

# The **NP Series** Trapper®

**Filter Cartridges  
for High Volume  
Filtration of  
Fluids & Gases**

## **The Nowata NP Series Trapper Filter Cartridge**

The Trapper, named for its superior dirt trapping ability, is made using a unique winding process which provides the Trapper with a uniform density profile throughout the cartridge. This process gives greater control of porosity from one cartridge to the next. Density is controlled radially and concentrically. The spaces between fibers become progressively smaller and more numerous approaching the discharge surface. Due to the density profile, the contaminate is trapped not only on the cartridge surface, but throughout its depth. This creates a cartridge with **greater dirt holding capacity** and **more reliable filtration**.

The Fibers and Resin used in the Trapper are chemically compatible with a wide range of fluids and gases. Typical filtration applications include:

- |   |   |   |
|---|---|---|
| <p><b>Fresh Water</b><br/><b>Salt Water</b><br/><b>Ethylene Glycol</b><br/><b>Natural Gas</b></p> | <p><b>Air</b><br/><b>Hydraulic Fluid</b><br/><b>Hydrocarbons</b><br/><b>Paint</b></p> | <p><b>Coolants</b><br/><b>Solvents</b><br/><b>Lubricating Oil</b><br/><b>Kerosene</b></p> |
|---|---|---|

***Plus a variety of other Liquids and Gases***

## **The NP Trapper Construction Features**

The Trapper is made from long fibers of Polyester which resists excessive migration. The “3NP” 29-1/4 inch and “4NP” 40 inch cartridges are made in one continuous length to eliminate the possibility of channeling at the mating cartridge faces.

- The NP Trapper Cartridges:**
- **Will operate at temperatures up to 250°F (120°C).**
  - **Are available in 2 to 125 micron size.**
  - **Will withstand differential pressures up to 75 psi.**

Cartridge replacement is suggested at a 30-35 psi differential pressure. Operation above 35 psi differential pressure may be at a greatly reduced flow rate and with a significant drop in filtration efficiency.

### **Resin Binder**

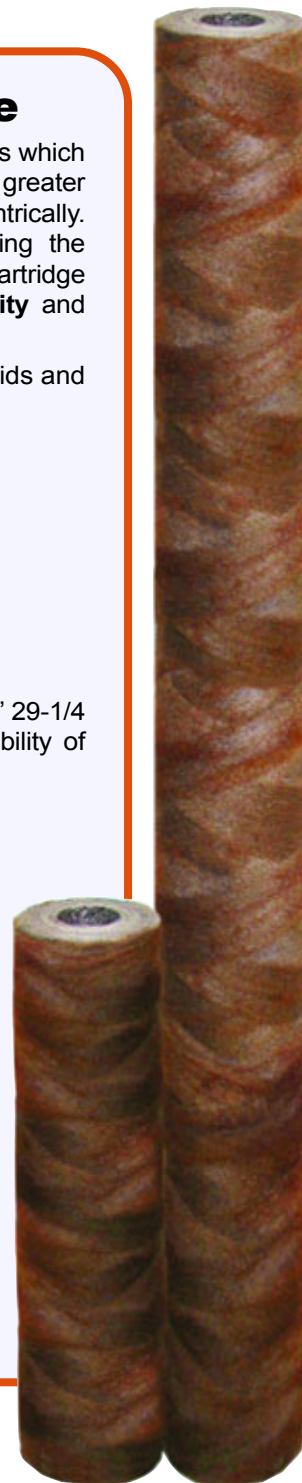
The long fibers are impregnated with a phenolic resin, which provides a rigid cartridge that resists channeling and fiber migration.

### **Core**

No support core is needed to hold the filter material in place as in other style cartridges.

### **End Style**

The most popular style cartridge is the Double Open End (DOE) type as shown. The “-OP” 222 o-ring (1.75 inch diameter) style adapter with one end closed is also available. We invite you to contact our Technical Sales Department to determine the compatibility of the Trapper cartridge with your filtration requirements.



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# NP Series Trapper Performance

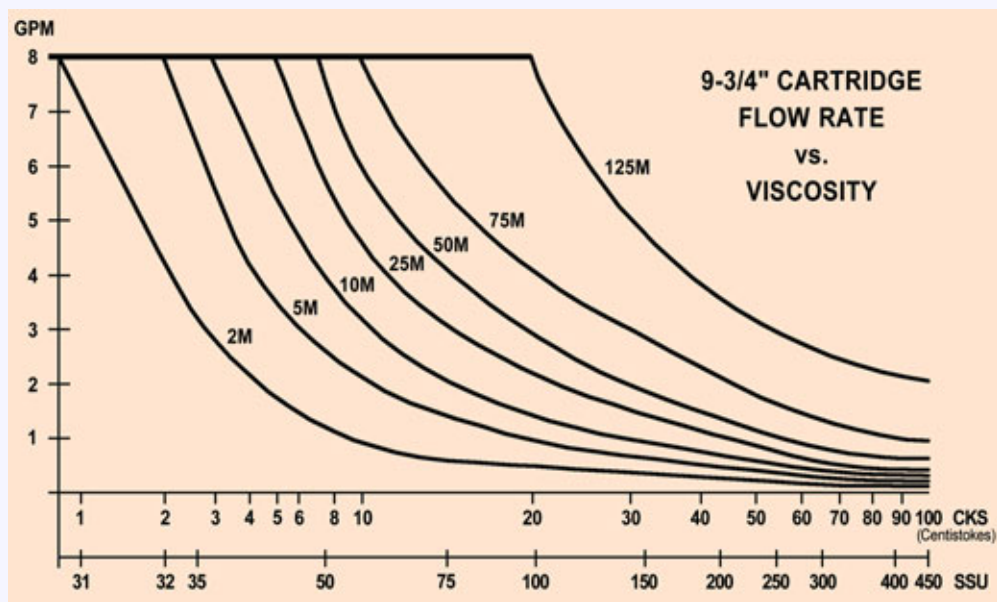
## Flow Rating

This graph represents the typical flow rate per 9-3/4" length cartridge, at various fluid viscosities and micron ratings. These values are based on an initial clean pressure drop of 2 psi. A "3NP" triple length cartridge has 3 times the flow rate per cartridge as shown by the graph. The "4NP" quadruple length cartridge has 4 times the flow rate per cartridge with a maximum flow of 24 GPM which is limited by the 1" ID restriction. These flow rates should give acceptable cartridge life when the turbidity is below 15 parts per million. If high dirt loads are expected, lower cartridge flow rates should be used for sizing purposes.

Multiply the number of cartridges in a housing times the flow rate from the graph, for the particular fluid, to determine the housing capacity.

Trapper cartridges are ideally suited for use in Nowata filter housings. Our engineering and production capabilities work together to provide filters for virtually every filtration requirement.

For specific information about Nowata housings or cartridges for your application, contact your local representative or our technical sales staff.



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## Cartridge Data

Micron Rating	9-3/4 inches	Model 29-1/4 inches	40 inches	Actual Opening in inches	Water* GPM Cartridge		
					9-3/4 inches	29-1/4 inches	40 inches
2	1NP2	3NP2	4NP	.000079	4	12	16
5	1NP5	3NP5	4NP5	.000197	5	15	20
10	1NP10	3NP10	4NP10	.000394	6	18	24
25	1NP25	3NP25	4NP25	.00099	7	21	24
50	1NP50	3NP50	4NP50	.0020	8	24	24
75	1NP75	3NP75	4NP75	.0029	8	24	24
125	1NP125	3NP125	4NP125	.0049	8	24	24

\*Water at 2 psi clean pressure drop

All cartridges are 2-1/2" OD x 1" ID. Single length (1NP) cartridges are 9-3/4" long. Triple length (3NP) cartridges are 29-1/4" long. Quadruple length (4NP) cartridges are 40" long. Add-OP to the model to indicate (1.75" diameter) 222 o-ring style end seal with the other end flat closed.

## Trapper Nomenclature

To identify or specify a certain micron size for a particular cartridge, note the numbers that follow the "1NP" or "3NP". That number (or numbers) denotes the micron rating. Adding "-OP" to the model number indicates a 222 end adapter. Blank indicates double open end (DOE) configuration.

**Example: 1NP75** Trapper cartridge identifies it as a 9-3/4 inch long, double open end, polyester cartridge, with a micron rating of 75.

**Example: 3NP10** Trapper cartridge is a 29-1/4 inch long, DOE, polyester cartridge with a 10 micron rating.

**Example: 4NP125** Trapper cartridge is a 40 inch long, DOE cartridge with a 125 micron rating.

**Example: 4NP125-OP** is a 40 inch long, 125 micron cartridge with one end closed and the other has a 222 o-ring adapter.



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