WeldFil HV

Non-stop operation

For welding torch exhaust

Technical Data

Filter	
Filter stages	1
Filter method	Cleanable filter
Filter cleaning method	Jet-pulse
Filter material	PTFE-membrane
Filter efficiency	> 99.99 %
Dust classification	M
Basic data	
Power supply	3 x 400 V / 50 Hz
Noise level	65 dB(A)
Additional information	
Fan type	Radial fan, belt driven
Compressed air supply	5 - 6 bar

Order Data

Art. No.	Description
91 0330 030	Extraction capacity 700 - 1.200 m³/h
91 0400 040	Extraction capacity 1.000 - 1.800 m³/h
91 0450 060	Extraction capacity 1.500 - 2.700 m³/h

Applications

- High levels of smoke and dust
- Welding torch extraction, nozzles and high vacuum exhaust arms
- Can be installed outdoors
- Large welding shops or training centres

Properties

- Automatic filter cleaning, pressure-controlled
- Control via touch screen
- KemTex® ePTFE filter cartridges
- Dust collection container with pneumatic lifting device
- Modular design

Benefits

- Contamination-free dust collection due to compressed air fixation of dust collection containers
- Uninterrupted continuous operation due to automatic differential pressure-controlled filter cleaning
- Little noise emission due to a low noise level
- Expandable due to simple modular construction
- Considerable energy cost savings by using the automatic extraction volume control
- Convenient operation due to intelligent control via touch screen with diagnostic system
- Flexible integration of the control system into third-party systems such as cutting equipment due to potential-free contacts
- Best health protection for employees by use of KemTex® ePTFE cartridges with surface filtration

Accessories

- Automatic dust disposal - DustEvac
- Automatic suction power regulation
- External On/Off
- Spark separator – SparkTrap
- Weatherproof housing for outdoor installation

VacuFil :
Cruise control is not just for cars

As close to the source as you can get: Efficiency leap for TRUMPF thanks to high vacuum system

7,000 square metres of new production area, 50 additional welding workstations: As TRUMPF expands its production of base frames for laser cutting machines and punching and nibbling machines in Haguenau, France, one focus is on the safe and efficient design of workstations. KEMPER creates the optimum conditions for this. At the heart: A high-vacuum extraction solution consisting of two central WeldFil systems and extraction burners connected to them.

Before the comprehensive equipment, KEMPER asserts itself against the competition in a multi-stage tendering process. Most notably, detailed solutions are convincing. The systems not only meet the requirements of protective welding equipment, but also ensure trouble-free operation and low energy costs. The combination of efficient extraction and high-quality filter technology has effectively protected Trumpf employees since the start of operations.

No extraction system comes this close to the point of origin

Thanks to the use of extraction burners, the welders come so close to the source of the welding fumes with the collection nozzle that the hazardous substances cannot even spread. They automatically pull the high-vacuum extraction systems along the

welding seam. This removes the need for tracking the detection element. The air volume flow is adjusted to the burner characteristics in such a way that the protective gas jacket is not affected and the process remains stable. All this makes it much easier for the welders to handle the extraction technology.

In order to couple the extraction burners with the two filter systems of the WeldFil type, KEMPER laid 850 metres of ducting and 250 metres of extraction hoses and installed 50 pneumatic shut-off valves. This system, which is individually adapted to the production layout, ensures that the contaminated air reaches the high-quality filter systems.

Effective filter technology for torch extraction
With a maximum volume flow of 9,000 cubic metres of air per hour, the WeldFil systems effectively extract the hazardous substances. Thanks to the integrated KemTex® ePTFE membrane filters, the two central filter systems are able to separate even ultra-fine welding fume particles. In this way, TRUMPF achieves effective and sustainable health protection for its employees.

With the help of a frequency converter and the pneumatic shut-off gate valves that separate all workstations from each other, the system at TRUMPF manages to regulate its output according to demand – while always maintaining the same extraction capacity. In this, the vacuum in the tubing remains constant so that it there will be no restrictions or a reduction in safety for the welders at particular welding workstations. Another advantage of the regulation according to need: It enables additional cost efficiency due to decreasing energy costs.

Trouble-free operation thanks to SparkTrap
Besides the efficiency gains of this special air pollution control system, trouble-free operation is guaranteed at all times because KEMPER connected the SparkTrap system upstream of each WeldFil system. The two spark separators filter coarse particles or sparks out of the air before they enter the filter system, thus preventing undesired filter fires and extending the service life of the filters.

The special features of the system are, however, not limited to the key words safety and efficiency. In detail, many small solutions ensure a comfortable and smooth operation. A timer eliminates the need for manual control of the suction and filter unit. A clear display for the vacuum or fault messages allows an analysis of the operating status at a glance.