

Optimal Pleat Spacing Using Patent Pending Separation Technology

# HemiPleat™ Filter Technology

High Performance Filtration

Patent Pending Pleat Separation Technology

Lasts Longer, Lower Pressure Drop, Saves Money



# HemiPleat Technology



**HemiPleat™ state-of-the-art pleating technology delivers many valuable benefits to dust collector maintenance.**

***Lower pressure drop equals longer filter life.***

## HemiPleat vs. Typical Pleats

HemiPleat Breathable Media Pleats



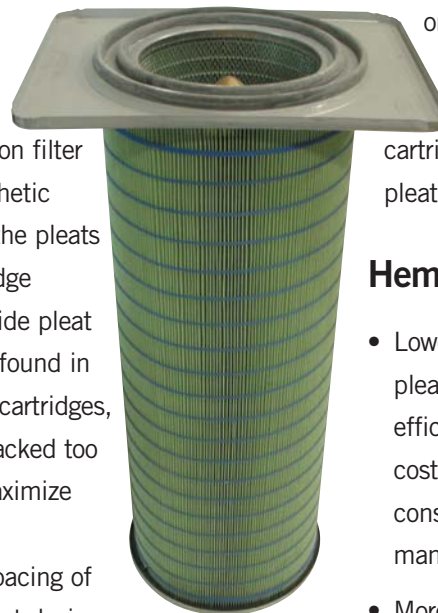
Typical Industry Packed Media Pleats



### Profile of the HemiPleat

The HemiPleat patent pending cartridge design promises numerous and valuable benefits to end users of dust collection equipment. State-of-the-art pleating technology is the key to the HemiPleat's superior performance. Techniques used to manufacture the media packs of this cartridge are unique and have never been applied to a cylindrical industrial dust collection filter before. Synthetic beads hold the pleats of the cartridge open with wide pleat spacing not found in competitive cartridges, which are packed too tightly to maximize media use.

The wider spacing of the HemiPleat design exposes more media to the gas stream and results in lower pressure drop as well as improved cartridge release characteristics during pulse cleaning.



### Media Comparison

The high quality uniform pleat pack used to create the HemiPleat cartridge establishes the superiority of this cartridge over all other products in the market. The difference in pleating quality can be seen above in a comparison against the media pack with typical industry pleats. The photos on the opposite page provide visual comparison of the HemiPleat cartridge to a major competitor's cartridge. Notice the difference in pleat spacing and alignment.

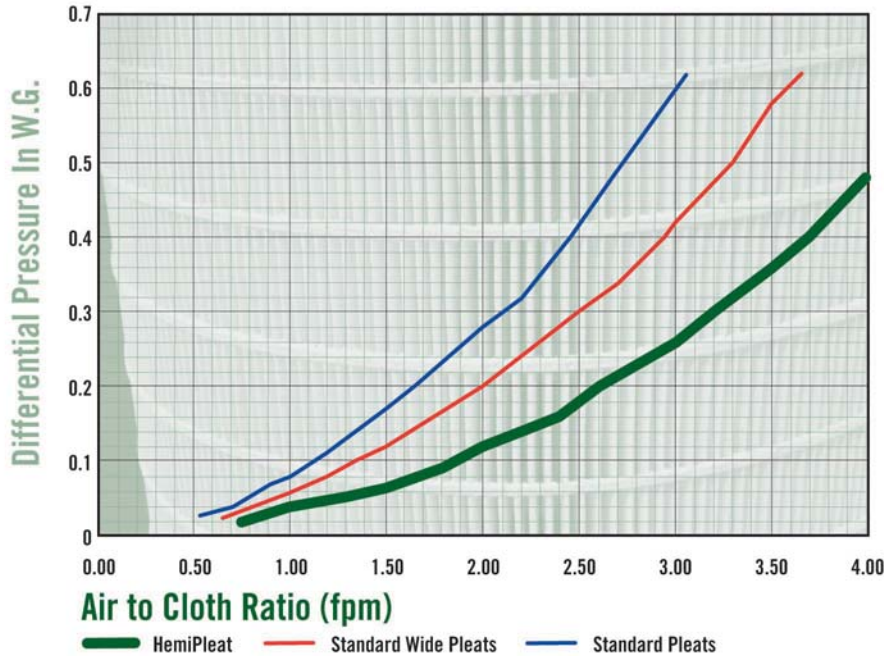
### HemiPleat Advantages

- Lower pressure drop through open pleat spacing improves cleaning efficiency, which will reduce energy costs through less compressed air consumption during cleaning in many applications.
- More media is available for filtration, for improved performance and longer life.
- The separation beads, not the media pleats, contact the inner cage, protecting the media from frictional damage.

## Proven Results

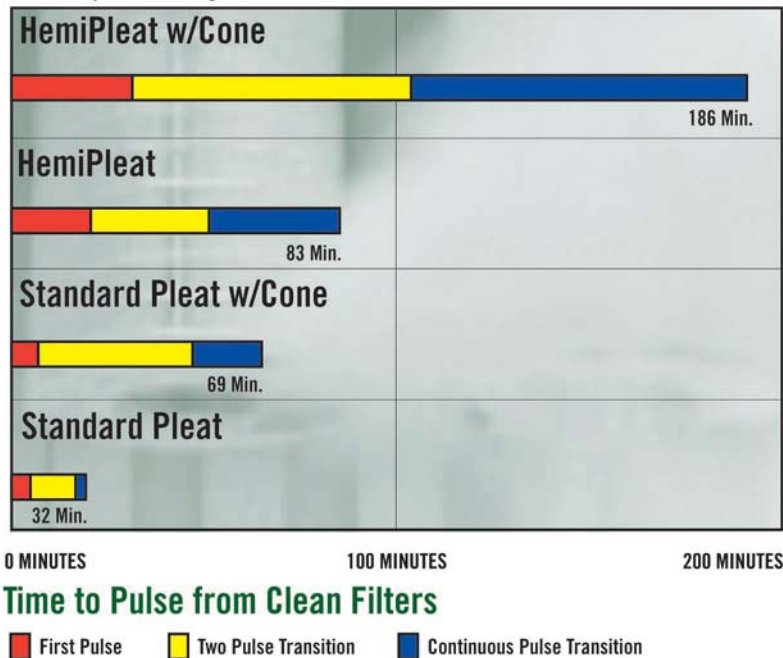
The HemiPleat clearly outperforms the competition when tested in high performance situations. The HemiPleat captures more air pollutants and releases more when pulsed. This results in a safer, cleaner work environment with less maintenance.

### HemiPleat vs. Standard Filters Pressure Drop vs. Air-to-Cloth Ratio



### Standard Pleat Construction vs. HemiPleat

Under heavy dust load (50 grains/cu.ft. of Atomite)



## HemiPleat Testing

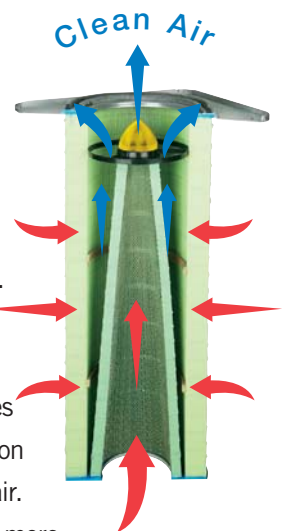
The HemiPleat cartridge has been subjected to multiple tests in the lab and in the field. In the lab, the HemiPleat media demonstrates properties that greatly enhance the effect of pulse-jet cleaning along with some other desirable properties:

- It has a lower clean media pressure drop for a given airflow.
- It holds a larger volume of dust before requiring cleaning than filters with more tightly packed media.
- It has more available/usable media for filtration.
- Dust is ejected from deep within the pleats during pulsing.

Conclusive field tests confirm that the HemiPleat will improve the performance of many misapplications and recover from upset conditions.

### Gold Cone Cartridge

Camfil Farr Gold Series cartridges have an expanded capacity due to the patented inner Gold Cone. This inner cone increases media area and provides uniform dispersion of back-pulsed air.



It also opens up more useable space for air flow in the filter.

#### Key benefits:

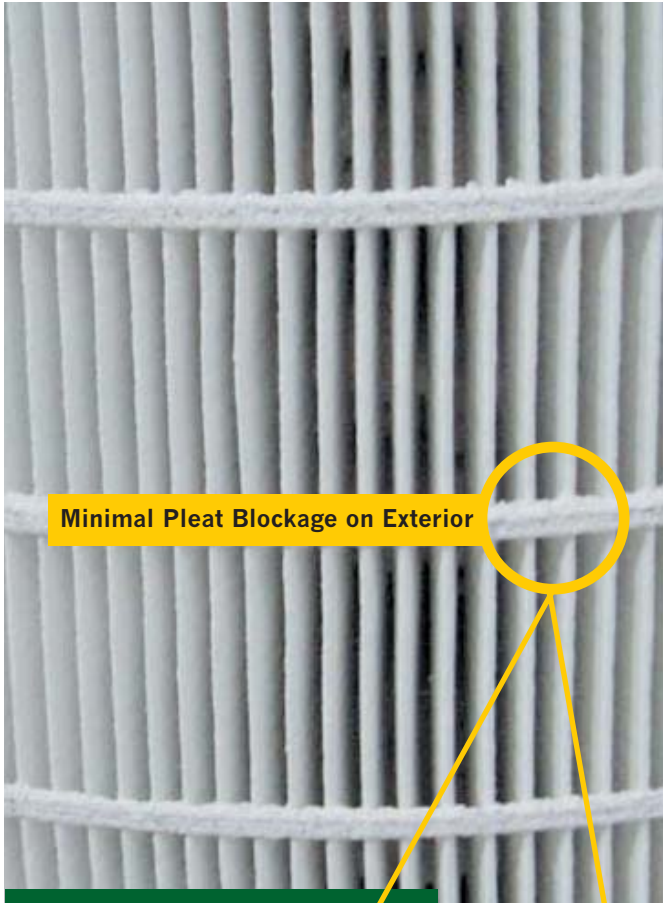
- High filtration efficiency
- Excellent energy performance
- Long filter life

# Pleat Separation Technology

No matter which dust collector you have,  
the HemiPleat filter can improve its performance.

**Guaranteed.**

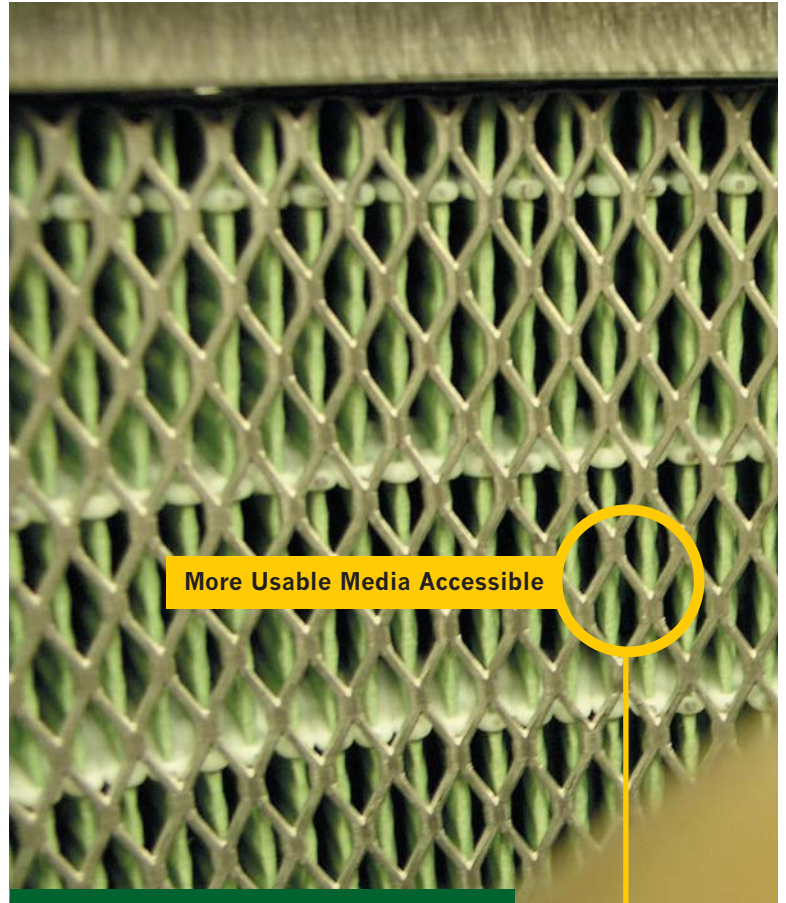
Dirty HemiPleat Exterior After Pulse



Minimal Pleat Blockage on Exterior

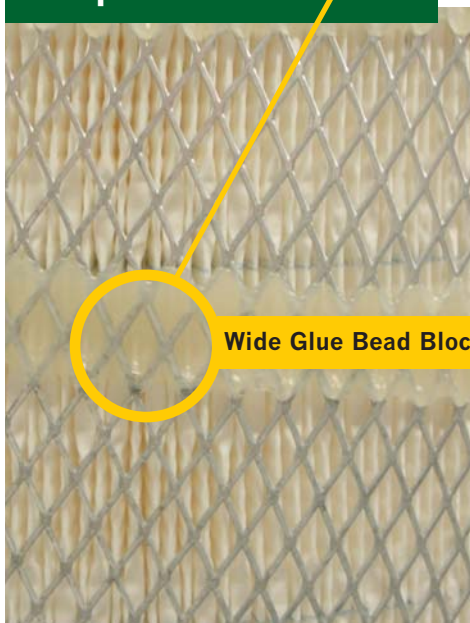
**HemiPleat vs.  
Competitor**

HemiPleat Open Construction Interior



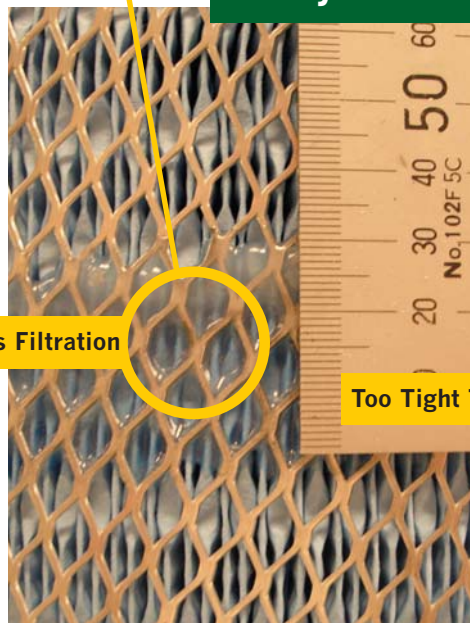
More Usable Media Accessible

**Comparison?  
Hardly.**

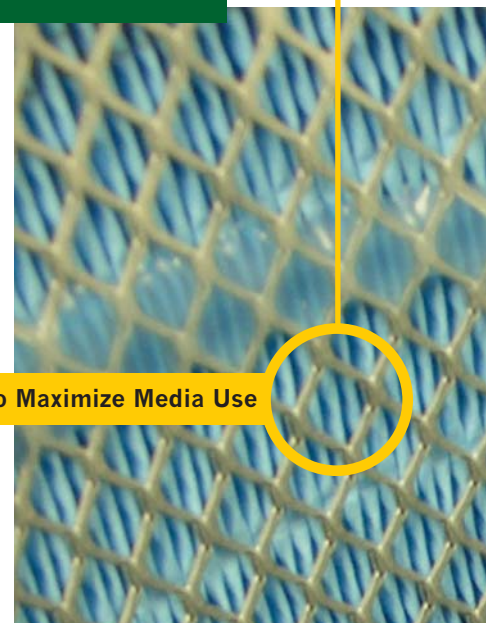


Wide Glue Bead Blocks Filtration

Leading Aftermarket Cartridge Exterior



Leading OEM's Tightly Packed  
Exterior Construction



Too Tight To Maximize Media Use

Leading OEM's Tightly Packed  
Interior Construction



HemiPleat retrofit into a horizontal gas turbine intake filter.

## Specifications

- **Efficiency:** 99.99% on 0.5 micron and larger particles by weight
- **Air Permeability:** 25-35 cfm/sq.ft. per 0.5" w.c. (457-640 m<sup>3</sup>/m<sup>2</sup>h at 125 Pa)
- **Mullen Burst:** (Dry) 40psi (2.8 bars) –AIM 20psi (1.4 bars) – minimum
- **Pans:** Galvanized steel (top & bottom) Optional: Stainless steel
- **Filter Sealant:** Solid Polyurethane top/bottom
- **Max. Temps:** 160°F (71°C) Operating 180°F (82°C) Surge

## PolyTech Filter Media

### PTS-PolyTech Standard (Color: green)

Proprietary blend of cellulosic fibers and polyester fibers with a moisture resistant silicone treatment for optimum dust release characteristics, yielding long service life at high filtration efficiencies. **MERV 12\***

### PTC-PolyTech Carbon Impregnated (Color: black)

Base PTS media described above, chemically treated and impregnated with carbon for static dissipation. **MERV 12\***

### PTF-PolyTech Flame Retardant (Color: off-white with blue stripes)

Base PTS media described above, chemically treated with a fire retardant. **MERV 12\***

### PTU-PolyTech Ultra High Efficiency (Color: white/green)

Base PTS media described above with a microfiber synthetic melt blown surface laminate that yields the industry's best filtration efficiency at 99.999% on 0.5 micron and larger particles by weight. **MERV 16\***

**HEMIPEAT FILTERS ARE AVAILABLE IN ALL SHAPES AND SIZES AND AS REPLACEMENT UPGRADE CARTRIDGES.**

\*The Minimum Efficiency Reporting Value (MERV) was determined by product testing conducted by an independent lab. ASHRAE standard 52.2.

## Typical Applications

- Gas turbine intake
- Foundry sand/metal pouring
- Pharmaceutical dust
- Blasting (room & wheel)
- Laser/plasma cutter fumes
- Welding fumes
- Thermal/flame spray
- Wood dust
- Mixing & blending dust
- Paper trim/scrap systems
- Fiberglass manufacturing
- Mineral, silica dust
- Sanding & grinding dust
- Carbon black/toner dust
- Plastic & composite dust
- Talc & cornstarch dust
- Lead & other toxic dust
- Food additives/spices

**FOR MORE INFORMATION CALL THE AIR POLLUTION CONTROL EXPERTS AT FARR.**



Farr APC is a proud member of the Camfil Farr family.

**800-479-6801** 

www.farrapc.com

870-933-8048 Jonesboro, AR

email: filterman@farrapc.com

Additional APC offices and factories in Laval, Canada (450-629-3030), and UK (44-121-707-8211)

Half the  $\Delta P$ . Double the life.



HemiPleat vs. Standard Filter



Old Technology

It's a fact.

HemiPleat collects more dust, pulses better, lasts longer & saves money.

- > **100% Media Use** — captures more air pollutants for a safer, cleaner work environment.
- > **Fits Any Dust Collector** — available as replacement upgrade cartridges.
- > **Saves Money & Time** — less maintenance and longer filter life.
- > **High Filter Efficiency** — Polytech™ HE filter media delivers high efficiencies—99.999% on 0.5  $\mu$  particles.
- > **Enhanced Pulse-Jet Cleaning** — dust is ejected from deep within the pleats.
- > **Breathable Media Pleats** — reduces the “dirty work” of replacing filters.
- > **Lower Pressure Drop ( $\Delta P$ )** — open pleat spacing improves cleaning efficiency.
- > **HemiPleat Technology** — now standard on new Farr Gold Series Dust Collectors.



*“The HemiPleat solved my cartridge life problems.  
The dust blows right out of the pleats whereas  
it wouldn't with standard pleats.”*

—Grant Bowry, Environmental Air Systems, Inc.