

NanoKey™

High Efficiency Electro-Adsorptive Cartridge Filters



A range of sub-micronic filter cartridges for the removal of contaminants from mainstream water supply, including viruses, bacteria, cysts and endotoxins.

NanoKey™ cartridge filters are manufactured from nanoalumina fibres on glass fibre, with a polypropylene core support, meaning that every 1m² of filter media has a greater surface area than 42,000m².

The NanoKey™ is also available as a carbon option, which has the ability to remove humic and total organic compounds (TOCs).

Features and Benefits

- Efficiency greater than or equal to polymeric UF/MF membranes with higher flow and pressure drop
- > 50 millivolt streaming zeta potential
- Removes "small" materials not captured by conventional filters
- Captures organic/microbial macromolecules
- Mean pore size 1.25 microns
- Cartridge pressure drop < 0.1 bar
- Standard or carbon versions of Nanomedia are available

Typical Applications

NanoKey™ cartridge filters are suitable for the sub-micronic filtration of a wide range of process liquids.

- **Reverse Osmosis Prefiltration**
Reduces biofouling by reducing virus, bacteria, cysts, endotoxin, colloidal silica and iron
- **Beverage Bottling**
Improves the taste, odor, clarity and safety of potable water
- **Agriculture**
Purer water produces healthier animals with less medication and reduces bacteria for washing fruits and vegetables
- **Industrial Water**
Protects cooling towers, boilers and chillers
- **Semi-Conductor**
Metals recovery and transient PAC removal from carbon bed
- **Pharmaceutical**
Membrane prefiltering and endotoxin reduction in water
- **Wastewater**
Metals removal, pathogen and the reduction of TOCs

Ordering Information

For ordering information please contact a member of the sales team.

Specifications

Materials of Manufacture

Filter media: Nano-Alumina coated Microglass fibres
Powdered activated carbon
Membrane support: Polypropylene

Micron Ratings

1.25µm

Effective Filtration Area

1m² of filter media = 42,000m² of surface area

Selection Guide

Model #	Micron Rating	Cartridge Length	Cartridge Width	Max. Flow Rate gpm (lpm)	Applications
CNKS10D	Nano Range	9 3/4" (248mm)	2 3/4" (70mm)	5 (22.7)	Single Faucet (Kitchen)
CNKS20D	Nano Range	20" (508mm)	2 3/4" (70mm)	10 (45.5)	Single Faucet (High Capacity)
GCKNS10D	Nano Range	9 3/4" (248mm)	4 1/2" (108mm)	11 (50)	House
GCKNS20D	Nano Range	20" (508mm)	4 1/2" (108mm)	22 (100)	House (High Capacity)

The retention/adsorption of the NanoKey™ products may be determined/optimised through changes in filtration conditions.

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