

# CARTRIDGE TANK SYSTEM



## HIGH FLOW, DOUBLE PLEATED, SUBMICRON CARTRIDGES FITS CTS-125 CARTRIDGE TANK™



Each cartridge comes with a unique handle designed top cap for lightweight and easy removal, a bag for proper disposal, and a double o-ring bottom connection to fit securely into the CTS-125 Cartridge Tank.

### Dual Gradient, Double Pleated, Impregnated Filter Cartridges

These cartridges are constructed of electropositively charged, dual gradient, double pleated layers for extended life and use. They feature a thermally bonded blend of micro-glass fibers and cellulose, infused with nanoalumina fibers in a nonwoven matrix that creates an electropositively charged depth filter media. When assembled into a pleated cartridge, it offers a unique combination of efficiency, capacity, flow rate, and low pressure drop that allows this nonwoven media to filter like a NF polymeric membrane, at levels unmatched in today's filtration marketplace. In addition, all filter cartridges feature the use of Agion® antimicrobial technology that provides built-in protection by working 24/7 resisting the growth of microbes.

The filters will outperform competitive filtration solutions in all turbidity applications including insoluble scale, ferric iron, bacterial iron slime, colloidal solids, silt, rust, and other particle filtration, resulting in higher water quality and longer life of the filtration system.

### Applications

- Primary filtration in lieu of microporous membranes
- Makeup water (particulate, microbial control)
- Polishing filters (carbon fines, emulsified oil removal)
- RO prefiltration (SDI reduction)
- Process water (turbidity, particulate, colloidal suspensions)
- Waste water (biologicals, proteins, dyes)
- Cooling towers & chill water loops (iron removal)

### Features

- Dual Gradient, Double Pleated Filters with Electropositively Charged Nanoalumina Media
- 20 Micron Prefilter Outer Pleated Layer
- 0.2 Microns @ 99.99% Efficiency Inner Pleated Layer
- Carbon Block Core Option
- Double EPDM O-ring Seals
- Filter Belly Bands
- Agion® Antimicrobial Technology

### Benefits

- Finer particle retention, higher flow rate & loading capacity, and lower pressure drop than traditional filtration
- Ensures no bypass of contaminants and high chemical compatibility
- Prevents collapsing of filters under high flow or contaminant load applications
- Effective at reducing unwanted bad taste and odor from potable drinking water
- Provides built-in protection by working 24/7 resisting the growth of microbes

### Dual Gradient, Double Pleated, Impregnated Filter Cartridges — FOR USE WITH CTS-125 CARTRIDGE TANKS

Part Number	Usage	Series	Material	Flow Rate GPM		Micron Rating	Design	Type of Filtration
				@ 3 psid	@ 8 psid			
CTS1-DP-A	Sub-micron, Bacteria, Cyst	Green	Micro-Glass Fiber with Cellulose / NanoAl with Biostat	30	60	20/0.2 @ 99.99% Efficiency	Double Pleated Impregnated	Dual Gradient
CTS1-DP-ACB *	Sub-micron, Bacteria, Cyst, Chlorine	Green	Micro-Glass Fiber with Cellulose / NanoAl with Biostat / Carbon Block	35	60	20/0.2 @ 99.99% Efficiency	Double Pleated Impregnated & Carbon Block Core	Dual Gradient & Carbon Block

\* > 200,000 gallons treatment capacity tested to NSF 42 standards

Agion® is a registered trademark of Sciessent LLC

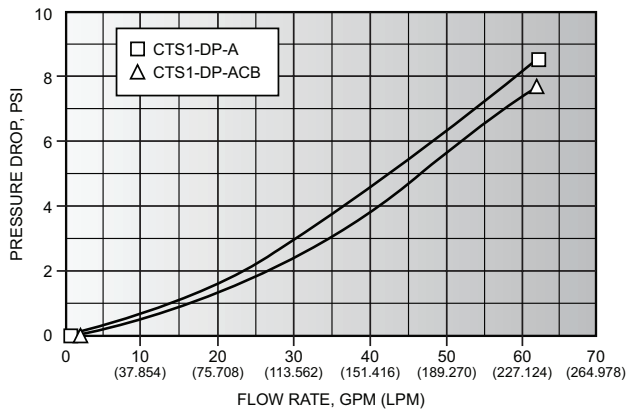
Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rate, system design, and application. Results may vary. Micron ratings are based on 85% or greater removal of a given particle size. Flush new cartridges until water runs clear prior to use. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

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### Filter Performance

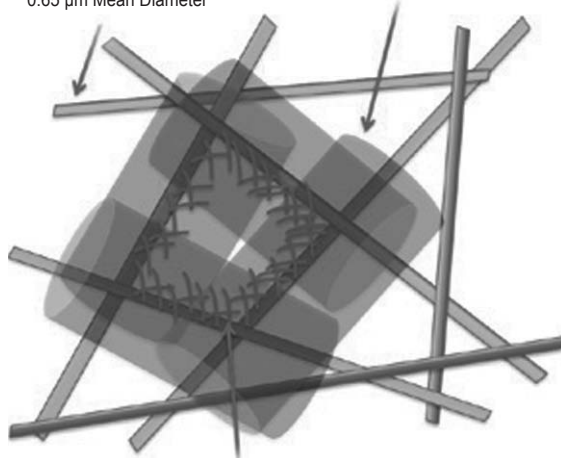


### Known foulants for RO membranes that are reduced by this adsorptive technology:

- Virus
- Bacteria
- Colloids (iron, manganese, silica, etc)
- Cellular debris
  - Lipids (hydrophobic and hydrophilic)
  - Phospholipid
  - Proteins
- Carbohydrates
- Glucose — mono and polysaccharides (TEP/EPS)

**Micro-Glass Fibers**  
0.65 µm Mean Diameter

**Electropositive Charge**  
Up to 1 µm from fiber



**Nanoalumina Fibers**  
2 nm Mean Diameter  
200-300 nm Mean Length

### Additional filtration highlights include:

- Removal of humic acid based tannins
- 3-4 log reduction
- Cyst removal
- Endotoxin removal
- Selected heavy metal removal
  - Ferrous iron (Fe<sub>2</sub>)
  - Ferric iron (Fe<sub>3</sub>)
  - Tin (Sn)
  - Copper (Cu)
  - Chromium III (Cr<sub>3</sub>)
  - Aluminum (Al)
- Reduces membrane fouling
- Pre-, post-, and stand-alone filtration solution

