

LRA200.x-01

(ULT200-UM.x-HFM020)

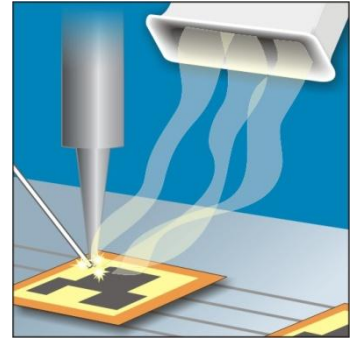
Technical Documentation

Date of issue: 07 / 2010



ULT 200

Modular system



**clean air,
strong performance**

**LRA-series,
modular air
extraction and
filtration units for
soldering smoke**



Air handling equipment for environmental and health protection

Technical documentation

Air extraction and filtration unit



LRA200.x-01 ULT200-UM.x-HFM020

Use and application

The **LRA 200** is suitable for the extraction and filtering of soldering smoke. Soldering processes produce large quantities of **soldering smoke** (fine dust of flux residues, gases and vapours as well as other substances) which are filtered by the LRA 200. Provided that the filters are maintained or replaced at regular intervals, the combination of a sublimation filter, a preliminary filter, a main filter and of an adsorption filter guarantees a precipitation rate of clearly better than 99 %, due to multiple air cleaning.



soldering smoke

Examples

- ⇒ hand soldering
- ⇒ machines and apparatus for soldering

ULT 200 modular air extraction and filtration unit

Mobile unit,
with vacuum and filter modules and storage filter system,
robust steel housing, powder coated

- filter module RAL 7035, silver grey
- vacuum generator module RAL 7001, light grey

Filter system:

Storage filter system,
filters which are replaced once they are saturated.

Filter technical:

- (1) expanded metal pre-filter
filter medium metal knitting sublimation-filter, spark protection filter
- (2) pre filter mats
filter class M5/F7-02 fine dust filter, according to DIN EN 779
- (3) HEPA filter H13
filter class H13 HEPA filter, according to DIN EN 1822
- (4) adsorption filter
filter medium activated charcoal filter

Components:

Air flow controller

stepless adjustment for the suction power,

Loaded particle filter indicator

optical signal shows the particle filter condition,

Interface SUB D9

standard equipment or optional (depending on the module type)

remote ON/OFF; filter 100%; operation status

Vacuum module:

High performance blower and turbines with maintenance-free EC-technology,
resp. a turbine with collector in the module UM200.6.



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Technical documentation

Air extraction and filtration unit



LRA200.x-01 ULT200-UM.x-HFM020

ULT 200.x-HFM020		vacuum modules			
Parameter	unit	200.1-	200.2	200.5	200.6
max. air flow	m³/h	190	635	220	210
max. vacuum	Pa	3,200	3,200	22,000	22,000
nominal capacity	m³/h at Pa	80 / 1,900	120 / 2,700	120 / 12,000	120 / 13,000
	m³/h at Pa	120 / 1,200	250 / 2,200	200 / 3,500	200 / 3,000
motor nominal power	kW	0.15	0.4	1.3	1.2
nominal voltage	V	230	230	230	230
nominal current	A	1.0	2.2	11.0	6.0
frequency	Hz	50 / 60	50 / 60	50 / 60	50 / 60
protection class	IP	54	54	54	54
typ blower		EC-blower	EC-blower	EC-turbine	collector turbine
noise level (bei 50 - 100%)	dB(A)	45 - 49	52 - 57	63 - 70	63 - 70
with sound absorber(at 50 - 100%)	dB(A)	45 - 48	50 - 54	60 - 67	60 - 66
air flow controller		incl.	incl.	incl.	incl.
loaded filter indicator		incl.	incl.	incl.	incl.
SUB D9 interface		incl. 200.1.-2 not incl. 200.1-1	incl.	incl.	incl. 200.6 not incl. 200.6-1
air intake	Ø	2x Ø 50 mm; optional: further Ø			
	position	on the top of unit			
air outlet		air exhaust louver; optional: exhaust air connection			
	position	on the rear site of the vacuum module			
length	mm	390			
width	mm	400			
height	mm	610			
weight	kg	approx. 45			
length of power cable	m	3			
filter structure	HFM020	main filter module			
		filter system: storage filter			
		ULT200 Filter LAS/LRA complete			ULT 02.1.520
		(1) expanded metal pre-filter			ULT 02.0.576
		(2) pre-filter mat; M5/F7-02			ULT 02.0.574
(3) particle filter H13			ULT 02.1.521		
(4) adsorption filter; activated charcoal filter					
additional options:					
sound absorber	(1)	changed depth: 550 mm			
exhaust air connection	(2)	1 x Ø 100 mm			
intake module 003	(3)	hose connection: 2x Ø 50mm; optional further Ø			
intake module 002	(4)	ALSIDENT-arm – direct mounting; 1x S75; optional further Ø			
mounting bracket for ALSIDENT-arm	(5)	Alsident-U-Profil S50/75; for max. 2 ALSIDENT arms			



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soldering smoke

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 precipitated and held back in a multi-stage saturation-type filtering system. **Gaseous and vaporous air pollutants** are precipitated (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.

Main filter module HFM020

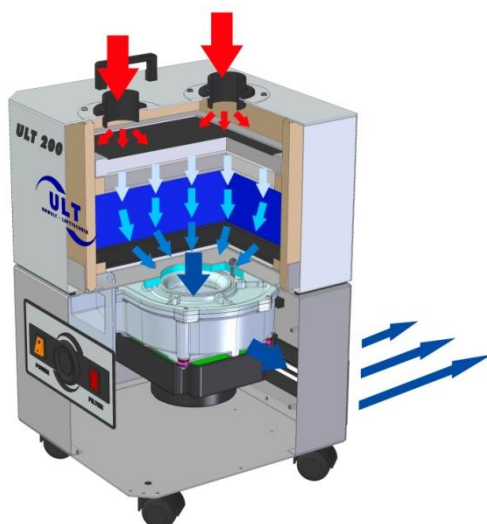
ULT 200 Filter LAS/LRA

- | | |
|--------------------------------|-----------------------|
| (1) spark protection. | expended metal filter |
| (2) fine dust filter | filter mats F5/F7 |
| (3) particulates filter | HEPA H13 |
| (4) gas filtration | activated carbon |

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

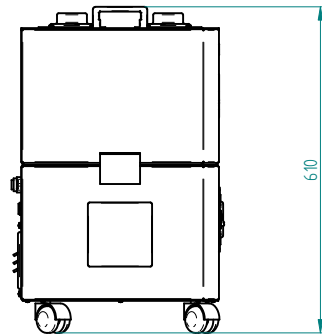
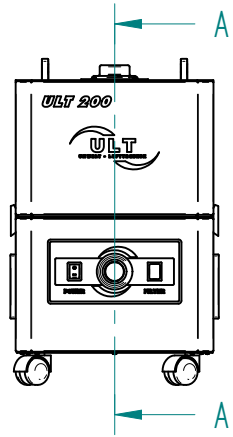
Further additional options can be connected to the LRA200.x-01 unit. These are to be selected according to the respective requirements.

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



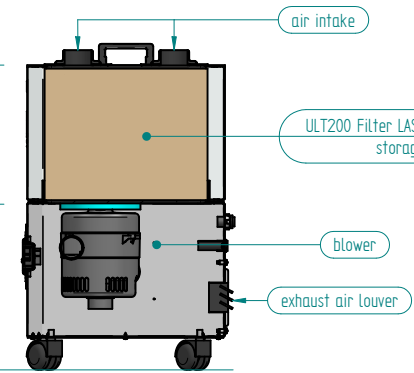
- ← raw gas
- ← filtration
- ← clean gas

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main filter module HFM020

vacuum module



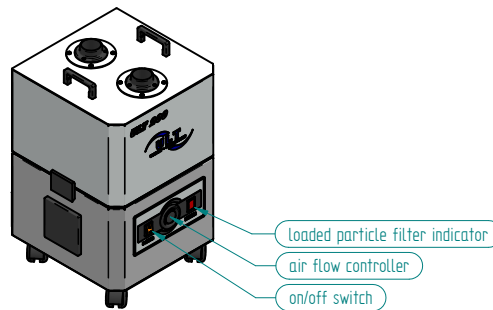
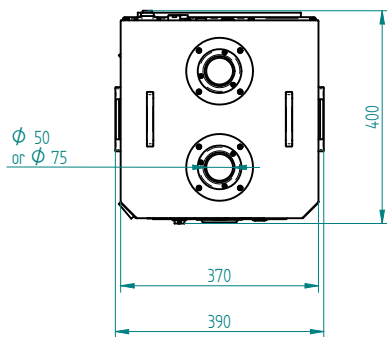
section A-A

air intake

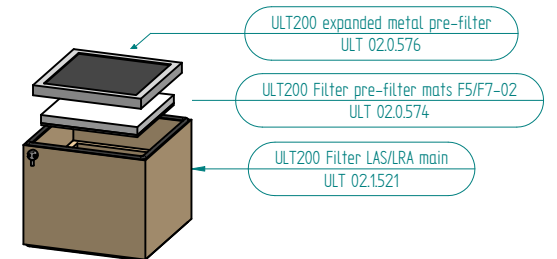
ULT200 Filter LAS/LRA complete ULT 02.1520
storage filter element

blower

exhaust air Louver



individual components



				ULT AG Am Gopelreich 1 D-02708 Lobau		Benennung: ULT 200.x HFM020 Gesamtzeichnung	
				2010	Datum	Name	
				Bearb.	20.05	R. Schütze	Zeichnungsnummer:
				ULT 200_00_257_100			Maßstab:
Ausgabe	Änderung	Tag	Name	Gepr.	Norm	1 : 10	