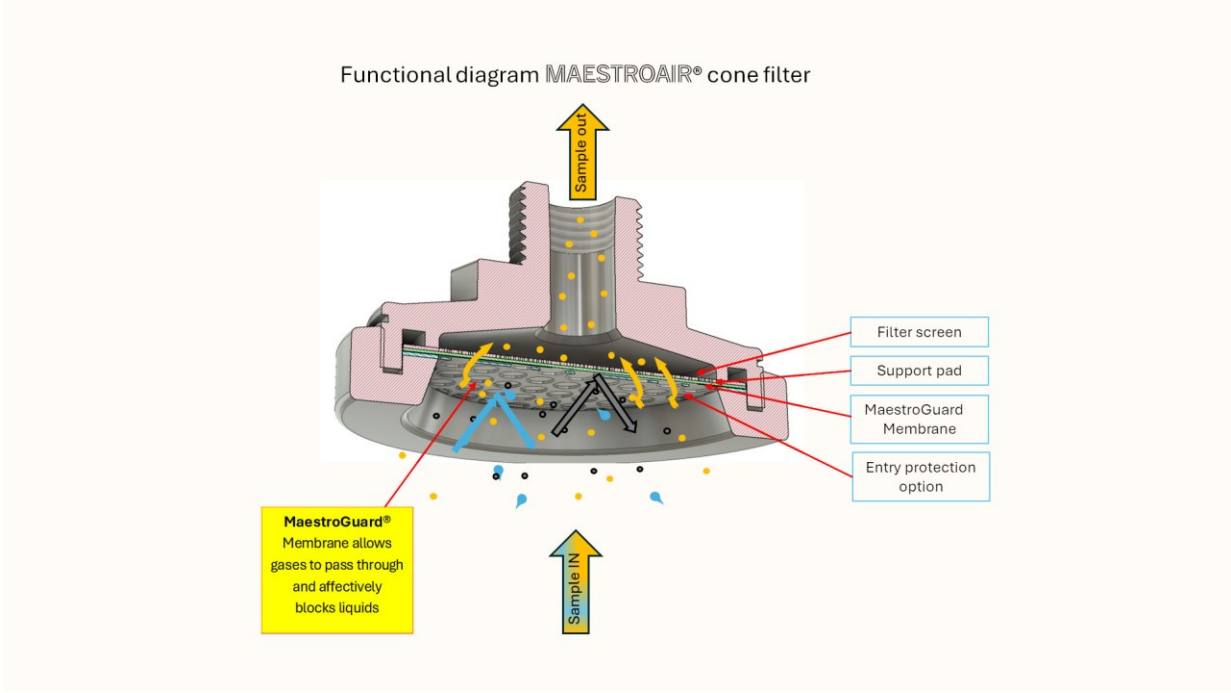
Product Brief – MaestroGuard® Filter

MAESTROAIR®

1. Product Overview

The **MaestroAir® Filter** with integrated **MaestroGuard® PTFE membrane** is a high-efficiency ambient air intake filter designed for use in **gas analysis systems** and **environmental monitoring stations**.

The hydrophobic PTFE membrane reliably removes **dust, aerosols, and liquid droplets** while allowing **all gas-phase components** to pass through without interference.



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2. Key Features

- **Membrane: MaestroGuard®** liquid repealing, chemically inert, and gas-permeable
- **No liquid penetration,** even under rain or high humidity the sample system stays clean
- **Robust housing:** Stainless steel for long service life
- **Reusable design –** not a disposable filter; only the membrane is replaced
- **Blocks airborne particles and droplets** without interfering with gas analysis
- **Easy Maintenance –** Tool-free membrane and element

Not suitable for particulate matter (PM) measurements, as particles are intentionally removed

3. Technical Specifications

Housing Material	Stainless Steel 316L (1.4404)
Filter Element	MaestroGuard® membrane
Filtration Efficiency	< 0.22 µm absolute - customizable
Temperature Range	–20°C to 200°C (depending on seal)
Flow Rate	383 L/h air - customizable
Connections	NPT Female
Seal Materials	FKM
Certificates / Compliance	EN 10204 3.1, CE, ATEX, ISO 11114-4, ISO 15156 / NACE MR0175

No self-ignition hazard – compliant with requirements for explosive environments.

4. Application Areas

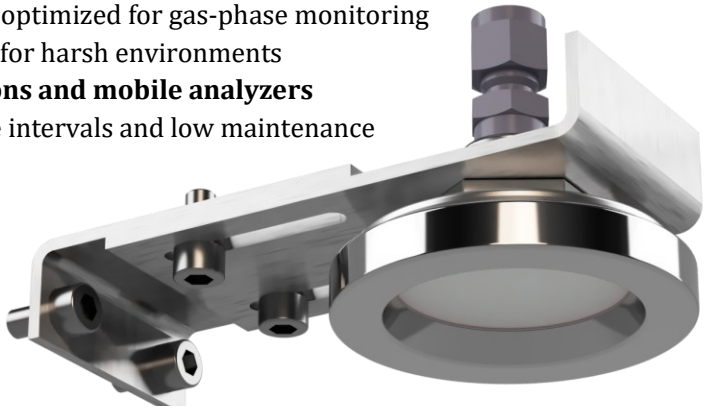
- **Ambient air intake protection** for environmental and industrial gas analyzers
- **Filtration** for FTIR, FID, NDIR, UV, and electrochemical analyzers
- **Outdoor, mobile, or long-term** air quality monitoring
- **Analyzer protection** in harsh or humid conditions
- **Environmental Monitoring** – Ensures accurate NOx, SO_2, VOC measurements

5. Ordering Information

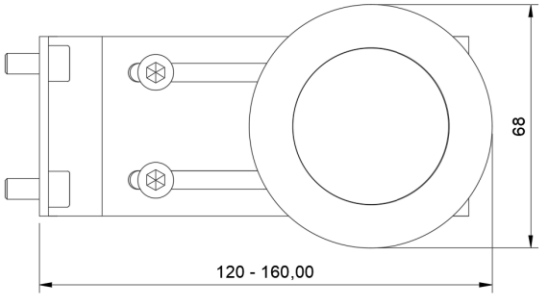
Order Number	Description
MAF-70-316L-V1	MaestroAir® Ambient Air Filter, Cone Ø70 mm, housing SS316L
MAF-70-316L-EP-V1	MaestroAir®Ambient Air Filter, Cone Ø70 mm, housing SS316L with Entry Protection
Option	
MB-MAF-70-SS	MaestroAir® Mounting Bracket in Stainless Steel 316L
Spare Parts	
MK-MAF-70-FKM-01-V1	MaestroAir® Service kit: MaestroGuard® Membrane Set 0,1µm, 2 x O-ring FKM
MK-MAF-70-FKM-02-V1	MaestroAir® Service kit: MaestroGuard® Membrane Set 0,22µm, 2 x O-ring FFKM
MAF-70-SS-V1	MaestroAir® Support screen, 316L
MAF-70-EP-V1	MaestroAir® Entry Protection in SS316L

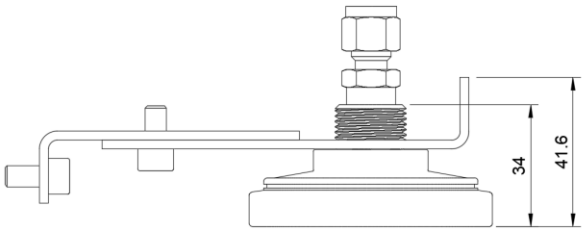
6. Benefits

- **High-efficiency protection** for ambient air intake lines
- **No liquid penetration –** blocks rain, fog, and splash water
- **Low pressure drop** – ideal for passive or active sampling
- **Aerosol and fine dust removal** without affecting gas-phase composition
- **Reusable housing** with quick membrane replacement
- **Eco-friendly** – not a disposable filter
- **No adsorption of target analytes** – optimized for gas-phase monitoring
- **Chemically inert PTFE membrane** for harsh environments
- **Designed for environmental stations and mobile analyzers**
- **Minimizes downtime** – long service intervals and low maintenance



7. Dimensions





Specifications are subject to change without notice
as part of our continuous improvement efforts.

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