



TRI-PLEAT XM10  
MERV 10  
Wireless Pleated  
Filters

# TRI-PLEAT XM10

## Extended Surface Pleated Filters

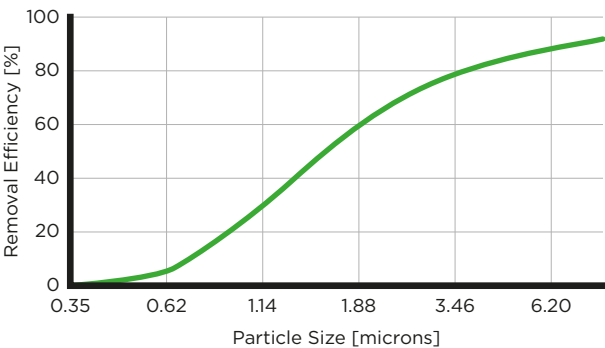


Downstream



Upstream

### MINIMAL EFFICIENCY BY PARTICLE SIZE



### CONSTRUCTION

TRI-PLEAT XM10 utilizes a moisture resistant frame with horizontal support straps bonded to the media pack on the upstream side and a die-cut with diagonal support bonded to the media pack on the downstream side for extra strength and providing durability against turbulent airflow.

The TRI-PLEAT XM10 is extremely durable and will retain its shape and integrity when mishandled.

### LOW PRESSURE DROP

The TRI-PLEAT XM10 offers low pressure drop. The TRI-PLEAT XM10 M'S initial resistance at 2000 CFM for a 24x24x2 filter is 0.28" WG (70 PA) and 0.22" WG (55 PA) for a 24x24x4 TRI-PLEAT XM10 L - this is up to 50% lower than products with comparable efficiency. This equals a significant reduction in operating resistance which can equal energy savings.

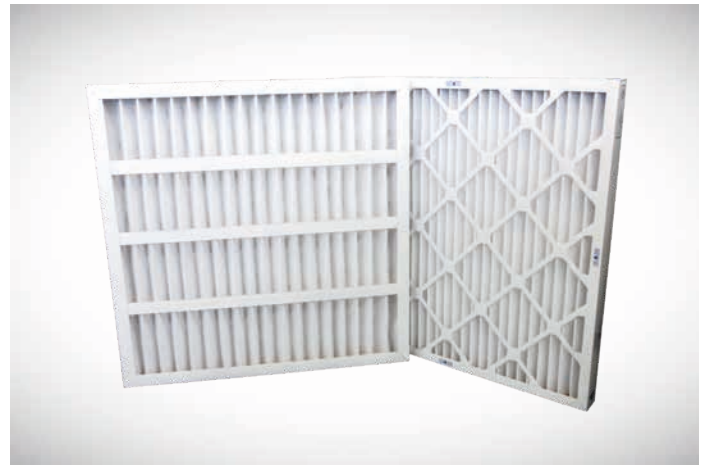
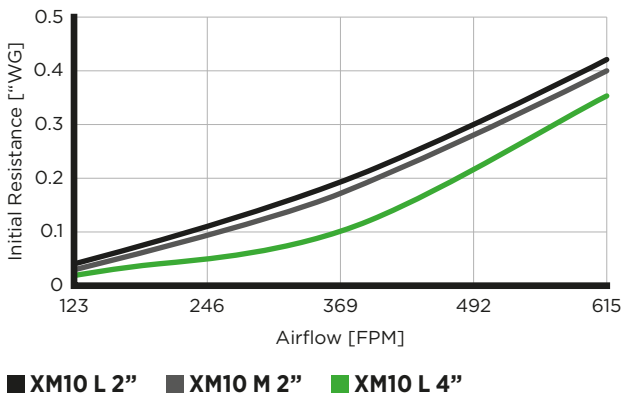
### HIGH EFFICIENCY

The TRI-PLEAT XM10 L Standard Capacity and TRI-PLEAT XM10 M High Capacity filters feature a mechanical MERV 10 media that offers high efficiency and low pressure drop. The MERV 10 is a new standard for wireless pleats and represents substantial increase in efficiency over a MERV 7 or MERV 8 pleat. The table (below) shows the number of particles per 1,000 that penetrated through the filter - a MERV 8 will let 215% more and a MERV 7 will let 5 times more particles pass through than a MERV 10.

### PARTICLE PENETRATION (per 1,000 particles)

Particle Size	XM10 Pleat	MERV 8	MERV 7
4.0-5.5 $\mu$ m	140	284	500
<b>7.0-10. <math>\mu</math>m</b>	<b>80</b>	<b>252</b>	<b>480</b>

### LOW PRESSURE DROP



### GREEN BENEFITS

The TRI-PLEAT XM10 features many Green Benefits. First is the elimination of the wire backing found on traditional pleated filters - this is less metal headed to our landfills. Not using a metal backing also helps to lower the Carbon Footprint - using a conversion factor from the EPA this is a reduction in CO<sub>2</sub> emissions by over a third of a ton per 1000 filters.

Upgrading from a MERV 7 or 8 filter to the TRI-PLEAT XM10, as previously demonstrated on the particle penetration data on the previous page, is a significant efficiency increase. The particles that pass through the MERV 7 and 8 will likely end up on HVAC coils, even a thin layer of buildup on coils can have a significant effect on a coils efficiency - as little as 0.006\" buildup can reduce heat transfer by 16% - dirty coils may use as much as 37% more energy than clean. coils. Converting these percentages into dollars you can easily come up with a energy savings in the range \$100 per filter range (energy savings of 193 kWh per ton, cost of \$0.10 per kWh).

Determining the exact dollar savings is difficult but there are real energy savings when you upgrade efficiency and do a better job protecting the coils. This energy savings also translates into a reduction in CO<sub>2</sub> emissions - again using a conversion factor from the EPA we can estimate the reduction to be 0.68 tons of CO<sub>2</sub> per filter per year.

# TRI-PLEAT XM10

## Technical Data

### SPECIFICATIONS

Specifications	TRI-PLEAT XM10
Media	Synthetic, Mechanical
Frame	Moisture Resistant Die-Cut with Horizontal Strips - NO METAL
Final Resistance	1.0" WG (249 PA)
Resistance	2" Deep TRI-PLEAT XM10 L Series = 0.29"WG (72 PA) 4" Deep TRI-PLEAT XM10 L Series = 0.22"WG (55 PA)
Approx. Sq. Ft. of Media*	2" Deep TRI-PLEAT XM10 L Series Pleat = 3.0 Sq. Ft. 4" Deep TRI-PLEAT XM10 L Series Pleat = 5.9 Sq. Ft. 2" Deep TRI-PLEAT XM10 M Series Pleat = 4.3 Sq. Ft.
Efficiency	MERV 10 per ASHRAE 52.2
Meets Requirements	ANSI/UI-900

\* Per 1.0 Sq. Ft. of Filter Face Area

Tri-Dim Filter Corporation is committed to continual product development - all descriptions, specifications and performance data are subject to change without notice. Tri-Dim products are manufactured to exacting criteria - there can be a ±5% variance in filter performance.

#### LOCAL REPRESENTATIVE