



# Introducing our revolutionary new Cartridge Tank™ Filtration System.

Say goodbye to small and inefficient housings. Get rid of expensive stainless steel housings. The ENPRESS **Cartridge**Tank™ offers extended life and service, and a more costeffective and efficient filtration solution.

This revolutionary, patent pending filtration system features easy-to-access top and bottom openings for use with various filtration connections and solutions. Lightweight and cost effective with multiple configuration options, this is the filtration solution of the future...100% non-metallic!

Utilizing ENPRESS' patented, industry exclusive liner design, the vessel features three optional top and bottom opening connections for use with a pressure release valve configuration or a control valve/in-out head, along with bottom or top drain plumbing connections for residential and light commercial installations. The patent pending, no tools necessary snapring design makes it easy to remove top and bottom opening connections to access the internal filtration solution. Full radial seal top and bottom caps make replacement simple.

The ENPRESS **Cartridge Tank™** is a direct replacement for small and inefficient 2.5" or 4.5" housings, or expensive Stainless Steel cartridge housings.

Designed for easy access, the Pressure Release top opening with plumbing connections at the bottom allows the end-user to access and service the filter without disrupting the plumbing. The **Cartridge Tank™** is a high performance, NSF 61 listed device and has been tested to 150 psi operating pressure.

#### **CARTRIDGE TANK APPLICATIONS**

- Whole house POE requirements whether for city or well water applications
- Extreme loading conditions, RO systems and any other pretreatment applications where high service flow and low pressure drop requirements are required or desirable
- For customers that are tired of having to change their small 2.5 or 4" filters on a weekly or monthly basis.
- Replacement solution for expensive stainless steel housings...
   100% plastic design.
- Ideal for most problem water issues where particulate contaminated water is concerned, with lower shear velocity these filters can load properly with particulates, unlike conventional filtration.

ONE™ is an ENPRESS Filtration Technology















The 2.5" threaded PVC connection drain features a glue socket of 1.315" for multiple pipe requirement connections; while the 4.5" threaded PVC drain features a full 2.375" pipe socket connection.

All glue joints and connections are contained underneath and/ or inside the vessel base, providing clean connections and visibly attractive system suitable for homeowners, businesses and consumers.

**Cartridge Tank™ Filtration System** for Point-of-Entry (POE) installations and applications. With multiple configuration options, this is the filtration solution of the future. Features include:

Easy-to-access top and bottom opening for use with **multiple filtration connections** and solutions - in a lightweight and cost effective package.

100% non-metallic, multiple filtration solutions

Three optional top and bottom opening connections for use with a pressure release valve configuration, a control valve or in-out head, along with bottom or top drain plumbing connections for residential or light commercial installations...extending the flexibility of the system to the end-user.

2.5" threaded PVC connection drain features a glue socket of 1.315" for multiple pipe requirement connections; while the 4.5" threaded PVC drain features a full 2.375" pipe socket connection.

All glue joints and connections are contained underneath and inside the vessel base, for clean connections and a visibly attractive systems for homeowners, businesses and consumers.

Patent pending no tools necessary snapring design makes it easy to access the internal filtration solution. Full radial seal top and bottom caps make replacement simple.

Ideal design for cartridge use is the **Pressure Release top opening with the plumbing connections at the bottom**, so the end-user does not have to disrupt plumbing to access and service the filter.

The Cartridge Tank™ is tested to 150 psi operating pressure for high performance and is NSF 61 listed.

















#### For more information, visit oneFiltration.com



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This pressure vessel is tested and certified by NSF International against NSF/ANSI Standard 61 for materials and structural integrity requirements

**COMPONENT** 

ELLC #001 - 08/2011

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## ONE™ simplifies the filtration process and offers a variety of options to suit your needs.

ENPRESS Cartridge Tank™ is a direct replacement for small and inefficient 2.5" or 4.5" housings, or expensive Stainless Steel cartridge housings, specifically designed for Residential, Light Commercial, and Commercial installations and applications.

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.

Coupled with a unique binder system, 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, Manufactured from NSF 61 Certified Coconut Shell carbon, and are California Prop 65 Compliant.

# 

#### Available in two filter configurations:

- 3 Micron Carbon Block, High Capacity\*
- 20 Micron Carbon Block, High Porosity/Low Pressure Drop

#### **Blue Filtration Series**

**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

#### **Applications**

Ideal for Residential, Food Service, Commercial and Industrial applications

Excellent contaminant reductions

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

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

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<sup>\*</sup>Nominal 3 micron rated filter has been 3rd party tested to treat 250,000 gallons (946,353 Liters) of water @ 7 gpm (26.50 LPM) with 2 ppm of chlorine.

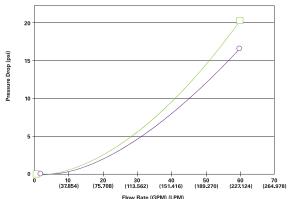




ONE™ simplifies the filtration process and offers a variety of options to suit your needs.

This Yellow Filtration Series offers a combination filter composed of an outer layer of Polypropylene String with a Melt blown Polypropylene core. These dual media filters provide a cost effective, extended-life product capable of capturing a broad range of particulates with high service flow rates up to 60 gpm with less than 15 Delta P.

#### 20 x 05 String Wound/Melt Blown CT Filter ○ 50 x 20 String Wound/Melt Blown CT Filter



#### Available in two filter configurations:

- 20 Micron String Wound Outer Layer with a 5 micron Meltblown PP Core
- 50 Micron String Wound Outer Layer with a 20 micron Meltblown PP Core

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.

Estimated capacity using 2 ppm free chlorine with greater than 90% reduction.

Performance data has not been tested validated by NSF.

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

#### **Yellow Filtration Series**

#### **Features**

Outer pre-filter manufactured using 100% polypropylene yarn

Precision pattern captures 20 or 50 microns

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 w/out fiber migration

#### **Benefits**

Microorganism resistant

NSF component

Nominally rated as stated

High purity

Excellent chemical resistance

High dirt holding capacity

Graded density

#### **Applications**

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

Concentrated acids and alkali



ONE<sup>™</sup> simplifies the filtration process and offers a variety of options to suit your needs. The Orange and Green Filtration Series offer:

Higher water quality and longer life of the filtration system, due to a lower shear water velocity as the raw water passes through the filter, to allow for more contact time and more interaction with the extensive surface area of the filters.

The filters will outperform competitive filtration solutions in all turbidity applications including insoluable scale, Fe3, bacterial iron slime, colloidal solids, silt, rust, and other particle filtration.

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 into the ENPRESS Cartridge Tank™ plumbing adapter for the 2.5" plumbing connections and 1 ¼" flow rates.



#### **Orange Filtration Series**

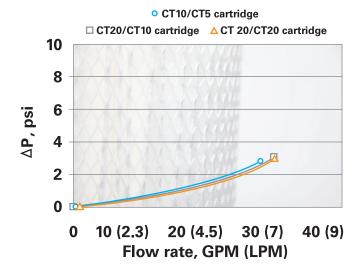
The **Orange Filtration Series** are offered in double pleated layers for extended life and use, with filtration levels of 5, 10 and 20 microns, each with a larger pre-filtration layer on the outside and the smaller on the inside, to extend filtration level contamination.

#### 3 filter configurations:

- 5 micron inner filter, outer 10 micron pleated pre-filter layer
- 10 micron inner filter, outer 20 micron pleated pre-filter layer
- 20 micron inner filter, outer 20 micron pleated pre-filter layer

#### **Based on testing performance:**

- 30gpm flow rate, pressure loss through the filters is less than 3psi
- 10gpm flow rate, pressure loss through the filters is less than 1psi.



Note that while testing was performed under standard laboratory conditions, actual performance may vary.

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The **Green Filtration Series** are offered in double pleated layers for extended life and use, with a unique filtration solution, each with a larger filtration layer on the outside and the smaller on the inside, to extend filtration level contamination.

ENPRESS' **Cartridge Tank™** series of pleated filter cartridges 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 & low pres-sure drop at levels unmatched in today's filtration marketplace. In addition, all filter cartridges are assembled using only FDA-compliant materials.

#### **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)

#### **Materials of Construction:**

Media: Nano Al™ Media

Polypropylene (pre-filter layer)

Support: Polypropylene, Hot Melt

O-rings: Buna-N

#### **Operating Conditions:**

Temperature: 39-150°F (4-66°C)

pH Range: 5 to 10

## 3 filter configurations, each with a 20 micron pre-filter:

- NanoAl<sup>TM</sup> white
- NanoAl™ with Agion® Biostat,
- PAC version of NanoAl™ with Agion® Biostat

#### **Based on testing performance:**

- 35gpm flow rate, pressure loss through the filters is less than 8psi
- 10gpm flow rate, pressure loss through the filters is less than 1psi.

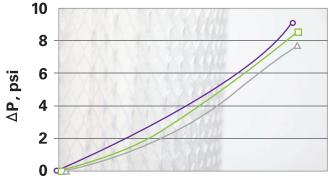
#### **Retention Characteristics:**

- Silt Density Index (SDI) < 0.5
- >99.99% Efficiency at 0.2 microns (latex spheres)
- >4 LRV Cyst Retention
- >5 LRV Klebsiella terrigena Retention
- <0.01 NTU until Terminal ΔP: 35 psid (2.4 bar)</li>
- Dirt Holding Capacity: 82 g/ft2
- PAC version tested to NSF 42 standards, >200,000 gallons or 757,000 liters treatment capacity (third party testing)

|   |       | CT20/Nano CT20/Nano-AG |            | CT20/NanoPAC-AG |  |
|---|-------|------------------------|------------|-----------------|--|
| Surface Area                                  | ft²   | 44                     | 44         | 44              |  |
|   | (m²)  | 4.1                    | 4.1        | 4.1             |  |
| Dirt Holding<br>Capacity                      | КG    | 4.0                    | 4.6        | 4.9             |  |
| Efficiency w/A2<br>Fine Test Dust<br>( Ratio) |       | >35,000                | >35,000    | >35,000         |  |
| Dimensions                                    | in    | 6 x 30                 | 6 × 30     | 6 x 30          |  |
|   | (cm)  | 15.25 x 76             | 15.25 × 76 | 15.25 x 76      |  |
| Suggested                                     | gpm   | 22                     | 22         | 22              |  |
| Flow Rate                                     | (Ipm) | 83                     | 83         | 83              |  |
| Maximum                                       | gpm   | 35                     | 35         | 35              |  |
| Flow Rate                                     | (lpm) | 132.5                  | 132.5      | 132.5           |  |

| Type              | Flow Rate (gpm) | Type of Water        | Turbidity in | Turbidity Out | SDI <sub>m</sub> ^ |
|-------------------|-----------------|----------------------|--------------|---------------|--------------------|
| CT-20/NANO        | 4               | A2 dust*in RO water  | 350.00       | <0.01         | 0.2 ± 0.3°         |
|                   |                 | Municipal Tap water  | 0.57         | <0.01         | 0.2 ± 0.3°         |
| CT-20/NANO-AG     | 4               | A2 dust* in RO water | 350.00       | <0.01         | 0.2 ± 0.3°         |
|                   |                 | Municipal Tap water  | 0.54         | <0.01         | 0.2 ± 0.3°         |
| CT-20/NANO-PAC-AG | 4               | A2 dust* in RO water | 350.00       | <0.01         | 0.2 ± 0.3°         |
|                   |                 | Municipal Tap water  | 0.57         | <0.01         | 0.2 ± 0.3°         |

## CT20/Nano cartridge □ CT20/Nano-AG cartridge △ CT20/NanoPAC-AG cartridge



0 10 (2.3) 20 (4.5) 30 (7) 40 (9) Flow rate, GPM (LPM)

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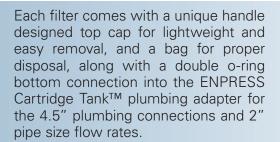


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ONE™ simplifies the filtration process and offers a variety of options to suit your needs. The Purple and Red Filtration Series offer:

Higher water quality and longer life of the filtration system, due to a lower shear water velocity as the raw water passes through the filter, to allow for more contact time and more interaction with the extensive surface area of the filters.



| Specifications                     |                       |  |  |
|------------------------------------|-----------------------|--|--|
| Maximum flow rate (Pleated)        | 150 GPM* (34 M3/hr.)  |  |  |
| Max. flow rate (1 Micron Absolute) | 50 GPM (11.3 M3/hr.)  |  |  |
| Max. flow rate (Depth)             | 100 GPM (22.7 M3/hr.) |  |  |
| Max. flow rate (Activated Carbon)  | 15 GPM (3.4 M3/hr.)   |  |  |
| Cartridge end caps                 | Glass reinforced PP   |  |  |
| O-rings (cartridge)                | EPDM                  |  |  |

#### **Purple Filtration Series**

The Meltblown Polypropylene Depth, also known as the **Purple Filtration Series**, are ideal for reduction of soft particulate and high service flow rates up to 100gpm.

**ONE**<sup>™</sup> Purple and Red Filtration Series are tough, durable and designed for a variety of residential and commercial uses, including:

#### **Common 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

#### 2 filter configurations:

- 5 micron
- 20 micron filtration levels

|                               | Purple        | Red           | Red                           |
|-------------------------------|---------------|---------------|-------------------------------|
| Media                         | PP or PE      | PP or PE      | Activated carbon              |
| End caps                      | PP + FG       | PP            | PP + FG                       |
| Center tubes                  | PP            | PP            | PP                            |
| Maximum flow rate GPM (M³/hr) | 150 (34)      | 100 (23)      | 15 (7.4)                      |
| Maximum temperature           | 125°F (52°C)  | 125°F (52°C)  | 125°F (52°C)                  |
| Maximum°ΔP (psi)              | 30            | 40            | 30                            |
| Chemical resistance           | Excellent     | Excellent     | Not a factor (for water only) |
| Length (media)                | 26-1/4"       | 26-1/4"       | 26-1/4"                       |
| O-rings (dual)                | EPDM          | EPDM          | EPDM                          |
| Shipping weight (lbs.)        | 5             | 5             | 5                             |
| Carton dimensions             | 7" x 7" x 31" | 7" x 7" x 31" | 7" x 7" x 31"                 |
| Micron ratings                | 1A, 5* 20**   | 5, 20         | 5                             |



## ONE™ simplifies the filtration process and offers a variety of options to suit your needs.

The **Red Filtration Series** are pleated Polypropylene cartridges, with multiple levels of filtration flexibility:

The PAC cartridge is for a service flow rate of 15gpm with a removal capacity of 140,000 gallons, with a 90% chlorine reduction. This dramatically improves the quality of water by reducing chlorine, bad tastes, foul odors and sediment.

The pleated cartridges are for service flow rates up to 150gpm, with low pressure drop of less than 15psi, are 100% cellulose free media, and cleanable 5 micron and up.

#### **Red Filtration Series**

Install **ONE**<sup>™</sup> filters in parallel to achieve higher flow rates or in a series for step filtration, allowing various micron ratings in each Cartridge Tank. This makes ONE filters an attractive option for those applications that require versatility.

#### 4 filter configurations:

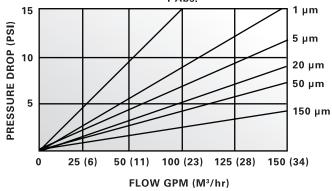
- 20 micron
- 5 micron
- 1 micron absolute
- Activated Carbon (PAC) impregnated cartridge.

#### **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)

#### **Installation and Replacement:**

The ONE Cartridge Tank Filtration System is designed to be simple and easy to install and service. In combination with our patent pending no tools necessary snap-ring design and Cartridge Tank solution, ONE filtration makes easy look easy.



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