



Single Membrane Element

Element Cross Section

Features and Benefits

- Removes gels and colloids
- Removes free water (in small quantity)
- Removes varnishes
- Retains fire contaminants at high loading rate
- Improves fluid filterability

Applications

- Off-line filtration for hydraulic systems and test stands
- Bypass filtration
- Flushing and filling applications
- In-line auxiliary filtration

The N15DM element from Schroeder are unique membrane elements constructed of stacked disks where dirt holding capacity is measured in pounds instead of grams, drastically reducing the amount of time required to clean up highly contaminated fluids. The abundant media surface area afforded by the stacked disk construction combined with the highly efficient membrane filtration give the N15DM elements its very impressive dirt retention characteristics. The Dimicron filters are high efficiency, low pressure drop, high dirt holding capacity/long service life.

Specifications

Fluid Compatibility:	Compatible with all petroleum based fluids and most synthetic and lubricating fluids	
Temperature Range:	0°C to 80°C (32°F to 176°F)	
Maximum Operating Differential Pressure:	4.0 bar (60 psid)	
Materials of Construction:	Filter Medium: Cellulose based	
	Hardware: Polypropylene	
	Seals: Fluorocarbon (standard)	
Schroeder Reference Module		Absolute Rating (99.9% efficiency)
N15DM002		2 µm
N15DM005		5 µm
N15DM010		10 µm
N15DM020		20 µm
N15DM030		30 µm

Offline Filtration Systems Replacement Elements

N15DM

How to Build a Valid Model Number for a Schroeder N15DM:

N15

Element Size

Element Type

Filtration Rating

**Starting from the left to the right you will choose your Model Number and work your way through each category as illustrated above.

Element Size	Element Type	Filtration Rating
☐ N15	☐ DM = Dimicron	☐ 002 = 2 µm ☐ 005 = 5 µm ☐ 010 = 10 µm ☐ 020 = 20 µm ☐ 030 = 30 µm

R-factors

Filter Element	R-factor	
	15 to 500 cSt	500 to 1000 cSt
	(mbar / (mm²/s *l/min))	
N15DM002	0,458	0,458
N15DM005	0,292	0,292
N15DM010	0,215	0,222
N15DM020	0,142	0,150
N15DM030	0,067	0,054

Pressure Drop

The pressure drop of the elements is calculated using the R factors.
The following calculation is based on clean filter elements.

- $\Delta p \text{ element [mbar]} = \frac{R \cdot v \cdot Q}{n}$
- $R = \text{R-factor} \left[\frac{\text{mbar}}{\frac{\text{l}}{\text{min}} \cdot \frac{\text{mm}^2}{\text{s}}} \right]$
- $v = \text{kinematic viscosity} \left[\frac{\text{mm}^2}{\text{s}} \right]$
- $Q = \text{flow rate} \left[\frac{\text{l}}{\text{min}} \right]$
- $n = \text{number of filter elements}$