



AmericanAirFilter®
DuraShield™ Cartridge Filter

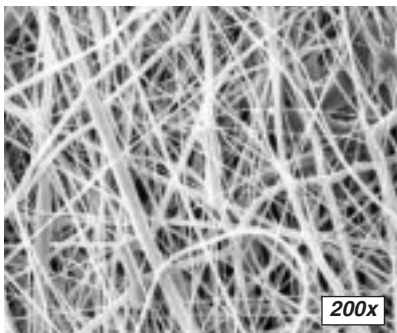
High Efficiency “Nanofiber” Media

MERV 15 Dust Collection

DuraShield™ Cartridge Filter

The DuraShield Advantage

- Meltblown nanofiber surface layer
- Higher initial efficiency
- **MERV 15 filtration efficiency – best in the industry**
- **Highest durability for hostile contaminants and difficult applications**
- Surface loading for superior dust release
- Enhances dust collector performance
- Provides healthy in-plant air
- Exceeds NIOSH and OSHA codes
- Strong polyester reinforced base media
- High moisture resistance
- Engineered for rugged industrial environments
- Low pressure drop reduces energy costs
- Increased pulse-clean effectiveness for long-lasting filter life



AAF DuraShield Nanofiber layer

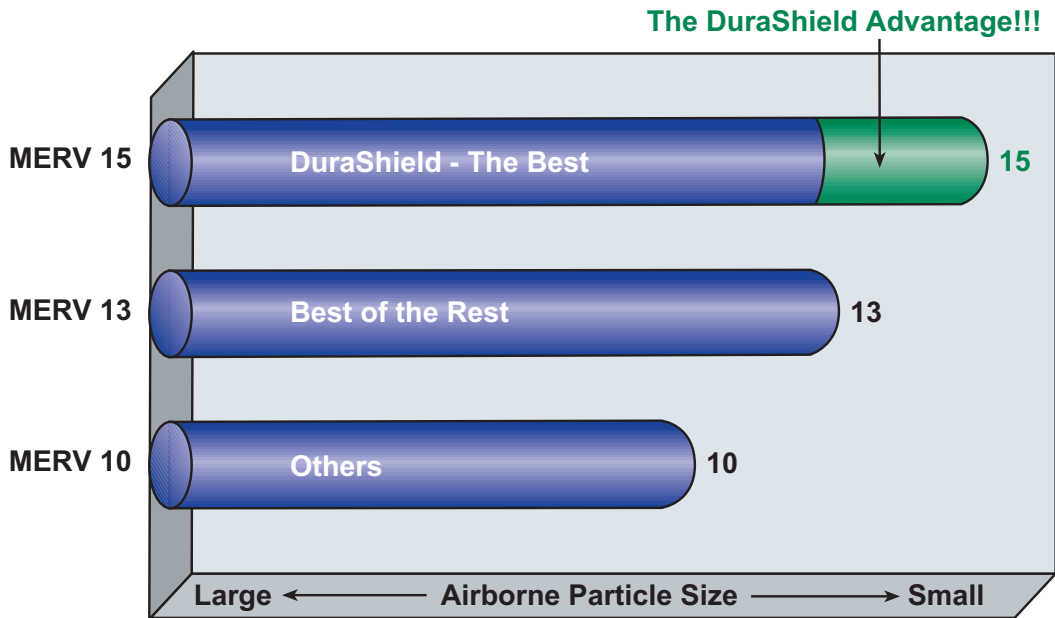
Durable Finest Quality Media

Scientifically developed to collect submicron dust particles on the surface, DuraShield media is made of a proprietary high-strength, polyester reinforced media with a meltblown outer surface layer of miniature nanofibers. This outer layer provides surface loading of particulate for optimum release during pulse cleaning. Additionally, DuraShield media is specifically constructed to withstand the rigors of pulse cleaning. DuraShield media has exceptional burst strength for unsurpassed resistance to abrasion and rupture. Synthetic fibers throughout the media will not disintegrate, unlike some surface-bonded media. Consistent, long-lasting performance is guaranteed throughout the life of the media. DuraShield cartridge filters are engineered for energy-efficient, continuous operation in harsh industrial environments with superior dust release.

Maximum Filtration Efficiency

Constructed to withstand the rigors of pulse cleaning, AAF cartridge filters provide maximum efficiency on submicron sized particles with low energy requirements and minimal operating cost. All AAF DuraShield cartridge filters are guaranteed to meet rated performance standards based on industry accepted test methods.

Minimum Efficiency Reporting Value (MERV)



MERV Rating and Respirable Dust

MERV defines the minimum filtration efficiency a filter will provide during its useful service life. Performance is analyzed through six precisely measured dust loads for particles sized in the range of 0.3 – 10.0 microns. The higher the MERV rating the more efficient the filter is at trapping small, respirable particles.

This is extremely important when considering respirable fraction sized particles. The respirable fraction is the portion of dust that reaches the gas exchange region of the lungs.

In other words, these are the size of particles that are breathed into the lungs and retained. The respirable fraction is typically defined as particles in the range of 0.5 to 10 microns in diameter. The smaller the particles the deeper they penetrate into the respiratory tract.

MERV Rating Classifications

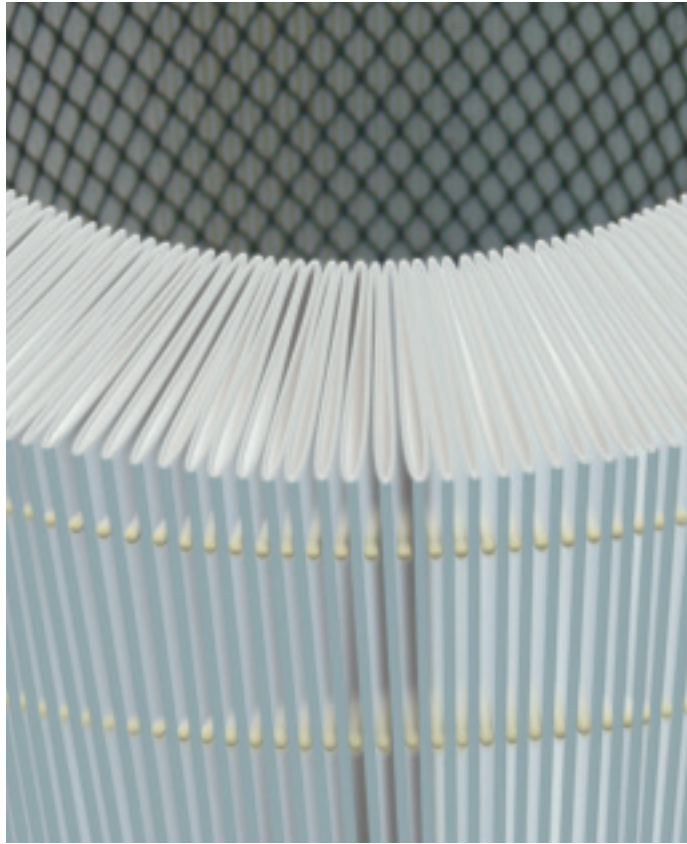
| | MERV 8 | MERV 9 | MERV 10 | MERV 11 | MERV 12 | MERV 13 | MERV 14 | MERV 15 | Typical Contaminants |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------------------------------------------------------------------|
| 3-10 μm | $\geq 70\%$ | $\geq 85\%$ | $\geq 85\%$ | $\geq 85\%$ | $\geq 90\%$ | $\geq 90\%$ | $\geq 90\%$ | $\geq 90\%$ | Cement dust, mold, powdered milk |
| 1-3 μm | | $\leq 50\%$ | 50% to 65% | 65% to 80% | $\geq 80\%$ | $\geq 90\%$ | $\geq 90\%$ | $\geq 90\%$ | Lead dust, coal dust, auto emissions |
| 0.3-1 μm | | | | | | $\leq 75\%$ | 75% to 85% | 85% to 95% | All bacteria, most smoke, insecticide dust, most paint pigments, cooking oil, welding fumes |

DuraShield™ Cartridge Filter

Built to Exacting Specifications

The DuraShield cartridge filter was specifically engineered to ensure media pack integrity and maximum surface area exposure to dust-laden air.

Galvanized steel end caps are bonded to the media to form a solid assembly. Pleat stabilization, utilizing precise glue-bead spacing, ensures uniform distance between the pleats and superb dust release during pulse cleaning. Corrosion-resistant galvanized steel screens hold the pleated media rigidly in place to minimize flexing during the reverse-pulse mode.



Improved System Performance

DuraShield cartridge filters are available for most manufacturers' dust collectors, allowing you to greatly improve performance of your existing dust collection system.

AAF World-Class Quality

Manufactured to ISO 9001:2000 quality standards, each AAF cartridge filter element provides outstanding performance and value.

AAF DuraShield cartridge filters are fully inspected throughout the manufacturing process from incoming raw materials to finished products. All AAF DuraShield cartridge filters are individually quality inspected prior to shipping.

DuraShield Media Properties

| | |
|-------------------------------------|--------------------------------------------------------------------|
| Media Substrate: | Cellulose/Polyester Blend |
| Particulate Release: | Nanofiber Surface Layer |
| Minimum Efficiency Reporting Value: | ASHRAE MERV15 / EN779 F9 |
| Pressure Drop Characteristics: | Low Energy |
| Max Operating Temperature: | 170°F/76°C |
| Flame Retardant: | Optional |
| Applications: | Highest filtration efficiency on very fine, sub-micron particulate |
| Available for Other Collectors: | Torit, Farr, UAS and others |



Better Air is Our Business®

10300 Ormsby Park Place Suite 600
Louisville, Kentucky 40223-6169
www.aafintl.com

Customer Service 800.477.1214
Fax 800.254.3019

ISO-9001 Certified Firm

AAF has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.

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