AIRGUARD®

Micro Guard® LR

Low Resistance, 99%-Plus Efficiency
(on 0.3 micron particles)

Micro Guard LR is the best combination of efficiency and low initial resistance in the market place today!

Patent #6,685,833

- **Gasket seal**
- **UL Classified**
- **Available in Metal and Plastic**

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State-of-the-Art Engineering and Design

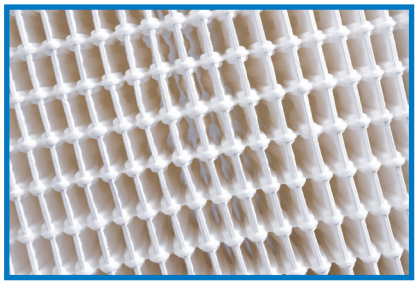
Introduction

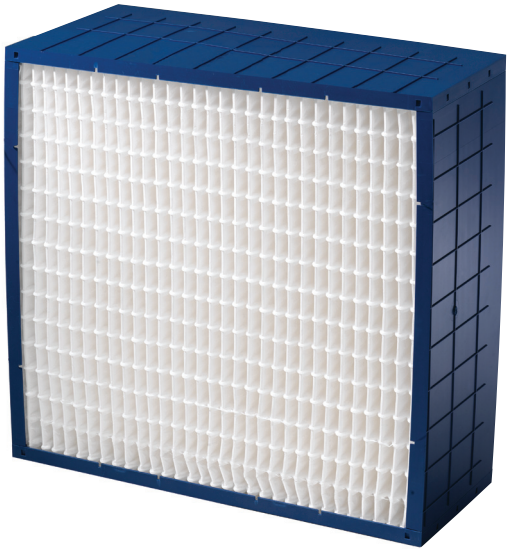
The ultimate goal in the science of air filtration has always been to create a device that removes the maximum amount of particulate with the least resistance to airflow. Until now, limitations in media and manufacturing technology have been limiting factors in achieving this goal. In recent years, with the increased risk of airborne biological threats, both naturally developing and man-made, the search for a clean air solution that offers these characteristics has intensified. Specifically, a search focused on a solution that can be applied to any HVAC system with sufficient fan capacity, without the effort and expense of replacing existing air handling equipment to meet the requirements of HEPA grade filtration.

As a result of years of research using the accumulated air filtration expertise of CLARCOR Air Filtration Products, Inc., R&D personnel and that of our technology partners, Airguard's Micro Guard LR offers maximum clean air with the lowest initial resistance to airflow (0.53" W.G. for box style and 0.58" W.G. for header style at 492 FPM). Micro Guard LR is simply the most efficient, lowest resistance filter currently available for use in general HVAC equipment. It is the best first step you can take when developing an Indoor Environmental Quality (IEQ) plan for occupied spaces with air supplied by conventional HVAC systems.

A Unique Combination of New Technologies – Media and Pack Design

Micro Guard LR is the result of combining new technologies in both the development of filter media and pleating technology. The media is a hybrid synthetic incorporating proven proprietary processes. Pleated media packs are manufactured using proprietary equipment, which incorporates non-metal, adhesive separators to maintain pleat geometry and spacing. This cutting-edge Embossed Pleat (E-pleat®) Technology guarantees maximum airflow (low resistance) and maximum dust holding throughout the service life of the filter. As a result of this combination of media and pleating technology, media packs designed for the Micro Guard LR are unsurpassed in strength which reduces chances for damage during handling and installation.





Cell Sides

Micro Guard LR is available in High-Impact Polystyrene (HIPS) cell sides; single-header and box designs. Metal cell sides are also available, if needed. HIPS cell sides result in reduced filter weight and easier handling in installation and removal. Additionally, HIPS cell sides allow for alternate and less expensive disposal methods, including incineration. No metal components in the plastic version of the Micro Guard LR make the filter extremely environmentally friendly. Metal cell sides are available on request for those applications where specified and for all special-sized filters.

General Construction

The Micro Guard LR with HIPS is constructed in the same manner as the proven Airguard Legacy® filter, with one key exception. In the Micro Guard LR, the media pack is potted in the cell side using urethane sealant to enhance performance and durability. Our standard HEPA construction process is used to fabricate all Micro Guard LR filters.

Gasketing

Dove-tail interlocking gasketing is standard on the Micro Guard LR. Gaskets are 0.75 inches x 0.25 inches and are furnished for use in side-access housings. Other gasketing material and placement options are available on request.

UL Rating

The Micro Guard LR is classified per UL Standard 900 for flammability.

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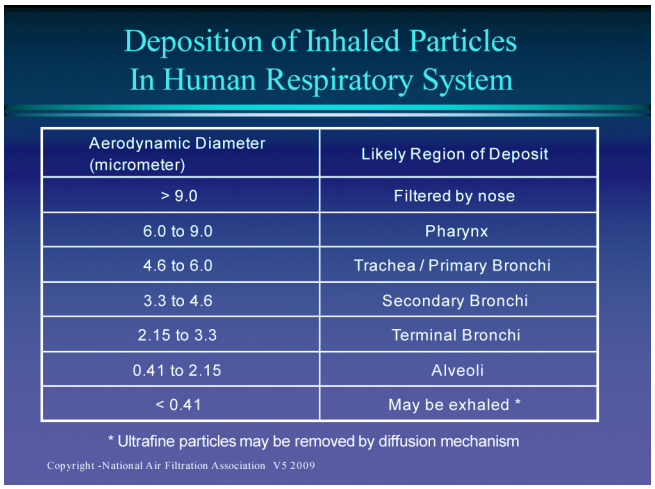
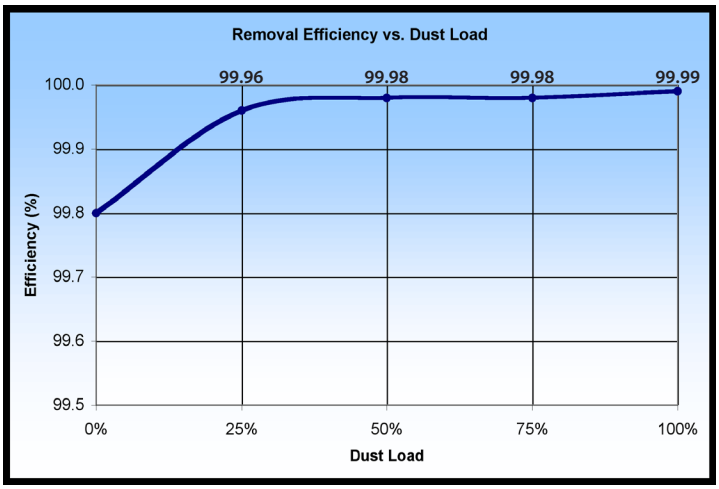
Applications

Micro Guard LR provides new possibilities for clean air solutions in a variety of applications. With 99% Plus efficiency (on 0.3 micron particles) and a pressure drop in a range 50% lower than similar competitive products, Micro Guard LR is the best clean air solution when the highest levels of particulate removal are required or desired in HVAC systems with ASHRAE grade filter framing. Even better, Micro Guard LR does not carry the cost of higher energy consumption typical of filters with its efficiency rating. Think about it – incredible efficiency (near-HEPA) with a bonus of real savings in dollars spent on energy costs.

Potential Micro Guard LR Applications	
Hospitals and Acute-Care Centers	Low and High-Rise Commercial Buildings
Nursing Homes	Schools and Universities
Assisted-Living Facilities	Federal, State and Municipal Buildings
Day Surgery Centers	Food Processing Facilities
Museums and Theaters	Corporate Headquarters
Asbestos Abatement	General Containment





** Chart used with permission of the National Air Filtration Association (NAFA).*

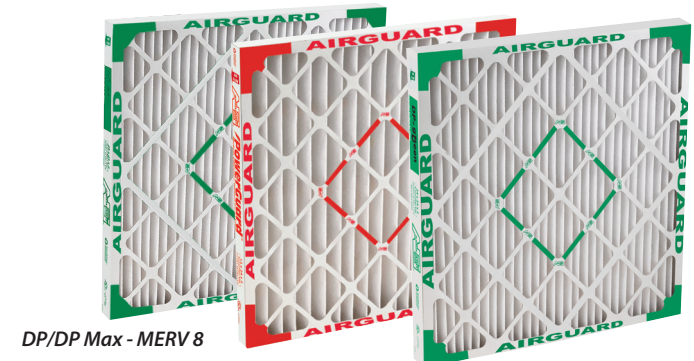
Pre-filters

Pre-filters are required when using the 99%-Plus efficiency (on 0.3 micron particles) Micro Guard LR to ensure performance and maximize service life. Pre-filters remove large particulate that can quickly blind a filter with the superior efficiency of the Micro Guard LR. Pre-filter efficiency of MERV 8, or higher, is recommended. Suggested Airguard pre-filters are:

DP®/DP® Max – MERV 8 (see brochure A-DP)

PowerGuard™ – MERV 11 (see brochure A-POWERG)

DP-g13een™ – MERV 13 (see brochure A-DPGREEN)



DP/DP Max - MERV 8 *PowerGuard - MERV 11* *DP-g13een - MERV 13*

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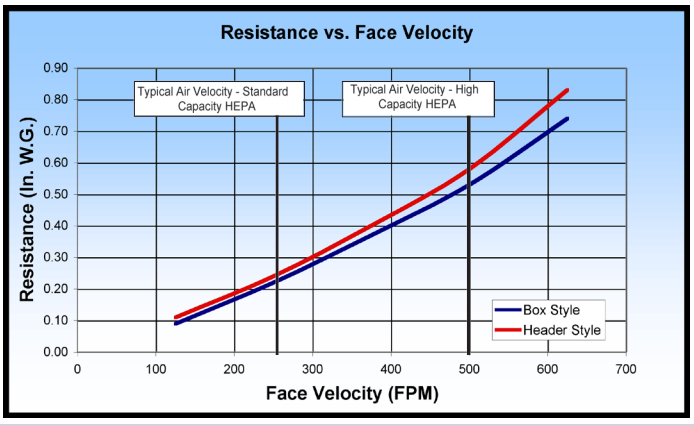
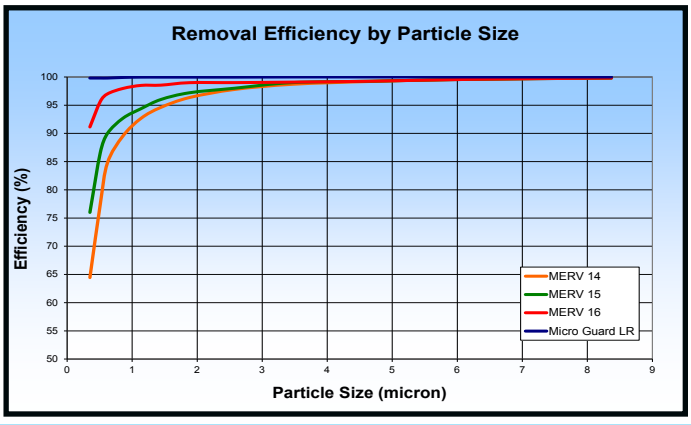
Performance and Operating Data

Airguard Model Number	Nominal Size (HxWxD)	Actual Size (HxWxD)	Rated Air Flow Capacity (CFM)	Initial Resistance (In. W.G.)	Efficiency @ 0.3 Micron	Media Area (Square Feet)
Plastic Frame Single Header						
MGLR-501A-PH	24x24x12	23-3/8x23-3/8x11-1/2	2000	0.58	99%+	101
MGLR-507A-PH	24x20x12	23-3/8x19-3/8x11-1/2	1650	0.58	99%+	83
MGLR-506A-PH	20x20x12	19-3/8x19-3/8x11-1/2	1400	0.58	99%+	69
MGLR-500A-PH	24x12x12	23-3/8x11-3/8x11-1/2	1000	0.58	99%+	49
Plastic Box Style						
MGLR-501A	24x24x12	23-3/8x23-3/8x11-1/2	2000	0.54	99%+	130
MGLR-507A	24x20x12	23-3/8x19-3/8x11-1/2	1650	0.54	99%+	116
MGLR-506A	20x20x12	19-3/8x19-3/8x11-1/2	1400	0.54	99%+	112
MGLR-500A	24x12x12	23-3/8x11-3/8x11-1/2	1000	0.54	99%+	67
Metal Cell Box Style						
MGLR-501-MC	24x24x12	24x24x11-1/2	2000	0.53	99%+	122
MGLR-501A-MC	24x24x12	23-3/8x23-3/8x11-1/2	2000	0.54	99%+	116
MGLR-500-MC	24x12x12	24x12x11-1/2	1000	0.53	99%+	61
MGLR-500A-MC	24x12x12	23-3/8x11-3/8x11-1/2	1000	0.54	99%+	56

NOTES:
1. Standard final resistance 1.5" W.G. for typical HVAC systems.
2. Optimal final resistance is twice initial resistance to maximize energy savings.
3. Minimum operating temperature of -5°F with a Maximum operating temperature of 160°F (Plastic) and 180°F (Metal)
4. Performance data per 3rd party independent testing.





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AIRGUARD®

www.airguard.com

MADE IN THE USA

NAFA National Air Filtration Association

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