Technical documentation

series 200
AOD 200 MD/HD HA

LASER FUMES

DUST AND SMOKE

SOLDERING FUMES

ODORS, GASES, AND VAPORS

CLEANING INDUSTRIAL GASES

NEW EMISSIONS

WELDING FUMES

OIL AND EMULSION MISTS

COMPLETE SOLUTIONS

Date of issue: 06/2018

ULT
UMWELT - LUFTTECHNIK

Extraction. Filtration. Persistence.

Technical documentation

AOD 200 MD/HD HA

OIL AND EMULSION MISTS

Use and application

The **AOD 200 MD/HD HA** is suitable for collecting and filtering oleaginous and non-combustible types of dust contained in non-explosive air mixtures. Any of those partially unhealthy substances ought to be extracted by collecting elements directly at their place of origin and filtered by the AOD 200 MD/HD HA. The combination of a condensation filter, a main particulate filter and an adsorption filter guarantees a separation efficiency of 99.95 %, provided the filter combination is maintained or replaced at regular intervals and the oil sump gets emptied regularly.

Examples

Machining processes using coolants and lubricants

- milling
- drilling
- lathing

ULT 200 mobile extraction and filtration unit

- mobile unit with castors
- with filter replacement system
- continuously welded oil sump
- control elements at the front side
- 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 HA

(1) Expanded metal filter
metal knitting, condensation filter

(2) Baffle plate separator
metal profile, condensation filter

(3) Particle filter cassette H13
filter class: H13 HEPA-filter according to DIN EN 1822

(4) Adsorption filter cassette
Filter medium: activated carbon

Equipment

Oil level indicator: easy monitoring of the separated amount of oil

Oil drain cock: oil sump can be emptied during operation

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Technical documentation

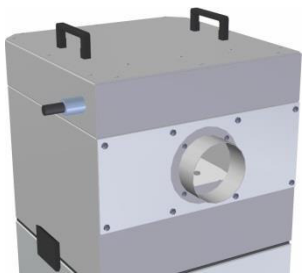
AOD 200 MD/HD HA

OIL AND EMULSION MISTS

AOD 0200.0-aa.bb.cc.5015

Parameter	unit	-MD.14.01	-MD.40.00.	-HD.10.01.
Max. air flow	m^3 / hr	635	420	210
Max. vacuum	Pa	3.200	1.100	20.700
Nominal capacity	m^3/hr / Pa	250 / 2.000	200 / 900	120 / 13.000
Motor-nominal power	kW	0,36	0,12	1,20
Nominal voltage	V	1~ 230	1~ 230	1~ 230
Nominal current	A	2,2	1	6
Frequency	Hz	50 / 60	50	50
Protection class	IP	54	54	54
Type blower		EC-blower	ventilator	carbon brush
Noise level (at 50 - 100%)	dB(A)	50 - 54	52 - 57	63 - 70
Air flow controller		yes	no	yes
Air intake	Ø	1x intake nozzle 50 mm; optional: 1x Ø75 / 1x ; Ø80 mm		
	position	At the lower front side		
Air outlet		air exhaust louver, optional Ø 100 mm exhaust nozzle		
	position	upper part of the backside		
Width	mm	390	390	390
Depth	mm	570	490	490
Height	mm	900	900	820
Weight	kgs	ca. 40		
Length of power cable	m	3,0 outlet at upper side		
Filter system	HFM HA	Main filter module HA		
		filter system: storage filter		
		filter set complete consisting of:		
	(1)	Expanded metal filter		ULT 02.0.006
	(2)	Baffle plate separator		ULT 02.0.051
	(3)	Particle filter cassette H13		ULT 02.1.081
	(4)	Adsorption filter cassette		ULT 02.1.049
Features:				
exhaust air connection (option)	(1*)	1 x Ø 100 mm		
oil drain cock	(2*)	front side on the left		
oil level indicator	(3*)	front side on the right		

(1*)



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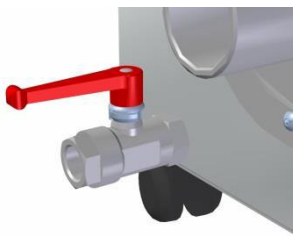

(3*)

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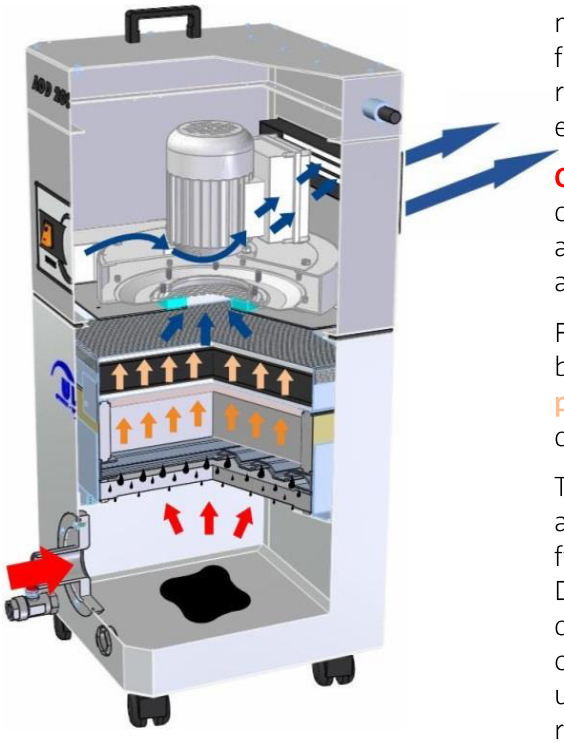
AOD 200 MD/HD HA

OIL AND EMULSION MISTS



raw gas
filtration
clean gas
oil separation

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.

Coarse dust and aspirated **oil mist** are held back at the condensation filters. The filter shape leads to an aglommeration of the oil mist to larger drops which are collected in the oil sump at the bottom.

Further **particle fractions** are separated and held back by the HEPA H13 filter. **Gaseous and vaporous air pollutants** are separated (adsorbed) in an activated carbon filter.

The filtering effect of activated carbon is based on adsorption, i. e. an accumulation of substances (to be filtered out) on the surface of the activated carbon. 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 HA3

(1)	**condensation filter**	Expanded metal filter
(2)	**condensation filter**	Baffle plate separator
(3)	**particulate filter**	HEPA filter H13
(4)	**gas filtration**	Adsorption filter (activated carbon)

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

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

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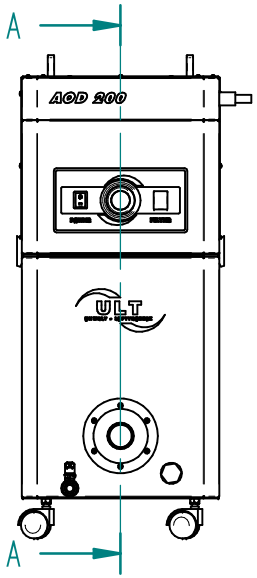

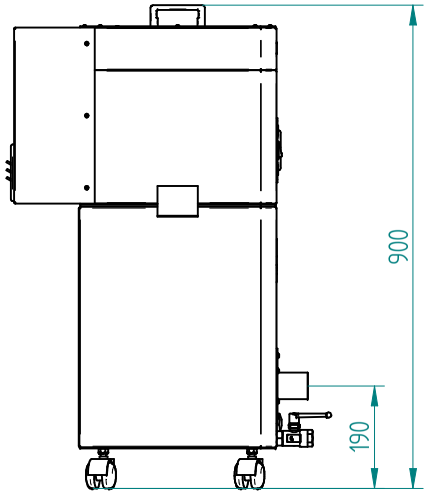

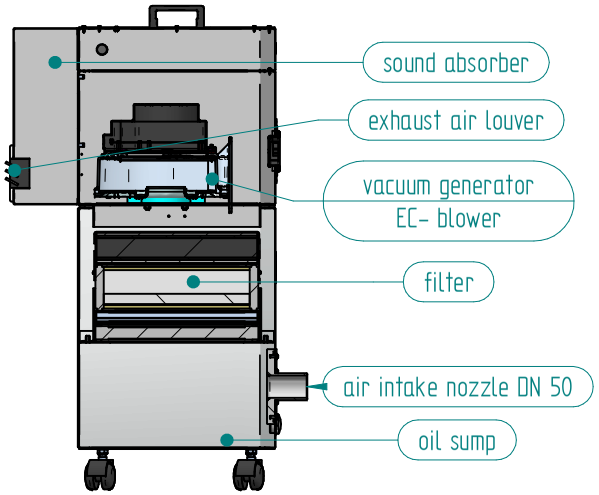

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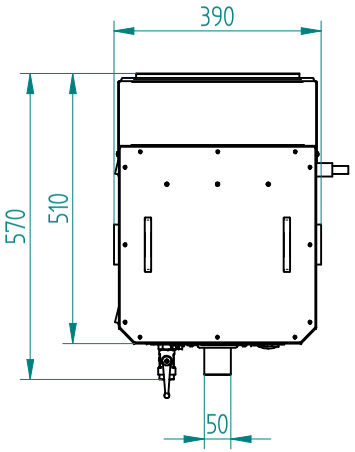

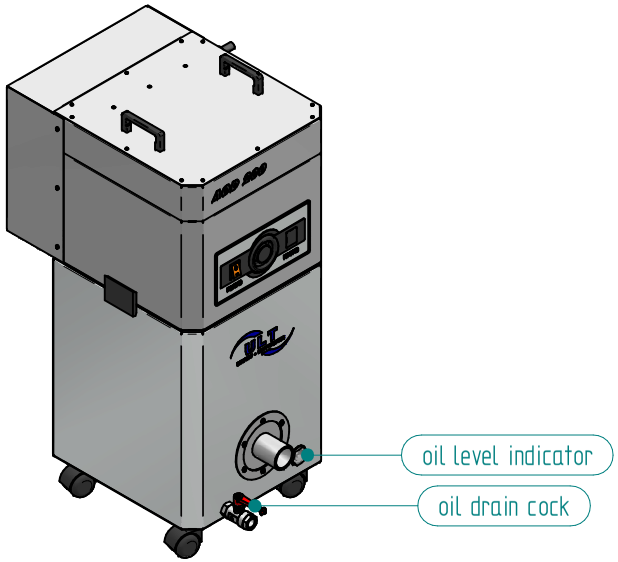

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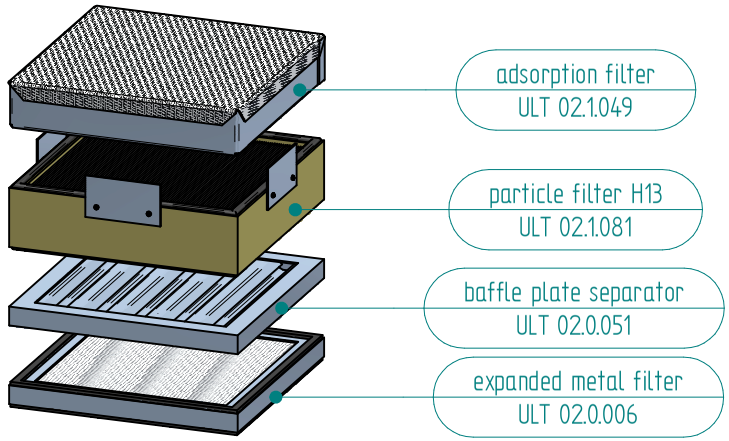

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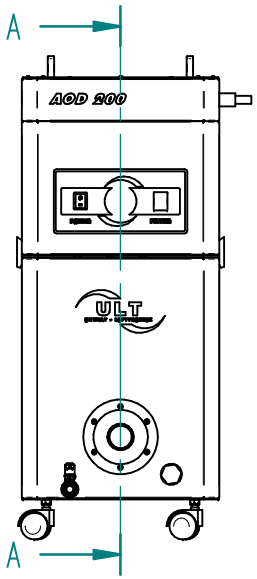

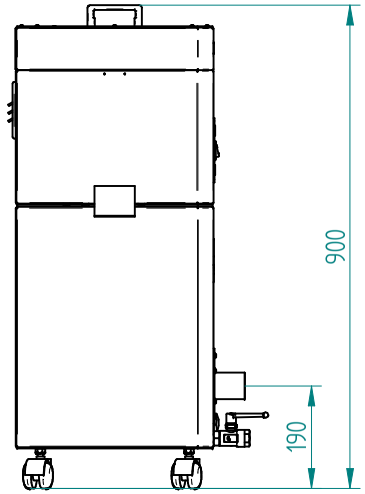

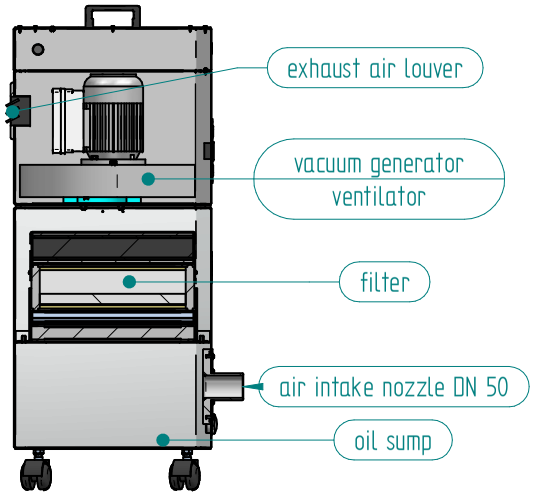

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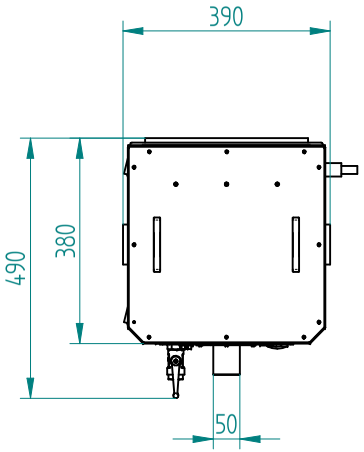

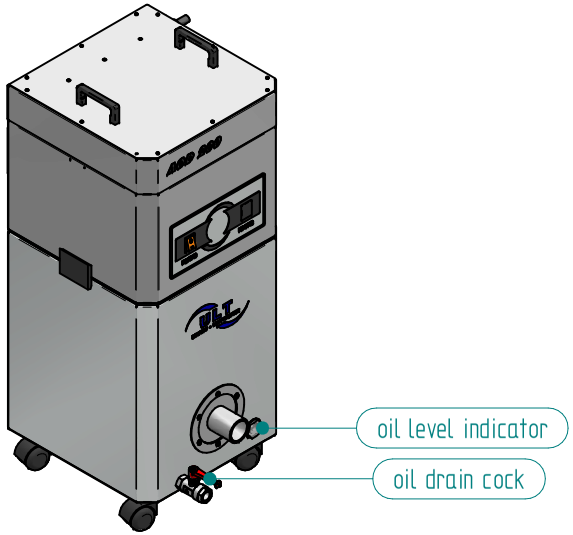

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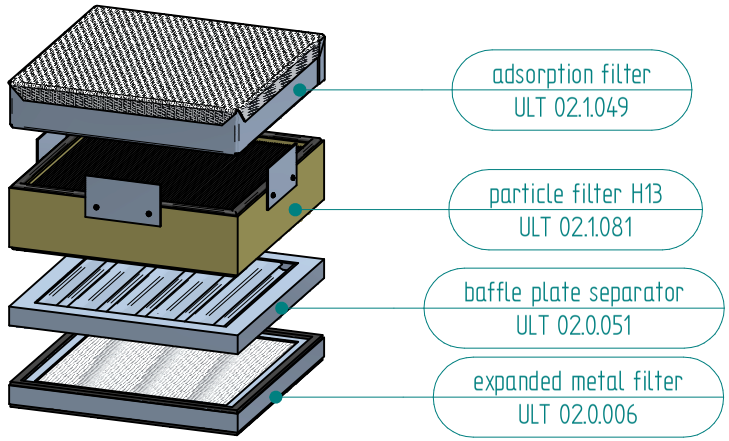

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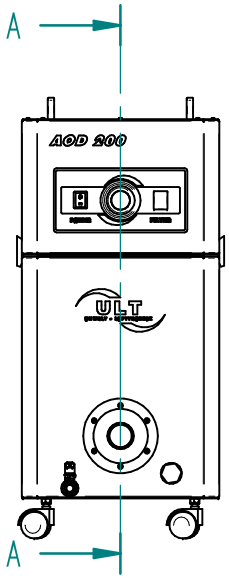

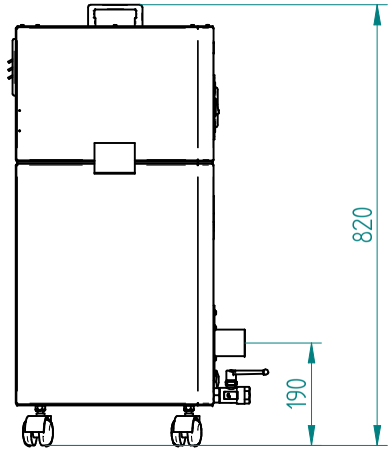

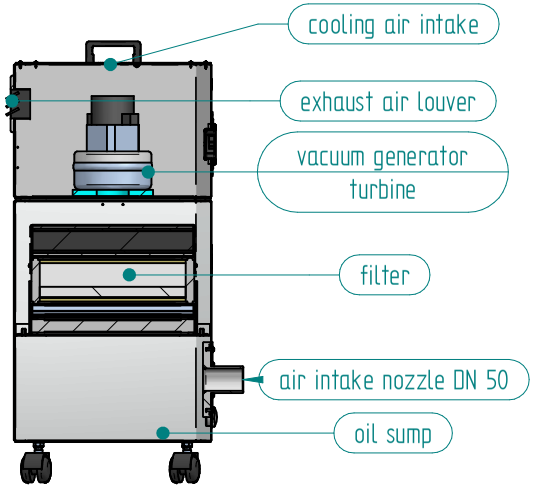

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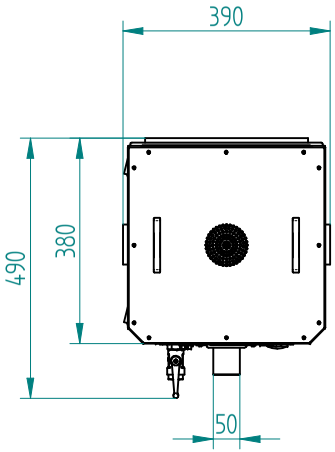

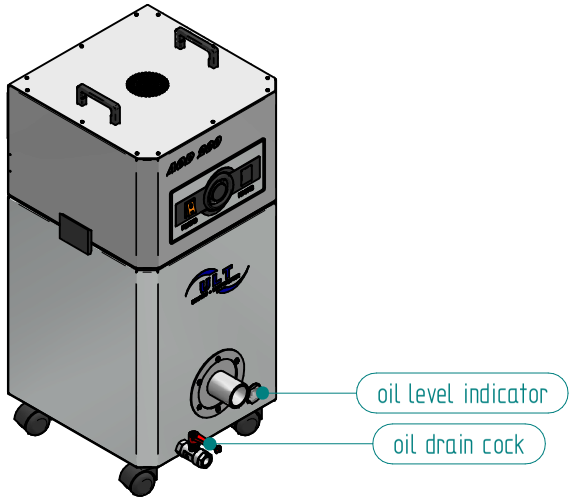

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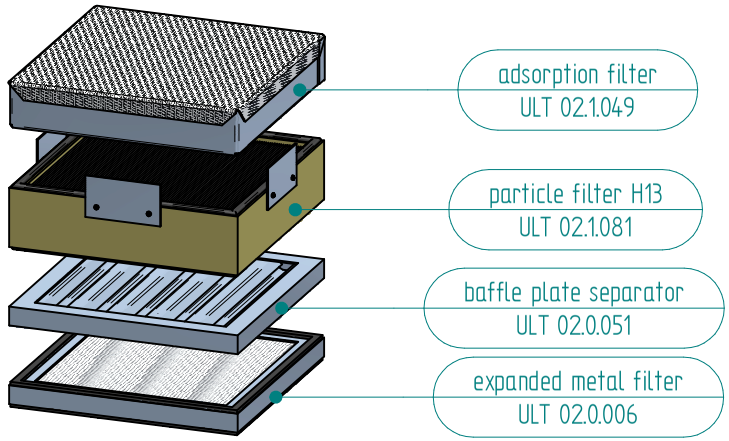

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	date	name
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veri.		
Norm		

designation: AOD 200 HD.10 HA 120 m³/h V
AOD0200.0-MD.10.01.5015

drawing number: ULT 200_00_284

scale: