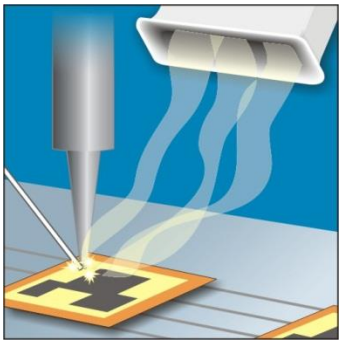
LRA 400

Technical documentation

Date of issue: 03/2020

ULT 400



Clean air,
high performance.

LRA-series, mobile air extraction and filtration units for soldering smoke.

Air handling equipment for environmental and health protection

Technical documentation
Air extraction and filtration unit

LRA 400

Use and application

The **LRA 400** is suitable for the extraction and filtering of soldering smoke. Soldering processes produce large quantities of soldering smoke (flux residues, gases and vapours as well as other substances) which can be filtered by the LRA 400. The material of the filter elements ensures effective filtering out of the various dust particle sizes. An expanded metal filter and a combination of filter mats with the filter classes M5 and F7 protect the following filter stages from prematurely saturation. The following H13-filter separates even the smallest particles from the polluted air. At the adsorption filter a thick layer of activated carbon is holding back gases and fumes effectively.

soldering smoke

Examples

- ⇨ hand soldering
- ⇨ machines and devices for soldering

ULT 400 mobile air extraction and filtration unit

mobile unit,
with storage filter system
robust steel housing, powder coated
RAL 7035 light grey / RAL 5017 traffic blue

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) Filter mats M5/F7 in Replacement frame
filter classes: M5 medium dust filter and F7 fine dust filter
according to DIN EN 779

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

(4) Adsorption filter cassette A14
filter medium: activated carbon (14 kg)

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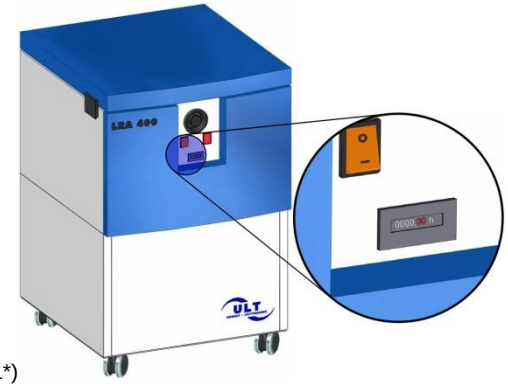
Technical documentation
Air extraction and filtration unit

LRA 400

technical Data

Parameter	unit	MD.17	
Max. air flow	m³/h	1.000	
Max. vacuum	Pa	2.600	
Nominal capacity	m³/h / Pa	400 / 2.300	
Motor-nominal power	kW	0,70	
Nominal voltage	V	230	
Nominal current	A	3,5	
Frequency	Hz	50 / 60	
Protection class	IP	54	
Type blower		EC-blower	
Noise level (at 50 - 100%)	dB(A)	< 60	
Weight	kgs	95	
Air flow controller		yes	
Loaded particle filter indicator	optical	yes	
Operating hours counter	(1*)	optional	
SUB D9 interface	(2*)	optional	
Remote digital control		optional	
Air intake		2x Ø 100 mm take off, optional further Ø	
	position	upper backside of the unit	
	optional position	2x Ø 100 mm take off, optional further Ø	
		on top of the unit	
Air outlet		air exhaust louver	
	position	lower rear side	
Width	mm	600	
Depth	mm	660	
Height	mm	900	
Length of power cable	m	5	
Filter system		filter system: storage filter	
		filter set consisting of:	
	(1)	Expanded metal filter	ULT 02.0.015
	(2)	Filter mats M5/F7	ULT 02.0.039
	(3)	Particle filter H13	ULT 02.0.041
	(4)	Adsorption filter cassette A14	ULT 02.1.025



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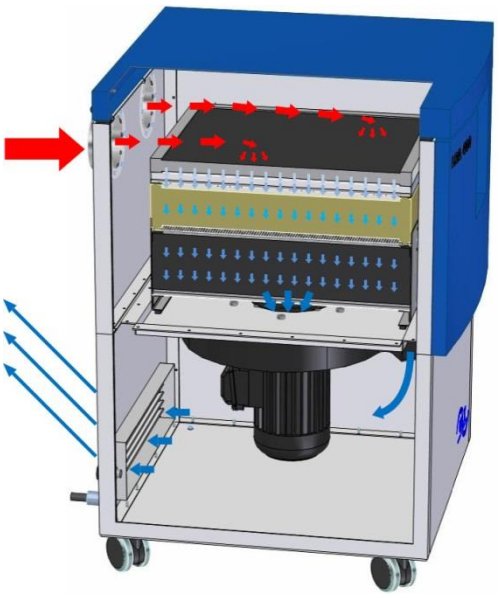
soldering smoke



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 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 volume flow 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

(1)	**sublimation / spark protection**	Expanded metal filter
(2)	**fine dust filter**	Filter mat M5
(3)	**fine dust filter**	Filter mat F7
(4)	**particulate filter**	Aerosol filter H13
(5)	**gas filtration**	Adsorption filter cassette A14 (14 kg activated carbon)

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

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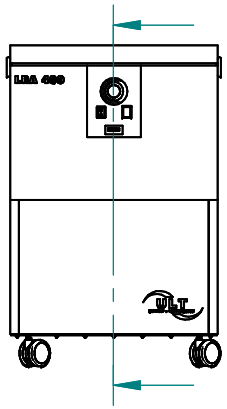

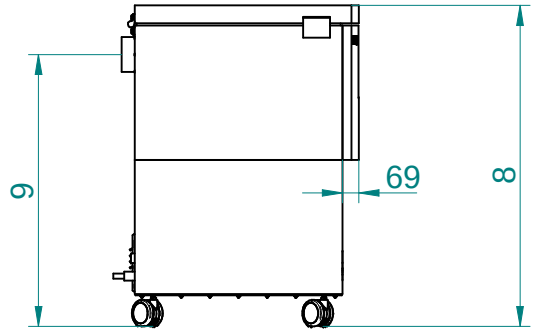

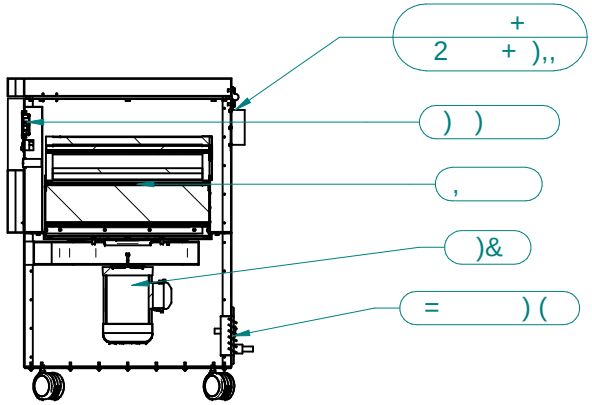

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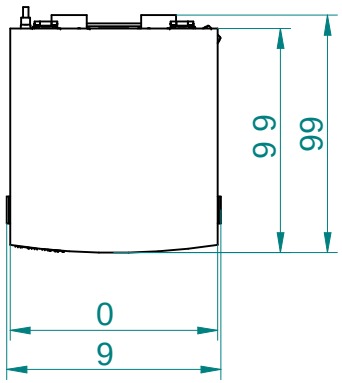

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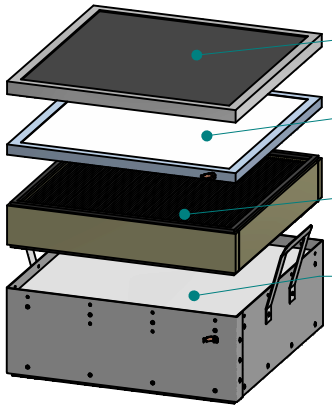

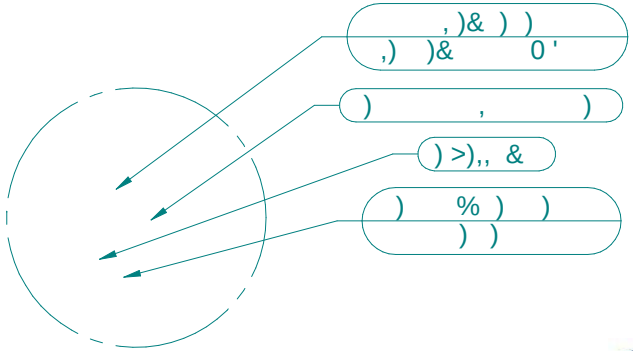

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