

## ME-31/ME-32 BANKS

### MIST ELIMINATOR; 4- AND 5-STEP FILTRATION

The MistEliminators ME-31 and ME-32 are stationary filter banks for mainly oil mist applications, to be used in machine tool processes. This comprises basically any process that uses metal working fluids like oil or an emulsion to cool or lubricate the operation. The ME-31 bank is based on a 4-step filtration method which allows for exhaust to the atmosphere. In case of recirculation, it is recommended to use an ME-32 bank which is fitted with additional HEPA filters.

ME-3X/2 and ME-3X/3 are *single base filter banks*.  
ME-3X/4 and ME-3X/5 are *dual base filter banks* that are composed of two interconnected single base ones.



Shown: ME-32/3

#### APPLICATIONS

The ME-31 and ME-32 banks are intended to be used for the following applications:

- metal working processes with "polluted" or burnt high viscosity oil/emulsion as a residue; e.g.
  - CNC machining centers for cutting, boring, drilling and honing
  - machines for metal forming operations like cold heading and stamping
  - oil mist produced by heat and surface treatments like hardening and wet grinding

Do **not** use the ME-31 and ME-32 banks for the following applications or in the following circumstances:

- oxy-fuel cutting
- aluminium laser cutting
- arc-air gouging
- paint mist
- extraction of hot gases (more than 45°C/113°F continuously)
- grinding aluminium and magnesium
- flame spraying
- extraction of cement, saw dust, wood dust, grit etc.
- explosive environments or explosive substances/gases

*Note: this list is not all-embracing.*

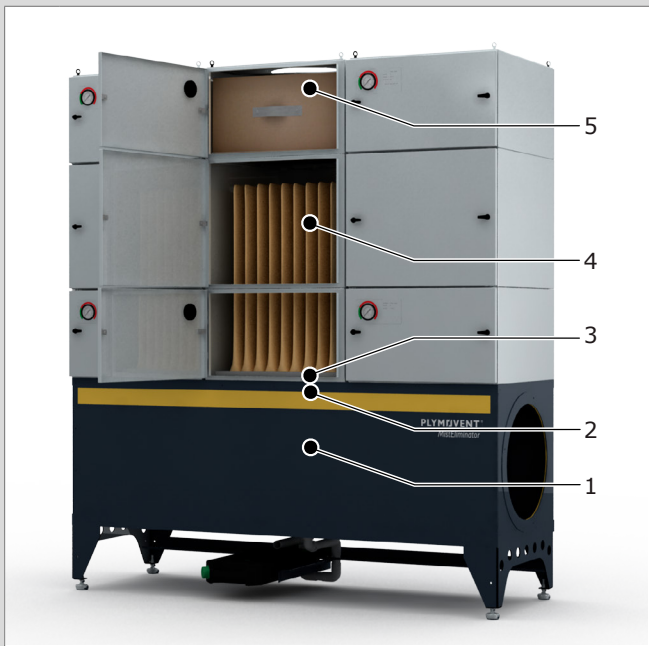
#### SPECIFICATIONS

| ■ Physical dimensions and properties |   |       |         |       |
|--------------------------------------|---|-------|---------|-------|
| Housing:                             | electro-zinc coated steel (according to DIN EN 10152) |       |         |       |
| • steel grade                        | • DC01+ZE   |       |         |       |
| • steel grade no.                    | • 1.0330  |       |         |       |
| Colour:                              | • grey RAL 7011                                       |       |         |       |
| • air inlet module                   | • grey RAL 7035                                       |       |         |       |
| • filter modules                     |   |       |         |       |
| Weight (net):                        | ME-31/X   |       | ME-32/X |       |
|                                      | kg  | lbs   | kg      | lbs   |
| X = 2                                | 195   | 430   | 266     | 584   |
| X = 3                                | 283   | 624   | 389     | 858   |
| X = 4                                | 398   | 877   | 540     | 1,190 |
| X = 5                                | 486   | 1,071 | 663     | 1,462 |

| ■ Filters   |  |
|---|--|
| Filter class:   | <ul style="list-style-type: none"> <li>• ME-31 banks</li> <li>• ME-32 banks</li> </ul>                                   |
|   | <ul style="list-style-type: none"> <li>• F9 according to EN 779-2003</li> <li>• H13 according to EN 1822-2009</li> </ul> |
| Pressure drop:  | (for dimensional purpose)  |
| • ME-31/X   | • 700 Pa (2.7 in. WG)  |
| • ME-32/X   | • 1200 Pa (4.75 in. WG)  |
| Negative pressure   | max. 4000 Pa (16 in. WG)   |
| ■ Performance   |  |
| Airflow:  | Max.:  |
| • ME-3X/2   | • 6000 m³/h (3500 CFM)   |
| • ME-3X/3   | • 9000 m³/h (5250 CFM)   |
| • ME-3X/4   | • 12.000 m³/h (7000 CFM)   |
| • ME-3X/5   | • 15.000 m³/h (8750 CFM)   |
| <i>Max. airflow is a ceiling value and generally not recommended as a design value for operating the ME unit, as it might lead to short lifespan of filters. The performance of the ME unit is next to airflow influenced by other variables like amount and composition of metal working fluid, process, temperature and pre-treatment. Ask your local expert on the recommended airflow for your system design.</i> |  |
| ■ Ambient conditions  |  |
| Operating temperature:  | <ul style="list-style-type: none"> <li>• 5°C (41°F)</li> <li>• nom. 20°C (68°F)</li> <li>• max. 45°C (113°F)</li> </ul>  |
| Max. relative humidity  | 80%  |
| Outdoor use allowed   | no   |
| Storage conditions  | <ul style="list-style-type: none"> <li>• 5-45°C (41-113°F)</li> <li>• relative humidity max. 80%</li> </ul>              |
| ■ Options and accessories   |  |
| <i>Selection required:</i>  |  |
| Single base filter banks:   | Ø 500 mm (19.7 in.):   |
| • ME-INL-500 (1)  | • inlet connection   |
| • ME-INL-COV (1)  | • inlet cover plate  |
| Dual base filter banks:   | Ø 500 mm (19.7 in.):   |
| • ME-INL-500 (1 or 2)   | • inlet connection   |
| • ME-INL-COV (max. 1)   | • inlet cover plate  |
| <i>Remaining options:</i>   |  |
| CFD   | constant flow damper   |

|  |                                  |       |                |       |       |
|--|----------------------------------|-------|----------------|-------|-------|
| OilPump 230V   | oil container with electric pump |       |                |       |       |
| OilPump 115V   |                                  |       |                |       |       |
| <b>■ Scope of supply</b> <ul style="list-style-type: none"> <li>• Single base filter banks: Assembled filter bank with common inlet - Oil container</li> <li>• Dual base filter banks: Assembled filter bank with common inlet (2) - Inlet join kit - Oil container (2)</li> </ul> |                                  |       |                |       |       |
| <b>■ Order information</b>   |                                  |       |                |       |       |
| MistEliminator:  | Article no.:                     |       |                |       |       |
| • ME-31/2  | • 0000100786                     |       |                |       |       |
| • ME-31/3  | • 0000100787                     |       |                |       |       |
| • ME-31/4  | • 0000100788                     |       |                |       |       |
| • ME-31/5  | • 0000100789                     |       |                |       |       |
| • ME-32/2  | • 0000100791                     |       |                |       |       |
| • ME-32/3  | • 0000100792                     |       |                |       |       |
| • ME-32/4  | • 0000100793                     |       |                |       |       |
| • ME-32/5  | • 0000100793                     |       |                |       |       |
| Number/package   | 1                                |       |                |       |       |
| <b>■ Shipping data</b>   |                                  |       |                |       |       |
| Gross weight<br>(incl. pallet):  | <b>ME-31/X</b>                   |       | <b>ME-32/X</b> |       |       |
|  |                                  | kg    | lbs            | kg    | lbs   |
|  | X = 2                            | 225   | 496            | 301   | 664   |
|  | X = 3                            | 323   | 712            | 434   | 957   |
|  | X = 4                            | 458   | 1,010          | 610   | 1,345 |
| X = 5  | 556                              | 1,226 | 743            | 1,638 |       |
| Harmonized Tariff Code   | 8421.39.2090                     |       |                |       |       |
| Country of origin  | Netherlands                      |       |                |       |       |

#### FILTER STAGES



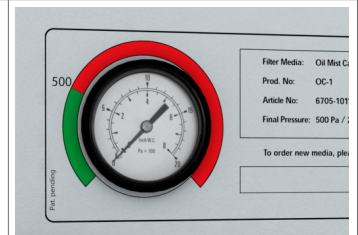
|   |  |
|---|--|
| 1 | <b>Air inlet module</b> ; pre separator that distributes the air and prevents large particles from entering the filter package |
| 2 | <b>HydroFilter</b> ; impinger to separate oil droplets and coalesce oil mist into droplets                                     |
| 3 | <b>Aluminium mesh pre filter</b> to keep larger particles  |
| 4 | <b>Bag filter</b> for main filtration  |
| 5 | <b>HEPA filter</b> for final filtration (ME-32 series only)  |

#### CONFIGURATIONS

|                          |  |
|--------------------------|--|
| Single base filter banks | ME-3X/2 and ME-3X/3  |
| Dual base filter banks   | ME-3X/4 and ME-3X/5, which are composed of two interconnected single base filter banks |

#### FEATURES

A differential pressure gauge on each filter module indicates status and need for filter replacement.



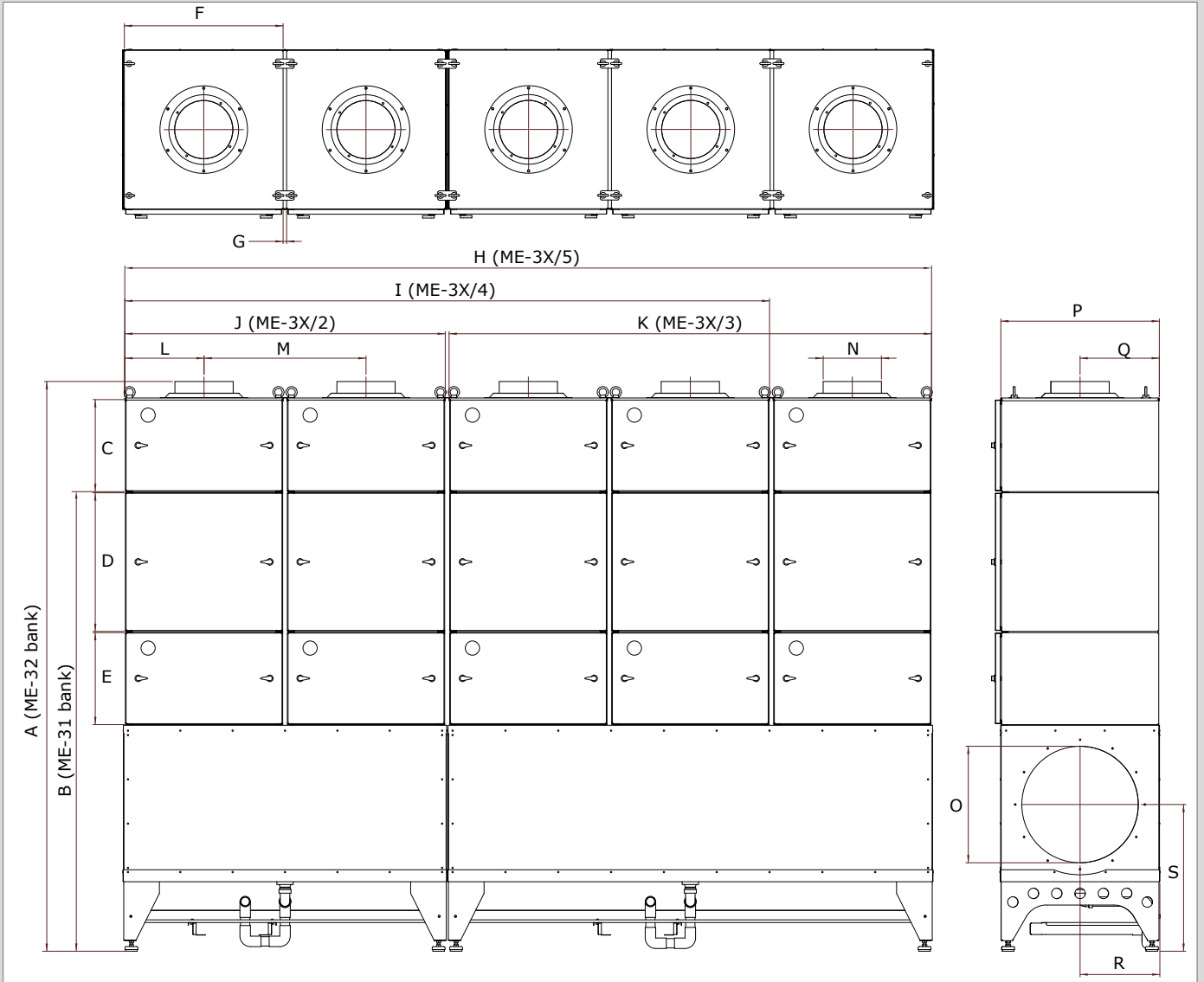
Easy to handle oil container. Contents: 8 liters (2 gallon).



Option: OilPump; oil container with electric pump, serving both single and dual base filter banks.



## DIMENSIONS



|          | mm    | inch   |
|----------|-------|--------|
| <b>A</b> | 2445  | 96.3   |
| <b>B</b> | 2045  | 80.3   |
| <b>C</b> | 395   | 15.6   |
| <b>D</b> | 595   | 23.4   |
| <b>E</b> | 395   | 15.6   |
| <b>F</b> | 680   | 15.0   |
| <b>G</b> | 15    | 0.6    |
| <b>H</b> | 3460  | 136.2  |
| <b>I</b> | 2765  | 108.9  |
| <b>J</b> | 1375  | 54.1   |
| <b>K</b> | 2070  | 81.5   |
| <b>L</b> | 340   | 13.4   |
| <b>M</b> | 695   | 27.4   |
| <b>N</b> | Ø 250 | Ø 9.8  |
| <b>O</b> | Ø 500 | Ø 19.7 |
| <b>P</b> | 680   | 26.8   |
| <b>Q</b> | 340   | 13.4   |
| <b>R</b> | 342   | 13.5   |
| <b>S</b> | 630   | 24.8   |

Product type

**ME-31 / ME-32 banks**

Article no.

*refer to order information*

Product category

oil mist filters

Version

120121/C

Always check the latest version on [www.plymovent.com](http://www.plymovent.com)