

## Press release

TFS 1000 mobile filter and extraction system for laser applications

### **Laser processing: efficient extraction of pollutant particles**

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STRAUBENHARDT – Laser processing causes hazardous and health-damaging emissions.

Appropriate and powerful extraction and filter systems are thus required in order to meet the statutory provisions regarding the maximum pollutant concentration at the workstation. Thanks to its particularly large prefilter and the new INSPIRE control electronics, the TFS 1000 extraction and filter system by the TBH GmbH meets these requirements in a highly efficient manner.

By developing the TFS 1000 filter and extraction system, TBH managed to successfully close the gap between small and large system series for laser processing. The system is designed for laser processing applications with 30 to 150 W CO<sub>2</sub> lasers or 10 to 50 W solid-state lasers with a working surface of up to 1,500 x 1,000 mm. It even copes with applications demanding high volumes of air such as, for instance, the simultaneous extraction at multiple workstations. The large filter surface and the concomitantly long system service life are particularly suitable for applications having to deal with medium or high amounts of dust.

During operation, the process air is extracted by means of an intake socket before passing several filter stages, a high-performance blower and the silenced exhaust vent recirculating it to the workstation. The SafeLine prefilter developed specifically for this system serves as first filter stage. It separates approximately 80% of all particles. Optimum inflow across the whole filter surface reduces losses within the filter. Heavy particles settle at the bottom of the filter thus not clogging the filter surface. The SafeLine filter is located within a closed filter housing which can easily be closed during the filter replacement thus preventing the user from coming in contact with the filtered matters. The next filter stage consists of an H14 particle filter complying with DIN EN 1822 and separating even smallest particles. The subsequent activated-carbon/BAC filter separates gaseous substances and collects odours. All filter stages can be replaced independently from each other and without any tools thus significantly easing the handling of the system. TBH will realize and launch additional systems based on this system concept in order to complement the output range both at the lower and at the higher ends.

The TFS 1000 filter and extraction system is equipped with the new INSPIRE control electronics allowing, for instance, separate filter monitoring of the SafeLine filter and the particle filter thus easing the maintenance planning and optimising the maintenance costs. The integrated colour display allows intuitive operation without complicated menu navigation and provides a quick overview of any important information concerning the system status: filter saturation, system status, performance settings /

**Additional information:**

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operating-hours meter, prefilter status, main-filter status, display and notification of malfunctions, etc. The integrated interface includes an error memory and a special programming access. On the one hand, this improves the coordination between the customer and the TBH service; on the other hand, it facilitates the adjustment of the system to the customer's specific requirements directly on site.

Caption: The special filter concept of the TFS 1000 increases the system service life: 1 – SafeLine filter, 2 – particle filter, 3 – activated-carbon/BAC filter

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Since 1992, TBH GmbH has been committed to the creation of healthy workplaces that are free of harmful gases, contaminants and dust. Our filter and extraction systems are used in a wide range of production processes to protect people, the environment and the machinery. Our products meet the highest quality standards and have the required certifications for both the industrial and medical sectors. Whether for standard or individual demands, we have the right solution for every extraction or filter requirement – worldwide.

**You can also download this press release online at: <http://presse.tbh.eu/>**

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