# EXTRUDE ALUMINIUM FRAME

Standard Synthetic Pre-filter · Aluminum Extrusion Frame Series · EN779 / MERV / ISO 16890

**FILTLAB**



## DESIGN FEATURES & ENGINEERING NOTES

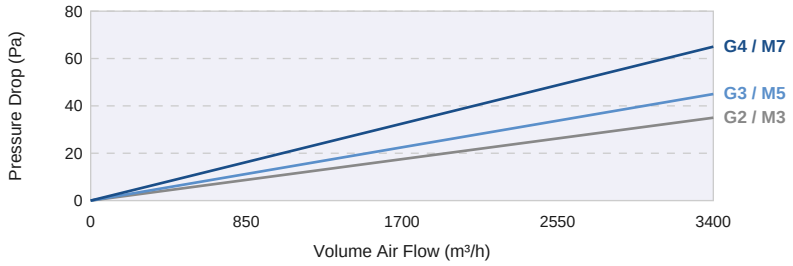
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|---|---|
| **Aluminum Extrusion Frame**<br>Extruded aluminum frame delivers precise dimensional stability and corrosion resistance. Custom sizes available for exact replacement in existing AHU systems. | **Synthetic Fiber Filter Media**<br>High-loft synthetic fiber media achieves consistent G2–G4 arrestance with low initial pressure drop across all rated airflow conditions. |
| **Galvanized Steel Rod Retainer**<br>Steel rod support grid locks media in place, preventing migration under rated airflow velocities and repeated handling during service. | **Washable & Reusable**<br>All components withstand repeated wash cycles — rinse with water, dry, and reinstall. No disposable media replacement required. |
| **Low Initial Pressure Drop**<br>Open fiber geometry minimizes airflow resistance, reducing fan energy consumption and extending media service life. | **No Glue / Adhesive Construction**<br>Fully mechanical assembly without adhesives — safe for food processing environments and chemical-sensitive HVAC applications. |

## PERFORMANCE MATRIX — EN779 TESTED · MERV / ISO 16890 EQUIVALENT

| Nominal Size W×H×D (in) | Actual Dims (mm) | Air Flow (m³/h) | ASHRAE 52.2 | Avg Arrestance (%) | EN779 | ISO 16890 | ΔP Initial (Pa) | ΔP Final (Pa) |
|---|---|---|---|---|---|---|---|---|
| 24×24×1 | 592×592×22 | 3,400 | MERV 3 | ≥65 | G2 | ISO Coarse | 22 | 450 |
| 24×24×2 | 592×592×47 | 3,400 | MERV 3 | ≥65 | G2 | ISO Coarse | 35 | 450 |
| 24×24×4 | 592×592×96 | 3,400 | MERV 3 | ≥65 | G2 | ISO Coarse | 50 | 450 |
| 24×24×1 | 592×592×22 | 3,400 | MERV 5 | ≥80 | G3 | ISO Coarse | 29 | 450 |
| 24×24×2 | 592×592×47 | 3,400 | MERV 5 | ≥80 | G3 | ISO Coarse | 45 | 450 |
| 24×24×4 | 592×592×96 | 3,400 | MERV 5 | ≥80 | G3 | ISO Coarse | 65 | 450 |
| 24×24×1 | 592×592×22 | 3,400 | MERV 7 | ≥90 | G4 | ISO Coarse | 41 | 450 |
| 24×24×2 | 592×592×47 | 3,400 | MERV 7 | ≥90 | G4 | ISO Coarse | 65 | 450 |
| 24×24×4 | 592×592×96 | 3,400 | MERV 7 | ≥90 | G4 | ISO Coarse | 95 | 450 |

Measurement Method: EN779:2012 | MERV & ISO 16890 = equivalent (Eurovent REC 4/23) | Initial Resistance ±10% | Other sizes available upon request

## PRESSURE DROP vs. AIRFLOW (592 × 592 mm — D=2")




## BILL OF MATERIALS & OPERATING CONDITIONS

| | | | |
|---|---|---|---|
| **Frame** | Aluminum Extrusion | **Max. Temperature** | 80 °C |
| **Filter Media** | Synthetic Fiber | **Humidity Limit** | 100% RH |
| **Support Grid** | Galvanized Steel Rod | **Test Standard** | EN779 (MERV / ISO equiv.) |
| **Washable** | Yes | **Applications** | Pre-filter HVAC / Clean Room / Industrial |

## APPLICATION SELECTION GUIDE

| EN779 / MERV | ISO 16890 | Typical Application | Contaminants Removed | Pre-filter |
|---|---|---|---|---|
| G2 / MERV 3 | ISO Coarse | Coarse pre-filter Upstream of fine filters | Coarse dust, lint, fibres, insects | Upstream pre-filter for M/F-class |
| G3 / MERV 5 | ISO Coarse | Commercial HVAC Industrial AHU | Medium dust, pollen, synthetic fibres | Pre-filter or standalone coarse stage |
| G4 / MERV 7 | ISO Coarse | Industrial primary Clean room pre-stage | Fine dust, textile fibres, pollen, spores | Optional pre-filter downstream of G2 |