CI 4" Micro Shield®
Mini-Pleated Filters
MERV 12, 14/14A & 15

Best in Class!
CI 4" Micro Shield® Mini-Pleated Filters are engineered with superior performance criteria in all facets of filtration including efficiency, resistance and dust-holding capacity to address today's challenging HVAC system requirements.

As a part of the most advanced and innovative line of HVAC filtration products, the CI 4" Micro Shield® MP Filter combines an excellent initial and lifecycle resistance with a high dust-holding capacity. This combination provides optimum filter performance — creating the energy and operating cost savings desired in the demanding HVAC market. The CI 4" Micro Shield® MP Filter is backed by the outstanding customer service and on-time delivery that customers have come to expect from Columbus Industries.

The CI 4" Micro Shield® Mini-Pleated Filter replaces a wide range of Rigid Box, 2V and other 4" Mini-Pleat products.

Description and Benefits
CI 4" Micro Shield® MP Filters are an economical choice for extended surface, high-efficiency air filtration requirements. Each filter utilizes a technologically advanced media that incorporates a dual-layer, gradient-density fiber structure that results in exceptionally low airflow resistance, at the highest efficiency levels — reducing both energy and operating costs. These high-performance filters will improve indoor air quality and remove contaminants from HVAC environments. The CI 4" Micro Shield® MP Filter is engineered to protect both expensive HVAC equipment and people from dirty air and its damaging effects. The user-friendly filter is also fully incinerable, lightweight, durable and easy to install.

The self-supported CI 4" Micro Shield® MP Filter utilizes a geometrically formed pleat pack. Each pleat pack is further strengthened with rigid, mechanical pleat separators. The pack is then sealed into an all-plastic frame. Each stage of the assembly process is quality controlled to ensure the filter's performance, consistency and durability. These design and construction features combine to produce the best all-around performance in airflow, efficiency and dust-loading uniformity.

Looking for LEED certification? The CI 4" Micro Shield® MP Filters are the perfect solution if you want to specify or upgrade your current filtration to meet LEED certification requirements. With these high-performance filters, your facility can gain points toward LEED certification — without incurring large operating cost increases. The CI 4" Micro Shield® Mini-Pleated Filter meets efficiency standards outlined in the LEED program for new construction and existing buildings.

Quick Facts
Features:
- Provides lower initial resistance
- Provides lower energy consumption and operating cost
- Meets requirements for LEED certification
- Provides an economical and high efficiency upgrade for most applications
- Easy installation

Applications:
- Commercial and industrial facilities
- Government and educational facilities
- Paint booth/finishing
- Hospitals, research labs and pharmaceuticals
- Airports
- Electrical manufacturing
- Power generators

Technical Information:
- Available in variety of standard sizes
- Available in MERV 12, 14-A and 15
- Tested in accordance with ASHRAE Test Standard 52.2-2007
- MERV 14/14A model tested in accordance with ASHRAE Test Standard 52.2-2007 Appendix J conditioning step
- UL Standard 900 tested and approved
- Temperature rated up to 160°F
- Fully incinerable
- Available with or without gasket
- Header and non-header versions available in a variety of sizes
## CI 4" MICRO SHIELD® Mini-Pleated Filters

<table>
<thead>
<tr>
<th>Filter Size Nominal</th>
<th>Filter Size Exact</th>
<th>Rated Air Flow Capacity (CFM)</th>
<th>Initial Air Flow Resistance (in w.g.)</th>
<th>Media Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Low</td>
<td>Med</td>
<td>High</td>
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<tr>
<td>12 X 24 X 4</td>
<td>11-3/8 X 23-3/8 X 3-3/4</td>
<td>600</td>
<td>1000</td>
<td>1250</td>
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<tr>
<td>20 X 20 X 4</td>
<td>19-3/8 X 19-3/8 X 3-3/4</td>
<td>830</td>
<td>1390</td>
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*Also available in 16 X 20, 16 X 25, and 20 X 25 sizes

### Minimum Composite Efficiency Curve

#### Particle Size (µm)

- Merv 12
- Merv 14
- Merv 15

#### Particle Size Removal Efficiency (%)

- 0.1
- 1
- 10

![Minimum Composite Efficiency Curve](image)

### Resistance Curve

#### Air Flow (CFM)

- 0
- 500
- 1000
- 1500
- 2000
- 2500
- 3000

#### Filter Resistance (in w.g.)

- 0.1
- 0.2
- 0.3
- 0.4
- 0.5
- 0.6

![Resistance Curve](image)

Newly designed stronger frames are available with or without gaskets.

**Header version**

**Non-header version**

Columbus Industries, Inc.

2938 State Route 752 • P.O.Box 257 • Ashville, Ohio 43103-0257

Phone: 740.983.2552 • Fax: 740.983.4622

www.colind.com • E-mail: ci@colind.com