# LAS 800 — Universal fume extraction technology for laser material processing

Flexible. Powerful. Unique.

ULT
air quality

# To everyone who produces laser dust in large quantities.

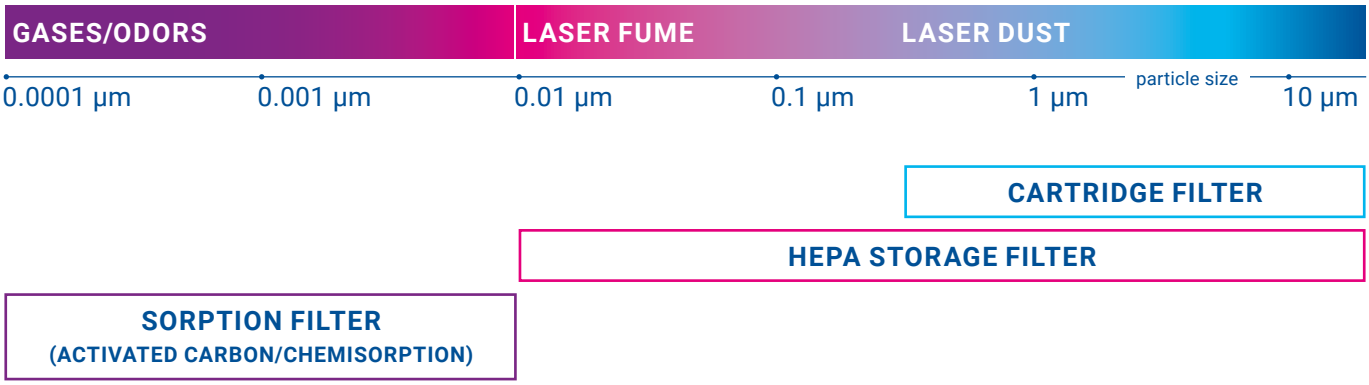
Extremely fine laser dust is an unwanted waste product in laser material processing — potentially dangerous to human health, machine functionality and product quality. Therefore, utilizing fume extraction technology is necessary but challenging in daily production practice.

The amount of dust generated can be a challenge. Another is the often different dust compositions — depending on which materials are being processed. In practice, this means: repeatedly stopping production, changing filters, having additional technology ready.

This costs time, space and money. Laser dust extraction can therefore become the Achilles heel of production.

UT presents extraction technology, specifically developed for laser processing of **ever-changing materials in 24/7.** The LAS 800 combines ULT's long-term experience in laser fume extraction in a versatile and powerful premium product. Hence, it overcomes all challenges in a unique way.

## Air pollutants and filter types in laser material processing




## Typical applications of the LAS 800

**PROCESSING TYPES, e.g.**

- Laser cutting
- Laser sintering
- Laser welding
- Laser labeling
- Laser structuring
- Laser cleaning

**INDUSTRIES, e.g.**

- Plastics processing
- Machinery
- Electronics production
- Automotive
- Aerospace
- Advertising material production

# The unique extraction system LAS 800

The LAS 800 removes laser dust in large quantities and different compositions from the ambient air at the workplace. Safe, reliable, and without retooling. Special attention is paid to fire protection. Equipped with highly effective cartridge filters, the LAS 800 eliminates the air pollutants of many laser machining processes. With its modular design, it can be retrofitted with additional filter modules for special pollutant situations.

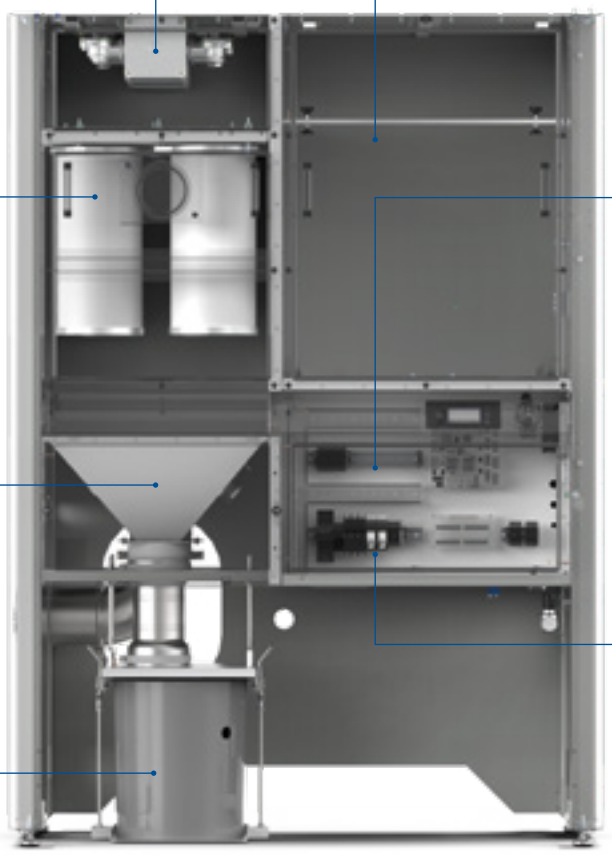

## User benefits

- Flexible platform for adapting to changing processes
- Version for combustible and/or explosive dusts optional
- Modern bus communication optional
- Quietest device in its class
- Highly energy-efficient thanks to IE3 fan
- Compact design with a small footprint
- Integrated safety equipment

# Basic equipment

**CLEANING SYSTEM**
for filter cartridges with compressed air tank and valves

**SPACE FOR OPTIONAL FILTER MODULES**
(complementary storage filters)



**CARTRIDGE FILTER**
4 pieces of 4.5 m² filter surface

**DIGITAL CONTROL, CONTROL PANEL, AND DISPLAY**
· With operating status and error display
· Multilingual, switchable
· Analog interface

**HOPPER**
with copper baffle plate for direct separation of coarse particles and to prevent impact sparks

**ENERGY EFFICIENT HIGH-PRESSURE VENTILATOR**
· Extremely quiet in operation
· Adjustable suction power

**DUST COLLECTOR**
30 l

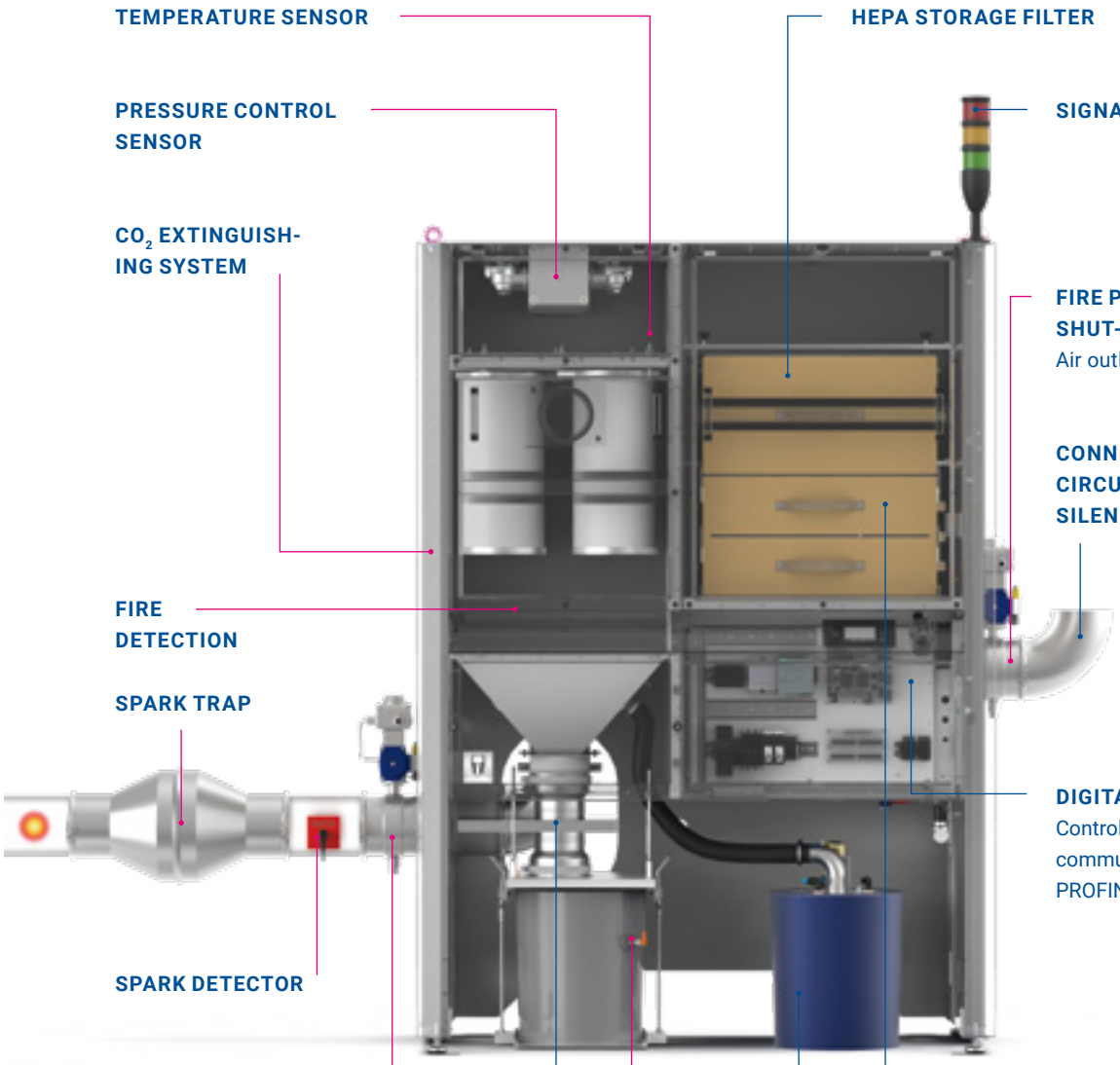
## SAFETY ATTRIBUTES OF THE LAS 800 EX VERSION

The LAS 800 Ex fume and dust extractor is designed without ignition sources and is therefore suitable for capturing and filtering combustible dusts with the following properties:

· Not self-igniting
· Minimum ignition energy >10 mJ
· Glow temperature >180 °C
· Ignition temperature >180 °C

All measures for ignition source-free execution were confirmed as suitable by the IBExU Institut für Sicherheitstechnik GmbH, Freiberg, Germany (test report IB-22-7-0016).

# Optional add-on equipment



**TEMPERATURE SENSOR**

**PRESSURE CONTROL SENSOR**

**$CO_2$ EXTINGUISH-ING SYSTEM**

**FIRE DETECTION**

**SPARK TRAP**

**SPARK DETECTOR**

**FIRE PROTECTION SHUT-OFF DAMPER**
Air intake

**GATE VALVE**
for dust collector

**LEVEL SENSOR**

**HEPA STORAGE FILTER**

**SIGNAL LIGHT**

**FIRE PROTECTION SHUT-OFF DAMPER**
Air outlet

**CONNECTION FOR CIRCULATING AIR SILENCER**

**DIGITAL INTERFACE**
Control with bus communication PROFINET

**SORPTION FILTER**
Activated carbon or chemisorption

**FILTER AID DOSING MODULE**
for binding sticky and extremely fine laser dust

**ADDITIONAL SAFETY OPTIONS**

Made in Germany.

# Technical specifications

| PARAMETERS | LAS 800 HD.60/LAS 800 EX HD.60 |
|---|---|
| Max. air flow | 1,620 m³/h |
| Max. vacuum | 8,500 Pa |
| Nominal capacity (fan characteristic curve) | 800 m³/h at 7,800 Pa |
| Drive | high-pressure turbine with frequency converter |
| Electrical connection | 3.0 kW – 3~400 V – 6.3 A – 50/60 Hz |
| Sound level (at 50 to 100 %) | < 68 dB(A) |
| Housing | sheet steel |
| Dimensions (W × D × H) | 1,430 mm × 800 mm × 2,020 mm |
| Weight | 350 kg |
| Suction position | selectable: right, left, back |
| Exhaust position | right |

The information refers to the basic equipment of the devices.

ULT AG

version: December 2024

**ULT AG**
Am Göpelteich 1
02708 Löbau, Germany

Phone: +49 3585 4128 0
Fax: +49 3585 4128 11
E-Mail: ult@ult.de
Web: www.ult-airtec.com