

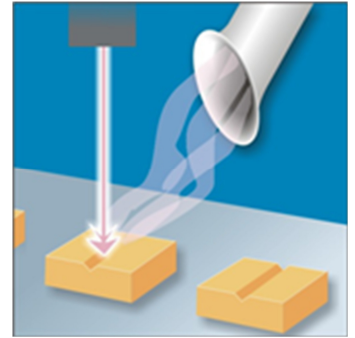
# **LAS 1200 MD K**

**Technical documentation**

**Date of issue: 02/2013**



# **ULT 1200**



**Clean air,  
high performance.**

**LAS-series, mobile  
air extraction and  
filtration units for  
laser smoke.**



**Air handling equipment for environmental and health protection**

# Technical documentation

## Air extraction and filtration unit



# LAS 1200 MD K

### Use and application



laser smoke

The **LAS 1200 MD 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 1200 MD K. The material of the filter elements ensures effective filtering out of the various dust particle sizes. The combination of the five filtration levels guarantees a separation efficiency of > 99 % by multiple cleaning, provided the filter elements are exchanged regularly.

### Examples

- ⇒ laser cutting
- ⇒ laser engraving
- ⇒ laser structuring

### ULT 1200 modular air extraction and filtration unit

mobile unit,  
with storage filter system  
robust steel housing, powder coated  
RAL 7035 light grey / RAL 7001 silver-grey



### Filter system:

Storage filter system

Filters which are replaced once they are saturated.

### Filter technology:

Main filter module

- (1) Expanded metal filter  
metal knitting, spark protection filter
- (2) Z-Line filter  
filter class: G4 coarse dust filter according to DIN EN 779
- (3) Z-Line filter  
filter class: F7 fine dust filter according to DIN EN 779

Combined filter cassette

- (4) Particle filter H13  
filter class: H13 HEPA-filter according to DIN EN 1822
- (5) Adsorption filter A8  
filter medium: activated charcoal (8 kg)

# Technical documentation

## Air extraction and filtration unit



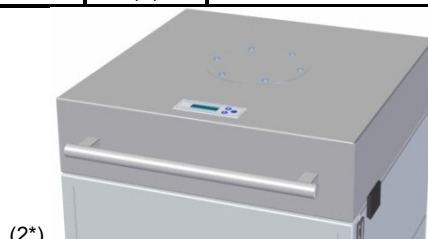
# LAS 1200 MD K

## LAS 1200.0-MD.bb.cc.6002

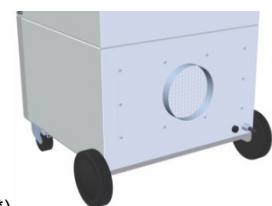
Parameter	unit	-MD.18.10.	-MD.45.13.
Max. air flow	m³/h	1.500	1.700
Max. vacuum	Pa	3.250	2.600
Nominal capacity	m³/h / Pa	1.000 / 1.700	1.000 / 1.800
Motor-nominal power	kW	0,86	1,50
Nominal voltage	V	1~ 230	3~ 400
Nominal current	A	4,8	3,5
Frequency	Hz	50 / 60	50
Protection class	IP	54	54
Type blower		blower	ventilator
Noise level (at 50 - 100%)	dB(A)	60	62
Air flow controller		yes	no
Loaded particle filter indicator	optical	yes	yes
Operating hours counter		no	yes
SUB D9 interface	(1*)	optional	optional
Digital control integrated	(2*)	optional	no
Remote digital control		optional	no
Air outlet DN 200	(3*)	optional	optional
Air intake options		1x Ø 150 mm take off	
	position	backside of the unit	
		1x Ø 160 mm take off	
Air outlet		air exhaust louver	
	position	lower rear side	
Width	mm	790	
Depth	mm	820	
Height	mm	1.040	
Weight	kgs	ca. 145	
Length of power cable	m	5	
<b>Filter system</b>		filter system: storage filter	
		filter set complete	ULT 02.1.620
		consisting of:	
	(1)	Expanded metal filter	ULT 02.0.676
	(2)	Z-Line filter G4	ULT 02.0.662
	(3)	Z-Line filter F7	ULT 02.1.666
(4)	Combined filter cassette H13A8		
	Particle filter H13	ULT 02.1.621	
(5)	Adsorption filter A8		



(1\*)



(2\*)

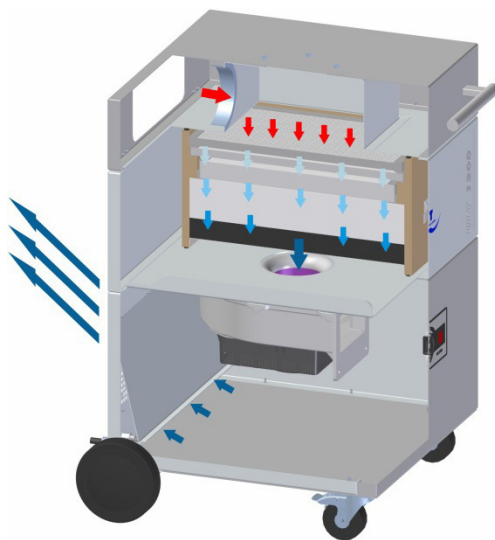


(3\*)

# LAS 1200 MD K



laser smoke



-  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 by some units. 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.

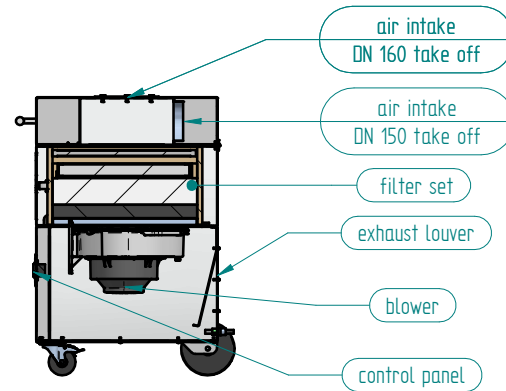
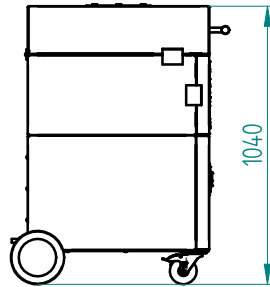
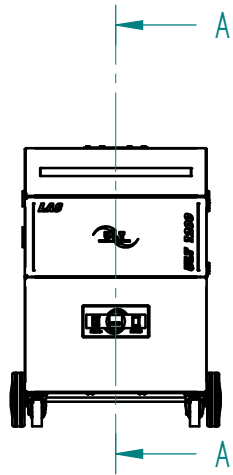
### Storage filter system

Filters which are replaced once they are saturated.

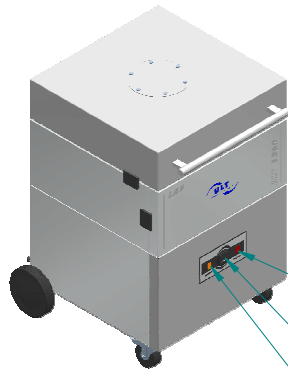
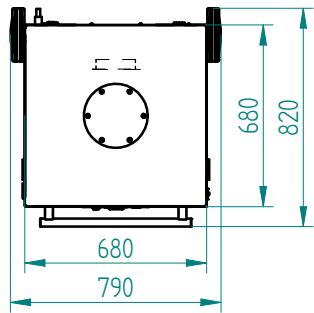
Filtration set complete ULT 02.1.620:

- |                                |   |
|--------------------------------|---|
| (1) <b>subl. / spark prot.</b> | Expanded metal filter                             |
| (2) <b>coarse dust filter</b>  | Z-Line filter G4                                  |
| (3) <b>fine dust filter</b>    | Z-Line filter F7                                  |
| (4) <b>particulate filter</b>  | Aerosol filter H13                                |
| (5) <b>gas filtration</b>      | Adsorption filter A8<br>(8 kg activated charcoal) |

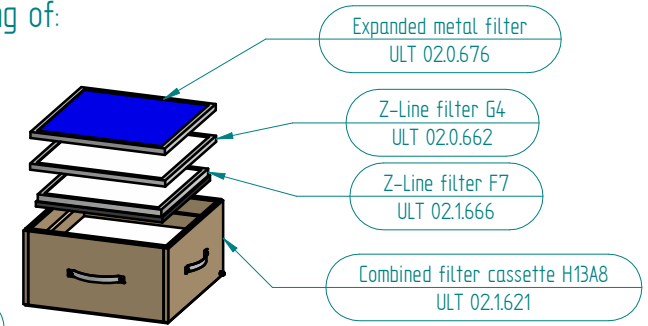
This excellent filter efficiency makes it possible to recirculate the **filtered air** and reduce energy costs.



cutaway A-A



filter set:  
Combined filter cassette H13A8 complete  
consisting of:



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Other measure are to be taken from the 3D record. For the drawing we reserve ourselves all rights.



				ULT AG Am Gopelreich 1 D-02708 Lobau		designation: LAS 1200 MD K	
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				issue	revision	day	name
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drawing number: ULT 1200_00_129_001						scale: 1 : 20	