

# MT-31/MT-32 Oil mist/smoke Mechanical Filters



## Description

The MistTerminator (MT) is a modular filtration system that captures oil smoke/mist. For handling oil mist, you shall choose the MT-31. If you need to handle both oils mist and oil smoke you require MT-32 that contains an additional HEPA filter. All MT filter units and filter banks are modular and can be tailored to your needs (See page 94-95).

## Processes and applications

- Cutting, boring, drilling, honing using various metalworking equipment and CNC machine tools
- Cold pressing and stamping operations
- Hardening and wet grinding of metal

## Restrictions

Do not use the MT-31/MT-32 and MT-41/MT-42 for the following applications or in the following circumstances:

- Aluminium laser cutting
- Arc-air gouging
- Paint mist
- Extraction of hot gases (more than 45°C/113°F continuously)

## Features and advantages

- Intended for 1 - 2 work shift, light mode (processing parts at low and medium speed)
- Suitable for processes involving contamination of coolant in the form of a thick sludge of metallic particles and burnt oil
- Handles combined wet and dry metal processing
- Not suitable for oils with a flash point below 150 °C (300°F)
- Maximum initial oil concentration is 30 – 40 mg/m<sup>3</sup>
- Filters have pressure indicator showing clogging level
- Prepared for direct mounting of the fan on the filter
- New mechanism for quick filter replacement during scheduled maintenance
- Two input sockets for easy alternative duct installation

## Technical characteristics see page 100

**Delivery set** of all single filter units MT-31, MT-32, MT-41 and MT-42:

- Filter body, preassembled with all filter elements and pre-filters
- 250 mm inlet nipple (in the inlet module)
- 250 mm cover (in the inlet module)
- 250 mm outlet for direct installation of the fan (on top cover of the filter)

## To be ordered separately:

- Extraction fan
- Pressure adapter for the fan connection to round section duct line
- Silencer
- Fan starter
- Connection flange (see next page)
- Outlet nipple for connection to the extraction fan

# Design and operating principles

## 5 stage (MT-32)

**Stage 5 (MT-32)**  
**HEPA-filter (MT-32)**  
 (ultra fine cleaning, class of filtration MERV 16 ASHRAE 52.2 or H13 DIN EN1822)

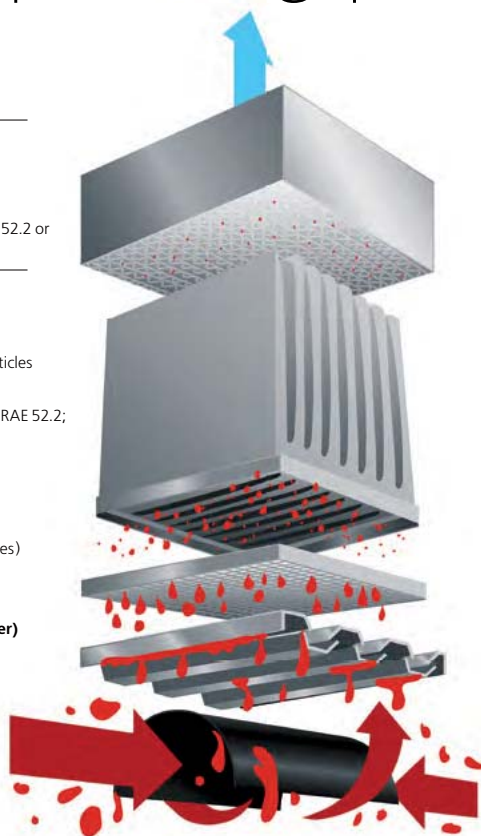
## 4 stage (MT-31)

**Stage 4 (MT-31)**  
**Bag filter**  
 (main filter, captures small particles of oil; class of filtration F9 DIN EN 779 or MERV 15 ASHRAE 52.2; 11,2 m<sup>2</sup>, fiberglass)

**Stage 3**  
**Net pre-filter**  
 (captures mechanical admixtures)

**Stage 2**  
**Labyrinth type filter (impinger)**  
 (stops large and medium size aerosol particles)

**Stage 1**  
**Inlet with a screen for liquid fraction and drops**



**Return drain pipe**  
 The oil is drained back either to a collector tank or back to the machine.

## Various connections

MT-31, MT-32 and MT-41, MT-42

### Connection of fans to single filter units

The fan is installed on top of the filter and attached to adapter (adapter is included in the standard delivery set).



### Connection of single filter unit to external fan

The filter is connected to 250mm duct line with the connection flange (ordered separately).



### Connection of the ducting to the intake module of single filter units

The inlet nipple is placed on the right side of the inlet module.

Alternatively the ducting might be connected from the left side of the filter.

All single filter units come with a 250 mm inlet.

