

APPLICATION

The systems of the OEN-series were specially designed for the extraction of oil and emulsion mist. They are used wherever there is a need for extraction at industrial baths or in the metalworking industry. Depending on the application, you can use various filter configurations that allow for extraction of pure oil/emulsion mist or a combined extraction with particles.

AREAS OF APPLICATION:

- Metalworking with oil/emulsion mist (drilling, milling, lathing, eroding, etc.)
- Industrial baths
- Work processes with a high aerosol content in the process air
- OEN 150 / OEN 155 for individual workstation extraction, OEN 710 for multi-workstation extraction

THE SYSTEM INCLUDES NUMEROUS FEATURES:

- Various filter configurations, depending on the application
- Simple filter replacement
- Collection tank can be easily emptied
- Powerful electronics



Similar to image

FUNCTIONAL PRINCIPLE

A flexible hose is used to transport the contaminated air into the filter unit. There the contaminant particles and aerosol particulates (depending on the application) are filtered out according to their size by means of a multi-level saturation filter system (medium/high particle content) or a special filter cartridge (no/low particle content). The separated oil/emulsion mist can be easily disposed of via the collection tank.* The standard particle filter allows you to then circulate the cleaned air back into the work area. Recirculating the air is an easy way to reduce energy costs.

* (OEN 150/155) or drained via the drain valve (OEN 710).

PRODUCT FEATURES

VARIOUS FILTER CONFIGURATIONS

You can choose from various filter configurations in the OEN-series, depending on the application. Special filter cartridges are used in applications with pure oil/emulsion mist without particles or with a very low particle content. These ensure an extremely long service life and very effective separation even for large amounts of liquid: the OEN 155. Aluminium mesh and saturation filters are used in applications with a lower oil/emulsion mist content and a medium particle content in the contaminated air. These ensure effective separation of the liquid combined with optimised particle separation: the OEN 150 / OEN 710.

Both systems are equipped with a particle filter (H13) that allows the air to be safely recirculated into the work area. You can install an optional molecular sieve (activated carbon/BAC) downstream, which will remove the majority of the gaseous contaminants.



Figure 1

SIMPLE FILTER REPLACEMENT

Depending on the system type, you can easily replace the filter by removing it from above (OEN 150/155) or through the front doors fig. 1 (OEN 710). This ensures that the employees or maintenance service staff can easily replace the filters without getting dirty.



COLLECTION TANK CAN BE EASILY EMPTIED

On the OEN 150 and OEN 155 systems, the collected liquid can be easily disposed of by emptying the collection tank. On the OEN 710, the liquid can be easily disposed of via the installed drain valve.



INDIVIDUAL FILTER MONITORING FOR OPTIMIZED MAINTENANCE

Using the electronic control system **INSPIRE**, OEN 710 includes separate filter monitoring for Bag filter (pre-filter) and particle filters (main filter). Easing the maintenance planning, this also optimizes the maintenance costs for the customer.

POWERFUL CONTROL ELECTRONICS

All OEN-series systems are equipped with **INSPIRE** control electronics and a comprehensive interface. This allows controlling and monitoring the following functions:

- Switching between run/standby
- Manual adjustment of the rotation speed
- Filter-saturation indicator of the extraction system
- Visual and acoustic display of the filter saturation
- Separate filter monitoring for pocket filter and particle filters with status indicator (OEN 710)
- Fault display and notification

INTERFACE:

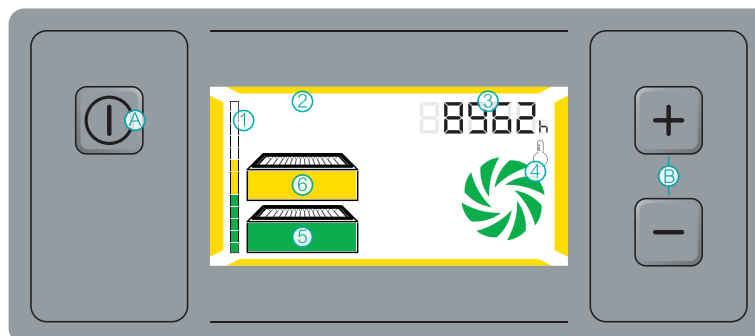
- System start/stop
- Warning at a filter saturation of 75%
- Visual and acoustic display of the filter saturation
- Collective fault output (rotation speed, temperature, filter full 100%)
- External adjustment of the rotation speed
- Error memory improves the coordination between the customer and the TBH service
- Parameterization access for the activation of custom functions



Similar to image

OPERATING ELEMENTS:

- A) Switching between run/standby
 - B) Manual adjustment of the rotation speed
- 1) Filter-saturation indicator
 - 2) System status indicator
 - 3) Performance-setting indicator/ operating-hours meter
 - 4) Temperature and turbine-malfunction indicator
 - 5) Filter status indicator (OEN 150/155) or filter status indicator pre-filter (OEN 710)
 - 6) Filter status indicator main filter (OEN 710)



ADSORPTION OF GASEOUS SUBSTANCES

Two complimentary filter materials are used for the adsorption of gaseous substances. The activated carbon facilitates the physical adsorption process while the BAC granules facilitate a chemical adsorption process. Neutralisation of specific gaseous substances is achieved through chemical binding with the reaction substance that is deposited on the carrier material. Because the physical and chemical adsorption processes are complementary, an extremely wide range of gases and odours can be collected.

Activated carbon



BAC granules



Activated carbon/BAC

