

**EASY REPLACEMENT**  
No Tools Means No Tools!



**FOR BEST RESULTS:**  
Use with pre- and post-filtration product solutions, including pleated filters (orange/yellow series) and carbon blocks (blue series).

# PIONEER<sup>®</sup> OX

## PIONEER<sup>®</sup> OX FILTRATION CARTRIDGES

**PIONEER<sup>®</sup> OX** features ENPRESS **ATOMUS<sup>®</sup> MD1** inside technology, a proprietary filtration media solution for the water treatment industry specifically designed to simultaneously oxidize and adsorb organic and inorganic contaminants along with heavy metals that could be present in water. This patented and proprietary chemistry creates a unique oxidative media that does not add residuals to the water stream or create harmful disinfectant byproducts. Unlike typical oxidation agents, such as ozone, chlorine, peroxide, citric acid, or bromine, **ATOMUS<sup>®</sup> MD1** is a “solid state” oxidizing agent. Overall system simplification is paramount in the usage of **ATOMUS<sup>®</sup> MD1**, eliminating an Airdraw or standard control valve head, the use of salt, or oxidation agents for regeneration.

With fast kinetics and EBCT (empty bed contact time) from 1–5 minutes depending on the agent that requires oxidation, **PIONEER<sup>®</sup> OX** can eliminate from water many difficult contaminants, including but not limited to:

- Hydrogen sulfide
- Color/tannin/organics
- Total organic carbon (TOC)
- Iron and manganese

And the potential removal of:

- Radium
- Phosphate
- Silica
- Lead
- Uranium
- Chromium
- Copper
- Zinc
- Arsenic
- Legionella
- Iron bacteria
- Fluoride, +more!

ENPRESS **PIONEER<sup>®</sup> OX** filtration cartridges are designed to provide an effective filtration solution for the reduction of sulfur, iron, manganese, color/tannins/organics and heavy metals from water, with service flow rates up to 15 gpm (56.8 lpm). This cartridge provides a simple and easy solution to the removal of these dissolved contaminants, greatly improving the taste of water. This cartridge will help to eliminate the orange and brown stains often found in sinks, toilets, tubs and other plumbing fixtures. It also reduces the possibility of damage to pipes and water heaters.

The E3 Cartridge Tank™ utilizes ENPRESS' patented industry-exclusive liner and no-tools-necessary snap ring design. Full radial seal top and bottom caps make replacement simple and allow for easy access and removal of 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!

**PIONEER<sup>®</sup> OX magenta series filters are available in the following configuration:**

**CT-5020-0640RD-MD1:** Oxidation and adsorption removal cartridge with **ATOMUS<sup>®</sup> MD1** inside

### APPLICATIONS

Ideal for residential, food service, rental fleets, commercial and industrial applications

Make-up water, RO pre-filtration, cooling towers, chill water loops

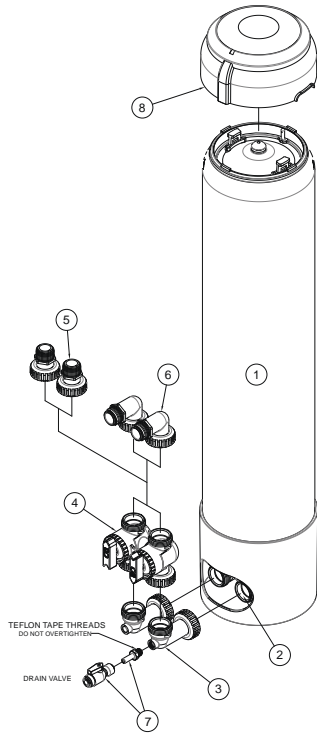
Process water (turbidity, particulate, colloidal suspensions)

Reduction of unwanted bad taste and odor from potable drinking water

Reduction in frequency of replacing common 2½" or 4½" housings (bigger is better)

Other water-based fluid solutions

# TECHNICAL SCHEMATICS



## PART IDENTIFICATION

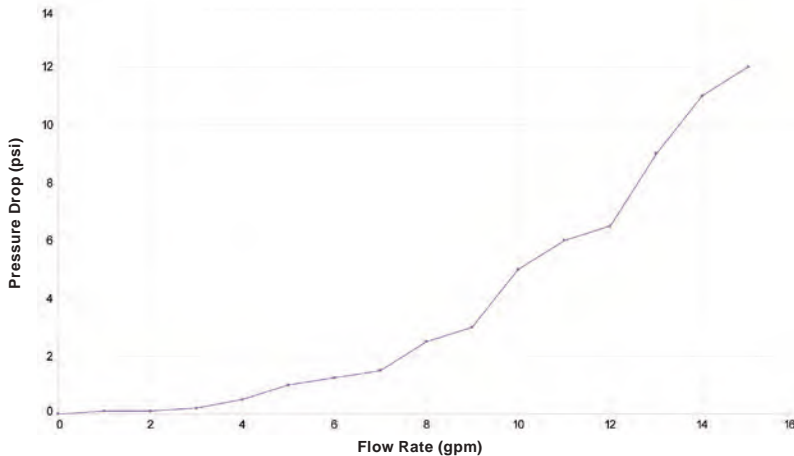
- ONE-E3 Filtration System/Housing
- In/Out Head for 1.050" Riser Pipe
- 90 Degree Vertical Elbow With/without Machined Drain Port
- Bypass Manifold
- 1" MNPT Straight Connector
- 1" MNPT 90 Degree Elbow Connector
- 3/8" PEX Drain Valve Kit Assembly With Shut-off
- PCB Umbrella Without Electronics

## APPROXIMATE LIFE OF SYSTEM

IRON LEVEL IN WATER	TOTAL GALLONS OF WATER USED	250 GPD (4 PEOPLE)	125 GPD (2 PEOPLE)	75 GPD (1 PERSON)
3 ppm	57,200 gal	228.8 days	457.6 days	915.2 days
2 ppm	88,000 gal	352 days	704 days	1,408 days
1 ppm	176,000 gal	704 days	1,408 days	2,816 days
0.5 ppm	352,000 gal	1,408 days	2,816 days	N/A

# FILTER PERFORMANCE\*

E3—PIONEER® OX Cartridge Flow Performance



The ATOMUS® MD1 media inside this system is Certified by IAPMO R&T to NSF/ANSI 61 for Material Safety and NSF/ANSI 372 for Low Lead Content.



For more information, visit [enpress.com](http://enpress.com) or [onefiltration.com](http://onefiltration.com)

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# E3 FILTRATION SYSTEM

INTEGRATED BYPASS, METER & DRAIN CONNECTION SYSTEM



The E3 connection system is available to use with all POE (point-of-entry) filters.

# EASY REPLACEMENTS

NO TOOLS REQUIRED

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



2. REMOVE SNAP RING



3. LIFT TOP CAP



## WATER CHEMISTRY AND LIMITATIONS

Color/Tannin: < 50 color units

H2S: Up to 10 ppm

Iron, Ferrous: Up to 3 ppm

pH Range: 5.5–9.5

Flow Rates: Up to 15 gpm

Alkalinity: < 120 ppm

Hardness: < 140 ppm (8 gpg)

Manganese: Up to 2 ppm

Temperature: 41–140 °F

### NOTES:

- Water conditions outside of the above specified limits may lead to a shortened filtration life.
- Cartridges may contain a very small amount of fines. After installation, flush the cartridges for at least 10 minutes prior to use.
- A ratio of 1:3 silica vs total hardness will maintain silica in solution and optimize performance.
- \*Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates, system design and applications. Your results may vary. Micron ratings 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.

System installation and cartridge disposal to comply with federal, state, and local laws and regulations.

**USEPA TCLP and WET Approved:** Engineered and proven to provide maximum removal capacity and improved stability against pH upset to prevent possible desorption of bound contaminants both during operation and in landfill conditions. This ensures successful evaluation against USEPA TCLP and California WET Tests, with our unparalleled, non-leachable bond.



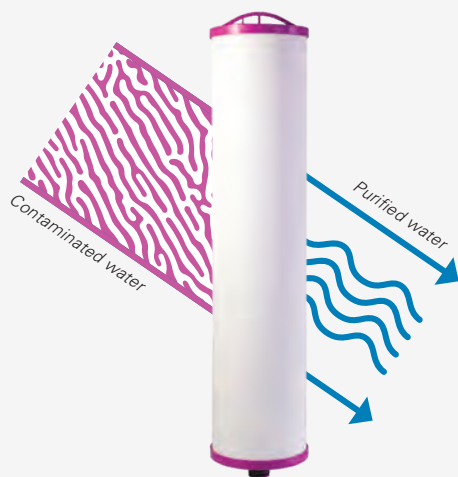
## ATOMUS® F11 AND Z21 MEDIA

**ATOMUS®** F11 and Z21 are engineered binary mixed metal adsorption filtration medias for the removal of ARSENIC from potable water. They have been engineered and proven to provide maximum removal capacity and improved stability against pH upset to prevent possible desorption of bound arsenic both during operation and in landfill conditions. This ensures successful evaluation against USEPA TCLP<sup>^</sup> and California WET Tests, with our unparalleled, non-leachable arsenic bond.

ATOMUS F11 and Z21 media are NSF International certified to NSF/ANSI Standard 61 and are more resistant to interference from silica, phosphorus and vanadium than other arsenic removal medias on the market today. Both filtration medias are designed for use in commercial and residential point-of-entry (POE) applications to meet or exceed EPA reduction requirements for arsenic in water systems.

**ATOMUS® F11** is the powder version of the media used in cartridges specifically formulated for the removal of arsenic from drinking water. Powder has more surface area than granular medias, which gives it the ability to address arsenic in a water stream in less than 30 seconds (versus 3 to 5 minutes with traditional granular media). Rapid kinetics is precisely what makes our unique, non-backwashing ATOMUS F11 technology possible.

**ATOMUS® Z21** is the backwashable granular version of the media used in Vortech® vessels in residential, commercial and light commercial applications. With large, solid, high surface area granules, ATOMUS Z21 media has demonstrated twice the arsenic loading capacity, longer life and shorter reaction time (EBCT) than other arsenic removal medias.



### FEATURES

Effective at removing ARSENIC III and V, as well as reducing phosphate, silica, chromium, lead, vanadium and other heavy metals

Unparalleled non-leachable ARSENIC bond

Removes ARSENIC III and V simultaneously

NSF 61 certified for drinking water use

Non-toxic—media passed USEPA TCLP<sup>^</sup> and California WET Tests

No chemicals or regeneration needed

Superior surface area; > 99% of contaminant removal within internal area of media

### BENEFITS

Imparts no odor, taste or color to water

No backwashing required while using ATOMUS F11 cartridges

pH range greater than any other arsenic adsorption media (5.5–9.5)

Less of an impact made by interference from competing ions like silica, phosphorus or vanadium

### TECHNICAL SPECIFICATIONS

**Physical form:** Dry granular media

**EBCT:** 30 seconds–3 minutes

**pH range:** 5.5–9.5

**Surface loading rate:** Up to 7 gpm/ft<sup>2</sup>

**Backwash rate for ATOMUS Z21:** 7–10 gpm/ft<sup>2</sup>

**Mesh size:** 0.2–2.0 mm (10 x 70 mesh)





**Specific gravity:** ~ 0.8 g/cm<sup>3</sup> (~ 50 lbs/ft<sup>3</sup>)

**Spec. Surface area:** > 250 m<sup>2</sup>/g

**Total adsorptive capacity:** > 50 g/kg

**Surface area:** > 250 m<sup>2</sup>/g

### APPLICATIONS

-  Residential
-  Light commercial
-  Industrial water treatment
-  Small systems
















# ATOMUS F11 AND Z21: WHICH ONE IS RIGHT FOR YOU?



**ATOMUS<sup>®</sup> +F11**



**ATOMUS<sup>®</sup> +Z21**

 <b>System Type</b>	Powdered media in cartridges	Granular bulk media in pressure vessels
 <b>Media Type</b>	Patented binary mixed metal adsorption media	Patented binary mixed metal adsorption media
 <b>Water System GPM</b>	5 to 500	50 to 2,000
 <b>pH Range</b>	5.5–9.5	5.5–9.5
 <b>Minimum Empty Bed Contact Time (EBCT)</b>	30 seconds	2.5 to 3 minutes
 <b>Backwashing</b>	None	Monthly
 <b>Cost Per Gallon Treated</b>	Low	Low
 <b>Contaminant Removal</b>	Arsenic III and V, plus reduction of phosphates, silica, chromium, lead, vanadium and more	Arsenic III and V, plus reduction of phosphates, silica, chromium, lead, vanadium and more
 <b>Pressure Drop</b>	Less than 10 psi	Less than 10 psi
 <b>Pre/Post-Filtration</b>	1 micron	50 micron
 <b>Media Disposal</b>	Landfill <sup>^</sup>	Landfill <sup>^</sup>
 <b>Additional Considerations</b>	Exclusively available for use in the ENPRESS PIONEER <sup>®</sup> As cartridge	Use with Vortech <sup>®</sup> tank solutions
 <b>Certifications</b>	NSF/ANSI Standard 53 and 61 certified for the removal of both Arsenic III and V in the ENPRESS ONE E3-M <sup>®</sup> System	NSF/ANSI 61

## WATER QUALITY OPTIMUM WORKING CONDITIONS\*

ATOMUS<sup>®</sup> F11 and Z21 outperform competitive medias when one or more of the ideal water characteristics are exceeded.

<b>pH:</b> 5.5–9.5	<b>Silica:</b> < 35 mg/L	<b>Fluoride:</b> < 1 mg/L
<b>Total arsenic:</b> 0.010–0.100 mg/L	<b>Total suspended solids:</b> < 5 mg/L	<b>Turbidity:</b> 5 NTU
<b>Iron:</b> < 0.3 mg/L	<b>Sulphate:</b> < 100 mg/L	<b>Hardness:</b> < 300 mg/L <small>A ratio of 1:3 silica vs total hardness will maintain silica in solution and optimize performance.</small>
<b>Manganese:</b> < 0.05 mg/L	<b>Sulfides:</b> < detect mg/L	
<b>Phosphate:</b> < 0.55 mg/L	<b>Vanadium:</b> < 0.05 mg/L	

\*Note: Water with pH > 9 may require pH adjustment for best performance. Economical treatment can still be achieved if ideal range is exceeded. Particularly for increased levels of silica and phosphate, arsenic removal media will often provide the most economical treatment when compared to other adsorptive arsenic removal medias.

<sup>^</sup>USEPA TCLP tested as non-hazardous waste safe for landfill, but due to variances in influent water quality, users are urged to perform independent verification of the non-hazardous character of spent media cartridges. Additionally, some states may have disposal criteria different from federal guidelines (TCLP). Notice: Information is believed to be reliable and is offered in good faith with no warranties or implied warranties or fitness for a particular use. Customer is responsible for determining whether use conditions and information in this document are appropriate for specific applications and for ensuring compliance with applicable laws and regulations.

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## ATOMUS® MD1

**ENPRESS ATOMUS® MD1** is a new proprietary filtration media solution for the water treatment industry specifically designed to simultaneously oxidize and adsorb organic and inorganic contaminants along with heavy metals that could be present in water. This patented and proprietary chemistry creates a unique oxidative media that does not add residuals to the water stream or create harmful disinfectant byproducts. Unlike typical oxidation agents, such as ozone, chlorine, peroxide, citric acid, or bromine, ATOMUS® MD1 is a “solid state” oxidizing agent. Overall system simplification is paramount in the usage of ATOMUS® MD1, eliminating an Airdraw or standard control valve head, the use of salt, or oxidation agents for regeneration.

With fast kinetics and EBCT (empty bed contact time) from 1–5 minutes depending on the agent that requires oxidation, ATOMUS® MD1 can eliminate from water many difficult contaminants, including but not limited to:

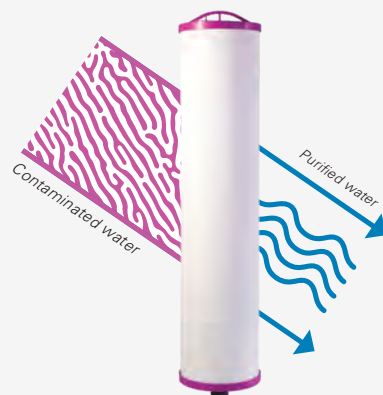
- Hydrogen sulfide
- Total organic carbon (TOC)
- Color/tannin/organics
- Iron and manganese

And the potential removal of:

- Radium
- Uranium
- Arsenic
- Phosphate
- Chromium
- Legionella
- Silica
- Copper
- Iron bacteria
- Lead
- Zinc
- Fluoride, +more!

Powdered ATOMUS® MD1 is now available with no backwash requirement when used in a high-flow ENPRESS ONE-E3® system in the PIONEER® OX cartridge.

ATOMUS® MD1 is NSF/ANSI 61 certified and tested to USEPA TCLP and California WET tests to provide maximum removal capacity and improved stability against pH upset, preventing possible desorption of bound contaminants during use and in landfill conditions. Our unparalleled non-leachable bond has been engineered and proven to provide maximum removal capacity.



### FEATURES

Simultaneous oxidation and adsorption of organic and inorganic contaminants

Solid state oxidizing filtration media

Fast kinetics and EBCT with an unparalleled non-leachable bond

Non-toxic—media passed USEPA TCLP and California WET Tests

NSF/ANSI 61 certified for drinking water use

Effectively removes hydrogen sulfide, color, tannins and TOC

No chemicals or regeneration needed

Superior surface area

### BENEFITS

Extended service life, high flow rates and capacity contaminant removal

Eliminates need for an Airdraw/backwashing control valve head, the use of salt, or other oxidation agents for regeneration

No backwashing required while using PIONEER OX cartridges

Compatible with ENPRESS Vortech and Mid-Vortech technologies; full utilization of media bed and high flow rates

pH range greater than any other adsorption media (5.5–9.5)

Imparts no odor, taste, or color to water

### APPLICATIONS

Residential	Food and beverage
Commercial/industrial	POE
Waste water	Process water
Small systems	Pre/post-filtration

**Additional applications:** Rental fleets, service DI exchange, rental programs, exchange systems, oxidizing agents, corrosive fluids, electronics, pre-RO, cooling towers, make-up water, polishing filters, primary filtration, wineries and juice processing, point-of-use, disaster relief, livestock and poultry, aquaculture, hospitals

**Note: For regeneration of media from applications with high organic build-up (tannins or color), consult ENPRESS for cleaning procedures for life extension of granule media**



# ATOMUS® + MD1



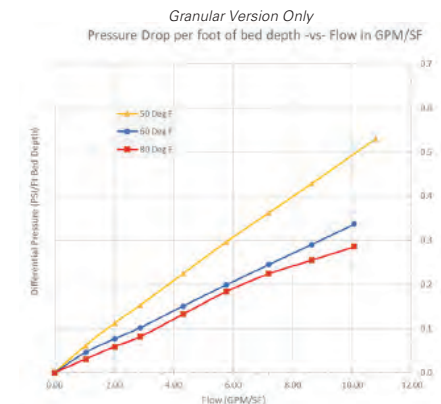
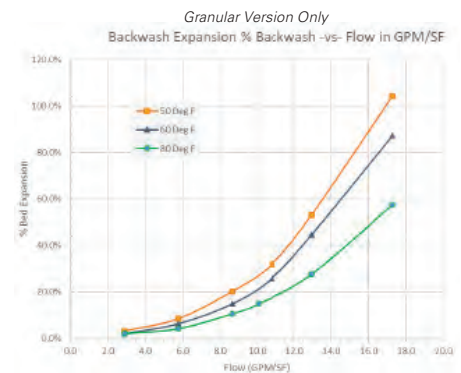
	<b>Physical Form</b>	Dry granular media
	<b>Appearance</b>	White powder or granule
	<b>Adsorption Mechanism</b>	Hydrophobic
	<b>Bulk Density</b>	47–53 lbs/ft <sup>3</sup>
	<b>Minimum Empty Bed Contact Time (EBCT)</b>	30 seconds–3 minutes
	<b>Surface Loading Rate</b>	Up to 13 gpm/ft <sup>2</sup> (color/H <sub>2</sub> S); up to 4.6 gpm/ft <sup>2</sup> (inorganics)
	<b>Backwash Rate</b>	9 gpm/ft <sup>2</sup> (60 °F)–11 gpm/ft <sup>2</sup> (80 °F)
	<b>Mesh Size (Powder)</b>	0.39–0.6 mm (28 x 48 mesh)
	<b>Mesh Size (Granule)</b>	0.6–1.4 mm (14 x 28 mesh)
	<b>Service Flow Rate</b>	< 7.5 gpm/ft <sup>3</sup>
	<b>Moisture Content</b>	10–18%
	<b>Total Pore Volume</b>	0.5–0.55 cm <sup>3</sup> /g
	<b>Surface Area</b>	> 360 m <sup>2</sup> /g
	<b>Media Disposal</b>	Landfill
	<b>Additional Considerations</b>	Use with Vortech® tank solutions
	<b>Certifications</b>	NSF/ANSI Standard 61 Certified Materials

## BETTER FILTRATION THERE'S NO COMPETITION

Granular ATOMUS® MD1 is also available for use with ENPRESS Vortech® and Mid-Vortech® full-plate distributor plate tanks, an exclusive and patented technology that reduces backwash during a system cleaning cycle while increasing flow and operational efficiency.

### PART NUMBERS

**CT-ATOMUS-MD1-F:** Powder  
**CT-ATOMUS-MD1-G:** Granule



## WATER CHEMISTRY AND LIMITATIONS

ATOMUS® MD1 outperforms competitive medias when one or more of the ideal water characteristics are exceeded in PIONEER OX radial flow cartridges.

<b>H<sub>2</sub>S:</b> Up to 10 ppm	<b>Flow Rates:</b> Up to 15 gpm
<b>Color/Tannin:</b> < 50 color units	<b>Hardness:</b> < 140 ppm (8 gpg)
<b>Iron, Ferrous:</b> Up to 3 ppm	<b>Alkalinity:</b> < 120 ppm
<b>Manganese:</b> Up to 2 ppm	<b>Temperature:</b> 41–140 °F
<b>pH Range:</b> 5.5–9.5	<b>H<sub>2</sub>S Removal in Granule Formate:</b> Up to 30 ppm

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### NOTES:

- Water conditions outside of the above specified limits may lead to a shortened filtration life.
- Cartridges may contain a very small amount of fines. After installation, follow the instructions for flushing the cartridge to remove the fines before using the water. You should flush the tap at least 5 minutes prior to using water for drinking or cooking purposes.
- A ratio of 1:3 silica vs total hardness will maintain silica in solution and optimize performance.
- Performance claims are based on independent laboratory and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates, system design and application. Results may vary.

**WARNING/CAUTION:** Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Protect against freezing to prevent cracking of the filter and water leakage.



**FILTER REPLACEMENT OPERATING INSTRUCTIONS:** New cartridges must be flushed for a minimum of 10 minutes prior to use. System and installation to comply with state and local laws and regulations.

The ATOMUS® MD1 media is Certified by IAPMO R&T to NSF/ANSI 61 for Material Safety and NSF/ANSI 372 for Low Lead Content.



**EASY REPLACEMENT**  
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WH



Water Filtration Simplified®

WH

## ANTISCALE WHITE SERIES FILTERS

Antiscale **white** series filters are unique and high-capacity scale reduction cartridges that run in upflow service. The cartridge is designed to reduce the harmful effects of hardness and scale formation that can negatively affect the life and performance of appliances, shower and sink faucets, and many other household items. It also reduces the effect of scale build-up on glass and many other surface types.

The white series design incorporates patented Vortech® full distributor plate technology, providing uniform distribution and utilization of the media bed along with maximum efficiencies and service flow rates.

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

White series filters are available in the following configurations:

**CT-MEDIA05-ANTSC:** Full 3L of antiscale control filtration media used with Vortech® technology in upflow service.

### FEATURES

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

### BENEFITS

Extended service life and high capacity contaminant removal	Upflow service and full utilization of the media bed
High chemical resistance	Ease of handling
Ensures no bypass of contaminants and high chemical compatibility	Low pressure drop = high flow

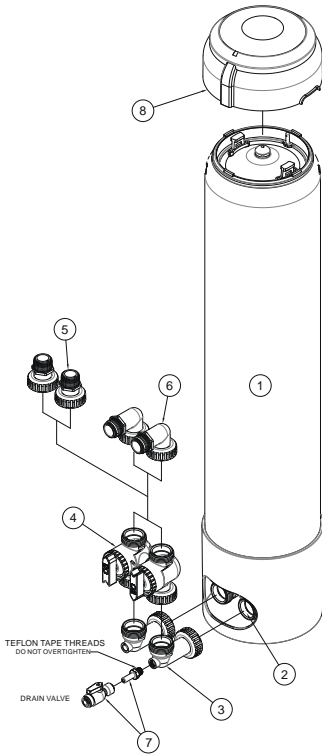
### APPLICATIONS

Ideal for residential, food/beverage service, rental fleets, service DI exchange, POE, rental programs, exchange systems, plating solutions, commercial and industrial applications

Metal finishing, oxidizing agents, corrosive fluids, electronics, pre-RO, process water, waste water, cooling towers, make-up water, polishing filters, primary filtration, high-purity pre- or post-filtration



## TECHNICAL SCHEMATICS



### PART IDENTIFICATION

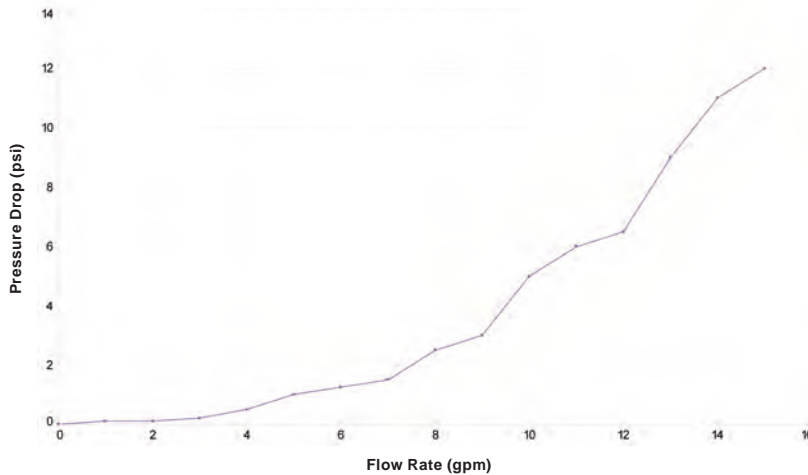
1. ONE-E3 Filtration System/Housing
2. In/Out Head for 1.050" Riser Pipe
3. 90 Degree Vertical Elbow With/without Machined Drain Port
4. Bypass Manifold
5. 1" MNPT Straight Connector
6. 1" MNPT 90 Degree Elbow Connector
7. 3/8" PEX Drain Valve Kit Assembly With Shut-off
8. PCB Umbrella Without Electronics

TEFLON TAPE THREADS  
DO NOT OVERTIGHTEN

DRAIN VALVE

## FILTER PERFORMANCE

E3 Antiscale Cartridge Flow Performance



Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates, system design and applications. Your results may vary. Micron ratings 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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## 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



## BETTER FILTRATION THERE'S NO COMPETITION

**CT-MEDIA05-FOAM:** Upflow expansion pad included with filter to promote consistent service flow rates and reduced pressure drop.

## WATER CHEMISTRY & LIMITATIONS

Maximum effective treatment flow rate	12 GPM
pH	6.5 to 8.5
Hardness, max.	75 grains (1,300 ppm CaCO <sub>3</sub> )
Temperature	41 to 140 °F (5–60 °C)
Chlorine	<2 ppm
Iron, ferrous	<0.1 mg/l
Manganese	<0.05 mg/l
Copper	<0.5 mg/l
Oil & Polyphosphates	Remove prior to this cartridge
H <sub>2</sub> S	Must be removed prior to this cartridge



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**BL**



**BL**

## BLUE SERIES FILTERS

The **Blue** series incorporates surface-modified carbon block filter technology that is highly effective at reducing bad taste, odor, and the reduction of chlorine and chloramines from potable drinking water. The filters are made using high performance coconut shell carbon, which has more micropores compared to other types of carbon.

Coupled with a unique binder system, these carbon block filters deliver a product with superior adsorption capacity and kinetic dynamics. The unique high capacity filters provide cost effective water filtration solutions in a size and configuration that offer ease-of-use, extended service life, and high capacity with a low pressure loss.

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.

All components and materials are made with FDA approved materials, manufactured from NSF 61 Certified Coconut Shell carbon, and are California Prop 65 Compliant. 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**.

Blue series filters are available in the following 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

### FEATURES

High-performance carbon

Unique binder system

Proprietary manufacturing process

Outer wrap of polypropylene

Netting of polyethylene

### BENEFITS

Exceptionally low pressure drop

High dirt holding capacity

Effective at reducing unwanted bad taste and odor, along with chlorine and chloramine taste and odor from potable drinking water

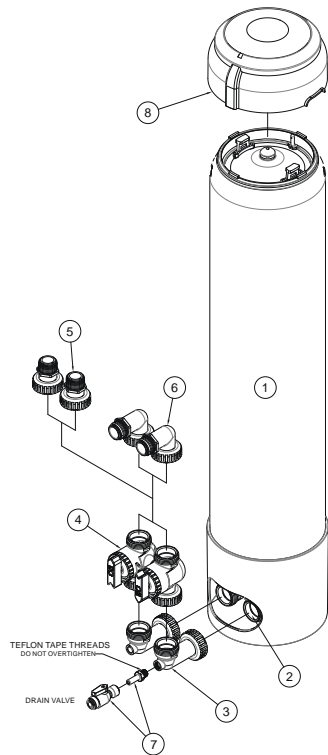
Excellent contaminant reductions

### APPLICATIONS

Ideal for residential, food service, commercial and industrial applications

Ideal as polishing or pre-filters in applications requiring fine filtration and high capacity

# 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



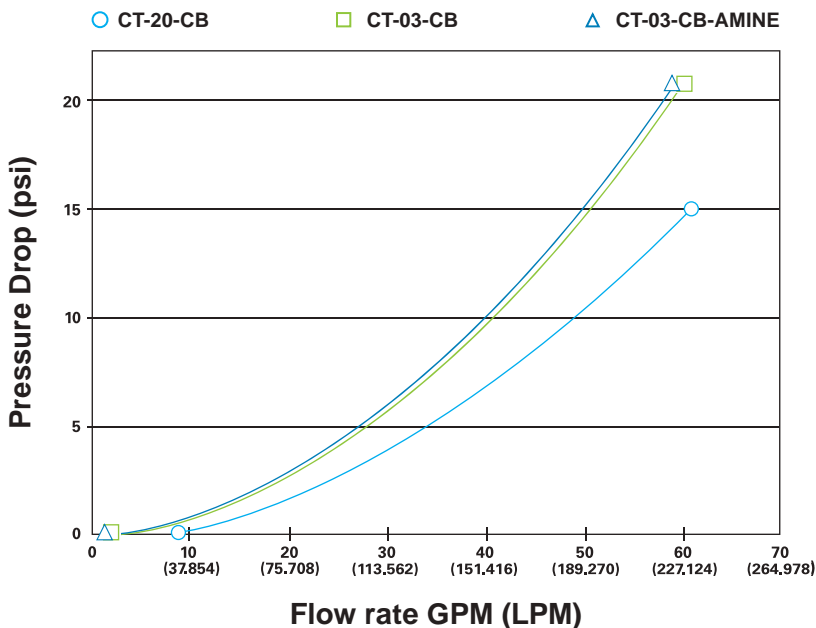
2. REMOVE SNAP RING



3. LIFT TOP CAP



# FILTER PERFORMANCE



# BETTER FILTRATION

THERE'S NO COMPETITION

### Nominal 3 micron (CT-03-CB) rated filter:

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

### Nominal 20 micron (CT-20-CB) rated filter:

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

### Nominal 3 micron Chloramine (CT-03-CB-AMINE) rated filter:

Treats >50,000 gallons (189,271 liters) of water at 7 gpm (26.50 LPM) with greater than 85% reduction (estimated capacity).



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Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates, system design and applications. Your results may vary. Micron ratings 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.



ACTIVATED CARBON PORE STRUCTURE

FUNCTIONAL GROUPS

For more information, visit [enpress.com](http://enpress.com) or [onefiltration.com](http://onefiltration.com)

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**GR**



**GR**

## 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 NanoAl™ 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, Fe<sub>3</sub>, 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-20xNanoAl-AG:** External 20 micron pleated pre-filter with Agion biostat technology and a NanoAl pleated inner filter

**CT-20xNanoAl-PAC-AG:** External 20 micron pleated pre-filter with Agion biostat technology and a NanoAl 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 NanoAl media	

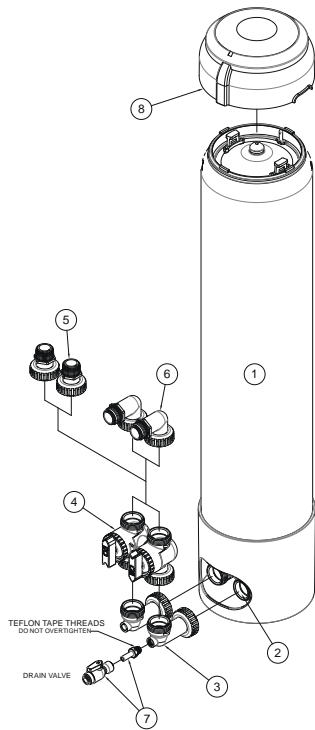
### BENEFITS

- 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

- ONE-E3 Filtration System / Housing
- In/Out Head for 1.050" Riser Pipe
- 90 Degree Vertical Elbow With/without Machined Drain Port
- Bypass Manifold
- 1" MNPT Straight Connector
- 1" MNPT 90 Degree Elbow Connector
- 3/8" PEX Drain Valve Kit Assembly With Shut-off
- 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



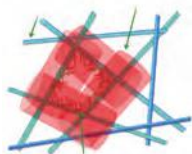
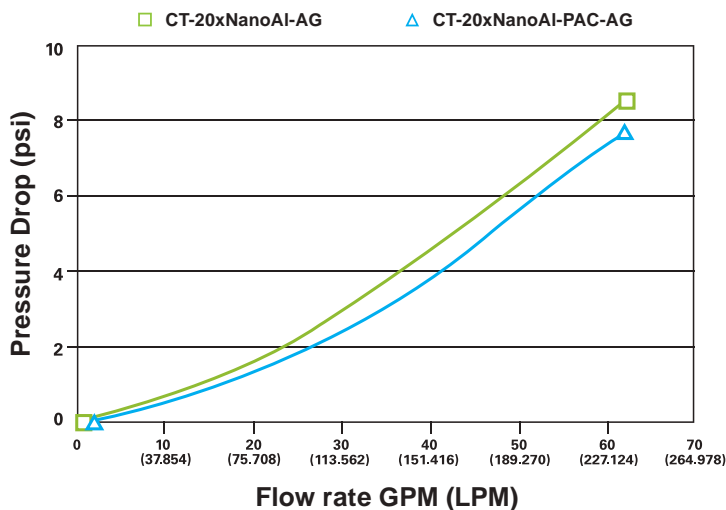
2. REMOVE SNAP RING



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

Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates, system design and applications. Your results may vary. Micron ratings 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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## 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 hydrophylic), 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

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**OR**



**OR**

## ORANGE SERIES FILTERS

**Orange** series filters are dual gradient double-pleated filtration solutions with extended life and use, with filtration levels of 1 absolute, 5, 10, and 20 microns nominal. The filters are designed with a large external and a smaller internal pre-filtration 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 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 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**.

Orange series filters are available in the following configurations:

**CT-RES1AP:** 1 micron absolute pleated filter

**CT-10x5:** External 10 micron pleated pre-filter, with 5 micron pleated internal filter

**CT-20x10:** External 20 micron pleated pre-filter, with 10 micron pleated internal filter

**CT-50x20:** External 50 micron pleated pre-filter, with 20 micron pleated internal filter

### FEATURES

Dual gradient double pleated filters

Double Buna-N O-ring seals

Filter belly bands

Durable polyester filter and polypropylene cap construction

### BENEFITS

Extended service life, contaminant removal, and dirt holding capacity

Low pressure drop = high flow

Ensures no bypass of contaminants and high chemical compatibility

Prevent collapsing of filters under high flow or contaminant load applications

Bacteria and chemical resistant

### APPLICATIONS

Ideal for residential, food service, rental fleets, commercial and industrial applications

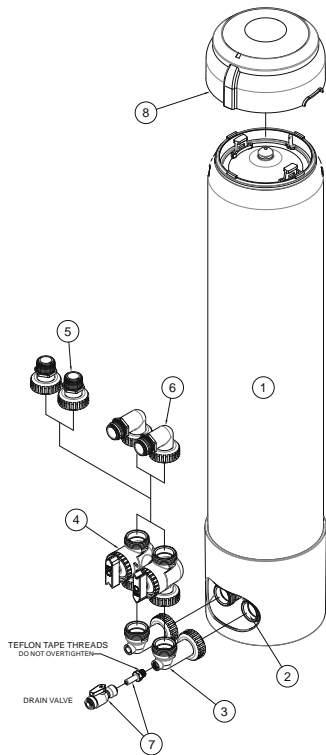
Make-up water, RO pre-filtration, cooling towers, chill water loops, metal finishing

Process water (turbidity, particulate, colloidal suspensions)

Reduction in frequency of replacing common 2½" or 4½" housings—bigger is better!

Other water-based fluid solutions

## 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



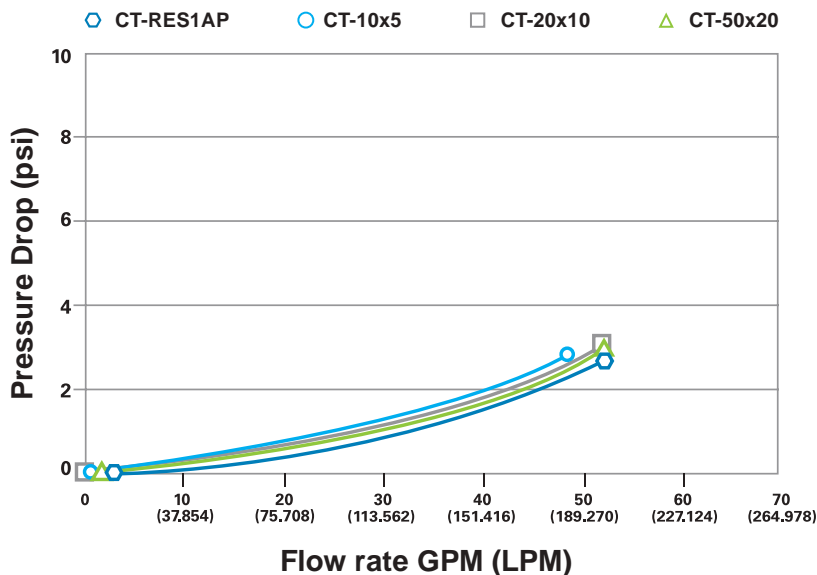
2. REMOVE SNAP RING



3. LIFT TOP CAP



## FILTER PERFORMANCE



## BETTER FILTRATION

### THERE'S NO COMPETITION

**Extended Service Life—6, 12, 18, or 24 months vs. 1–3:** The total surface area of the dual gradient orange series is approximately 100 ft<sup>2</sup>. A typical single layer 2½"x20" filter is approximately 7 ft<sup>2</sup> of filter media area; a 4½"x20" is approximately 16 ft<sup>2</sup>.

The orange series has nearly 6.5x more open area compared to standard 4.5"x20" filters (100 ft<sup>2</sup> vs. 16 ft<sup>2</sup>) and nearly 14.5x open area compared to standard 2.5"x20" filters (100 ft<sup>2</sup> vs. 7 ft<sup>2</sup>). More open area = a longer service life!



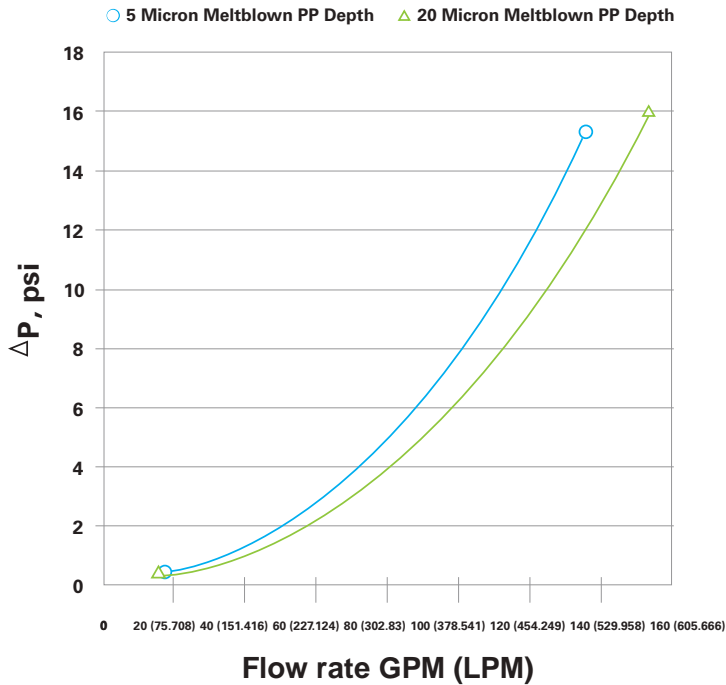
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## FILTER PERFORMANCE



## EASY REPLACEMENTS

NO TOOLS REQUIRED

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



2. REMOVE SNAP RING



3. LIFT TOP CAP



## BETTER FILTRATION THERE'S NO COMPETITION

Maximum pressure differential: 30 psi

Maximum flow rate of all other configurations: 100 GPM (380 LPM)

## AVAILABLE OPTIONS AND CONFIGURATIONS



ITEM #: CT-1/4NPTLID

Top cap option with pressure release valve and removal handles



ITEM #: CT-4.5LID

4.5" threaded top/bottom commercial cap with threaded connection



ITEM #: CT-RETAININGRING

Snap ring with I.D. tag connection



ITEM #: CT-4.5DRAIN  
CT-4.5ADAPTER

4.5" bottom drain plumbing for commercial filters



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**RE**



**RE RED SERIES FILTERS**

**Red** series filters are high flow rate pleated filtration solutions with extended life and use, with filtration levels of 1 absolute, 5, 20, 50, and 150 microns, along with an activated carbon (PAC) solution. The filters are designed with a large filtration layer that extends 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, red series 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. Cleanable from 5 microns and up and utilizing 100% cellulose free 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 NSF 61 and FDA Certified materials.

**Red series filters are available in the following configurations:**

- CT-COMM1A:** 1 micron absolute pleated PP
- CT-COMM05:** 5 micron PP pleated
- CT-COMM20:** 20 micron PP pleated
- CT-COMM50:** 50 micron PP pleated
- CT-COMM150:** 150 micron PP pleated
- CT-COMM-CARB:** Pleated activated carbon

**FEATURES**

- Durable and chemical resistant polypropylene filter and cap construction
- Double EPDM O-ring seals
- Filter belly bands
- Unique filter handle design

**BENEFITS**

Extended service life, contaminant removal, and dirt holding capacity	Insures no bypass of contaminants and high chemical compatibility
Low pressure drop = high flow	Bacteria and chemical resistant
Ease of filter removal from housing	Prevent collapsing of filters under high flow or contaminant load applications

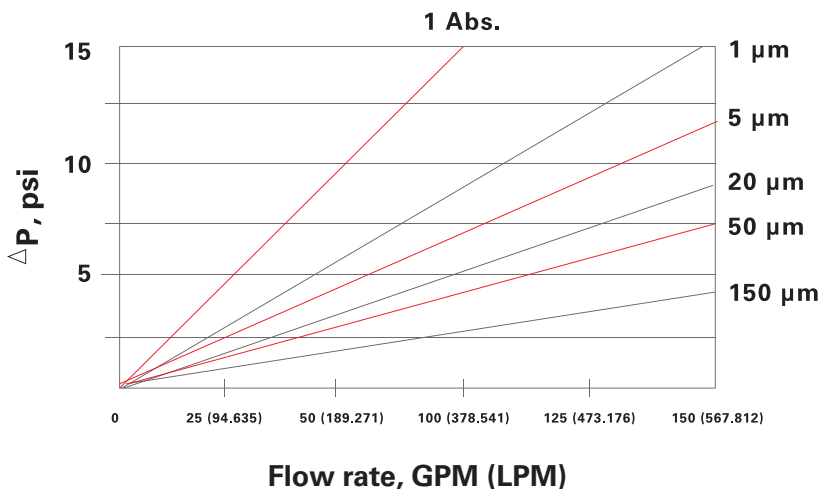
**APPLICATIONS**

- 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 and poultry water systems
- Replacement of bag filters with more surface area and capacity
- Other water-based fluid solutions



## FILTER PERFORMANCE

**Low Pressure Drop ONE™** filters are designed to minimize pressure drop by using 2" pipe fittings and large diameter center tubes (see chart for pressure drop data using pleated cartridges).



## EASY REPLACEMENTS

NO TOOLS REQUIRED

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



2. REMOVE SNAP RING



3. LIFT TOP CAP



## BETTER FILTRATION

THERE'S NO COMPETITION

**Activated carbon (PAC) filter:** Service flow rates up to 15 GPM (57 LPM) with a removal capacity up to 150,000 gallons and a 90% chlorine reduction—improving taste, odor, sediment, and chlorine

**Maximum pressure differential:** 40 psi

**Maximum flow rate of 1 micron absolute:** 50 GPM (190 LPM)

**Maximum flow rate of all other configurations:** 150 GPM (568 LPM)

## AVAILABLE OPTIONS AND CONFIGURATIONS



ITEM #: CT-1/4NPTLID

Top cap option with pressure release valve and removal handles



ITEM #: CT-4.5LID

4.5" threaded top/bottom commercial cap with threaded connection



ITEM #: CT-RETAININGRING

Snap ring with I.D. tag connection



ITEM #: CT-4.5DRAIN  
CT-4.5ADAPTER

4.5" bottom drain plumbing for commercial filters



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SV



SV

## SILVER SERIES FILTERS

**Silver** series filters are meltblown residential/light commercial filtration solutions for the **ONE-E3® Filtration System**. These POE (point-of-entry) filter series are high flow rate sediment filtration solutions for service flow rates up to 50 GPM (189 LPM). Silver series filters can be utilized with the ENPRESS E3 Filtration System with integrated bypass and 1" MNPT connections.

Exclusively designed for the Cartridge Tank®, these filters are a direct replacement for expensive stainless-steel housings used in RO pre-filtration, process water, cooling towers, and other commercial and industrial applications. Silver series filters have significant surface area, low pressure drop, and high flow rate capabilities. The filters are also ideal as polishing or pre-filters in applications requiring depth filtration for fine soft particulate filtration. Utilizing 100% meltblown polypropylene media, these are the filtration solutions of the future!

Each filter comes with a uniquely designed top cap with a handle for lightweight and easy removal, a bag for proper disposal, and a double O-ring connection. All components are manufactured from NSF 61 and FDA Certified materials.

Silver series filters are available in the following configurations:

**CT-RES05-MB:** 5 micron

**CT-RES20-MB:** 20 micron

### FEATURES

Durable and chemical resistant polypropylene filter and cap construction

Double EPDM O-ring seals

Unique filter handle design

### BENEFITS

Extended service life, contaminant removal, and dirt holding 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

Ease of filter removal from housing

### 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 and poultry water systems

Replacement of bag filters with more surface area and capacity

Other water-based fluid solutions

**EASY REPLACEMENT**  
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PL

## PURPLE SERIES FILTERS

**Purple** series filters are high flow rate meltblown polypropylene filtration solutions with extended life and use, with filtration levels of 5 and 20 microns. The filters have 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.

A direct replacement for expensive stainless steel housings, 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 NSF 61 and FDA Certified materials.

Purple series filters are available in the following configurations:

**CT-COMM05-MB:** 5 micron meltblown PP depth

**CT-COMM20-MB:** 20 micron meltblown PP depth

### FEATURES

Durable and chemical resistant polypropylene filter and cap construction

Double EPDM O-ring seals

Unique filter handle design

### BENEFITS

Extended service life, contaminant removal, and dirt holding 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

Ease of filter removal from housing

### 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 and poultry water systems

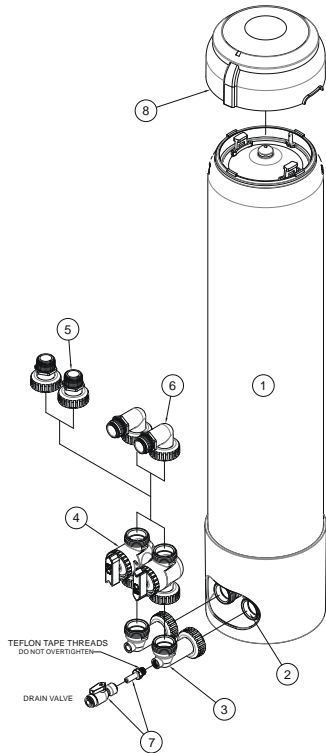
Replacement of bag filters with more surface area and capacity

Other water-based fluid solutions



PL

# 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



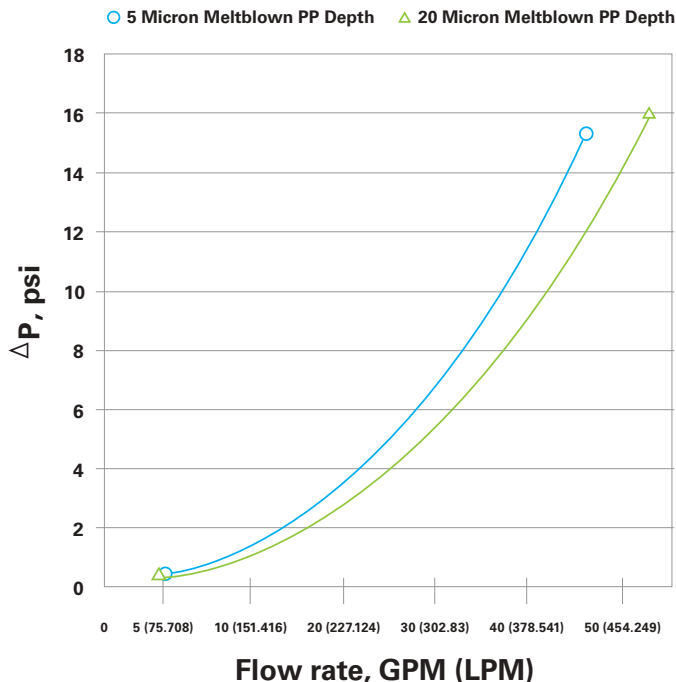
2. REMOVE SNAP RING



3. LIFT TOP CAP



# FILTER PERFORMANCE



# BETTER FILTRATION

## THERE'S NO COMPETITION

Maximum flow rate of all other configurations of 50 GPM (380 LPM).

Maximum pressure differential of 30 psi.

*Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates, system design and applications. Your results may vary. Micron ratings 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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**WH WHITE SERIES FILTERS**

**White** series filters are unique and high capacity granular media bottles that allow incorporation of multiple media options and solutions to be used. White series filters are 0.5 ft<sup>3</sup> empty bottles that allow for the filling of granular filtration media.

The white series design incorporates 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. This gives the system maximum flexibility whether installed in up flow or down flow service. The removable top cap has a locking feature that can be used for limiting access to the internal medias by the end user, and special rings on the bottom of the bottle allow for easy hanging of the cartridge and change-out of medias in applications like service DI exchange.

The white series is also available in a Mid-Vortech<sup>®</sup> configuration that splits the cartridge into equal 0.25 ft<sup>3</sup> chambers for separation and use of different medias, which increases the efficiency and usage of the media bed.

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

**White series filters are available in the following configurations:**

**CT-MEDIA05:** 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 media for up-flow or down-flow service due to use of Vortech technology

**FEATURES**

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

**BENEFITS**

Extended service life and high capacity contaminant removal	Up flow or down flow service and full utilization of the media bed
High chemical resistance	Ease of handling
Ensures no bypass of contaminants and high chemical compatibility	Effective at reducing unwanted bad taste and odor, along with chlorine and chloramine taste and odor from potable drinking water
Low pressure drop = high flow	Separation of multi-media configurations

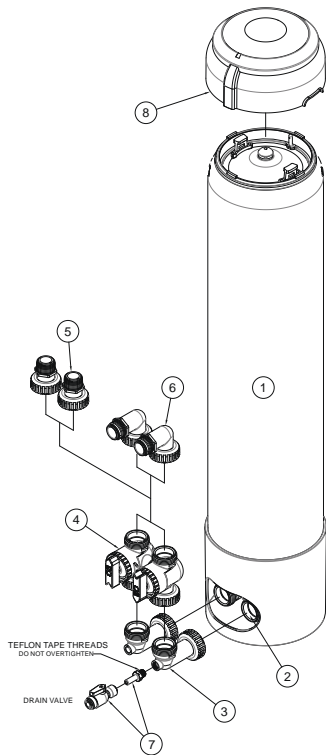
**APPLICATIONS**

Ideal for residential, food/beverage service, rental fleets, service DI exchange, POE, rental programs, exchange systems, plating solutions, commercial and industrial applications

Metal finishing, oxidizing agents, corrosive fluids, electronics, pre-RO, process water, waste water, cooling towers, make-up water, polishing filters, primary filtration, high-purity pre- or post-filtration



# 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



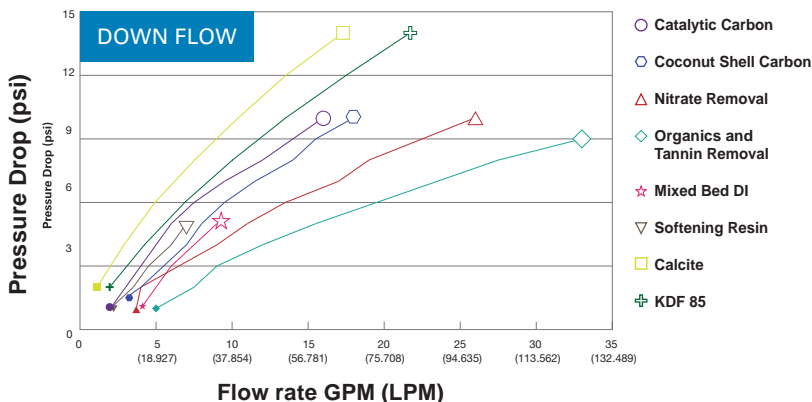
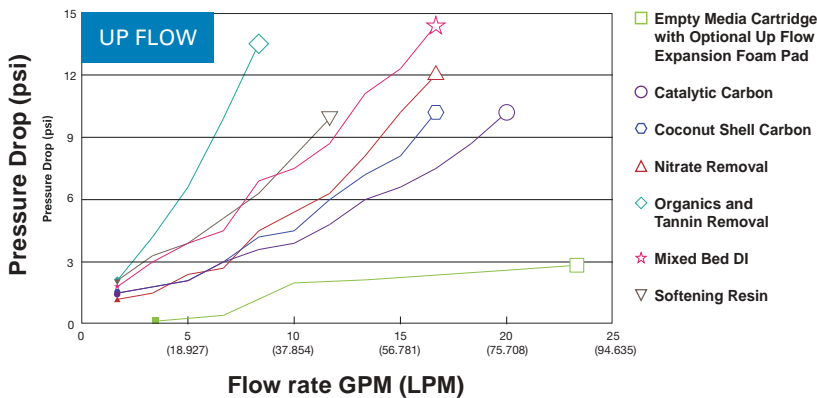
2. REMOVE SNAP RING



3. LIFT TOP CAP



# FILTER PERFORMANCE



# BETTER FILTRATION

## THERE'S NO COMPETITION

**Optional CT-MEDIA05-FOAM:** Optional up flow expansion foam pad can be added to filters used in up flow service applications to promote consistent service flow rates and reduced pressure drop.

**Optional CT-MEDIA05-SHIP:** Optional box and bag kit solution for shipping of spent cartridges to facilities for regeneration or reuse of bottle.

*Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates, system design and applications. Your results may vary. Micron ratings 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.*



ENPRESS®, ONE®, CARTRIDGE TANK®, E3®, AND UMBRELLA CAP® are trademarks of ENPRESS, LLC. US and International patents, and patent pending.

For more information, visit [enpress.com](http://enpress.com) or [onefiltration.com](http://onefiltration.com)

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**EASY REPLACEMENT**  
No Tools Means No Tools!



**YE**



**YE YELLOW SERIES FILTERS**

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

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

The meltblown 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 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**.

**Yellow series filters are available in the following configurations:**

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

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

**FEATURES**

- Outer pre-filter manufactured using 100% polypropylene yarn
- Precision pattern captures 20 or 50 microns or larger
- Extends 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
- Minimal pressure drop
- Consistent downstream flow without fiber migration

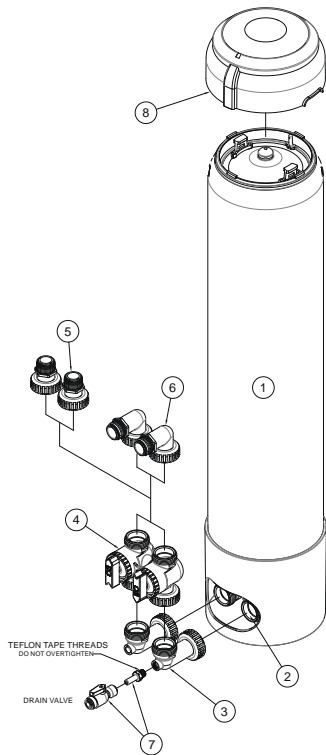
**BENEFITS**

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

**APPLICATIONS**

Potable water	Food/beverage
Pre-RO	Fine chemicals
Electronics	Metal finishing
Plating solutions	Oxidizing agents
Corrosive fluids	Gases
Concentrated acids and alkali	

## TECHNICAL SCHEMATICS



### PART IDENTIFICATION

1. ONE-E3 Filtration System / Housing
2. In/Out Head for 1.050" Riser Pipe
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## 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



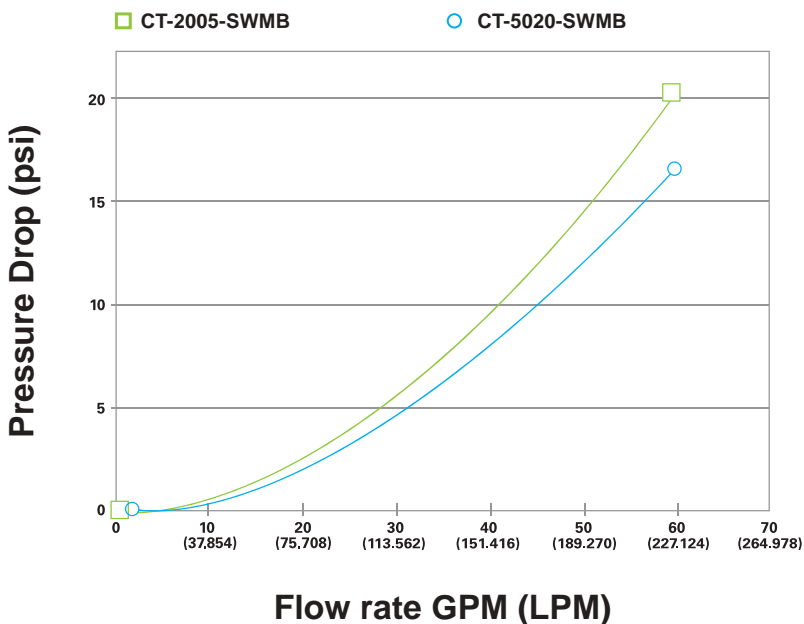
2. REMOVE SNAP RING



3. LIFT TOP CAP



## FILTER PERFORMANCE



## BETTER FILTRATION

THERE'S NO COMPETITION

**Extended service life:** 6, 12, 18, or 24 months vs. 1–3 months, with 3x media content and 2x surface area vs. less efficient options.

**2x surface area:** Wound in a precise pattern, which provides greater surface area, higher dirt-loading capacity, and greater efficiency than that of a standard wound cartridge. The precise pattern offers 30–50% improved efficiency. (ENPRESS surface area = 566.46 sq. in.; Standard 4.5x20 = 283.23 sq. in.) —2x the surface area.

**3x media content:** Both the ENPRESS 50x20 and 20x5 filters have a finished medium weight of 9 pounds, with a yarn content of 7.75 pounds. A standard 4.5x20 cartridge has a medium string weight of 2.5 pounds—3x the media content.



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*Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates, system design and applications. Your results may vary. Micron ratings 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.*

For more information, visit [enpress.com](http://enpress.com) or [onefiltration.com](http://onefiltration.com)

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*E3 Integrated Bypass and 1" MNPT Connection System With Drain Filter Options*

### Available Filter Configurations

BLUE SERIES	GREEN SERIES	ORANGE SERIES	WHITE SERIES	YELLOW SERIES	SILVER SERIES
<p><b>CT-03-CB</b> 3 micron carbon block with high capacity</p> <p><b>CT-20-CB</b> 20 micron carbon block with high porosity/low pressure drop</p> <p><b>CT-03-CB-AMINE</b> 3 micron carbon block; chloramine reduction</p>	<p><b>CT-20NANO-AG</b> External 20 micron pleated pre-filter with NanoAI™ pleated inner filter w/ Agion® Biostat</p> <p><b>CT-20NANO-PAC-AG</b> External 20 micron pleated pre-filter, with NanoAI™ PAC pleated inner filter w/ Agion® Biostat and carbon block core</p>	<p><b>CT-1005</b> External 10 micron pleated pre-filter with 5 micron pleated internal filter</p> <p><b>CT-2010</b> External 20 micron pleated pre-filter with 10 micron pleated internal filter</p> <p><b>CT-5020</b> External 50 micron pleated pre-filter with 20 micron pleated internal filter</p>	<p><b>CT-MEDIA05</b> Full 0.5 ft3 configuration; able to be filled with any media for up-flow or down-flow service due to use of Vortech® technology</p> <p><b>CT-MEDIA05-MID</b> Full 0.5 ft3 configuration with Mid-Vortech® separation plate; able to be filled with any media for up-flow or down-flow service due to use of Vortech® technology</p>	<p><b>CT-2005-SWMB</b> External 20 micron string wound pre-filter with 5 micron meltblown core</p> <p><b>CT-5020-SWMB</b> External 50 micron string wound pre-filter with 20 micron meltblown core</p>	<p><b>CT-RES05-MB</b> 5 micron meltblown PP depth</p> <p><b>CT-RES20-MB</b> 20 micron meltblown PP depth</p>

BLUE SERIES	GREEN SERIES	ORANGE SERIES	WHITE SERIES	YELLOW SERIES	SILVER SERIES
<b>Features</b>					
<ul style="list-style-type: none"> <li>High-performance carbon</li> <li>Unique binder system</li> <li>Proprietary manufacturing process</li> <li>Double Buna-N O-ring seals</li> <li>Polypropylene outer wrap</li> <li>Netting of polyethylene</li> </ul>	<ul style="list-style-type: none"> <li>Dual gradient double pleated filters with electropositively charged NanoAl™ media</li> <li>Double Buna-N O-ring seals</li> <li>Filter belly bands</li> <li>PAC solution option</li> <li>Agion® antimicrobial technology</li> </ul>	<ul style="list-style-type: none"> <li>Dual gradient double pleated filters</li> <li>Double Buna-N O-ring seals</li> <li>Filter belly bands</li> <li>Durable polyester filter and polypropylene cap construction</li> </ul>	<ul style="list-style-type: none"> <li>0.5 cu ft empty media bottle</li> <li>Polyethylene construction</li> <li>Vortech® distributor plate</li> <li>Locking or removable top cap</li> <li>Rings on bottom of bottle</li> <li>Double Buna-N O-ring seals</li> <li>Mid-Vortech® distributor plate option</li> </ul>	<ul style="list-style-type: none"> <li>Outer pre-filter manufactured using 100% polypropylene yarn</li> <li>Outer filter captures fine sediment, sand, silt, rust and scale particles</li> <li>Melt blown inner filter manufactured using thermally bonded polypropylene fibers</li> </ul>	<ul style="list-style-type: none"> <li>Durable and chemical resistant</li> <li>Polypropylene filter and cap construction</li> <li>Double EPDM O-ring seals</li> <li>Unique filter handle design</li> </ul>
<b>Benefits</b>					
<ul style="list-style-type: none"> <li>Exceptionally low pressure drop</li> <li>High dirt holding capacity</li> <li>Excellent contaminant reductions</li> </ul>	<ul style="list-style-type: none"> <li>Remove contaminants from 1 to 0.2 microns</li> <li>Higher flow rate and loading capacity</li> <li>Reduces unwanted bad taste and odor from potable drinking water</li> <li>24/7 resistance of microbe growth</li> </ul>	<ul style="list-style-type: none"> <li>Extended service life, contaminant removal, and dirt holding capacity</li> <li>Ensures no bypass of contaminants and high chemical compatibility</li> <li>Prevents collapsing of filters under high flow or contaminant load applications</li> <li>Bacteria and chemical resistant filter</li> </ul>	<ul style="list-style-type: none"> <li>Extended service life and high capacity contaminant removal</li> <li>High chemical resistance</li> <li>Up-flow or down-flow service and full utilization of the media bed</li> <li>Ease of handling</li> <li>Ensures no bypass of contaminants and high chemical compatibility</li> <li>Separation of multi-media configurations</li> </ul>	<ul style="list-style-type: none"> <li>Microorganism resistant NSF component</li> <li>Nominally rated as stated</li> <li>High purity</li> <li>Excellent chemical resistance</li> <li>High dirt holding capacity</li> <li>Graded density</li> </ul>	<ul style="list-style-type: none"> <li>Extended service life, contaminant removal and dirt holding capacity</li> <li>Insures no bypass of contaminants and high chemical compatibility</li> <li>Prevent collapsing of filters under high flow or contaminant load applications</li> <li>Bacteria and chemical resistant</li> </ul>
<b>Applications</b>					
<ul style="list-style-type: none"> <li>Ideal for residential, food service, commercial and industrial applications</li> <li>Ideal as polishing or pre-filters in applications requiring fine filtration and high capacity</li> <li>Reduction of chlorine, chloramine, taste and odor</li> </ul>	<ul style="list-style-type: none"> <li>Primary filtration in lieu of microporous membranes</li> <li>Make-up water (particulate, microbial control)</li> <li>Polishing filters (carbon fines, emulsified oil removal)</li> <li>RO prefiltration (SDI reduction)</li> <li>Process water (turbidity, particulate, colloidal suspensions)</li> <li>Waste water (biologicals, proteins, dyes)</li> <li>Cooling towers, chill water loops (iron removal)</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for residential, food service, rental fleets, commercial and industrial applications</li> <li>Make-up water, RO pre-filtration, cooling towers, chill water loops, metal finishing process water (turbidity, particulate, colloidal suspensions)</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for residential, food/beverage service, rental fleets, service DI exchange, plating solutions, commercial and industrial applications</li> <li>Metal finishing, oxidizing agents, corrosive fluids, electronics, pre-RO, process water, waste water, cooling towers, make-up water, polishing filters, primary filtration</li> </ul>	<ul style="list-style-type: none"> <li>Potable water, food/beverage, pre-RO, fine chemicals, electronics, metal finishing, plating solutions, oxidizing agents, corrosive fluids, gases, concentrated acids and alkali</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for residential, food service, rental fleets, commercial and industrial applications</li> <li>Make-up water, RO pre-filtration, cooling towers, chill water loops, metal finishing process water (turbidity, particulate, colloidal suspensions)</li> <li>Community water, livestock or poultry water systems</li> <li>Replacement of bag filters with more surface area and capacity</li> </ul>



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