PLYMIVENT®

clean air at work

ME-31/ME-32

MIST ELIMINATOR; 4- AND 5-STEP FILTRATION

The MistEliminators ME-31 and ME-32 are stationary filter units 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 is based on a 4-step filtration method which allows for exhaust to the atmosphere. In case of recirculation, it is recommended to use the ME-32 which is fitted with an additional HEPA filter.



APPLICATIONS

The ME-31 and ME-32 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 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: • air inlet module • filter modules	• grey RAL 7011 • grey RAL 7035
Weight (net): • ME-31 • ME-32	• 98 kg (207 lbs) • 134 kg (295 lbs)
■ Filters	
Filter efficiency • ME-31	ISO ePM1 90% according to EN ISO 16890
Filter class • ME-32	H13 according to EN 1822
Pressure drop: • ME-31	• 700 Pa (2.7 in. WG)
• ME-32	• 1200 Pa (4.75 in. WG)

Negative pressure max. 4000 Pa (16 in. WG) Performance		
Airflow¹ Ambient conditions Operating temperature: • min. • nom. • max. • 5°C (41°F) • 20°C (68°F) • 45°C (113°F) Max. relative humidity Outdoor use allowed Storage conditions Options and accessories CFD Constant flow damper ME-F1/F2 FUA fan series for direct mounting on MistEliminator FF-DUCT-250 FF-FAN-B/3000-4700 FF-FAN-B/3000-4700 FF-RACK Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: • ME-31 Article no.: • 0000100785	Negative pressure	max. 4000 Pa (16 in. WG)
■ Ambient conditions Operating temperature:	■ Performance	
Operating temperature: • min. • nom. • nom. • max. Max. relative humidity Outdoor use allowed Storage conditions • 5-45°C (41°F) • relative humidity Outdoor use allowed no Storage conditions • 5-45°C (41-113°F) • relative humidity max. 80% Options and accessories CFD Constant flow damper ME-F1/F2 fan module Fr-DUCT-250 duct connection Ø 250 mm (9.8 in.) FF-FAN-B/3000-4700 filter-fan adapter FF-RACK Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: • ME-31 Article no.: • 0000100785	Airflow ¹	max. 3000 m³/h (1750 CFM)
 min. nom. nom. max. Max. relative humidity 0utdoor use allowed Storage conditions 5-45°C (41-113°F) relative humidity max. 80% Options and accessories CFD constant flow damper ME-F1/F2 fan module FUA fan series for direct mounting on MistEliminator FF-DUCT-250 duct connection Ø 250 mm (9.8 in.) FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: ME-31 Article no.: 0000100785 	Ambient conditions	
Outdoor use allowed Storage conditions • 5-45°C (41-113°F) • relative humidity max. 80% ■ Options and accessories CFD constant flow damper ME-F1/F2 fan module FUA fan series for direct mounting on MistEliminator FF-DUCT-250 duct connection Ø 250 mm (9.8 in.) FF-FAN-S/1300-2100 filter-fan adapter FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack ■ Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container ■ Order information MistEliminator: • ME-31 Article no.: • 0000100785	• min. • nom.	• 20°C (68°F)
Storage conditions • 5-45°C (41-113°F) • relative humidity max. 80% ■ Options and accessories CFD constant flow damper ME-F1/F2 fan module FUA fan series for direct mounting on MistEliminator FF-DUCT-250 duct connection Ø 250 mm (9.8 in.) FF-FAN-S/1300-2100 filter-fan adapter FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack ■ Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container ■ Order information MistEliminator: • ME-31 • 0000100785	Max. relative humidity	80%
• relative humidity max. 80% ■ Options and accessories CFD constant flow damper ME-F1/F2 fan module FUA fan series for direct mounting on MistEliminator FF-DUCT-250 duct connection Ø 250 mm (9.8 in.) FF-FAN-S/1300-2100 filter-fan adapter FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack ■ Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container ■ Order information MistEliminator: • ME-31 Article no.: • 0000100785	Outdoor use allowed	no
CFD constant flow damper ME-F1/F2 fan module FUA fan series for direct mounting on MistEliminator FF-DUCT-250 duct connection Ø 250 mm (9.8 in.) FF-FAN-S/1300-2100 filter-fan adapter FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: • ME-31 Article no.: • 0000100785	Storage conditions	
ME-F1/F2 fan module FUA fan series for direct mounting on MistEliminator FF-DUCT-250 duct connection Ø 250 mm (9.8 in.) FF-FAN-S/1300-2100 filter-fan adapter FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: • ME-31 Article no.: • 0000100785	■ Options and accessories	
FUA fan series for direct mounting on MistEliminator FF-DUCT-250 duct connection Ø 250 mm (9.8 in.) FF-FAN-S/1300-2100 filter-fan adapter FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: ME-31 Article no.: 0000100785	CFD	constant flow damper
MistEliminator FF-DUCT-250 duct connection Ø 250 mm (9.8 in.) FF-FAN-S/1300-2100 filter-fan adapter FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: • ME-31 Article no.: • 0000100785	ME-F1/F2	fan module
(9.8 in.) FF-FAN-S/1300-2100 filter-fan adapter FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: • ME-31 Article no.: • 0000100785	FUA fan series	
FF-FAN-B/3000-4700 filter-fan adapter FF-RACK floor rack Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: • ME-31 Article no.: • 0000100785	FF-DUCT-250	
FF-RACK floor rack Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: • ME-31 Article no.: • 0000100785	FF-FAN-S/1300-2100	filter-fan adapter
■ Scope of supply Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container ■ Order information MistEliminator: • ME-31 Article no.: • 0000100785	FF-FAN-B/3000-4700	filter-fan adapter
Assembled filter unit - Duct cap Ø 250 mm (9.8 in.) - Oil container Order information MistEliminator: • ME-31 Article no.: • 0000100785	FF-RACK	floor rack
container ■ Order information MistEliminator: Article no.: • ME-31 • 0000100785	■ Scope of supply	
MistEliminator: Article no.: • ME-31 • 0000100785		cap Ø 250 mm (9.8 in.) - Oil
• ME-31 • 0000100785	■ Order information	
• ME-32 • 0000100790		
Number/package 1	Number/package	1

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.

■ Shipping data	
Gross weight (incl. pallet): • ME-31 • ME-32	• 124 kg (273 lbs) • 164 kg (362 lbs)
Max. number/pallet	1
Harmonized Tariff Code	8421.39.2090
Country of origin	Netherlands

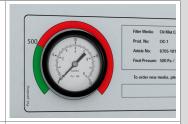
FILTER STAGES



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

FEATURES

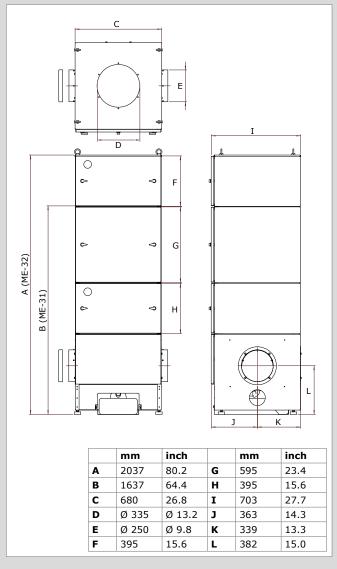
A differential pressure gauge on each filter module indicates status and need for filter replacement.



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



DIMENSIONS



Product type
Article no.
Product category
Version

ME-31 / ME-32

refer to order information
oil mist filters

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