

## Efficient air pollution control solutions for laser procedures

Laser technology has become common practice in numerous industrial manufacturing areas as well as other sectors such as medical technology and research and development. Separating and joining processes, surface processing, markings and modern production methods such as additive manufacturing benefit significantly from the diverse advantages that the use of laser technologies brings.

## Electronic components, input systems and solutions

SCHURTER is a leading company as an innovator, producer and supplier of components for the protection of devices, as well as switches and EMC products. The company develops and produces input systems in close collaboration with its customers. In addition, services are offered in the electronics industry in the area of circuit board assembly. The Solutions division accompanies complete solutions from project planning to the production of end products.

SCHURTER, founded in 1933 by Heinrich Schurter as a limited partnership and converted into a stock corporation in 1949, currently employs around 2,400 people in 17 countries worldwide. The company's history is characterized by continuous innovation and a strong commitment to customer satisfaction.



## Products, technologies and solutions

For a safe power supply and easy operation. SCHURTER's product range for input systems extends across a variety of options, including touch screens and touch panels, membrane keyboards and piezo keyboards, housing systems and a comprehensive selection of electromechanical and electronic buttons and switches. The diverse design versions of these products enable a wide range of applicability in different areas of application.



Input systems from SCHURTER GmbH  
Picture source: SCHURTER GmbH

## GIVING TOUCH A MEANING

SCHURTER PCAP touch panels are used in the most demanding markets. The systems are used for the following applications:

- ATEX environments
- Outdoor applications
- Sales and Point of Sales (POS) machines
- Food processing systems
- Heavy machinery
- Medical equipment



Resistive touchscreens  
Picture source: SCHURTER GmbH

## Clean air - higher effectiveness

Air purification solutions from Filtration Group Industrial are the indispensable basis for trouble-free operation and efficient production processes. Dust filter elements have proven themselves worldwide in the extraction of laser cutting systems. They make short work of any type of dust pollution. Depending on the specific laser technology, laser cutting produces airborne pollutants commonly referred to as laser smoke, laser dust, or laser vapor. These emissions are made up of particles of various sizes and compositions and can have a variety of effects on the human organism, production equipment and the quality of the products manufactured. The type of pollutants emitted varies depending on the laser process used.



View of the extraction system with FG dust filter elements  
Picture source: SCHURTER GmbH

## Effective suction with laser technology

Our customer SCHURTER GmbH uses star-pleated dust filter elements from Filtration Group Industrial for the extraction on three laser cutting machines, which also generate the vacuum. Approximately 100 m<sup>2</sup> of various transfer adhesives and decorative front films for input systems are laser cut every day. The dust filter elements used serve as a carrier for the cleaning medium (stone dust) to clean the laser smoke gas before it is released into the environment.

### THE FILTRATION PROCESS BEGINS WITH CAPTURE

The elements capture the system's laser dust from the ambient air. The smaller the resulting laser dust particles are, the longer it takes for them to be completely separated from the ambient air. For this reason, it is particularly important to capture and extract the pollutant directly at its source. The elements are exposed to air containing dust from the outside and the cleaned air flow emerges upwards. The one held back Dust is cleaned off using a compressed air pulse using a rotating air nozzle.

## Technology for maximum efficiency

In its application, SCHURTER GmbH uses **cylindrical dust filter elements of type 852 908** with a cellulose/polyester carrier with polypropylene meltblown material (Ti 19/2 material).

The **filter material Ti19/2** is an optimized composite material for cleanable, pleated dust filter elements. A thin and fine-pored meltblown microfiber layer enables maximum separation with low air resistance.

Thanks to the innovative use of fold spacing through camming, the filter cartridges have a very long service life. The folds are perfectly distributed **by the cams of the filter material** and are very easy to clean with very low differential pressures.

FILCOM GmbH continues to set standards in terms of performance, longevity and cost-effectiveness with filtration solutions from Filtration Group Industrial. With innovative air filtration solutions, we ensure trouble-free and efficient operation.



FG dust filter elements  
Picture source: FG Industrial