# ONE<sup>™</sup> SERIES Cartridge Tank

# Introducing our Revolutionary New GWS ONE™ Cartridge Tank Filtration System.



Say goodbye to small and inefficient housings. Get rid of expensive stainless steel housings. The GWS  $ONE^{\mathbb{M}}$  Cartridge Tank offers extended life and service, and a more cost-effective and efficient filtration solution.

Utilizing a patented industry-exclusive liner design, no tools necessary snap-ring design, full radial seal top and bottom caps make replacement simple. The GWS ONE<sup>m</sup> Cartridge Tank makes it easy to access and remove the internal filtration solution.

Lightweight and cost-effective with multiple configuration options, from high flow commercial / industrial applications to stand-alone residential Point-of-Entry (POE) installations for city and well water applications, this is the filtration solution of the future... 100% non-metallic! The One Cartridge Tank<sup>™</sup> is a high performance filtration device and has been rated at 125 psi (8.6 bar) operating pressure with a 4:1 Burst Safety Factor.





# **APPLICATIONS**

- $_{\bigcirc}\,$  Ideal for Residential, Food Service, Rental Fleets, Commercial and Industrial Applications
- Make-up Water, RO Pre-filtration, Cooling Towers, Chill Water Loops, Metal Finishing
- O Process Water (Turbidity, Particulate, Colloidal Suspensions)
- Reduction of Unwanted Bad taste and Odor from Potable Drinking Water
- $\odot\,$  Reduction in Frequency of Replacing Common 2  $1\!\!\!/ _2$  " or 4  $1\!\!\!/ _2$  " Housings ... Bigger is Better

# **Benefits**

Lightweight and costeffective housing with high chemical compatibility. Simple and easy change-out of cartridges. No Tools, Means NO TOOLS!

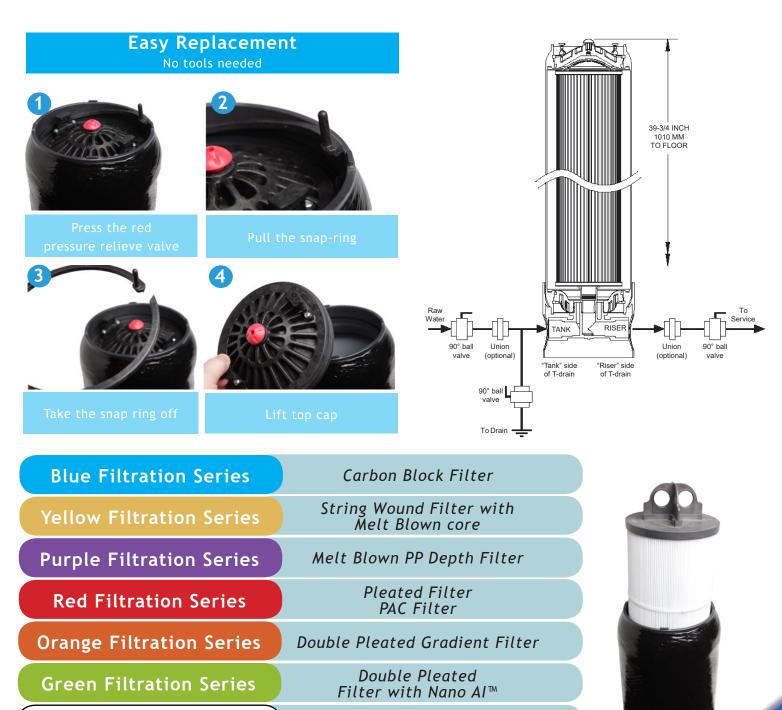
Match the filtration solution with flow rate requirements

#### Extended service life, contaminant removal, and dirt holding capacity Low pressure drop = high

flow

#### Features

100% non-metallic! Patented no-tools necessary snap-ring design Multiple filtration solutions Full 1 ¼" and 2" plumbing connection options Large capacity filter configurations



White Filtration Series

Refillable Granular Media Bottle

# **Blue Filtration Series**

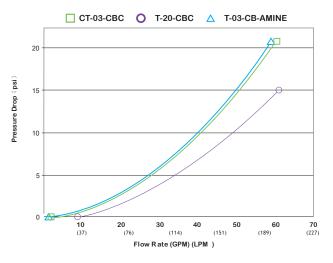
The Blue Filtration Series incorporates carbon block filter technology that is highly effective at reducing bad taste and odor from potable drinking water. The filters are made using high performance coconut shell carbon, which has more micropores compared to other types of carbon.

These carbon block filters deliver a product with superior adsorption capacity and kinetic dynamics. These high capacity filters provide cost effective water filtration solutions in a filter size and configuration that offers ease-of-use, extended service life and capacity, at low pressure loss.

All components and materials are FDA approved, and manufactured from certified coconut shell carbon, and are California Prop 65 compliant.

The chloramine block is a proprietary media with an enormous number of catalytically active nitrogen groups for highly efficient reduction of chloramines. This enhanced catalytic functionality has FIVE times more capacity for chloramine reduction than standard carbon blocks.

Each filter comes with a unique handle-designed top cap for light-weight and easy removal, a bag for proper disposal, and a double o-ring bottom connection that inserts into the  $ONE^{IIII}$  Cartridge Tank plumbing adapter.



#### Features

High performance carbon

Unique binder system

Proprietary manufacturing process

Outer wrap of polypropylene Netting of polyethylene

# **Applications**

Residential, food service, commercial and industrial applications Reducing bad taste, odor, chlorine and chloramine taste Polishing or pre-filters in applications requiring fine filtration and high capacity

#### **Benefits**

Exceptionally low pressure drop

High dirt holding capacity Excellent contaminant reduction



Configurations

CT-03-CB: 3 micron carbon block, high capacity

CT-20-CB: 20 micron carbon block, high porosity, low pressure drop

CT-03-CB-AMINE: 3 micron carbon block, chloramine reduction

To treat >250,000 gallons (946,353 Liters) of water @ 15 gpm (56.78 LPM) with greater than 90% reduction, estimated capacity using 2ppm of free chlorine.

To treat >150,000 gallons (567,812 Liters) of water @ 7 gpm (26.50 LPM) with greater than 90% reduction, estimated capacity using 2ppm of free chlorine.

To treat >50,000 gallons (189,271 Liters) of water @ 7 gpm (26.50 LPM) with greater than 85% reduction, estimated capacity.

# **Yellow Filtration Series**

The Yellow Filtration Series are dual-gradient double-pleated filtration solutions for extended life and use, with filtration levels of 5 and 20 microns. This series offers a combination filter composed of an outer layer of polypropylene string with a melt blown polypropylene core. The precise wound pattern provides greater surface area, higher dirt-loading capacity and greater efficiency than standard wound filter cartridges. As a dual media filter, it provides a cost-effective, extended-life product capable of capturing a broad range of particulates with high service flow rates greater than 30+gpm with less than 15 Delta P.

#### Features

Outer pre-filter manufactured using 100% Polypropylene yarn

Precision pattern captures 20 or 50 microns or larger

Extended service life of inner filter

Outer filter captures fine sediment, sand, silt, rust and scale particles.

Melt blown inner filter manufactured using thermally bonded polypropylene fibers

# Applications

Potable water, food / beverage, pre-RO, fine chemicals, electronics, metal finishing, plating solutions, oxidizing agents, corrosive fluids, gasses, concentrated acids and alkalis

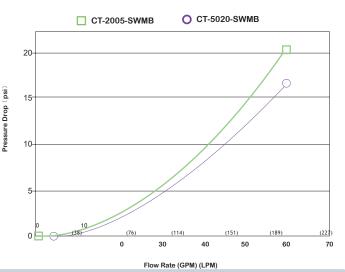
# Benefits

Microorganism-resistant
Nominally rated as stated
High purity
Excellent chemical resistance
High dirt-holding capacity
Graded density

The large diameter pre-filter reduces particulate loading on the post filter allowing it to perform at higher velocities, capturing fine sediment, sand, silt, rust and scale particles of 50 or 20 microns. This equates to higher particulate reduction and added loading capacity.

The Melt Blown core captures 20 or 5 micron particles (depending on the filter configuration), this dual combination filter extends the life of the inner-cartridge by eliminating premature caking and prevents down stream media migration common in string cartridges.

Each filter 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 that inserts into the  $ONE^{M}$  Cartridge Tank plumbing adapter.



# Configurations

CT-2005-SWMB: External 20 micron string wound pre-filter, with 5 micron melt blown core

CT-5020-SWMB: External 50 micron string wound pre-filter, with 20 micron melt blown core

# **Red Filtration Series**

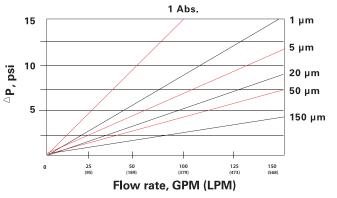


The Red Filtration Series are high flow rate pleated filtration solutions for extended life and use, with filtration levels of 1 Absolute, 5, 20, 50, and 150 microns, along with an activated carbon (PAC) solution as well. The filters are designed with a large filtration layer, extending filtration level contamination and service life, while achieving high flow rates up to 150 GPM (568 LPM) and low pressure drop. The filters will outperform competitive filtration solutions in all turbidity applications including silt, rust, and other particle filtration. The Red Series also provides lower shear water velocity as the raw water passes through the filter, allowing for more contact time and interaction with the extensive surface area of the filters. This results in higher water quality and longer life of the filtration system.

A direct replacement for expensive stainless steel housings used in commercial RO pre-filtration, process water, cooling towers, and other commercial and industrial applications, and exclusively designed for the ONE™ Cartridge Tank, these filters have significant surface area, low pressure drop, and high flow rate capabilities. The filters are ideal as polishing or prefilters in applications requiring fine filtration and high capacity. Utilizing 100% cellulose free media and cleanable from 5 micron and up, these are the commercial filtration solutions of the future!

Each filter comes with a unique handle-designed top cap for lightweight and easy removal, a bag for proper disposal, and a double oring connection. All components and materials are manufactured from certified materials.

Low Pressure Drop ONE<sup>™</sup> filters are designed to minimize pressure drop by using 2" pipe fittings and large diameter center tubes.



# Configurations

CT-COMM1A: 1 m	nicron absolute	PP pleated	cartridge
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- CT-COMM05: 5 micron PP pleated cartridge
- CT-COMM20: 20 micron PP pleated cartridge
- CT-COMM-CARB: Pleated activated carbon cartridge

CT-COMM50: 50 micron PP pleated cartridge

CT-COMM150: 150 micron PP pleated cartridge

#### Features

Durable and chemical resistant polypropylene filter and cap construction

Double EPDM o-ring seals

Filter belly bands

Unique filter handle design

#### Applications

Ideal for residential, food service, rental fleets, commercial and industrial applications, make-up water, RO pre-filtration, cooling towers, chill water loops, metal finishing, process water (turbidity, particulate, colloidal suspensions) community water, livestock or poultry, water systems, replacement of bag filters with more surface area and capacity as well as other water-based fluid solutions

#### **Benefits**

Extended service life, contaminant removal, and dirt-holding capacity Low pressure drop = high flow! Ensures no bypass of contaminants and high

chemical compatibility Ease of filter removal from

housing

Bacteria- and chemicalresistant under high flow or contaminant load applications

Prevent collapsing of filters under high flow or contaminant load applications

# **Purple Filtration Series**

The Purple Filtration Series are high flow rate melt blown polypropylene filtration solutions for extended life and use, with filtration levels of 5 and 20 microns. The filters are designed with a large surface area depth filtration design, extending filtration level contamination and service life, while achieving high flow rates up to 100 GPM (380 LPM) and low pressure drop. The filters will outperform competitive filtration solutions in all turbidity applications including silt, rust, and other soft particle filtration. The Purple Series also provides lower shear water velocity as the raw water passes through the filter, allowing for more contact time and interaction with the extensive surface area of the filters. This results in higher water quality and longer life of the filtration system.

#### Features

Durable and chemical-resistant polypropylene filter and cap construction

Double EPDM o-ring seals

Unique filter handle design

# Applications

Whole house filtration, commercial filtration, industrial filtration, pre-filtration for reverse osmosis equipment, community water systems, sea water applications due to their non-corrosive construction, replacement for bag filters with more filter area; a convenient alternative to multiple cartridge filters, water for livestock and poultry

# **Benefits**

Extended	service		life,
contaminant	removal,	and	dirt
holding capa	city		

Low pressure drop = high flow!

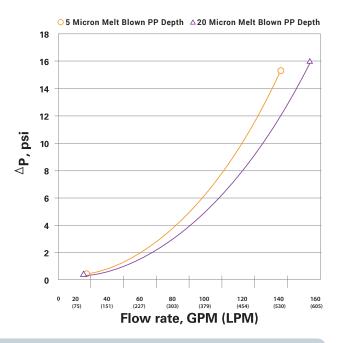
Prevent collapsing of filters under high flow or contaminantload applications and high chemical compatibility

Bacteria- and chemicalresistant under high flow or contaminant load applications Ease of filter removal from housing Ensures no bypass of contaminants and high chemical compatibility A direct replacement for expensive stainless steel housings used in commercial RO pre-filtration, process water, cooling towers, and other commercial and industrial applications, and exclusively designed for the ONE<sup>™</sup> Cartridge Tank, these filters have significant surface area, low pressure drop, and high flow rate capabilities.

The filters are ideal as polishing or pre-filters in applications requiring fine filtration and high capacity. Utilizing 100% polypropylene media, these are the commercial filtration solutions of the future!

Each filter comes with a unique handle-designed top cap for lightweight and easy removal, a bag for proper disposal, and a double o-ring connection. All components and materials are manufactured from certified materials.

#### Filter Performance





# Configurations

CT-COMM05-MB: 5 micron melt blown

CT-COMM20-MB: 20 micron melt blown

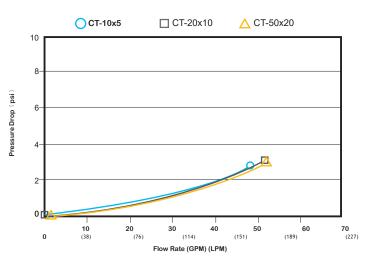
# Orange Filtration Series

The Orange Filtration Series are dual-gradient double-pleated filtration solutions for extended life and use, with filtration levels of 5, 10 and 20 microns. The filters are designed with a larger pre-filtration layer externally and the smaller internally, 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 silt, rust, and other particle filtration. The Orange Series also provides lower shear water velocity as the raw water passes through the filter, allowing for more contact time and interaction with the extensive surface area of the filters. This results in higher water quality and longer life of the filtration system.

Each filter 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 that inserts into the ONE™ Cartridge Tank plumbing adapter.



Extended Service Life...6, 12, 18, or 24 months, versus 1-3?: The total

surface area of the dual gradient Orange Series is approximately 100 ft<sup>2</sup>, as

compared to a typical single layer 2 1/2"x20 filter, which has approximately

 $7ft^2$  of filter media area, and a 4  $\frac{1}{2}$ "x20 which is approximately 16ft<sup>2</sup>. We

have nearly 6.5x open area compared to standard 4.5x20 filters...100ft2

vs. 16ft<sup>2</sup> and nearly 14.5x open area compared to standard 2.5x20 filters...

#### Features

Dual gradient double-pleated

Double Buna-N o-ring seals

Filter belly bands

Durable polyester filter and polypropylene cap construction

# Applications

Residential, food service, rental fleets, commercial and industrial applications, makeup water, RO pre-filtration, cooling towers, chill water loops, metal finishing, process water, other water-based fluid solutions

# Benefits

Extended service life, contaminant removal, and dirtholding capacity. Low pressure drop, high flow!

Insures no bypass of contaminants and high chemical compatibility

Prevent collapsing of filters under high flow or contaminant-load applications Bacteria- and chemical-resistant

# 100ft<sup>2</sup> vs. 7ft<sup>2</sup>. Extended Service Life!

**Better Filtration** 

# Configurations

CT-1005: External 10 micron pleated pre-filter, with 5 micron pleated internal layer

CT-2010: External 20 micron pleated pre-filter, with 10 micron pleated internal layer

CT-5020: External 50 micron pleated pre-filter, with 20 micron pleated internal layer

GWS GLOBAL WATER SOLUTIONS LTD.

# **Green Filtration Series**

The Green Filtration Series are electropositively charged dual-gradient double-pleated filtration solutions that successfully remove contaminants from 1 to 0.2 microns, featuring NanoAl<sup>M</sup> media. The filters are designed with a larger 20 micron pre-filtration layer externally and the charged media internally, 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,  $Fe^{3+}$ , bacterial iron slime, colloidal solids, silt, rust, and other particle filtration, resulting in higher water quality and longer life of the filtration system.

# **Features**

Dual-gradient double-pleated filters with electropositively charged NanoAl<sup>™</sup> media

Double Buna-N o-ring seals

Filter belly bands

PAC solution options

Agion® antimicrobial technology

# **Applications**

Primary filtration, make up water, polishing filters, RO pre-filtration, process water, waste water, cooling towers, chill water loops

# **Benefits**

Successfully removes contaminants (1 - 0.2 microns) Finer particle retention, higher flow rate and loading capacity, lower pressure drop. Ensures no bypass of contaminants and high chemical compatibility

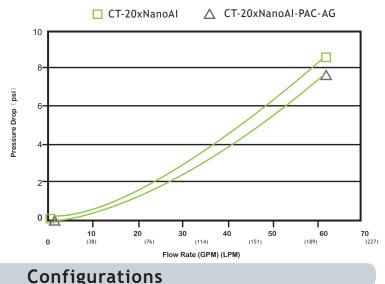
Prevents collapsing of filters under high flow

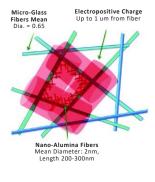
Reduces bad taste and odor from potable drinking water

Provides built-in protection by working 24/7 resisting the growth of microbes The Green Series of pleated filters features a thermally bonded blend of micro-glass fibers & 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<sup>®</sup> antimicrobial technology that provides built-in protection by working 24/7 resisting the growth of microbes.

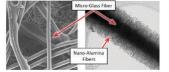
Each filter comes with a unique handle-designed top cap for lightweight and easy removal, a bag for proper disposal, and a double o-ring bottom connection that inserts into the  $ONE^{\mathbb{M}}$  Cartridge Tank plumbing adapter.







#### Filter Close-up



CT-20xNanoAl-AG: External 20 micron pleated pre-filter, with NanoAl™ pleated inner filter with Agion® Biostat

CT-20xNanoAI-PAC-AG: External 20 micron pleated pre-filter, with NanoAI PAC pleated inner filter with Agion® Biostat and carbon block core

# White Filtration Series



The White Filtration Series is a unique and high capacity granular media bottle that allows incorporation of multiple media options and solutions to be used with the series. This filter series is a 0.5 ft<sup>3</sup> empty bottle for filling of granular filtration media. This GWS ONE™Cartridge Tank filter series is ideal for a wide range of residential, food service, commercial, and industrial applications, and can be used for multiple applications from service DI, POE for city or well-water installations, rental programs, exchange systems, high-purity pre- or post-filtration applications, etc... The options, configurations, and solutions are endless.

The design also incorporates the patented Vortech<sup>™</sup> full distributor plate technology, providing uniform distribution and utilization of the media bed along with maximum efficiencies and service flow rates, giving system design maximum flexibility whether installed in up-flow or down-flow service. A removable top cap has a locking feature that can be used for limiting access to the internal media by the end-user, and special rings on the bottom of the bottle allow for ease of hanging of the cartridge for easy change-out of media in applications like service DI exchange.

**Down Flow** 

The White Series is also available in a Mid-Vortech<sup>™</sup> configuration that splits the cartridge chambers equally, to 0.25 ft<sup>3</sup> per chamber, for separation and use of different media, thereby increasing the efficiency and usage of the media bed. Each filter comes with a unique handle-designed top cap for lightweight and easy removal, and a double o-ring bottom connection that inserts into the ONE<sup>™</sup> Cartridge Tank plumbing adapter.

#### **Features**

0.5 ft<sup>3</sup> empty media bottle Polyethylene construction Vortech<sup>™</sup> distributor plate Locking or removable top cap Rings on bottom of bottle Double Buna-N o-ring seals Mid-Vortech<sup>™</sup> distributor plate option

#### Applications

Residential, food/beverage service, rental fleets, service DI exchange, plating solutions, commercial and industrial applications, metal finishing, oxidizing agents, corrosive fluids, electronics, pre-RO, process water, waste water, cooling towers, makeup water, polishing filters, reducing unwanted bad taste and odor, including chlorine and chloramine

#### **Benefits**

Extended service life and high capacity contaminant removal

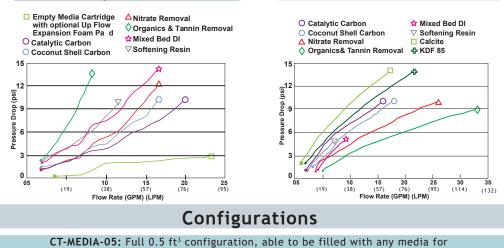
High chemical resistance

Low pressure drop, high flow Separation of multi-media configurations

Up-flow or down-flow service and full utilization of the media bed

Ensures no bypass of contaminants and high chemical compatibility

#### **Up Flow**



CT-MEDIA-05: Full 0.5 ft<sup>3</sup> configuration, able to be filled with any media for up-flow or down-flow service due to use of Vortech™ technology.
CT-MEDIA05-MID: Full 0.5 ft<sup>3</sup> configuration with Mid-Vortech™ separation plate, able to be filled with any two types of media for up-flow or down-flow service, due to use of Vortech™ technology.