

EASY REPLACEMENT
 No Tools Means No Tools!



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GNE[®] E3

Water Filtration Simplified[®]

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GREEN SERIES FILTERS

Green series filters are electropositively charged dual gradient double-pleated filtration solutions that successfully remove contaminants from 1 to 0.2 microns, featuring ENPRESS NanoAI™ media. The filters are designed with an external large 20 micron pre-filtration layer and an internal charged media layer, extending filtration level contamination and service life while achieving high flow and low pressure drop.

The filters will outperform competitive filtration solutions in all turbidity applications including insoluble scale, Fe₃, bacterial iron slime, colloidal solids, silt, rust, and other particle filtration, resulting in higher water quality and longer life of the filtration system.

The green series of pleated filters features a thermally bonded blend of micro-glass fibers and cellulose, infused with nanoalumina fibers in a non-woven matrix that creates an electropositively charged depth filter media. When assembled into a pleated cartridge, our solution offers a unique combination of efficiency, capacity, flow rate, and low pressure drop that allow this nonwoven media to filter like a NF polymeric membrane at levels unmatched in today's filtration marketplace. All filters feature the use of Agion[®] antimicrobial technology that provides built-in protection by working 24/7 to resist the growth of microbes.

Each filter comes with a unique handle design for lightweight and easy removal, a bag for proper disposal, and a double O-ring connection for the Cartridge Tank[®] plumbing adapter. Plumbing connection options are available with the **ONE-E3[®] Cartridge System**.

Green series filters are available in the following configurations:

CT-20xNanoAI-AG: External 20 micron pleated pre-filter with Agion biostat technology and a NanoAI pleated inner filter

CT-20xNanoAI-PAC-AG: External 20 micron pleated pre-filter with Agion biostat technology and a NanoAI PAC pleated inner filter with carbon block core

FEATURES

PAC solution option	Filter belly bands
Double Buna-N O-ring seals	Agion antimicrobial technology
Dual gradient double pleated filters with electropositively charged NanoAI media	

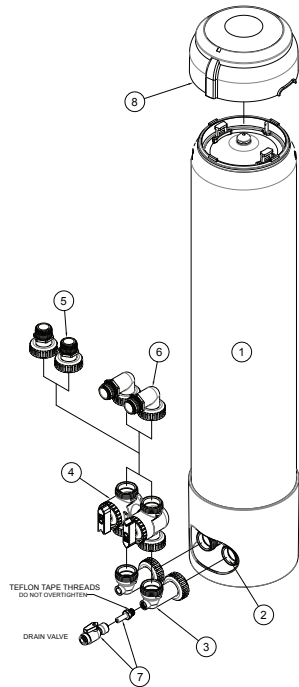
BENEFITS

- Successfully remove contaminants from 1 to 0.2 microns
- Over traditional filtration include finer particle retention, higher flow rate and loading capacity, and lower pressure drop
- Ensures no bypass of contaminants and high chemical compatibility
- Prevent 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

APPLICATIONS

- Primary Filtration in lieu of microporous membranes
- Make Up 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)

TECHNICAL SCHEMATICS



PART IDENTIFICATION

1. ONE-E3 Filtration System / Housing
2. In/Out Head for 1.050" Riser Pipe
3. 90 Degree Vertical Elbow With/without Machined Drain Port
4. Bypass Manifold
5. 1" MNPT Straight Connector
6. 1" MNPT 90 Degree Elbow Connector
7. 3/8" PEX Drain Valve Kit Assembly With Shut-off
8. PCB Umbrella Without Electronics

E3 FILTRATION SYSTEM

INTEGRATED BYPASS, METER & DRAIN CONNECTION SYSTEM



The E3 connection system is available to use with all POE (point-of-entry) filters in the blue, green, yellow, orange, silver and white filtration series.

EASY REPLACEMENTS

NO TOOLS REQUIRED

1. PRESS THE RED PRESSURE RELIEF VALVE TO UNSEAT THE RING



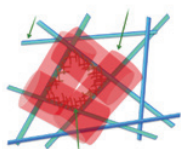
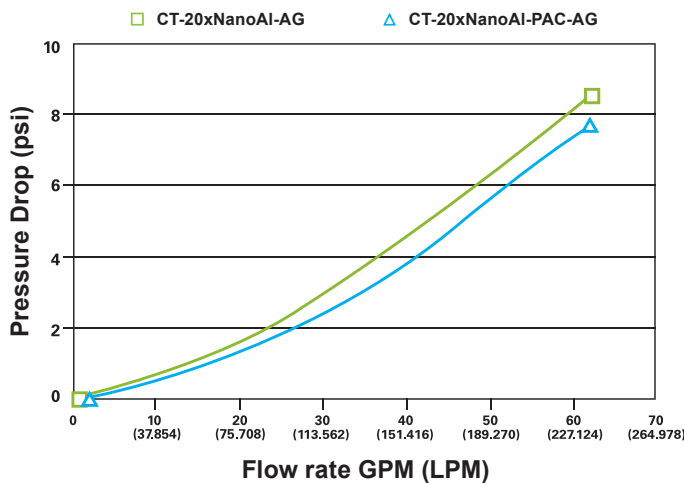
2. REMOVE SNAP RING



3. LIFT TOP CAP



FILTER PERFORMANCE



- **Electropositive Charge:** Up to 1 um from fiber
- **Micro-Glass Fibers Mean:** Dia. = 0.65 um
- **Nano-Alumina Fibers:**
 - Mean Diameter: 2 nm
 - Mean Length: 200-300 nm

BETTER FILTRATION

THERE'S NO COMPETITION

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

Viruses, bacteria, colloids (iron, manganese, silica, etc). Cellular debris is also reduced: lipids (hydrophobic and hydrophilic), phospholipid, proteins, carbohydrates, and glucose—mono and poly saccharides (TEP/EPS)

Data suggests: Adsorptive filter media could represent a significant improvement to membrane performance, life and overall operating cost by reducing fouling

Additional filtration highlights include:

Removal of humic acid based tannins; 3-4 log reduction; cyst removal; endotoxin removal; selected heavy metal removal (Fe₂, Fe₃, S n, Cu, Cr₃, Al); reduces membrane fouling; pre-, post-, and stand-alone filtration solutions