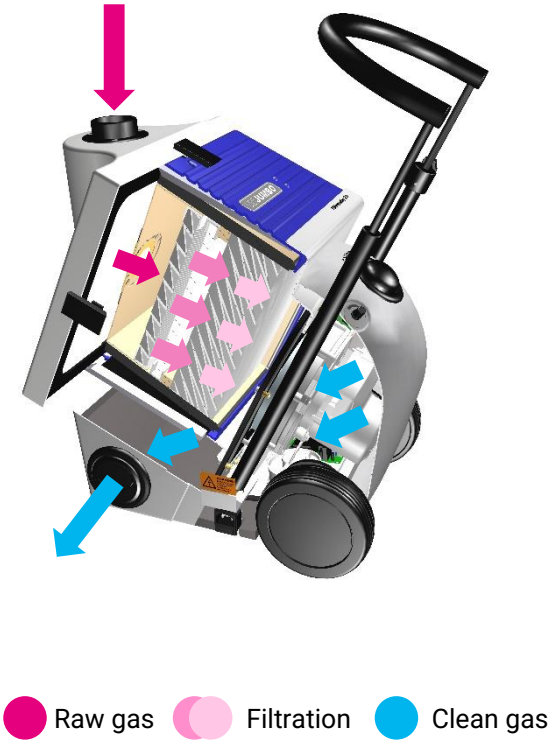
Grinding | Engraving | Polishing | Filling and dosing processes

Functional principle

An EC blower generates a volumetric flow suitable for the application on the clean-gas side of the filter. The volumetric flow can be controlled individually and steplessly. In this way, the pollutant-laden raw gas is extracted in a reliable manner.

In production processes in which powder materials are processed or materials are sawed, milled or ground, dust contaminates the working area. In addition, mechanical processes can generate smoke by heating the processed materials. Dust and smoke are harmful to health and affect the quality of production processes. For this reason, these pollutants must be removed from the work area.

The filter set-up used is specially designed for this purpose. An upstream Z-Line filter in a carton retains coarse dust particles. The Z-Line filter is integrated into a disposal carton and is sealed at the raw gas. The raw gas enters via the lip seal. The Z-Line filter can be disposed of via the disposal carton at a low level of contamination. The particles contained in the raw gas are precipitated in a multi-stage storage filter system. Thanks to their depth penetration, the filter mats used are particularly suitable for the precipitation of a wide spectrum of particles and for cooled smoke constituents.



The prefilter elements prevent premature clogging of the downstream H13 main filter element. Regularly changing the prefilter elements at shorter intervals significantly extends the functionality of the main filter.

Extremely fine suspended substances are held back by the High Efficiency Particulate Air filter H13 in the particle filter cassette H13. This guarantees a precipitation rate of 99.95%.

Thanks to the high degree of cleaning, the filtered clean gas can then be returned to the working area (recirculated-air operation). This avoids any loss of heat.

Recirculated air operation is not permitted for the suctioning and filtration of carcinogenic, mutagenic or reprotoxic substances.

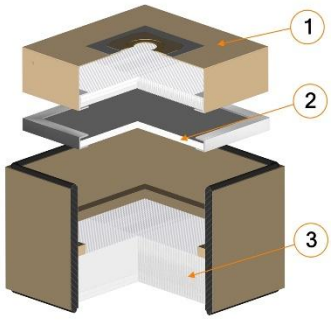
Device variants

Units in the JUMBO Filtertrolley series can be equipped with the following filter set-up for extracting and filtering air contamination in the form of dust and smoke:

FILTERTROLLEY 2.0 ASD

Table 5: Filtertrolley 2.0 ASD

Part number for complete device:	1-00047
Filter set-up for dust and smoke:	Combined filter cassette
(1) Z-Line filter G4	
Filter class:	ISO Coarse 90% according ISO 16890
(2) Filter mat M5	
Filter class:	ISO Coarse 85% according ISO 16890
(3) Particle filter cassette H13	
Filter class:	H13 High Efficiency Particulate Air (HEPA) filter, suspended matter filter according to DIN EN 1822



Application LAS – laser smoke

Areas of application

Laser Cutting | Laser Marking | Laser Structuring | Laser Engraving

Functional principle

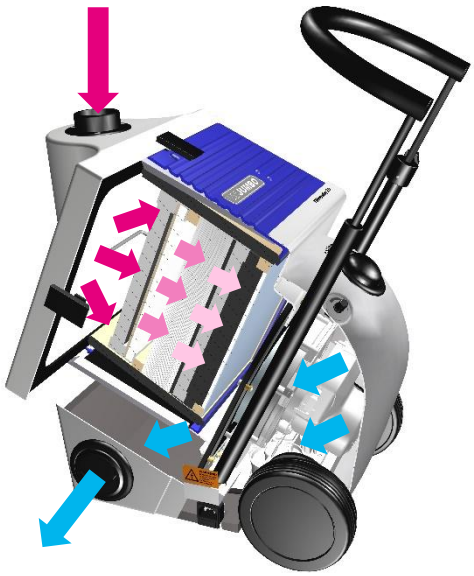
An EC blower generates a volumetric flow suitable for the application on the clean-gas side of the filter. The volumetric flow can be controlled individually and steplessly. In this way, the pollutant-laden raw gas is extracted in a reliable manner.

The versatile work processes in which lasers are used generate laser smoke. This toxic, corrosive mixture of aerosol, gas and nanoparticles poses a health hazard and adversely affects the product and process quality. Depending on the process, very different precipitating mixtures of substances can be created, which must be removed from the raw gas.

The filter set-up used is specially designed for this purpose. An upstream filter combination of an expanded metal filter and filter mats retains aerosols and particles and prevents premature clogging of the downstream H13 main filter element.

The upstream expanded metal filter can be cleaned in an industrial washer, making it reusable.

Regularly changing the prefilter mats at shorter intervals significantly extends the functionality of the main filter.



Raw gas Filtration Clean gas

Thanks to their depth penetration, the prefilters used are particularly suitable for the precipitation of laser smokes. A majority of the particles contained in the laser smoke are trapped at this stage. Extremely fine suspended substances are held back by the High Efficiency Particulate Air filter H13 in the combined filter cassette H13A. This guarantees a particle precipitation rate of 99.95%.

The precipitation (adsorption) of gaseous and vaporous air contamination takes place in the activated carbon bed of the combined filter cassette H13A.

The filter effect of the activated carbon is based on adsorption, i.e. on the depositing of (gaseous) substances on the surface of the activated carbon. In general, no chemical changes of the adsorbed substance take place in physical adsorption. The nominal volumetric flow of the devices is based on the filter construction, the contact period is oriented to a medium adsorption response.

Thanks to the high degree of cleaning, the filtered clean gas can then be returned to the working area (recirculated-air operation). This avoids any loss of heat.

Recirculated air operation is not permitted for the suctioning and filtration of carcinogenic, mutagenic or reprotoxic substances.

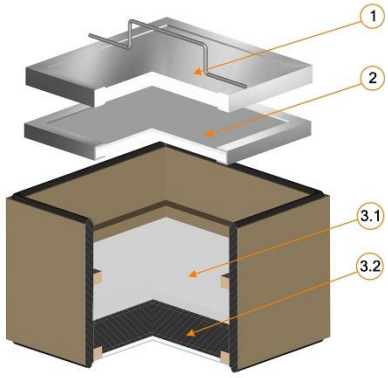
Device variants

Units in the JUMBO Filtertrolley series can be equipped with the following filter set-up for suctioning and filtering harmful gas/dust mixtures from laser machining processes:

FILTERTROLLEY 2.0 LAS

Table 6: Filtertrolley 2.0 LAS

Part number for complete device:	1-00084
Filter set-up for laser smoke:	Multi-stage filter cassette
(1) Expanded metal prefilter Metal mesh, condensation filter	
(2) Interchangeable frame with M5 and F7 filter mat	
Filter mat M5: Filter mat F7:	ISO Coarse 85% according ISO 16890 ISO ePM10 75% according ISO 16890
(3) Combined filter cassette H13A	
(3.1) Particulate filter H13	
Filter class:	H13 High Efficiency Particulate Air (HEPA) filter, suspended matter filter to DIN EN 1822
(3.2) Adsorption filter A	
Filter medium:	Activated carbon bed



Application LRA – Soldering smoke

Areas of application

Manual Soldering | Robot Soldering | Soldering Systems at Special Workstations

Functional principle

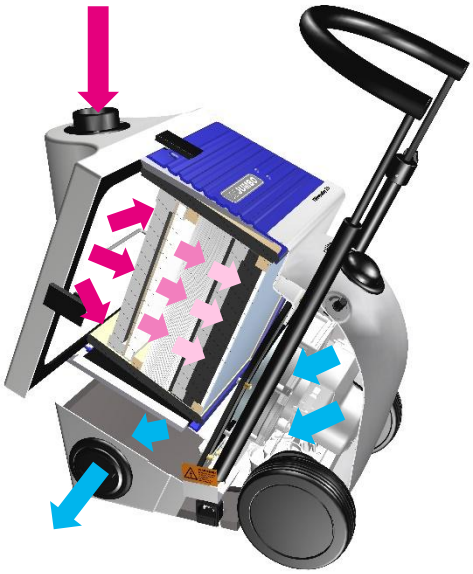
An EC blower generates a volumetric flow suitable for the application on the clean-gas side of the filter. The volumetric flow can be controlled individually and steplessly. In this way, the pollutant-laden raw gas is extracted in a reliable manner.

When soldering work is performed, soldering smoke forms out of vaporizing flux, small quantities of solder and gas-emitting substances from working circuit boards and components. This is comprised of a mixture of adhesive aerosols, particles and gases that must be removed from the raw gas.

The filter set-up used is specially designed for this purpose. An upstream filter combination of an expanded metal filter and filter mats retains the cooled, sticky aerosols in the suction line and particles in the soldering smoke to prevent premature clogging of the downstream H13 main filter element.

The expanded metal filter can be cleaned in an industrial washer and can be reused multiple times.

Regularly changing the filter M5/F7 filer mat combination at shorter intervals significantly extends the functionality of the main filter.



Raw gas Filtration Clean gas

Thanks to their depth penetration, the filter mats used are particularly suitable for the precipitation of soldering smokes. A majority of the particles contained in the soldering smoke are trapped at this stage. Extremely fine suspended substances are held back by the High Efficiency Particulate Air filter H13 in the combined filter cassette H13A. This guarantees a particle precipitation rate of 99.95%.

The precipitation (adsorption) of gaseous and vaporous air contamination takes place in the activated carbon bed of the combined filter cassette H13A.

The filter effect of the activated carbon is based on adsorption, i.e. on the depositing of (gaseous) substances on the surface of the activated carbon. In general, no chemical changes of the adsorbed substance take place in physical adsorption. The nominal volumetric flow of the devices is based on the filter construction, the contact period is oriented to a medium adsorption response.

Thanks to the high degree of cleaning, the filtered clean gas can then be returned to the working area (recirculated-air operation). This avoids any loss of heat.

Recirculated air operation is not permitted for the suctioning and filtration of carcinogenic, mutagenic or reprotoxic substances.

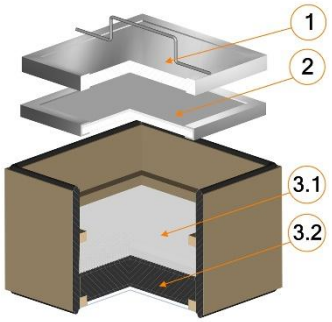
Device variants

Units in the JUMBO Filtertrolley series can be equipped with the following filter set-up for extracting and filtering harmful gas/dust mixtures from soldering processes:

FILTERTROLLEY 2.0 LRA

Table 7: Filtertrolley 2.0 LRA

Part number for complete device:	1-00094	
Filter set-up for soldering smoke:	Multi-stage filter cassette	
(1)	Expanded metal prefilter Metal mesh, condensation filter	
(2)	Interchangeable frame with M5 and F7 filter mat	
	Filter mat M5 Filter mat F7	ISO Coarse 85% according ISO 16890 ISO ePM10 75% according ISO 16890
(3)	Combined filter cassette H13A	
	(3.1) Particulate filter H13	
	Filter class:	H13 High Efficiency Particulate Air (HEPA) filter, suspended matter filter to DIN EN 1822
	(3.2) Adsorption filter A	
	Filter medium:	Activated carbon bed



Series MED – Medical laser smoke

Areas of application

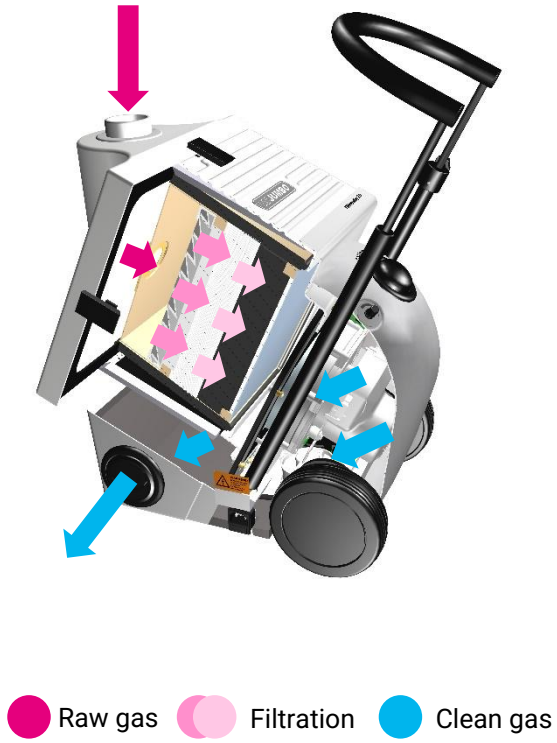
Medical laser smoke

Functional principle

An EC blower generates a volumetric flow suitable for the application on the clean-gas side of the filter. The volumetric flow can be controlled individually and steplessly. The pollutant-laden raw gas is thus reliably extracted.

Laser smoke resulting from medical applications presents a health risk to patients and medical personnel. This is a mixture of fine dust and corrosive aerosol that can enter the lungs and is also contaminated with bacteria. A simple face mask is not sufficient here. Laser smoke also damages the equipment through the depositing of strongly adherent coatings. These pollutants must therefore be completely removed directly at the point of origin.

The filter set-up used is specially designed for this application. The combination of prefiltering, suspended matter filtering and a large activated carbon layer ensures a high rate of precipitation of the gases and vapors that are potentially hazardous to health. The particles contained in the laser smoke are precipitated in a multi-stage storage filter system. Extremely fine suspended substances are retained by the ULPA U15 filter in the U15 combined filter cassette. This guarantees a particle precipitation rate significantly greater than 99.9995%.



The precipitation (adsorption) of gaseous air contamination takes place in the activated carbon bed of the U15A combined filter cassette.

The filter effect of the activated carbon is based on adsorption, i.e. on the depositing of (gaseous) substances on the surface of the activated carbon. In general, no chemical changes of the adsorbed substance take place in physical adsorption. The nominal volumetric flow of the devices is based on the filter construction, the contact period is oriented to a medium adsorption response.

Thanks to the high degree of cleaning, the filtered clean gas can then be returned to the working area (recirculated-air operation). This avoids any loss of heat.

Recirculated air operation is not permitted for the suctioning and filtration of carcinogenic, mutagenic or reprotoxic substances.

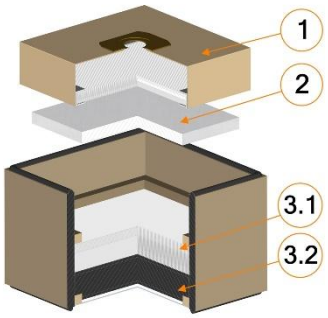
Device variants

Units in the JUMBO Filtertrolley series can be equipped with the following filter set-up for extracting and filtering laser smoke resulting from medical applications:

FILTERTROLLEY 2.0 MED

Table 8: Filtertrolley 2.0 MED

Part number for complete device:	1-00096
Filter set-up for combustion products of medical laser applications:	Combined suspended matter filter
(1) Z-Line filter cassette G4	
Filter class:	ISO Coarse 90% according ISO 16890
(2) Filter mat M5	
Filter class:	ISO Coarse >85% according ISO 16890
(3) Combined filter cassette U15A	
(3.1) Particulate filter U15	
Filter class:	U15 Ultra Low Penetration Air (UPLA) filter, suspended matter filter according to DIN EN 1822
(3.2) Adsorption filter A	
Filter medium:	Activated carbon bed



Restauro series – Dust, Smoke, Vapors

Areas of application

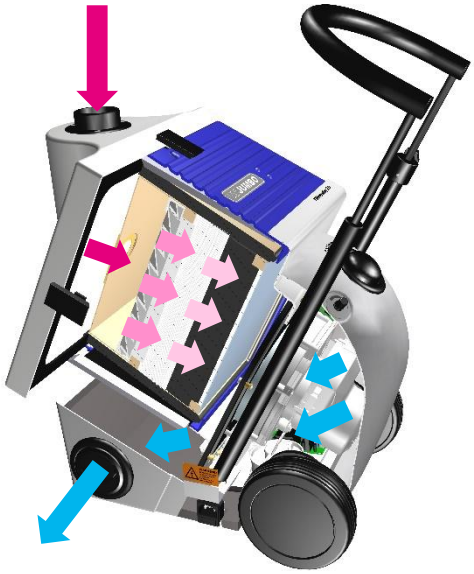
Grinding | Polishing | Restoration and Cleaning of Objects of Art

Functional principle

An EC blower generates a volumetric flow suitable for the application on the clean-gas side of the filter. The volumetric flow can be controlled individually and steplessly. In this way, the pollutant-laden raw gas is extracted in a reliable manner.

Dust, smoke and also often gases and vapors are released during the restoration of cultural objects. The restorers are subjected to these contaminants for long periods of time, which endangers their health. The dust also settles on the objects again. Effective extraction and filter technology is therefore essential.

The filter set-up used is specially designed for this purpose. An upstream filter combination retains coarse dust particles and prevents premature clogging of the downstream H13 main filter element. Regularly changing the upstream Z-Line filter and the M5 filter mat at shorter intervals significantly extends the functionality of the main filter.



Raw gas Filtration Clean gas

The particles contained in the dust are precipitated in a multi-stage storage filter system. Thanks to the depth penetration, the filter mat used is particularly suitable for the precipitation of dusts. A majority of the particles contained in the dust are trapped at this stage. Extremely fine suspended substances are held back by the High Efficiency Particulate Air filter H13 in the combined filter cassette H13A. This guarantees a particle precipitation rate of 99.95%.

The precipitation (adsorption) of gaseous and vaporous air contamination takes place in the activated carbon bed of the combined filter cassette H13A.

The filter effect of the activated carbon is based on adsorption, i.e. on the depositing of (gaseous) substances on the surface of the activated carbon. In general, no chemical changes of the adsorbed substance take place in physical adsorption. The nominal volumetric flow of the devices is based on the filter construction, the contact period is oriented to a medium adsorption response.

Thanks to the high degree of cleaning, the filtered clean gas can then be returned to the working area (recirculated-air operation). This avoids any loss of heat.

Recirculated air operation is not permitted for the suctioning and filtration of carcinogenic, mutagenic or reprotoxic substances.

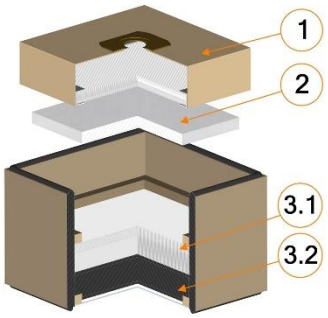
Device variants

Units in the JUMBO Filtertrolley series can be equipped with the following filter set-up for extracting and filtering harmful gas/dust mixtures from restoration processes:

FILTERTROLLEY 2.0 RESTAURO

Table 9: Filtertrolley 2.0 Restauro

Part number for complete device:	1-00100
Filter set-up for dust:	Combined suspended matter filter
(1) Z-Line filter cassette G4	
Filter class:	ISO Coarse 90% according ISO 16890
(2) Filter mat M5	
Filter class:	ISO Coarse >85% according ISO 16890
(3) Combined filter cassette H13A	
(3.1) Particulate filter H13	
Filter class:	H13 High Efficiency Particulate Air (HEPA) filter, suspended matter filter according to DIN EN 1822
(3.2) Adsorption filter A	
Filter medium:	Activated carbon bed



LabCat series – Dust, Gases, Vapors

Areas of application

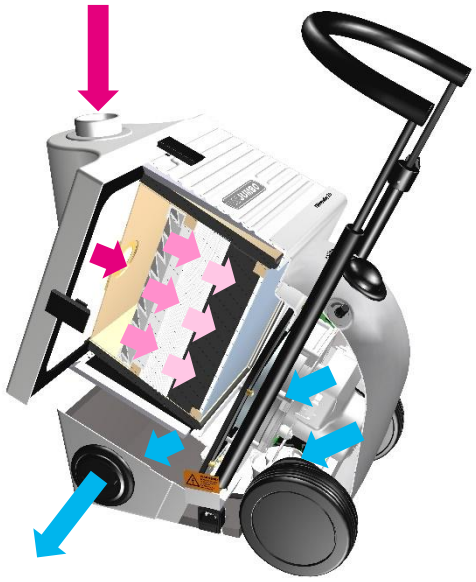
Analysis and synthesis processes in laboratories | Research tasks in medical technology, pharmaceutics, and chemistry

Functional principle

An EC blower generates a volumetric flow suitable for the application on the clean-gas side of the filter. The volumetric flow can be controlled individually and steplessly. In this way, the pollutant-laden raw gas is extracted in a reliable manner.

Hazardous airborne contaminants are often caused during analysis and synthesis processes in laboratories. Usually they occur in small quantities, but particularly in chemical, pharmaceutical or medical fields they may become highly dangerous for human health.

The filter set-up used is specially designed for this purpose. An upstream filter combination retains coarse dust particles and prevents premature clogging of the downstream H13 main filter element. Regularly changing the upstream Z-Line filter and the M5 filter mat at shorter intervals significantly extends the functionality of the main filter.



Raw gas Filtration Clean gas

The particles contained in the dust are precipitated in a multi-stage storage filter system. Thanks to the depth penetration, the filter mat used is particularly suitable for the precipitation of dusts. A majority of the particles contained in the dust are trapped at this stage.
Extremely fine suspended substances are held back by the High Efficiency Particulate Air filter H13 in the combined filter cassette H13A. This guarantees a particle precipitation rate of 99.95%.

The precipitation (adsorption) of gaseous and vaporous air contamination takes place in the activated carbon bed of the combined filter cassette H13A.

The filter effect of the activated carbon is based on adsorption, i.e. on the depositing of (gaseous) substances on the surface of the activated carbon. In general, no chemical changes of the adsorbed substance take place in physical adsorption. The nominal volumetric flow of the devices is based on the filter construction, the contact period is oriented to a medium adsorption response.

For applications where harmful gases and gas mixtures occur in particular, the LabCat A variant also offers filter assemblies specially designed for these cases. Instead of the combination filter, the device then contains a filter filled with activated carbon as an adsorbent. In the case of gases and gas mixtures for which activated carbon is not suitable, it is replaced by chemisorption medium.

Thanks to the high degree of cleaning, the filtered clean gas can then be returned to the working area (recirculated-air operation). This avoids any loss of heat.

Recirculated air operation is not permitted for the suctioning and filtration of carcinogenic, mutagenic or reprotoxic substances.

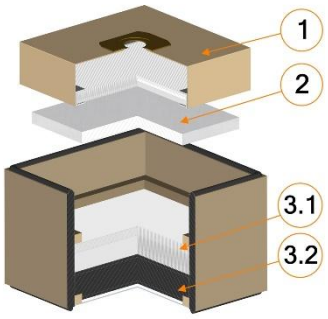
Device variants

Units in the JUMBO Filtertrolley series can be equipped with the following filter set-ups for extracting and filtering harmful gas/dust mixtures at laboratory applications:

FILTERTROLLEY 2.0 LABCAT K

Table 10: Filtertrolley 2.0 LabCat K

Part number for complete device:	1-00051
Filter set-up for dust:	Combined suspended matter filter
(1) Z-Line filter cassette G4	
Filter class:	ISO Coarse 90% according ISO 16890
(2) Filter mat M5	
Filter class:	ISO Coarse >85% according ISO 16890
(3) Combined filter cassette H13A	
(3.1) Particulate filter H13	
Filter class:	H13 High Efficiency Particulate Air (HEPA) filter, suspended matter filter according to DIN EN 1822
(3.2) Adsorption filter A	
Filter medium:	Activated carbon bed



FILTERTROLLEY 2.0 LABCAT A

Table 11: Filtertrolley 2.0 LabCat A

Part number for complete device:	1-00050
Filter set-up for organic gases:	Main filter module A6
(1) Adsorption filter cassette A6	
Filter medium:	Activated carbon bed (6 kg)

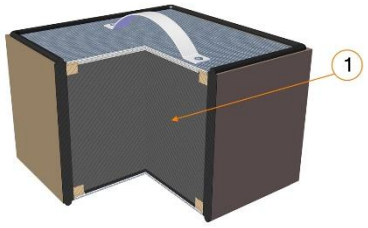


Table 12: 50 vol% Chemisorption für ACD

Part number of option:	9-00117
Filter for gas mixtures:	Main filter module AC8
(1) Chemisorption filter cassette AC8	
Filter medium:	Granulate bed made of 50 vol% activated carbon and 50 vol% chemisorption medium (total 8 kg)

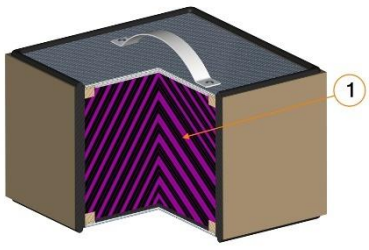
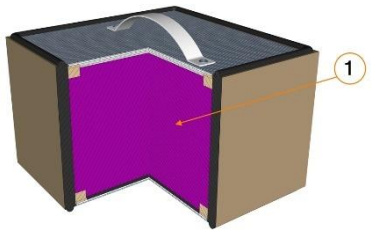


Table 13: 100% Chemisorption für ACD

Part number of option:	9-00118
Filter for gaseous sulfur & nitrogen compounds:	Main filter module C10
(1) Chemisorption filter cassette C10	
Filter medium:	Granulate bed made of 100% chemisorption medium (10 kg)



Accessory items

DN50 extraction system

Hoses

Suction hose DN 50, per meter	antistatic, without accessories	6-06757
Suction hose DN 50, 2 meter	antistatic, with adapter piece	3-00430
Suction hose DN 50, 3 meter	antistatic, with adapter piece	3-00431
Suction hose DN 50, 5 meter	antistatic, with adapter piece	3-00432

Hose accessories

Tail DN 50	antistatic, connection device to hose	3-00434

Extraction arms

Alsident system 50, antistatic extraction arm	945 mm for table/device mounting	50-4737-1-6

Collecting elements

Flat screen antistatic	Alsident System 50, accessory	1-503324-6
Round hood aluminum antistatic	Alsident System 50, accessory	1-5024-6
Extractor tube antistatic	Alsident System 50, accessory	1-5021-6
Suction gap antistatic	Alsident System 50, accessory	1-5020-6

DN75 extraction system

Hose

extraction hose DN 75, per meter	Antistatic, without accessories	6-16509

Hose accessories

Tail DN 75	Antistatic	3-00457
Pièce en Y DN 75 - 50	Antistatic	6-02939
worm drive hose clip	70 – 90 mm	6-06918

Extraction arms

Alsident System 75, extraction arm	1290mm for table/device mounting	75-6555-1-5

Collecting elements

Flat screen	Alsident System 75, accessory	1-753324-5
Round hood aluminum	Alsident System 75, accessory	1-7524-5
Extractor tube	Alsident System 75, accessory	1-7525

Interface accessories

Device power cables – supplied free of charge with ordered device

Swiss device power cable	Length 3,00 m	6-06056

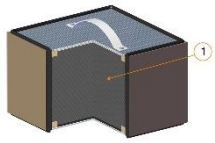
UK device power cable	Length 2,00 m	6-06063

USA device power cable	Length 2,00 m	6-06091

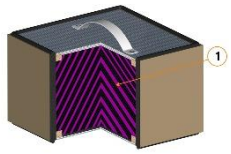
EU device power cable (CEE 7/7)	Length 3,00 m	6-05990

Replacement filter

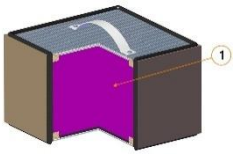
ACD



Filter A6	
Adsorption filter cassette A6	4-00378

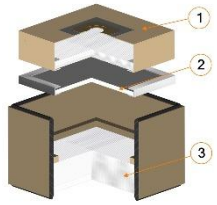


Filter AC8	
Chemisorption filter cassette AC8	4-00404



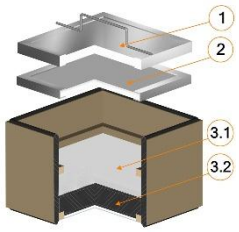
Filter C10	
Chemisorption filter cassette C10	4-00402

ASD



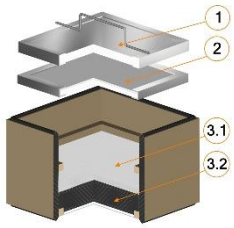
Filter H	
Z-Line filter cassette G4	4-00325
Z-Line filter cassette G4 - set of 10 pcs	4-00048
Replacement frame with Filter mat M5	4-00263
Filter mat M5	4-00229
Filter mat M5 - set of 10 pcs	4-00230
Particle filter cassette H13	4-00020

LAS



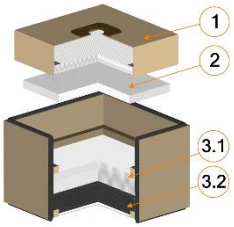
Filter K	
Expanded metal	4-00295
Replacement frame with Filter mats M5/F7	4-00262
Filter mats M5/F7	4-00227
Filter mats M5/F7 - set of 10 pcs	4-00228
Combined filter cassette H13A	4-00046

LRA



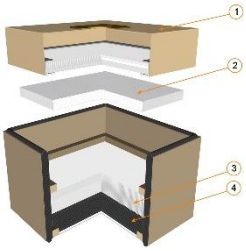
Filter K	
Expanded metal	4-00295
Replacement frame with Filter mats M5/F7	4-00262
Filter mats M5/F7	4-00227
Filter mats M5/F7 - set of 10 pcs	4-00228
Combined filter cassette H13A	4-00046

MED



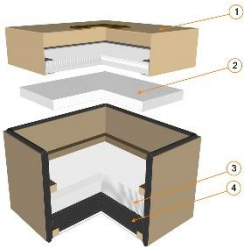
Filter U15A	
Z-Line filter cassette G4	4-00053
Z-Line filter cassette G4 -set of 10 pcs	4-00054
Filter mat M5	4-00231
Filter mat M5 - set of 10 pcs	4-00232
Combined filter cassette U15A	4-00052

Restauro



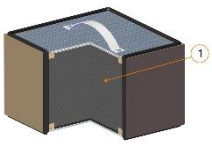
Filter K	
Z-Line filter cassette G4	4-00053
Z-Line filter cassette G4 -set of 10 pcs	4-00054
Filter mat M5	4-00231
Filter mat M5 - set of 10 pcs	4-00232
Combined filter cassette H13A	4-00050

LabCat K

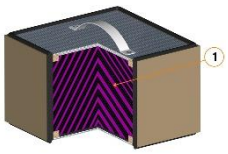


Filter K	
Z-Line filter cassette G4	4-00053
Z-Line filter cassette G4 -set of 10 pcs	4-00054
Filter mat M5	4-00231
Filter mat M5 - set of 10 pcs	4-00232
Combined filter cassette H13A	4-00050

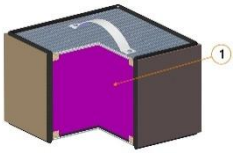
LabCat A



Filter A6	
Adsorption filter cassette A6	4-00378



Filter AC8	
Chemisorption filter cassette AC8	4-00404



Filter C10	
Chemisorption filter cassette C10	4-00402

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