The Cost Effective Approach to Quality Filtration

Filtration & Membrane Technology, Inc., (FMT) introduces its 740 DEEP PLEAT Series absolute rated filter cartridge

This filter, which uses 1.1 inch deep pleats, is designed to maximize the effective surface area of a single row of pleated filter media within a 6.25 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 740 DEEP PLEAT Series filter is designed to have the dirt holding capacity of 28 string wound or 7 standard 2.5 inch OD pleated cartridges of similar length. Available in a wide variety of filter media, this cartridge can be constructed with metal end caps and core for high temperature applications.

With a recommended flow rate of 40 GPM, this FMT DEEP PLEAT Series filter is the solution to achieving excellent performance while reducing filtration costs.

Filtration Cost Efficiency

### Dirt Holding Capacity

<table>
<thead>
<tr>
<th>DIRT HOLDING CAPACITY (POUNDS)</th>
<th>DATA FOR 740 DEEP PLEAT SERIES POLYPROPYLENE MEDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micron Rating @ 99%</td>
<td>1 MICRON  2 MICRON  5 MICRON  10 MICRON  15 MICRON 25 MICRON  40 MICRON  70 MICRON</td>
</tr>
<tr>
<td>0  3  6  9  12  15 18 21 24</td>
<td></td>
</tr>
</tbody>
</table>

### Increasing Filter Life

Doubling Filter Surface Area Can Increase Filter Life Up To Four Times:

\[
\frac{Le}{Lo} = \left(\frac{Ae}{Ao}\right)^N
\]

Le = Extended Filter Life
Lo = Original Filter Life
Ae = Expanded Filter Area
Ao = Original Filter Area
1 ≤ N ≤ 2
FILTER EFFICIENCY

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>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>95.0</td>
</tr>
<tr>
<td>100</td>
<td>99.0</td>
</tr>
<tr>
<td>1000</td>
<td>99.9</td>
</tr>
</tbody>
</table>

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 BETTA CURVES

CARTRIDGE CODING

- **FMT DEEP PLEAT SERIES**
  - Series Number: 74 - CARTRIDGE (6.25" OD)
  - Length: 40 – 37.87”
  - 30 – 29.50”
  - Seal: 226 O-Ring

- **MICRON RATING @ 99% EFFICIENCY**
  - 2 - 1 MICRON
  - 3 - 2 MICRON
  - 4 - 5 MICRON
  - 5 - 10 MICRON
  - 6 - 15 MICRON
  - 7 - 25 MICRON
  - 8 - 40 MICRON
  - 9 - 70 MICRON

- **MEDIA**
  - C - CELLULOSE
  - G - GLASS
  - P - POLYPROPYLENE
  - R - POLYESTER

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