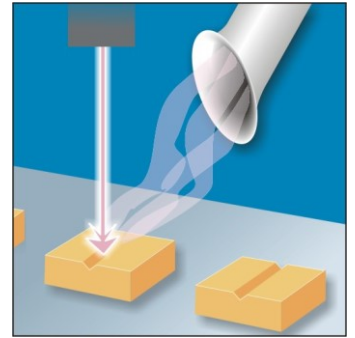


LAS 500 MD/HD 1PaR7.5

Technical documentation
Date of issue: 10/2022

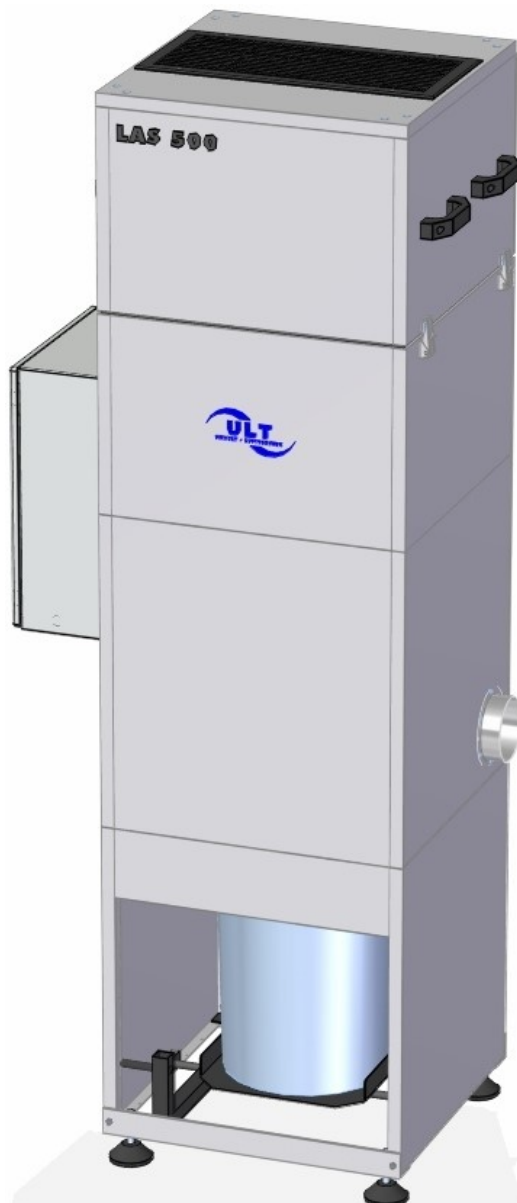


ULT 500



***Clean air,
high performance.***

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



Air technology for environment and health protection

Technical documentation

Air extraction and filtration unit



LAS 500 MD/HD 1PaR7.5

Use and application



laser smoke

The **LAS 500 MD/HD 1PaR7.5** 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, gas and fume ought to be extracted by collecting elements directly at their place of origin and are filtered by the LAS 500 MD/HD 1PaR7.5. The material of the filter elements ensures effective filtering out of the various dust particle sizes. Regular **automatic pneumatic cleaning** of the main filter element by the counter flow principle and the use of rotation air nozzles limits the risk of material damage and guarantees a very long lifetime of the main filters.

Examples

- ⇒ Laser cutting
- ⇒ Laser engraving
- ⇒ Laser structuring

ULT 500 modular air extraction and filtration unit

stationary unit,
different performance classes, low maintenance
robust sheet steel housing, powder coating RAL
7035 light gray

Filter system:

cartridge filter system

automatically cleanable filter element for high
pollutant emission

Filter technology:

Main filter module

filter cartridge:	1 piece
filter material:	polyester fibre with PTFE-coating, antistatic
filter class:	BIA M, separation efficiency > 99% [with particles > 2 µm]
filter surface:	1 x 7,5 m ²



Equipment:

Cleaning interval encoder: Cleaning interval can be adapted to the machining process
Manual cleaning: can be performed at any time via pushbutton
SUB D9 interface: Standard equipment for terminal strip, remote I/O, operation, filter saturation

100%

Technical documentation

Air extraction and filtration unit



LAS 500 MD/HD 1PaR7.5

Technical data

Parameter	Unit	MD.45	MD.47	HD.14
max. air flow	m³/h	1,700	2,100	400
max. vacuum	Pa	2,600	2,880	20,200
nominal capacity	m³/h / Pa	600 / 2,400	750 / 2,750	270 / 5,000
motor nominal power	kW	1.50	2.20	1.80
nominal voltage	V	3~ 400	3~ 400	1~ 230
nominal current	A	3.3	4.8	13
frequency	Hz	50	50	50/60
protection class	IP	54	54	54
blower type		Ventilator	Ventilator	EC-blower
noise level	dB(A)	62	62	70
air flow controller		nein	nein	ja
SUB D9 interface		optional	optional	optional
loaded filter indicator	Optical	ja	ja	ja
operating hour meter		optional	optional	optional
pneumatic gate valve	(1*)	optional	optional	optional
automatic filter aid dosage		optional	optional	optional
intake module	Ø	1x Ø 125 mm, optional further Ø		
	position	back side right of filter housing, optional rear side or left		
air outlet		air exhaust louver		
	position	on top of the unit		
length	mm	660 (850 with electrical cabinet)		
width	mm	590		
height	mm	2,280	2,050	
weight	kg	150		
length of power cable	m	5		
filter system		filter system: cartridge filter, automatic cleaning		
		filter cartridge 7,5 m² polyester fibre, PTFE-coated		ULT 02.0.002



(1*)

Technical documentation

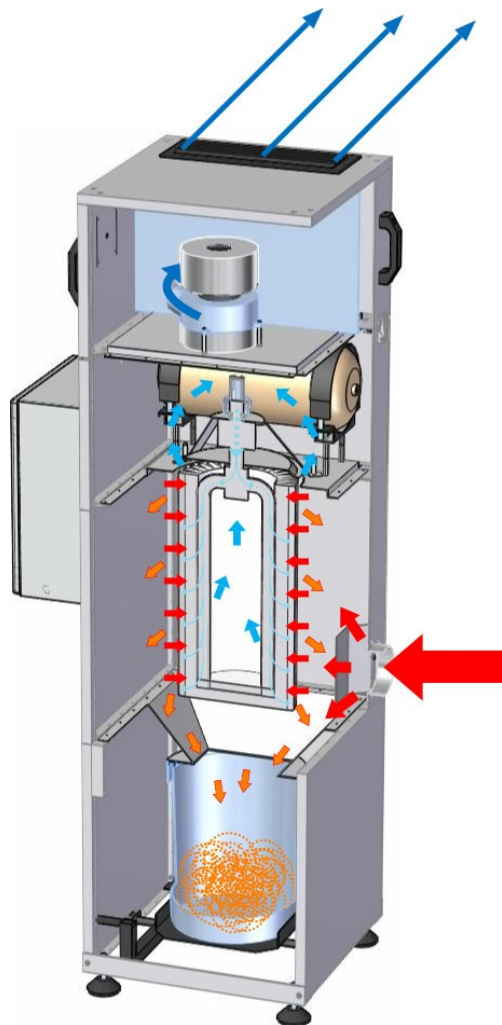
Air extraction and filtration unit








LAS 500 MD/HD 1PaR7.5



laser smoke



-  raw gas
-  clean gas
-  cleaning air stream
-  detached filter material
-  collected filter material

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 on a **filter cartridge** (PTFE-coated polyester fibre) by the **surface filtration principle**. Regular automatic cleaning of the filter cartridge with a rotation air nozzle by the **counter flow principle** prevents it from being clogged. Operating such system requires compressed-air supply (6 – 10 bar). The **particles blown off** fall into a collecting bin provided for the removal and disposal of the filter deposits.

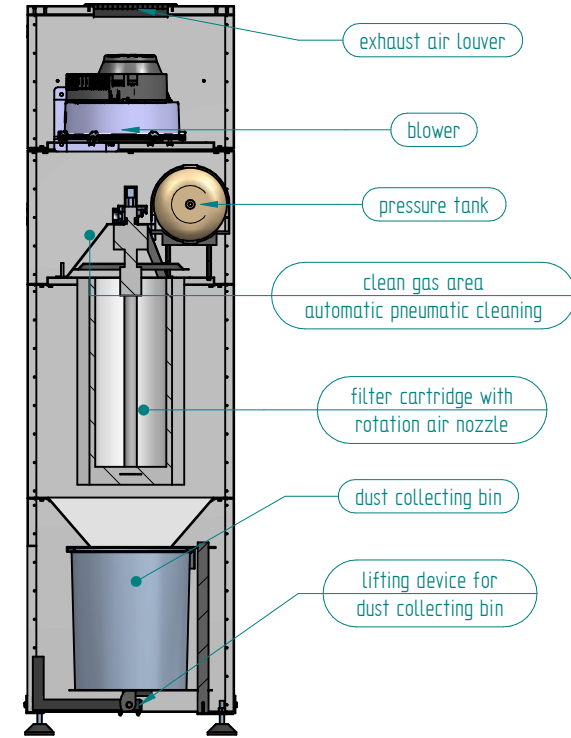
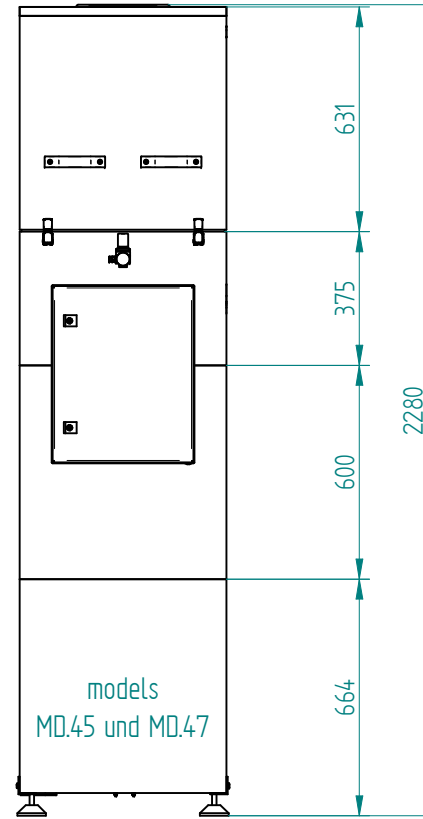
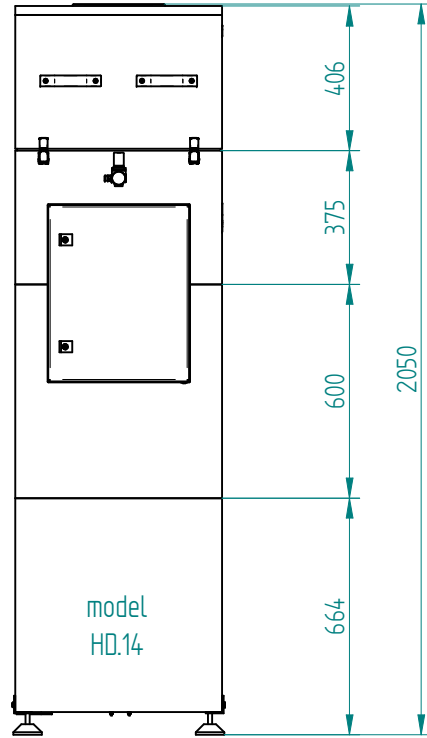
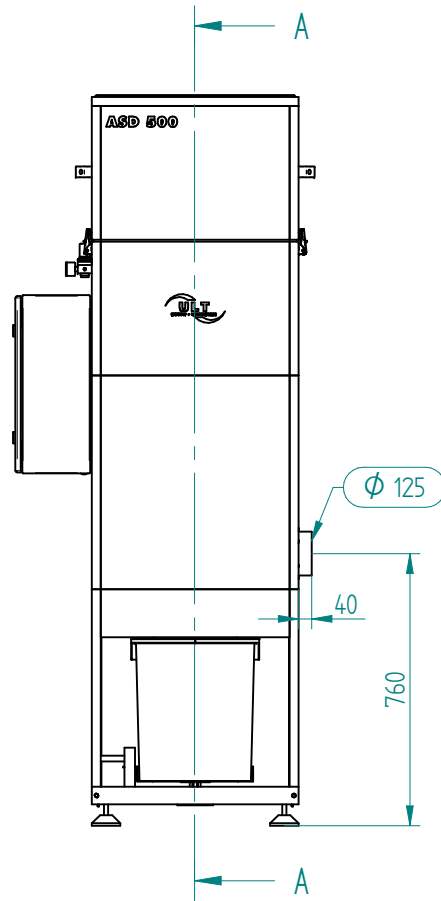
Cartridge filter system

Automatically cleanable filter element for high pollutant emission

Filter cartridge ULT 02.0.002

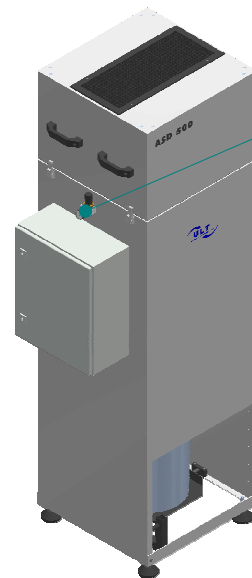
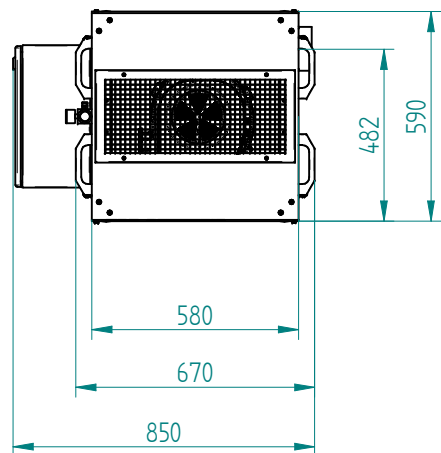
- (1) **particulate filter** filter cartridge BIA M,
separation efficiency > 99%

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

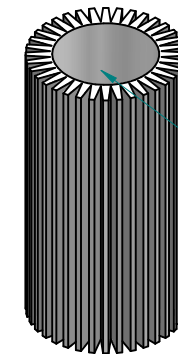


cutaway A-A

filter set consisting of:



compressed air supply
max. operating pressure 4 bar



Filter cartridge teflon coated
ULT 02.0.002

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				ULT AG Am Gopelreich 1 D-02708 Labau			designation: LAS 500 MD/HD 1PaR7,5 PTFE		
				2013	date	name		drawing number:	scale:
001	base	20.06.13	JSACZ	edit.	20.06.	JSACZ		ULT 500_00_001_001	1 : 15
issue	revision	day	name	verf.	Norm				

