

Micro-Klean™ CS Series Filter Cartridges

Micro-Klean™ CS series filters are an improved conventionally wound cartridge manufactured by 3M Purification Inc. on state-of-the-art precision winding machines. Yarn-wound filter cartridges are simple and versatile. The materials of construction (core and roving) offer broad chemical compatibility and economical filtration. Continuous length winding (no matter what the cartridge length) eliminates the “dead” spots found on conventionally wound cartridges. A single roving strand employs a strictly controlled material to produce a consistent and high quality cartridge. This advanced manufacturing technology, combined with a choice of media types and wind patterns, ensures filtration that best fits the application to provide economical and efficient results time and time again.

Construction

Micro-Klean™ CS series filters represent an improved cartridge manufacturing process that eliminates “joints” found in conventional multiple length cartridges. This eliminates problems of by-pass, restricted flow, and inconsistent micron retention.

The standard media include bleached cotton, unbleached cotton, rayon, and polypropylene. The Micro-Klean™ CS series cartridge core is available in a variety of materials including tin plated steel, 304 and 316 stainless steel, and polypropylene. Consult Table 3 for further information.

Operating Parameters

Table 1: Micro-Klean™ CS Series Operating Parameters

Operating Data	
Maximum Operating Temperature	See Table 2
Maximum Operating Pressure	70 psid (4.8 bar)
Maximum Flow Rate	See Table 3

Performance

The Micro-Klean™ CS series cartridge is a nominal rated cartridge available with ratings from 1 to 350 microns. Recommended aqueous fluid flow rates, along with nominal ratings for each grade are listed in Table 2. Note that the flow rate should never exceed 10 gpm.

Table 2: Micro-Klean™ CS Series Grades and Flow

Grade	Nominal Rating (µm)	Flow Rate* (gpm)
Y	1	1
B	5	4
C	10	5
F	25	6
L	50	6
Q	75	6
V	100	6
Q	350	6

* Per 10 in. nominal increment.



Applications

- Chemical
- Food & Beverage
- Oil & Gas
- Paint & Ink
- Petrochemical
- Plating
- Printed Circuits
- Utilities

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Media	Maximum Temperature	Core Material	Applications
Cotton (Bleached)	250°F / 121°C	Tin Plated Steel	Use for potable liquids, vegetable oil, beverages, organic solvents, water, dilute acids, and petroleum products. CFR21 listed material of construction.
	250°F / 121°C	304 & 316 Stainless Steel	
	140°F / 60°C	Polypropylene	
Cotton (Unbleached)	250°F / 121°C	Tin Plated Steel	Use on non-critical applications.
	250°F / 121°C	304 & 316 Stainless Steel	
	140°F / 60°C	Polypropylene	
Polypropylene	210°F / 121°C	Tin Plated Steel	Filtration of water, organic acids, alkalies, oxidizing and reducing agents and many other chemicals.
	210°F / 121°C	304 & 316 Stainless Steel	
	140°F / 60°C	Polypropylene	
Rayon	300°F / 121°C	Tin Plated Steel	Chemical compatibility is similar to cotton. Use in filtration of petroleum products.
	300°F / 121°C	304 & 316 Stainless Steel	
	140°F / 60°C	Polypropylene	

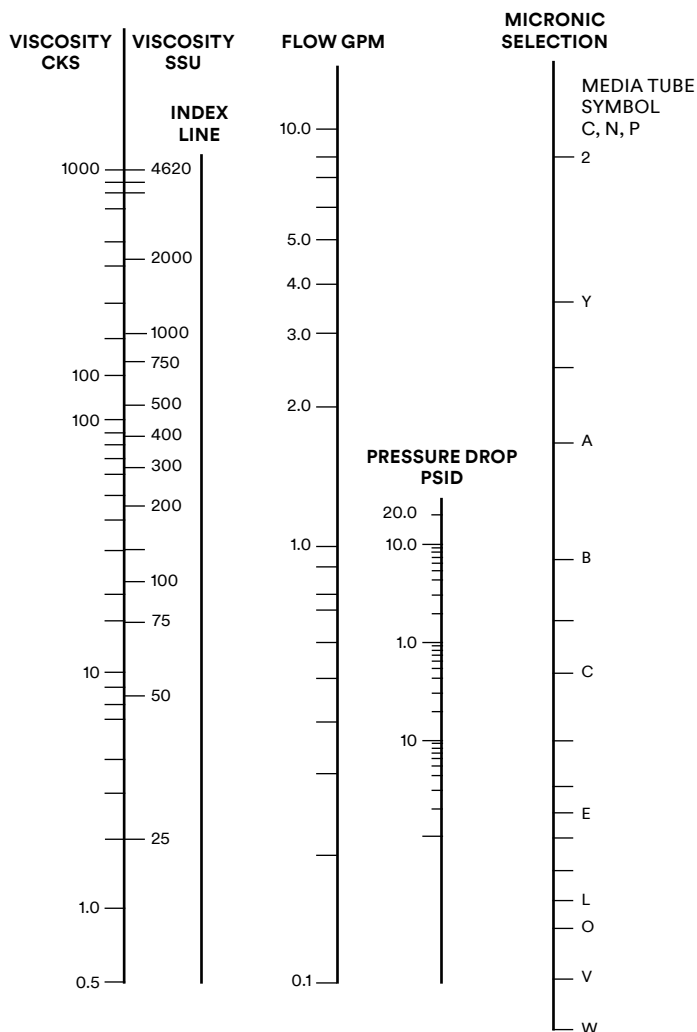
Non-Aqueous Selection Guide

To determine the system requirements for a specific grade selection, refer to Chart 1 and complete the following:

1. Select the required grade from the micron Selection Line (MSL) in Chart 1.
2. Using a straight-edge, draw a line from the grade mark on the MSL through the desired pressure drop to the Index Line.
3. Choose the viscosity of the material to be filtered on the Viscosity Line.
4. Using a straight-edge, draw a line from the viscosity mark, intersecting the mark made prior on the Index Line, to the Flow GPM Line.
5. Adjust the Pressure Drop Line to achieve the required flow.

To select an Micro-Klean™ CS series to fit static system requirements (i.e., flow rate and pressure drop), start with the fluid viscosity and choose the flow rate. Then draw a line from the Index Line, through the desired pressure drop, to the MSL.

Chart 1. Non-Aqueous Selection Guide



Micro-Kleen™ CS Series Ordering Guide

Plant Code 06 — Product Code 062

Cartridge Type	Wind Pattern	Cartridge Length	Grade Designation		Media	Core Material	Options
			Grade	Nominal Rating (Micron)			
Micro-Kleen™ CS	Standard	09 – 9 7/8"	Y	1	C – Bleached Cotton	P – Polypropylene	N – None
		19 – 19 1/2"	B	5	P – Polypropylene	F – Tinned Steel	P – Polypropylene
		20 – 20"	C	10	N – Unbleached Cotton	S – 304 SS	Core Extender
		29 – 29 1/4"	F	25		T – 316 SS	X – 316 S.S.
		30 – 30"	L	50			Core Extender
		39 – 39"	Q	75			V – Voile Core
		40 – 40"	V	100			Covering
			W	350			

PLEASE NOTE: The Ordering Guide above is for reference only. Not all combinations are available.
Please consult with your 3M Representative to determine the appropriate part number for your application.

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Technical Information

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