



PACK DESIGN

The pleat pack is fabricated from 100% synthetic materials incorporating specially designed radial pleats, shaped and spaced on pre-determined centers. This controlled spacing allows the TRI-CELL MV to operate on the strainer principle of filtration, promoting diffusion of air pressures over the entire pleated surface. Due to velocity and inertial forces, larger contaminants in the air stream are unable to change direction as the airflow moves up the side-walls of the pleat and lodge in the bottom of the pleat, while finer microscopic particles are trapped in the side-walls. Increased media loft (created by particulate build up) is achieved as dirty air angles through the pleat sides. The result is increased efficiency.

Each pleat contains continuous synthetic spacer beads that are thermally bonded to both sides of the media. Pleats are thermally formed and the spacer beads run continuous through the full depth of the pack providing good spacing and support.

The result of this process is an exceptionally strong pleat pack with consistent pleat spacing and low resistance to airflow.



The media packs have been specially designed for directional use to maximize the depth-loading properties of the media. Reverse-flow packs can be ordered for special applications.

FRAME DESIGN

The TRI-CELL MV enclosing frame is constructed of a rigid, high impact polypropylene frame. The filter pack is bonded to the periphery of the enclosing frame with a thermo-plastic adhesive, eliminating the possibility of dirty air bypass.

TECHNICAL DATA

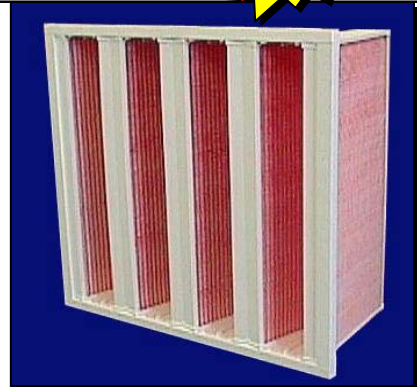
- Certified incinerable by GTS Duratek.
- No metals or toxic off-gassing.
- Inherent antimicrobial properties due to inorganic construction.
- Continuous operating temperature limitations: 125° F (52°C).
- Filters can be operated up to 125% of manufacturers rated airflow.
- Manufacturers recommended final resistance is 1.50" W.G.
- Independent Laboratory Breach Test results show filter integrity up to 25" W.G. pressure.



MEDIA DESIGN

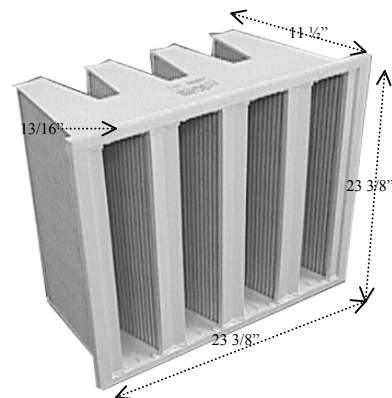
The TRI-CELL MV is constructed of a non-shedding, gradient density media. It is manufactured by building up progressively smaller and smaller continuous filament non-shedding fibers in a single thermally bonded web. Media fiber size varies from a 40 plus diameter fiber on the air entering side to a sub micron range fiber on the air leaving side. This engineered media concept brings into play all of the fundamental mechanical principles of particle capture. Larger particles of dust are caught by larger fibers on the air entering side and progressively smaller fibers through the depth of the media. The capture principles of straining, impingement, interception and diffusion are all utilized in harmony.

The result is a media that has exceptional strength, efficiency, dust-holding capacity, service life as well as low resistance to airflow. This revolutionary single-web media design has been engineered for exceptional performance and durability and is *antimicrobial by nature*.



Available Sizes
(nominal)

- 24x24x12
- 12x24x12
- 20x24x12



PERFORMANCE DATA

FILTER EFFICIENCY	FLOW RATE FPM	INITIAL PRESSURE DROP	52.1 AVG. EFF.	52.2 MERV RATING
60-65%	500	.28	60-65%	MERV 11
80-85%	500	.35	80-90%	MERV 13
90-95%	500	.40	90-95%	MERV 14
95%+	500	.53	95%+	MERV 15