| Technical Bulletin |  |
|--------------------|--|
| TMP M14            |  |

### PNEUMAFIL

# Nederman

## Microfiberglass High Efficiency TMP M14 V-Cell Filter

### A durable, low initial resistance microfiberglass filter to maximize your air filtration performance.

Pneumafil's TMP line of high efficiency static barrier air filters is specifically designed for static style gas turbine inlet air systems.

The TMP M14 Filter offers excellent efficiency on fine dust and particulates and is designed for use in high flow environments over 2500 CFM or 4200 M<sup>3</sup>/h. The flow dynamics of the filter offers on of the industries lowest pressure drop for V-cell rated filers when compared with other conventional microfiberglass options. Enhanced through the use of glue bead pleat support air flow distribution and dust loading are enhanced to allow for low pressure drop and high capacity.

During high moisture conditions, the proprietary 100% Microfiberglass media and TMP design provides up to 8" of standard burst pressure.

#### Benefits

- Low initial pressure drop
- Long life due to high dust holding capacity
- Superior dust holding capacity
- High bursting strength
- Will not support microbial growth
- Improved resistance to humidity and moisture over micro-fiberglass fiber



Geometric polymer glue bead construction adds strength and improved airflow dynamics.



#### Construction

The rugged, UL approved TMP design has a high impact, injection molded plastic frame which is fully sealed.

- Frame material: ABS, Gasket: neoprene sponge
- Sealant: polyurethane, Pleats per inch: 6.4
- Media pack thickness: 1.0", UL 900 Class 2 rating

#### **Recommended Pre-Filtration**

- MERV 8, 11, & 13 Panel Style Pre-Filter
- Coalescing pad or glove

Nederman - 4433 Chesapeake Drive, Charlotte NC 28216 704-398-7653 gtinfo@pneumafil.com www.pneumafil.com

#### Date 7.22.14



### Microfiberglass High Efficiency TMP M14 V-Cell Filter

|                                     | Geometric |                             |        |        | 2004 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - |        |        |       |  |
|-------------------------------------|-----------|-----------------------------|--------|--------|---|--------|--------|-------|--|
| Particle Size Range                 | Mean Diam | Particle Removal Efficiency |        |        |   |        |        |       |  |
| (um)                                | (um)      | (%)                         |        |        |   |        |        |       |  |
| 0.30 - 0.40                         | 0.35      | 61.4                        | 61.4   | 78.4   | 97.4                                      | 99.4   | 99.6   | 99.6  |  |
| 0.40 - 0.55                         | 0.47      | 71.0                        | 71.0   | 88.0   | 99.0                                      | 99.7   | 99.8   | 99.8  |  |
| 0.55 - 0.70                         | 0.62      | 82.9                        | 82.9   | 94.4   | 99.7                                      | 99.9   | 99.9   | 99.9  |  |
| 0.70 - 1.00                         | 0.84      | 91.5                        | 91.5   | 97.6   | 99.8                                      | 99.9   | 99.9   | 99.9  |  |
| 1.00 - 1.30                         | 1.14      | 96.0                        | 96.0   | 99.2   | 99.9                                      | 100.0  | 100.0  | 100.0 |  |
| 1.30 - 1.60                         | 1.44      | 97.8                        | 97.8   | 99.6   | 100.0                                     | 100.0  | 100.0  | 100.0 |  |
| 1.60 - 2.20                         | 1.88      | 98.4                        | 98.4   | 99.7   | 100.0                                     | 100.0  | 100.0  | 100.0 |  |
| 2.20 - 3.00                         | 2.57      | 99.2                        | 99.2   | 99.9   | 100.0                                     | 100.0  | 100.0  | 100.0 |  |
| 3.00 - 4.00                         | 3.46      | 99.7                        | 99.7   | 100.0  | 100.0                                     | 100.0  | 100.0  | 100.0 |  |
| 4.00 - 5.50                         | 4.69      | 99.9                        | 99.9   | 100.0  | 100.0                                     | 100.0  | 100.0  | 100.0 |  |
| 5.50 - 7.00                         | 6.20      | 99.9                        | 99.9   | 100.0  | 100.0                                     | 100.0  | 100.0  | 100.0 |  |
| 7.00 - 10.00                        | 8.37      | 99.9                        | 100.0  | 99.9   | 100.0                                     | 100.0  | 100.0  | 100.0 |  |
| CME Initial                         |           |                             | Load 1 | Load 2 | Load 3                                    | Load 4 | Load 5 |       |  |
| Resistance after Dust Load (in WG)> |           |                             | 0.32   | 0.59   | 0.89                                      | 1.20   | 1.50   |       |  |
| Dust Load (gms)>                    |           |                             | 27     | 99     | 142                                       | 186    | 223    |       |  |

#### **Fractional Efficiency**

Air Flow vs Resistance **Clean Device** 0.4 0.37 . Resistance (in WG) 0.3 0.28 0.2 0.20 0.13 0.1 0.07 0.0 500 1000 1500 2000 2500 0 Airflow Rate (CFM)

Nederman - 4433 Chesapeake Drive, Charlotte NC 28216 704-398-7653 gtinfo@pneumafil.com www.pneumafil.com