The Cost Effective Approach to Quality Filtration

Filtration & Membrane Technology, Inc., (FMT) introduces its 940 PLATINUM Series absolute rated filter cartridge.

This unique design, U.S. Patent No. 5824232, uses segregated flow channels and flow chambers to maximize the effective surface area of the pleated filter media within a 12.75 inch OD cartridge. Combining this design with the technique of pleating several different filter media together in a single pleat pack maximizes dirt holding capacity.

One 940 PLATINUM Series filter is designed to have the dirt holding capacity of 50 standard 2.5 inch OD pleated cartridges of similar length. Available in a wide variety of filter media, this cartridge is constructed with metal end caps and core for high temperature applications.

With a recommended flow rate of 150 GPM, this FMT PLATINUM Series filter is the solution to achieving optimum performance while minimizing filtration costs.

**FILTRATION COST EFFICIENCY**

**DIRT HOLDING CAPACITY**

Data for 940 Series

**INCREASING FILTER LIFE**

Doubling filter surface area can increase filter life up to four times:

\[
\frac{L_e}{L_o} = \left( \frac{A_e}{A_o} \right)^N
\]

Le = Extended Filter Life
Lo = Original Filter Life
Ae = Expanded Filter Area
Ao = Original Filter Area

1 ≤ N ≤ 2
FILTER EFFICIENCY

Beta Ratio = \[
\frac{\text{Upstream Particle Count at Specified Size & Larger}}{\text{Downstream Particle Count at Specified Size & Larger}}
\]

The Beta ratio (\(\beta\)) at a given particle size can be correlated to the filter efficiency at that particle size according to the following formula:

\[
\text{Filter Efficiency (\%)} = \left(\frac{\beta-1}{\beta}\right) \times 100\%
\]

<table>
<thead>
<tr>
<th>Beta Ratio ((\beta))</th>
<th>Filter Efficiency (%)</th>
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</thead>
<tbody>
<tr>
<td>100</td>
<td>99.00</td>
</tr>
<tr>
<td>1000</td>
<td>99.90</td>
</tr>
<tr>
<td>5000</td>
<td>99.98</td>
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Each filter element will have a different Beta Ratio for every specified particle size. The determination of a variety of Beta values for the same filter provides a filter efficiency profile commonly referred to as a Beta Curve.

FMT BETA CURVES

CARTRIDGE CODING

FMT PLATINUM SERIES

LENGTH
40" - 37.875"
30" - 29.75"

SEAL
235 O-RING

SERIES NUMBER
940 - CARTRIDGE (12.75" OD)

MICRON RATING @ BETA 5000
0 - 0.5 MICRON
1 - 2 MICRON
3 - 5 MICRON
5 - 10 MICRON
7 - 20 MICRON
8 - 40 MICRON
9 - 70 MICRON

MEDIA
C - CELLULOSE
G - GLASS
P - POLYPROPYLENE
R - POLYESTER
X - NONE

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