

series 200
LAS 200 MD/HD K



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Extraction. Filtration. Persistence.



Use and application

The **LAS 200 MD/HD K** is suitable for collecting and filtering dry and non-combustible types of dust contained in non-explosive air mixtures produced during laser machining. Any emitted and partially unhealthy **types of dust** ought to be extracted by collecting elements directly at their place of origin and filtered by the LAS 200 MD/HD K. The material of the filter elements ensures effective filtering out of the various dust particle sizes. Provided that the filters are maintained or replaced at regular intervals, the combination of a sublimation filter, a preliminary filter, a main filter and of an adsorption filter guarantees a separation efficiency of 99,95 %, due to multiple air cleaning.

Examples

- ➔ laser cutting
- ➔ laser engraving
- ➔ laser structuring

ULT 200 mobile extraction and filtration unit

- ➔ mobile unit with castors
- ➔ with filter replacement system
- ➔ control panel on the front side
- ➔ easy filter handling, modular system
- ➔ robust steel housing
- ➔ powder coated
 - vacuum module RAL 7001 silver grey
 - filter module RAL 7035 light grey



Filter system:

Storage filter system

Filters which are replaced once they are saturated.

Filter technology:

Main filter module K

- (1) Expanded metal filter
metal knitting, spark protection filter
- (2) Filter mats M5/F7
filter classes: M5 medium dust filter and F7 fine dust filter according to DIN EN 779
- (3) Combined filter cassette H13A
 - (3.1) Particle filter H13
filter class: H13 HEPA-filter according to DIN EN 1822
 - (3.2) Adsorption filter A
Filter medium: activated charcoal



Configuration

Air flow controller: suction power is continuously adjustable

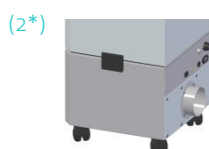
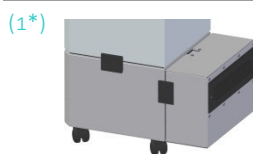
Loaded particle filter indicator: visualization of the particle filter condition

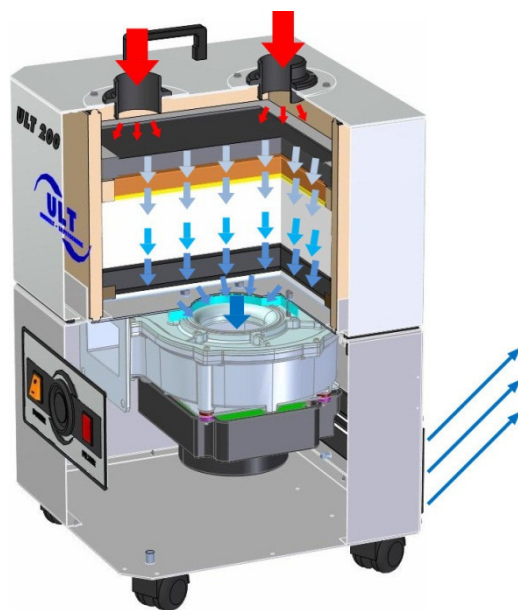
Interface SUB D9: standard configuration: remote ON/OFF, operation status, filter saturation 100%



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Parameter	unit	-MD.11.10	-MD.14.11.	-HD.10.10.	-HD.12.11.
Max. air flow	m ³ / hr	190	635	210	220
Max. vacuum	Pa	3.200	3.200	20.700	22.000
Nominal capacity	m ³ /hr / Pa	80 / 1.900	250 / 2.000	120 / 13.000	120 / 12.000
Motor-nominal power	kW	0,15	0,36	1,20	1,30
Nominal voltage	V	1~ 230	1~ 230	1~ 230	1~ 230
Nominal current	A	1	2,2	6	11
Frequency	Hz	50 / 60	50 / 60	50	50 / 60
Protection class	IP	54	54	54	54
Type blower		EC-blower	EC-blower	coll. turbine	EC-turbine
Noise level (at 50 - 100%)	dB(A)	45 - 49	52 - 57	63 - 70	63 - 70
With sound absorber (at 50- 100%)	dB(A)	45 - 48	50 - 54	60 - 67	60 - 66
Air flow controller		yes	yes	yes	yes
Loaded particle filter indicator	optical	yes	yes	yes	yes
SUB D9 interface		option	yes	option	yes
Air intake	Ø	ALSIDENT S50 mm; optional: further Ø; number max. 2x			
	position	optional on top or at the backside of the unit			
Air outlet		air exhaust louver, optional Ø 100 mm exhaust nozzle			
	position	lower part of the backside			
Dimensions (Width x Depth x Height)	mm	390 x 400 x 610			
Weight	kgs	ca. 30			
Length of power cable	m	3,0			
Filter system	HFM K	Main filter module			
		filter system: storage filter			
		filter set complete			
		consisting of: ULT 02.1.520			
	(1)	Expanded metal filter			ULT 02.0.576
	(2)	Filter mats M5/F7			ULT 02.0.574
	(3)	Combined filter cassette H13A			
	(3.1)	Particle filter H13			ULT 02.1.521
	(3.2)	Adsorption filter activated carbon			
Options:					
sound absorber	(1*)	changed depth: 550 mm			
exhaust air connection	(2*)	1 x Ø 100 mm			
without additional intake module	(3*)	topside hose connection: Ø50mm; optional further Ø			
with additional intake module	(4*)	backside hose connection: Ø50mm; optional further Ø			
mounting bracket for ALSIDENT-arm	(5*)	ULT-U-Profil S50/75; for max. 1 ALSIDENT extraction arm			





-  raw gas
-  filtration
-  clean gas

Functional principle:

At the clean-air side of the filter, a vacuum generator with a high pressure reserve produces a volume flow matched to the respective application. This volume flow can be individually and infinitely variably regulated. Thus, the polluted air will be reliably extracted.

The **particles** are separated and held back at the first filtration level in multiple stages. **Gaseous and vaporous air pollutants** are separated (adsorbed) in an activated charcoal filter.

The filtering effect of activated charcoal is based on adsorption, i. e. an accumulation of substances (to be filtered out) on the surface of the activated charcoal. During this process there are no chemical reactions and changes of the captured substances. The construction of the filter elements underlies the air volume of the unit; the contact time is based on a medium adsorption reaction.

Storage filter system

Filters which are replaced once they are saturated.

Main filter module K

- (1) **spark protection** Expanded metal filter
- (2) **fine dust filter** Filter mats M5/F7

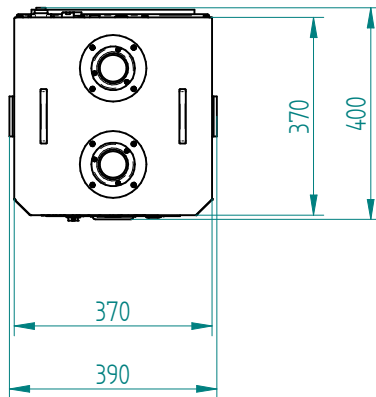
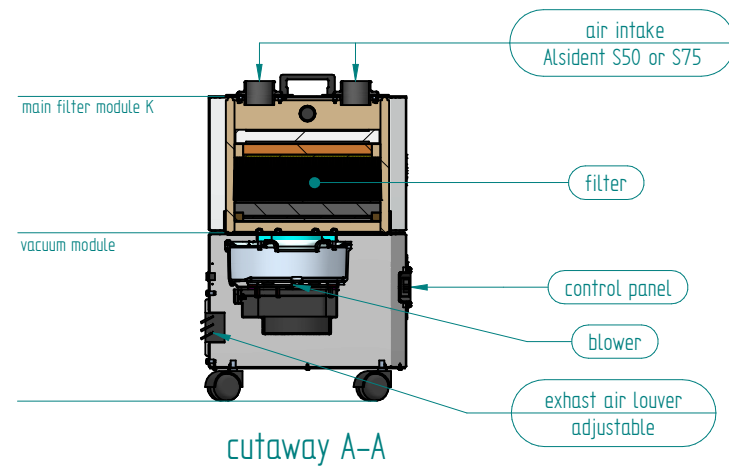
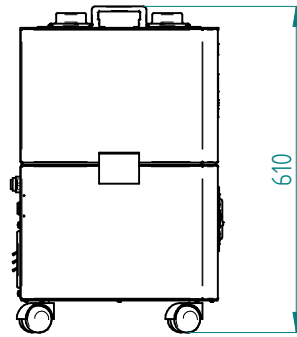
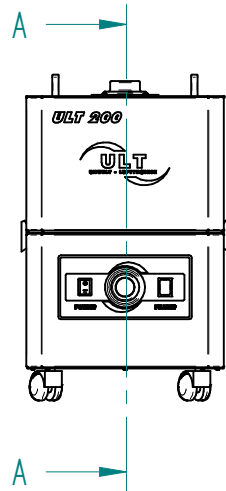
Combined filter cassette

- (3.1) **particulate filter** HEPA filter H13
- (3.2) **gas filtration** Adsorption filter A (activated charcoal)

This excellent filter efficiency makes it possible to recirculate the **filtered air** and reduce energy costs.

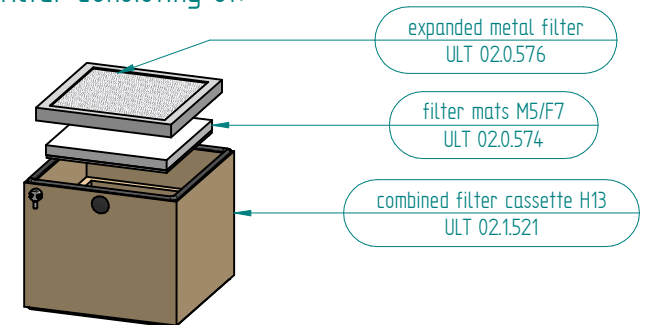
Further additional options can be connected to the LAS 200 MD/HD K unit. These are to be selected according to the respective requirements.

For the extraction and filtration from pollutants varying from this application case, other module combinations are available.



- loaded particle filter indicator
- air flow controller
- on/off switch

filter consisting of:



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				Am Gopelreich 1 D-02708 Lobau		LAS 200 MD/HD K	
				2013	date	name	drawing number:
001	base	27.03.13	JSACZ	edit.	27.03.	JSACZ	ULT 200_00_293
issue	revision	day	name	verf.			
				Norm			

scale: 1 : 10