



PTI Technologies Inc.

F i l t e r E l e m e n t s

Filtration Solutions for the Aerospace Industry

Expertise

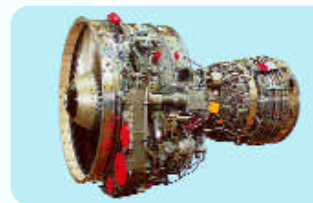
PTI Technologies Inc. is a world-leading provider of advanced filtration systems for the global aerospace industry. For more than 70 years, PTI has developed filter elements used in hydraulic, lubrication, fuel, and pneumatic systems in all types of commercial and military aircraft.

Innovation

The PTI engineering team designs filter elements to meet exacting customer specifications using state-of-the-art computer aided design and analytical tools. PTI's filter elements are optimized to meet system requirements of particle removal, dirt capacity, pressure drop, and fluid compatibility. Elements comprised of depth-type filtration media or woven mesh are offered in both disposable and cleanable configurations. Designed to accommodate operating pressures up to 8000 PSI and temperatures ranging from -65° to 1000 F, PTI provides high efficiency filtration solutions to meet the most stringent requirements.

Quality

PTI's quality assurance system provides controls that are invoked at the onset of design and development, and continues throughout all phases of the production program.



Comparison of Filter Media Types

Glas-Tech II. Semi-depth resin impregnated micro-fiberglass media.

Micronic. Semi-depth resin impregnated cellulosic fiber media.

Wire Cloth Fine stainless steel wire meshes having absolute filtration ratings.

421. Sintered stainless steel fibers randomly laid into a three dimensional labyrinth media.

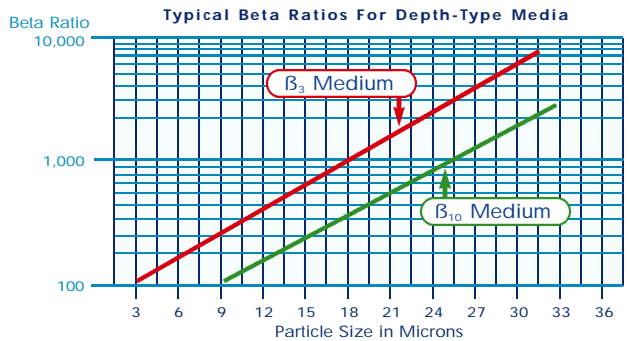
| Attributes | Type of Filter Element | | | |
|---------------------------------------|------------------------|-----------------------------|----------------------|----------------------|
| | Glas-Tech II | Micronic | Wire Cloth | 421 |
| Pore Size Distribution | Medium | Wide | Narrow | Medium |
| Pressure Drop | Low | High | Low | Medium |
| Open Area | High | Medium | Low | Medium |
| Strength | Low | Medium | High | High |
| Differential Pressure without support | 20 psid Max. | 150 psid Max. | 150 psid Max. | 150 psid Max. |
| Flow Fatigue Resistance | Medium (with support) | High (with support) | High | High |
| Dirt Holding Capacity | High | Medium | Low | Medium |
| Continuous Temperature Limit | 350° F Max. | 275° F Max. | 700° F Max. | 700° F Max. |
| Intermittent Temperature Limit | 425° F Max. | 350° F Max. | 1,000° F Max. | 1,000° F Max. |
| Other | Disposable | Disposable, Swells in Water | Disposable/Cleanable | Disposable/Cleanable |
| Cost | Medium | Low | High | High |

Beta Filtration Rating

Beta (β) Filtration Rating is the ratio of the number of particles greater than a given size ($X \mu\text{m}$) in the influent fluid to the number of particles of the same size ($X \mu\text{m}$) in the effluent fluid.

β_x Ratio vs Efficiency

| β_x Ratio | Efficiency _x |
|-----------------|-------------------------|
| 1 | 0% |
| 2 | 50% |
| 20 | 95% |
| 50 | 98% |
| 75 | 98.7% |
| 100 | 99% |
| 200 | 99.5% |
| 1,000 | 99.9% |
| 10,000 | 99.99% |

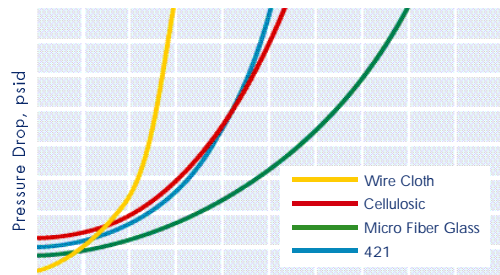


Dirt Holding Capacity

Dirt holding capacity determines the weight of a specified artificial contaminant that must be added to the influent to produce a given differential pressure across the filter element at specified conditions. The curves on the right indicate the relative dirt holding capacities of commonly used types of media. Note the advantage of micro fiber glass media.

Please contact us to analyze your particular filtration requirements. We will apply PTI's wide range of products and experience to solve your filtration needs. Visit our website at www.ptitechnologies.com for more information.

Dirt Holding Capacity
gm AC Fine Dust



PTI Technologies Inc. 501 Del Norte Boulevard, Oxnard • California 93030-7983 USA
Toll Free (USA): (800) 331-2701 • Customer Service: (805) 604-3700 • Fax: (805) 604-3701

e-mail: filters@ptitechnologies.com • website: www.ptitechnologies.com

