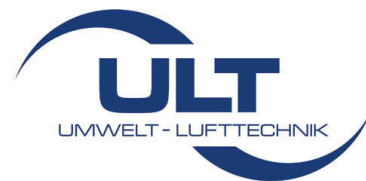
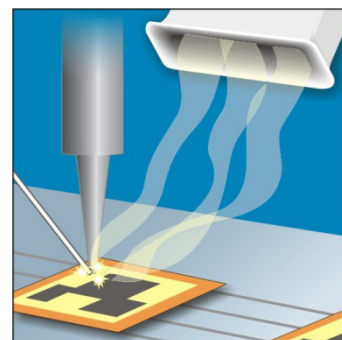


***LRA 400***  
***Technical documentation***  
Date of issue: 06/2013



***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

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### Use and application



*soldering smoke*

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 premature saturation. The following H13-filter separates even the smallest particles from the polluted air. At the adsorption filter a thick layer of activated charcoal is holding back gases and fumes effectively.

### 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:

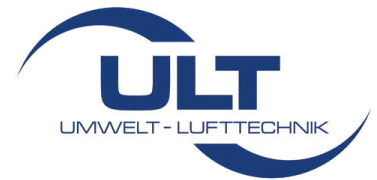
Main filter module

- (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 charcoal (14 kg)



# Technical documentation

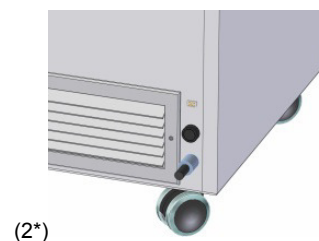
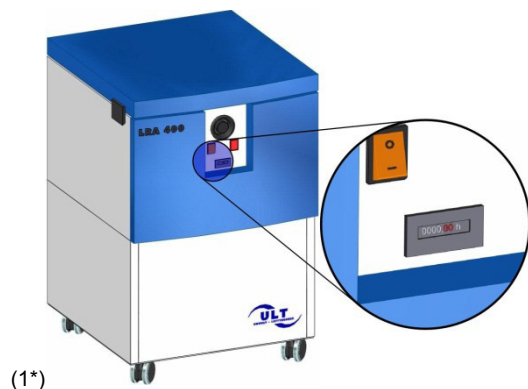
## Air extraction and filtration unit



### LRA 400

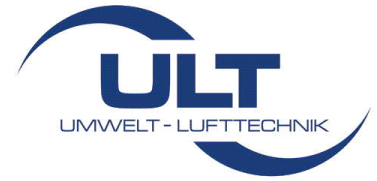
#### technical Data

Parameter	unit	400-0	400-1	400-2
Max. air flow	m³/h	900	1.000	1.500
Max. vacuum	Pa	1.650	2.600	3.250
Nominal capacity	m³/h / Pa	400 / 1.400	400 / 2.300	600 / 2.500
Motor-nominal power	kW	0,55	0,70	0,86
Nominal voltage	V	230	230	230
Nominal current	A	3,65	3,5	4,8
Frequency	Hz	50	50 / 60	50 / 60
Protection class	IP	54	54	54
Type blower		ventilator	EC-blower	EC-blower
Noise level (at 50 - 100%)	dB(A)	55 - 60	57 - 62	57 - 64
Weight	kgs	90	95	100
Air flow controller		no	yes	yes
Loaded particle filter indicator	optical	yes	yes	yes
Operating hours counter	(1*)	optional	optional	optional
SUB D9 interface	(2*)	optional	optional	optional
Remote digital control		no	optional	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



# Technical documentation

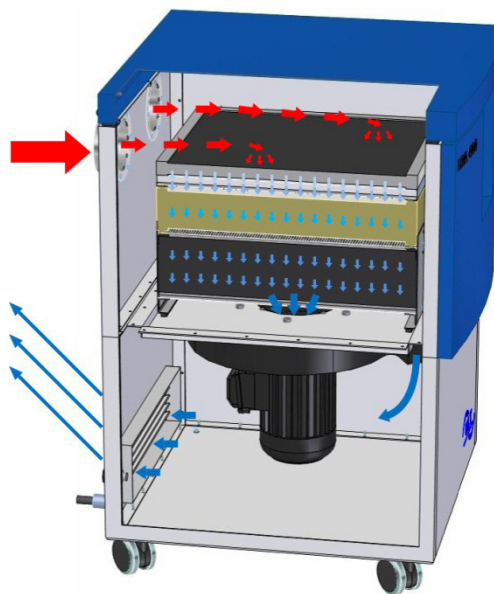
## Air extraction and filtration unit



### LRA 400



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 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 volume flow of the unit; the contact time is based on a medium adsorption reaction.

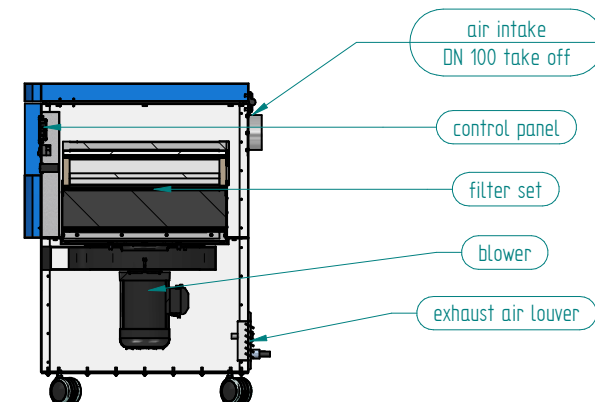
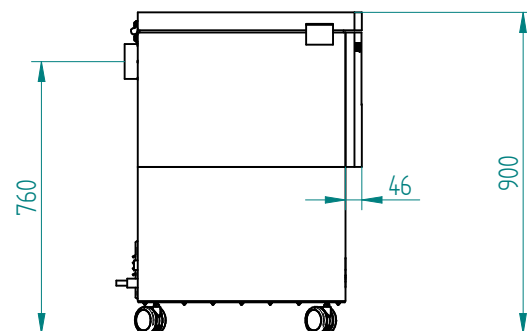
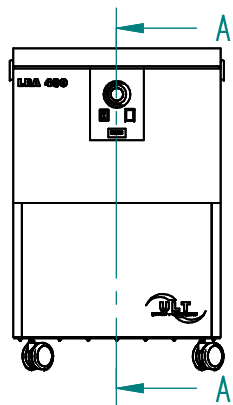
#### Storage filter system

Filters which are replaced once they are saturated.

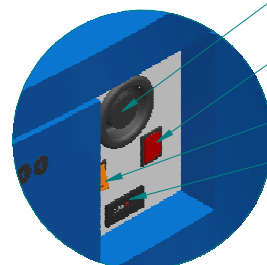
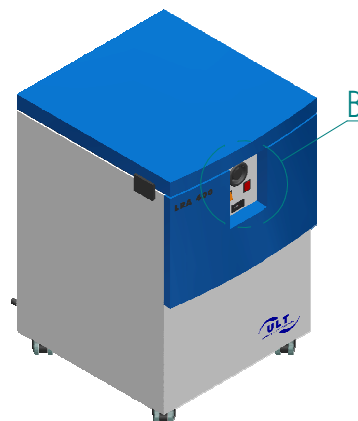
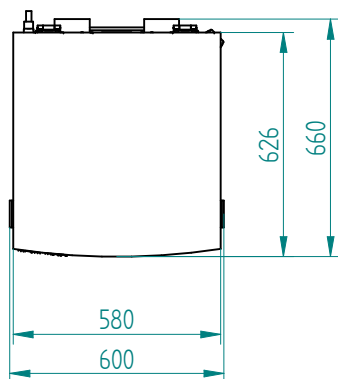
#### Filtration set complete

- |   |  |
|---|--|
| (1) <b>sublimation / spark protection</b> | Expanded metal filter  |
| (2) <b>fine dust filter</b>               | Filter mat M5  |
| (3) <b>fine dust filter</b>               | Filter mat F7  |
| (4) <b>particulate filter</b>             | Aerosol filter H13   |
| (5) <b>gas filtration</b>                 | Adsorption filter cassette A14<br>(14 kg activated charcoal) |

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

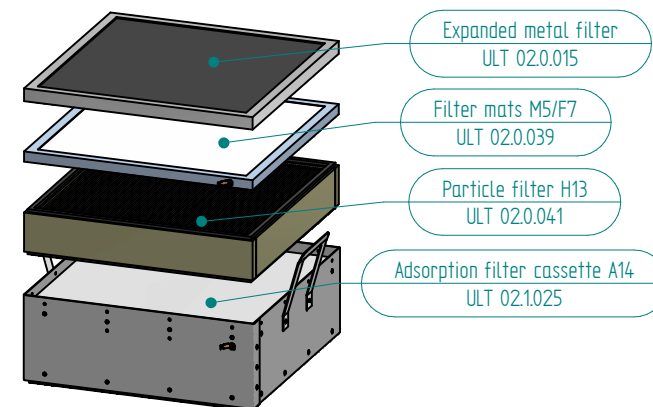


Schnitt A-A



EINZELHEIT B

filter set consisting of:



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				ULT AG Am Gopelreich 1 D-02708 Lobau		designation LRA 400	
001	base	22.05.13	JSACZ	2013	date	name	drawing number:
issue	revision	day	name	edit.	22.05.	JSACZ	ULT 400_00_003_001
				vert.	Norm		scale: 1 : 15

