



Titan PuraSep®

PECO Series 75 Gas Filter-Separator

PECO Series 70 Dry Gas Filter

ISO 9001



ENGINEERING YOUR SUCCESS.

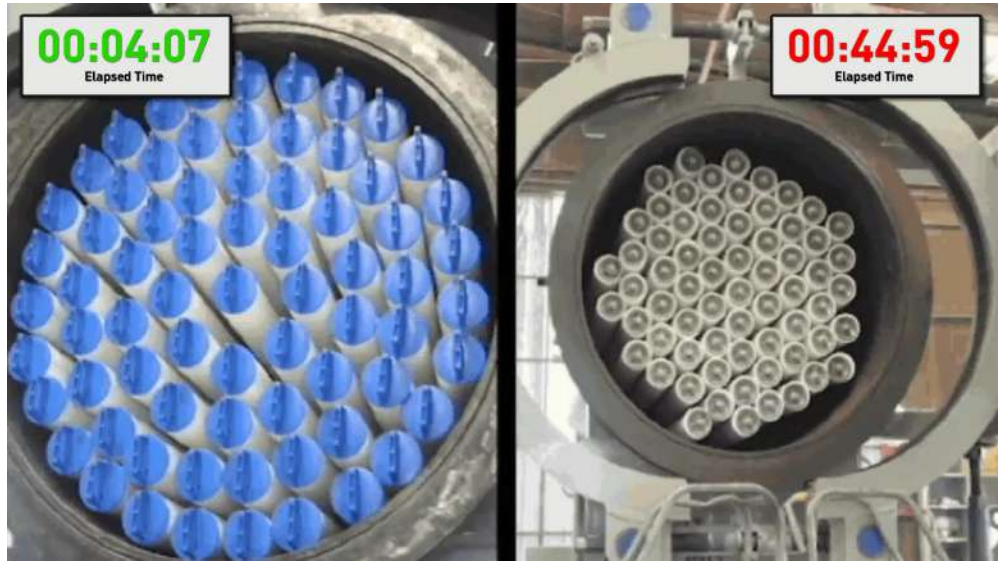
REDUCE CARTRIDGE CHANGE-OUT TIME

by 85% or more with Titan PuraSep

Filter-Separator technology was introduced by PECO in 1953 and has been an integral part of the industry ever since.

Parker now takes the PECO design to a whole new level, once again demonstrating our commitment to provide the best possible technology to our customers.

The Titan PuraSep is the first of its kind quick change filter-separator Series 75 or dry gas filter Series 70. This new design truly revolutionizes the product and promotes Parker's direction of launching products that are safer, faster and easier to operate as well as provide value in reducing overall operational/maintenance costs for our customers. The design incorporates EZ-Align® to greatly reduce cartridge change-out time by 85% or more compared to the traditional design.



Comparison of time to change out cartridges in a 48" Titan PuraSep vessel (left image) vs. a 48" traditional filter-sep vessel (right image). Does not include closure opening or closing time.

THE FIRST OF ITS KIND QUICK CHANGE FILTER-SEP

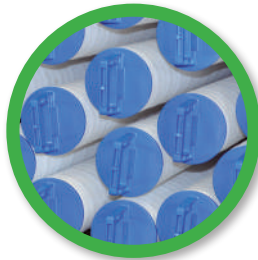
Say **YES** to a hassle free design!



No Washer/Nut/Thread Assembly

SAFER

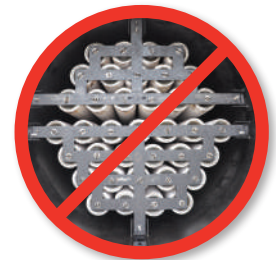
- Reduces operator contact with hazardous materials
- Minimizes confined space entry



User friendly design with fast install and removal

FASTER

- No tools required to secure cartridges
- Quick cartridge change-out
- Minimizes maintenance time and costs



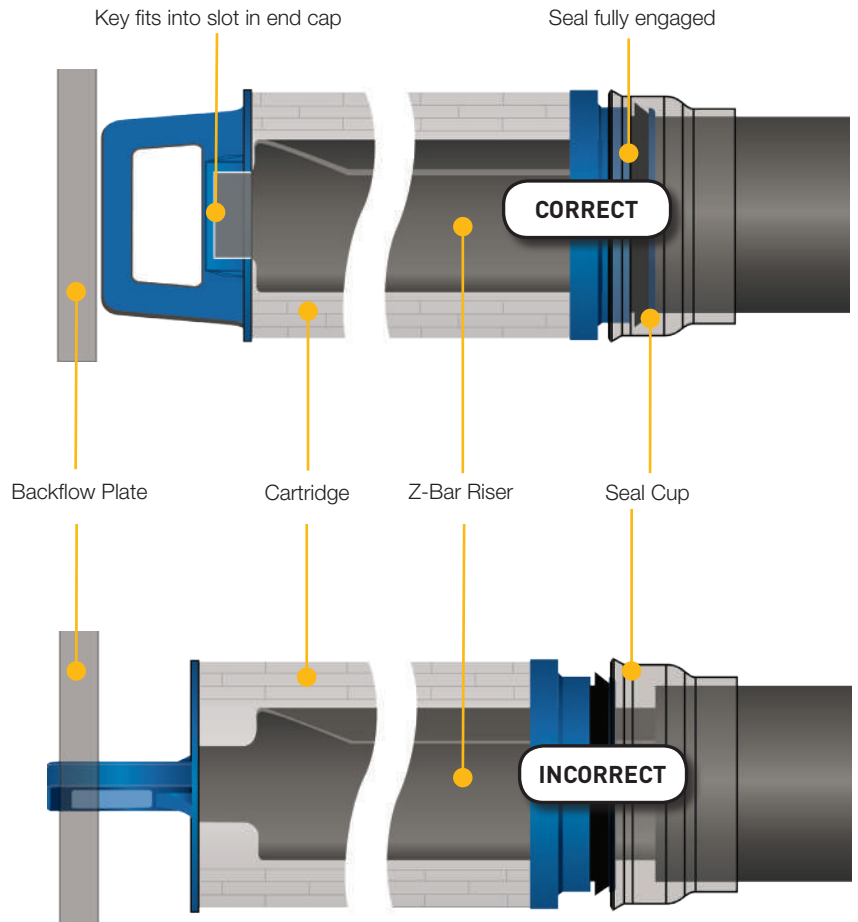
No Complicated Spider Assembly

BETTER

- EZ-Align holds cartridge concentric with the sealing surface to ensure cartridges do not sag
- State-of-the-art pressure loading enhancement seal to ensure no gas bypass

FEATURES

- **Two Stage Design**
 - 1st stage removes bulk liquids and particulate
 - 2nd stage removes coalesced liquids
- **Full End Closure**
 - Minimizes confined space entry
- **Backflow Plate**
 - No tools required to remove
 - Ensures cartridge installed correctly
 - Prevents cartridge from unseating
- **EZ-Align**
 - Holds cartridge concentric to riser
 - Prevents cartridge sagging
 - Allows for quick change-out of cartridges
 - Ensures cartridge sealing
- **Gas Entry on Pipe Risers**
 - Knocks out bulk liquids
 - Decreases turbulent gas entry
 - Protects cartridges from damage
- **Redesigned Cartridge End Caps**
 - No tools required to install or remove cartridges
- **Advanced Cartridge Technology**
 - PEACH® depth, helical style design
 - Pleated, large surface area style design
- **High Performance Mist Extraction Device** (on 75HTL & 75VTL versions)
 - Unique “wave” vane profile
 - Resists plugging by semi-solid contaminants
- **Dual Downcomers to 1st Stage Sump** (on 75HTL version)
 - Eliminates vapor locking during upset conditions



Backflow plate prevents the vessel door from closing if any cartridge is not aligned and the seal is not fully engaged.

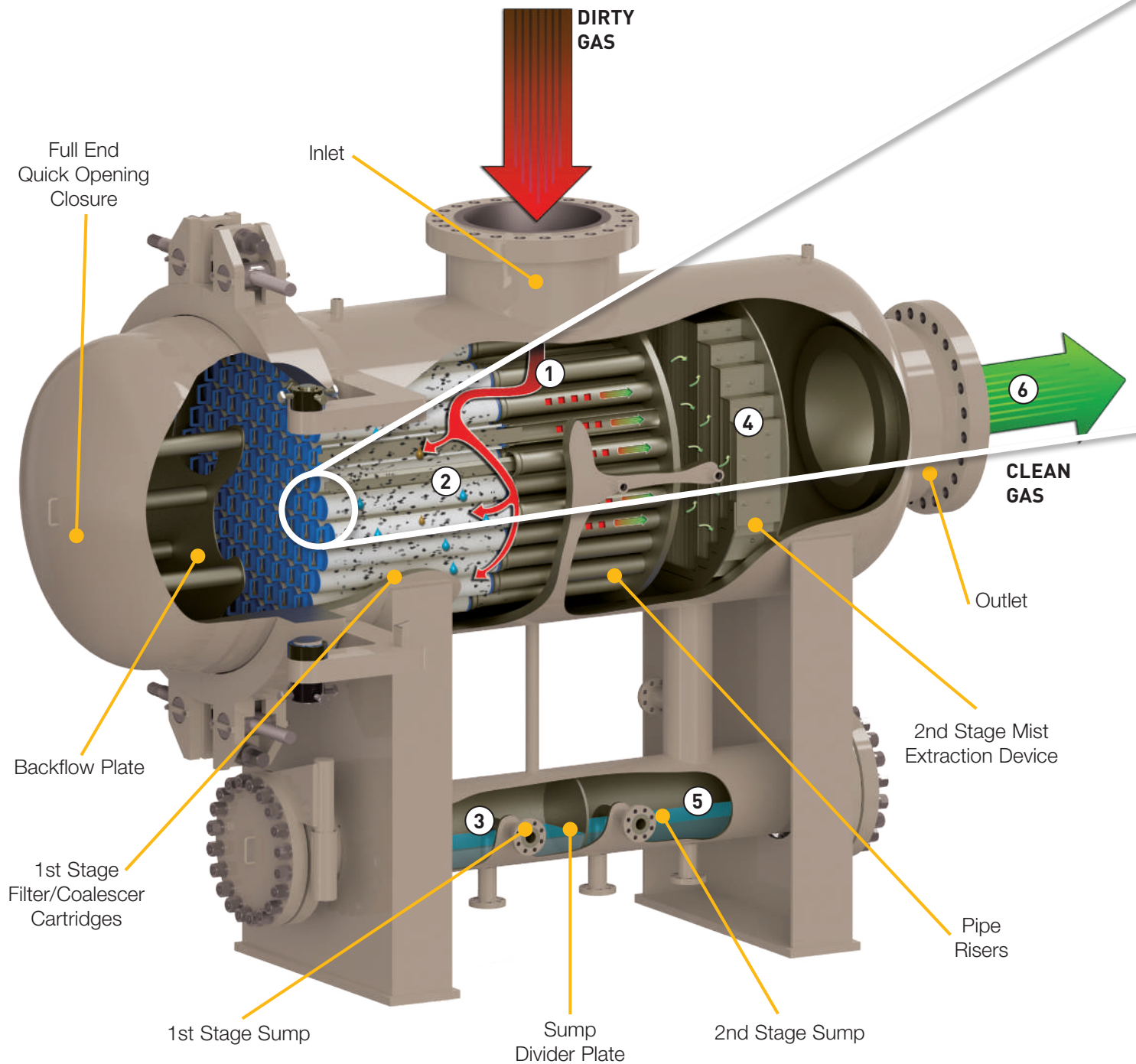
CARTRIDGE ALIGNMENT

Z-Bar Riser Alignment Key fits into slot in cartridge end cap

EZ-Align®

EZ-Align features an alignment key between the vessel riser and cartridge end cap. This allows the cartridge to be held concentric to the riser and will prevent sagging as the cartridge becomes loaded with liquid wetted contaminants. It also ensures that the cartridge gasket seal remains firm against the riser seal cup wall so bypass does not occur. Even better, no tools are required to install or remove cartridges, making change-outs a breeze!

75HTL & 75VTL FILTER-SEP



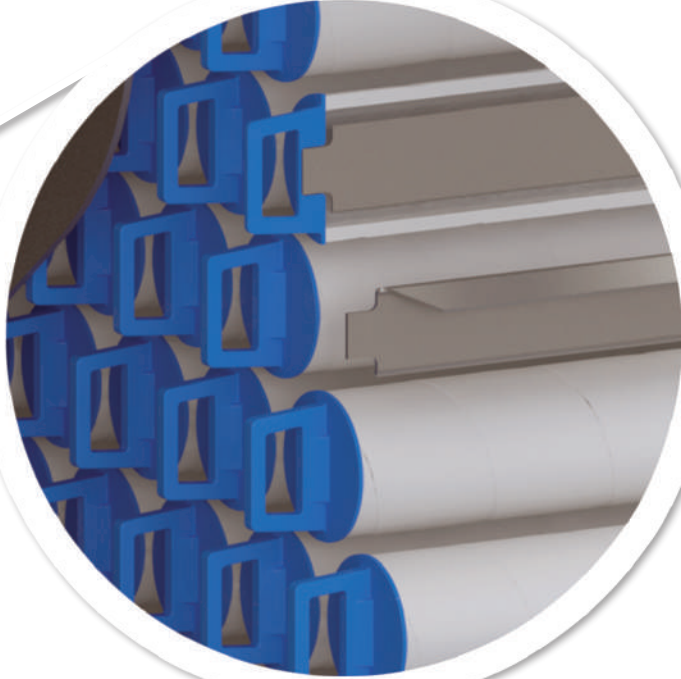
TYPICAL APPLICATIONS

- City Gate • Compressor & Turbine Suction • Contact Towers (Inlet & Overhead) • Custody Transfer Fuel Gas
- Gas Distribution • Gas Storage • Gas Transmission • Gas Treating & Dehydration
- Landfill Gas • M&R Stations • Plant Entrance Gas

For applications with low surface tension liquids below 45 dynes/cm use a PEACH Gemini PuraSep® filter.

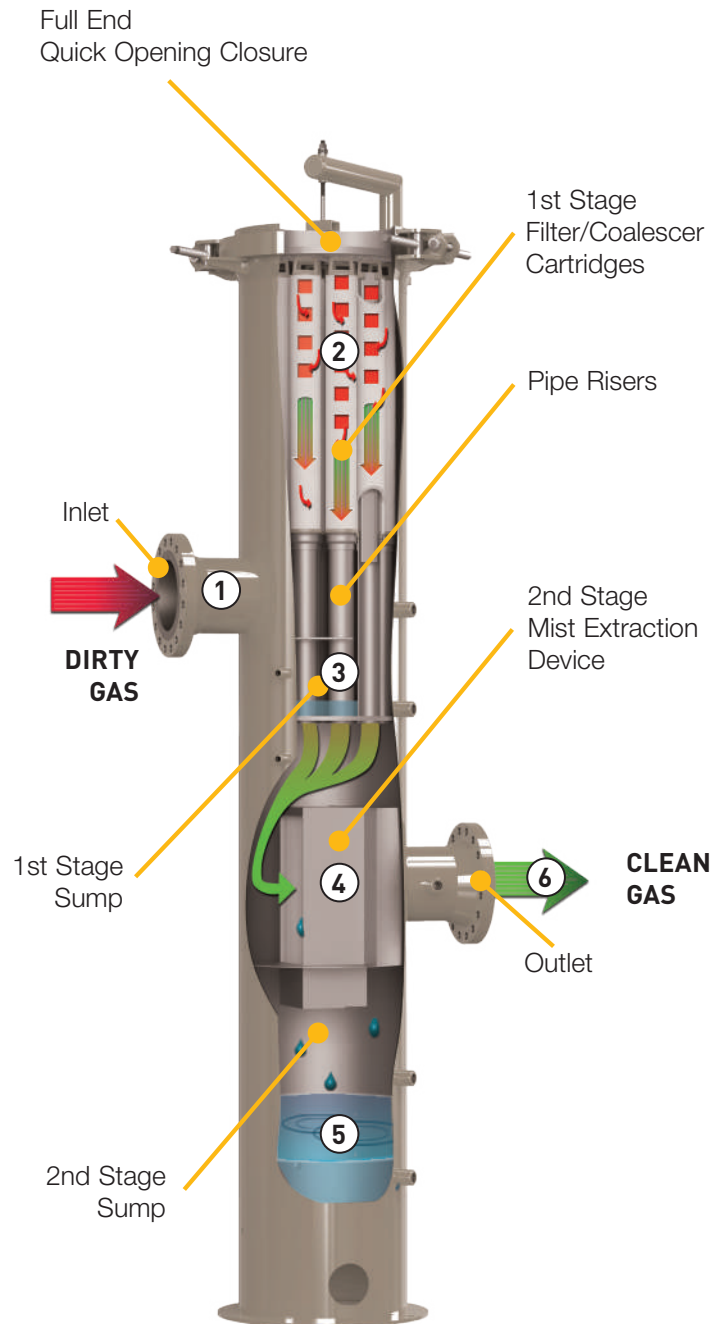
High efficiency removal of solids and liquid contaminants 1 micron and larger

Based on standard 1 micron cartridge with vane.



HOW IT WORKS

- ① **Contaminated gas enters and impinges on the pipe risers**
 - Risers help to separate out free liquids and also serve to evenly distribute the gas through the 1st stage cartridges
- ② **Gas flows through the cartridges from outside-to-inside in the 1st stage of the vessel**
 - Solid contaminants are trapped and removed from the gas stream
 - Liquid particles are coalesced
- ③ **1st stage separated liquids are collected in 1st stage sump**
- ④ **2nd stage mist extraction device removes coalesced droplets**
- ⑤ **2nd stage coalesced liquids are collected in 2nd stage sump**
- ⑥ **Dry, clean gas exits the vessel**



75HTL & 75VTL INTERNALS

1st

FIRST STAGE ADVANCED TECHNOLOGY CARTRIDGES

• PEACH® DynaSep™ Cartridge

- Advanced depth filter/coalescer cartridge is a proven performer at removing deformable and shear sensitive contaminants
- Absolute rated synthetic media
- Each media layer of the cartridge is thermally bonded in a helical pattern to create a rigid structure that maintains porosity and permeability – resists compression & abrasion
- Provides extended filter life compared to traditional fiberglass cartridge
- Tortuous flow path (three flow patterns – helical, radial, axial) provides a longer amount of time for contaminant to travel within the cartridge depth which then increases the probability for the contaminant particles to impact fibers and be captured

• Newly designed end caps

- No tools required to install or remove cartridge from vessel
- Top cap handle allows for easy holding of the cartridge
- Closed top cap means no need for washer/nut assembly
- Bottom cap has a unique pressure loading gasket seal that fits firmly inside support riser seal cup to ensure no gas bypass

• Newly designed cartridge support riser

- Handles heavy liquid loads without damaging the cartridges or vessel
- Knocks out large amount of free liquids into 1st stage sump
- Decreases turbulent gas entry into vessel versus vessels with baffle design
- Seal cup provides complete engagement of cartridge gasket on a stainless steel surface
- Z-bar design provides full support to cartridge internal diameter

• EZ-Align

- Holds cartridge concentric to riser
- Prevents cartridge sagging
- Allows for quick change-out of cartridges
- Ensures cartridge sealing

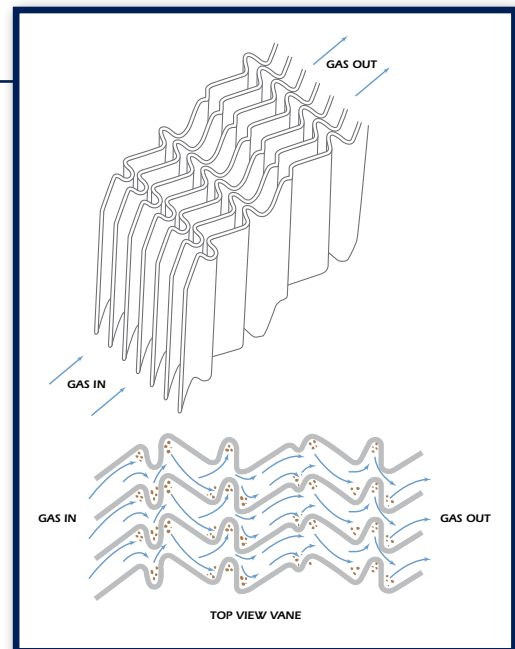


2nd

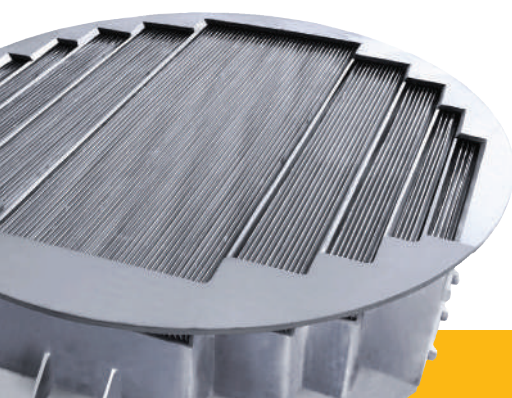
SECOND STAGE MIST EXTRACTION DEVICE

• Wave Plate Vane

- Unique “wave” profile produces an enhanced inertial impaction separation mechanism to remove coalesced liquid droplets
- High efficiency removal with low differential pressure
- Resists plugging by semi-solid type contaminants
- Designed to handle extreme process upsets
- More support bolting than other similar designs



Wave Plate Vane



Cyclotube® option available upon request.

VESSEL SPECIFICATIONS

Standard

- Horizontal and Vertical Units
- 10" to 84" diameter
- ASME Code Section VIII, Div. 1
- Design temperature from -20°F to 550°F
- Quick Opening Closure
- Pressure Parts: Carbon Steel
- External Attachments: Carbon Steel
- Hydrostatic testing at 1.3 x design pressure

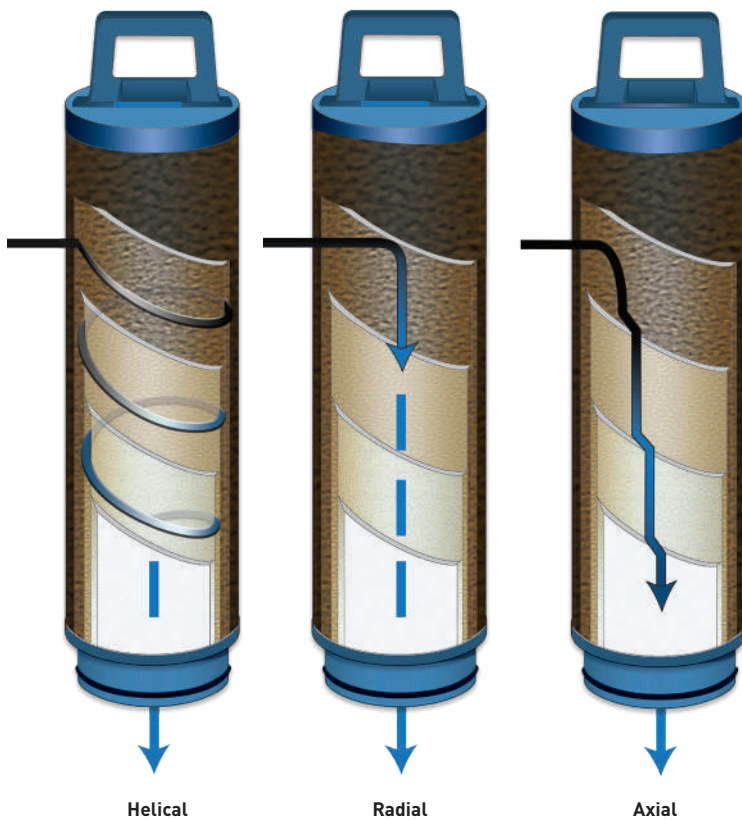
Options

- Other Design Codes
- Design Pressure up to 10,000 psig
- Materials of Construction
 - 304 Stainless Steel
 - 304L Stainless Steel
 - 316 Stainless Steel
 - 316L Stainless Steel
 - Low Temperature Materials
- Non-Destructive Testing (NDT)
 - Radiography
 - Magnetic Particle
 - Liquid Penetrant
 - Ultrasonic
 - Brinell Hardness
 - Charpy Impact
- Coating options
 - Sandblast: commercial, near white and white metal
 - Paint: 2 & 3 coat corrosion resistant
- Optional PECO SafeLock Closure®
- Auxiliary Packages in Stock
- Flanged Connections & Sump
- Mist extraction options available
 - Wave Plate Vane
 - Cyclotube



PEACH DynaSep Cartridge Model EZ-PCHG

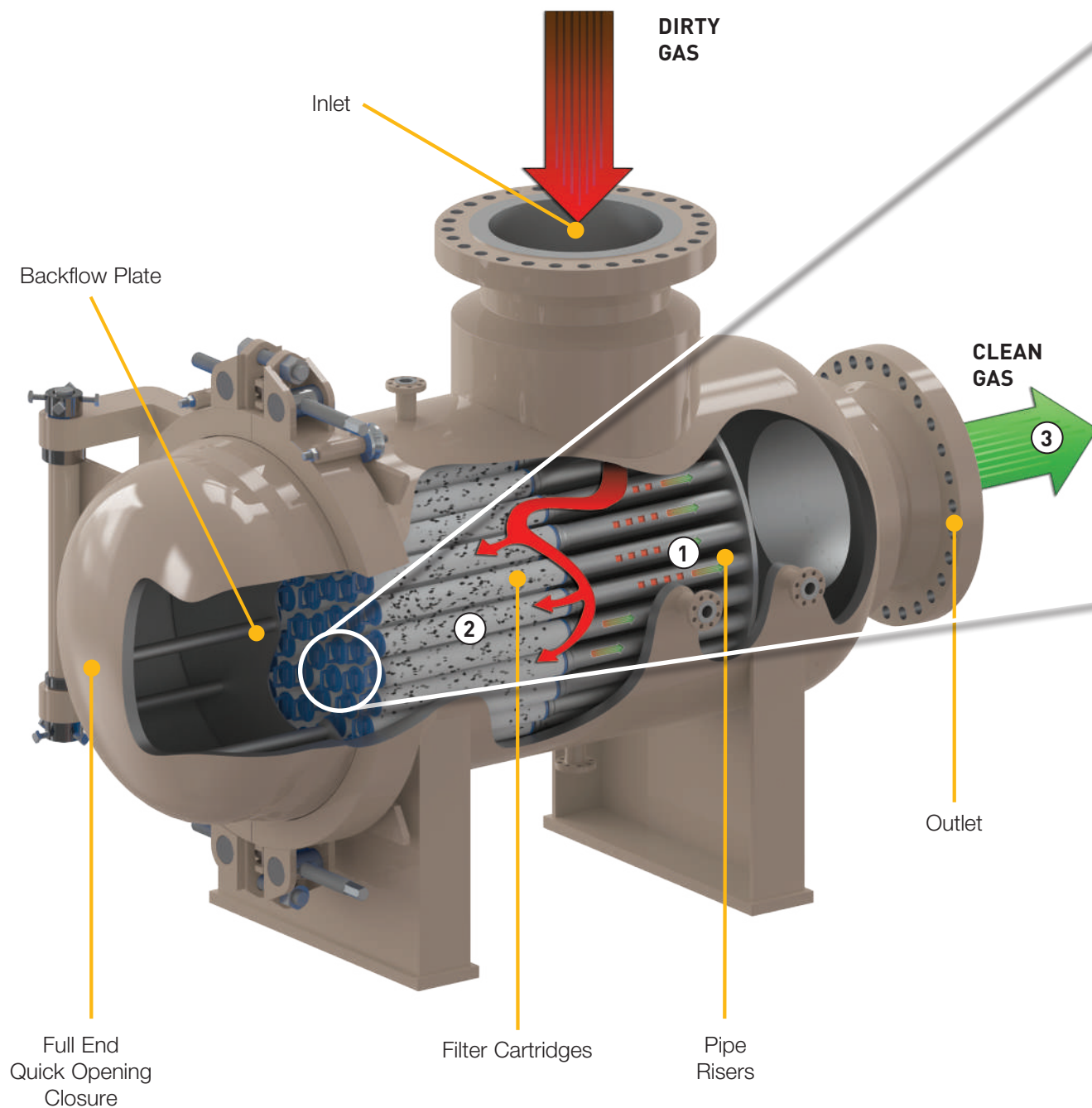
Available in polyester or polypropylene media and micron ratings of 0.1, 0.3, 0.5, 1, 5 and 10.



Three Flow Paths for Unparalleled Filtration

PEACH DynaSep provides a multi-directional, tortuous flow path (helical, radial and axial) to increase the probability of capturing particles throughout the filter media. The unique helical bonded layers create a true gradient depth for contaminant to be removed throughout the filter.

70HTL & 70VTL DRY GAS

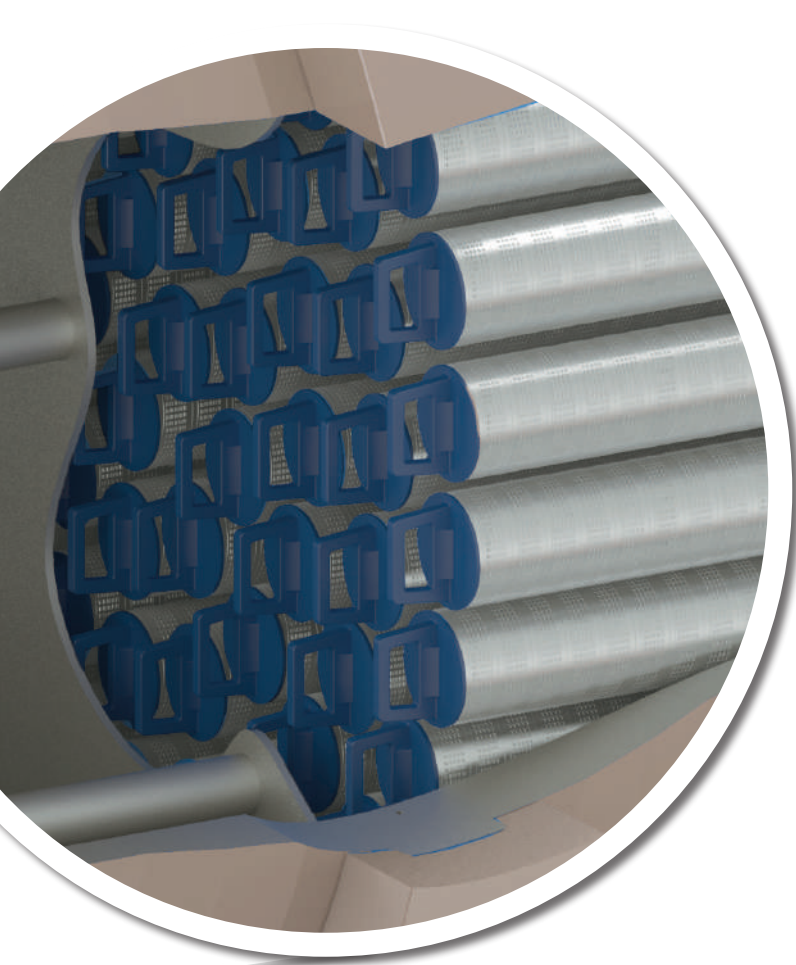


TYPICAL APPLICATIONS

- Aluminum Oxide Removal
- City Gate
- Fuel Gas
- Gas Metering/Regulators
- Instrument Gas
- Iron Sulfide Removal
- Mercury Guard Beds
- Pipeline Scale/Corrosion Removal
- Post Mole Sieve/Desiccant/Catalyst Beds

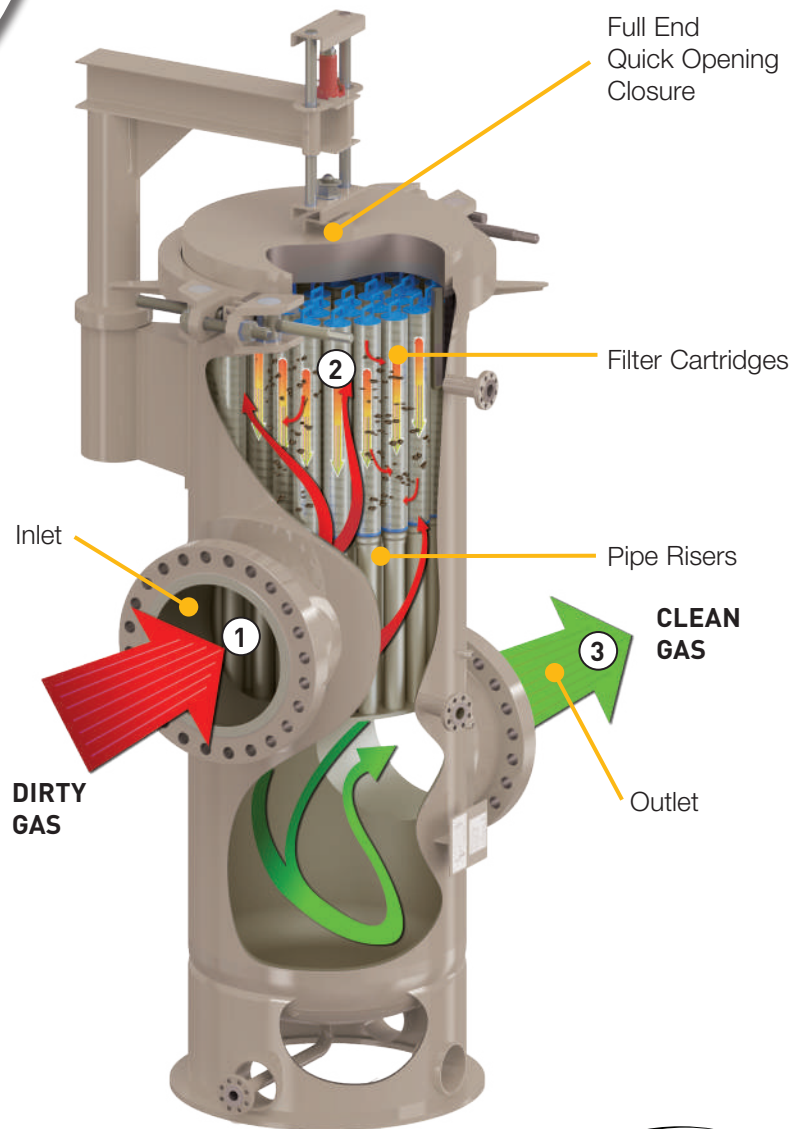
High efficiency removal of solids contaminants 1 micron and larger

Based on standard 1 micron cartridge.



HOW IT WORKS

- 1 Contaminated gas enters and impinges on the pipe risers**
 - Risers also serve to evenly distribute the gas through the cartridges
- 2 Gas flows through the cartridges from outside-to-inside**
 - Solid contaminants are trapped and removed from the gas stream
- 3 Dry, clean gas exits the vessel**



70HTL & 70VTL INTERNALS

ADVANCED TECHNOLOGY CARTRIDGES

• TruGard™ Cartridge

- Pleated cartridge design provides high surface area for solid, rigid contaminant to load
- Absolute rated synthetic media
- Heavy duty steel outer support protects media from abrasion or tear

• PEACH DynaSep Cartridge

- Advanced depth cartridge
- Option to use when contaminant is black powder/iron sulfides

• Newly designed end caps

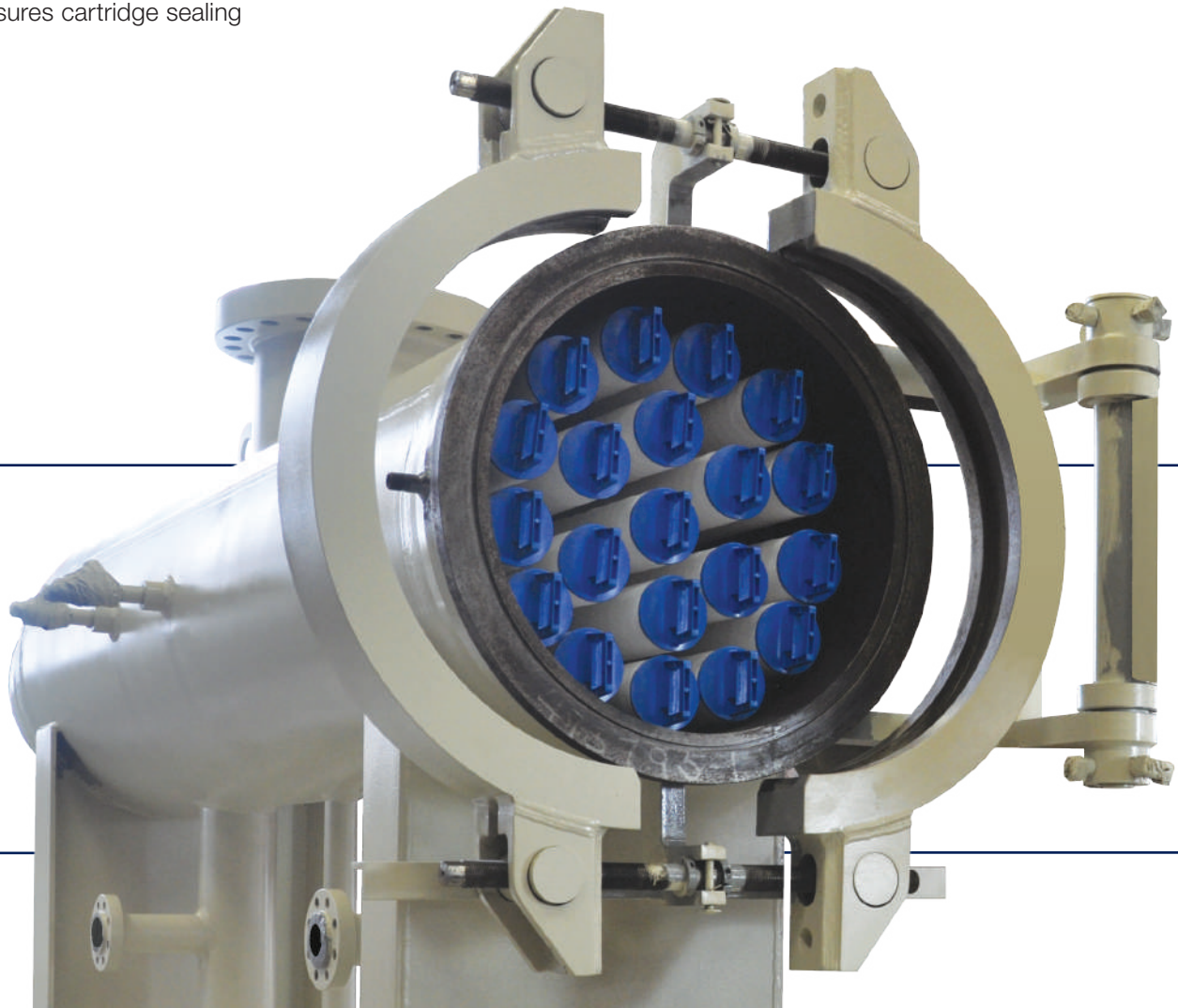
- No tools required to install or remove cartridge from vessel
- Top cap handle allows for easy holding of the cartridge
- Closed top cap means no need for washer/nut assembly
- Bottom cap has a unique pressure loading gasket seal that fits firmly inside support riser seal cup to ensure no gas bypass

• Newly designed cartridge support riser

- Decreases turbulent gas entry into vessel versus vessels with baffle design
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• EZ-Align

- Holds cartridge concentric to riser
- Prevents cartridge sagging
- Allows for quick change-out of cartridges
- Ensures cartridge sealing



VESSEL SPECIFICATIONS

Standard

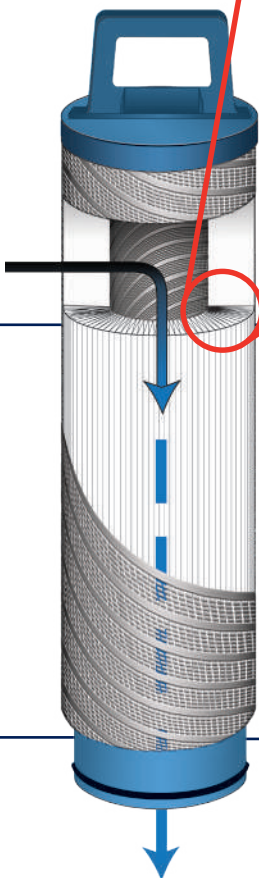
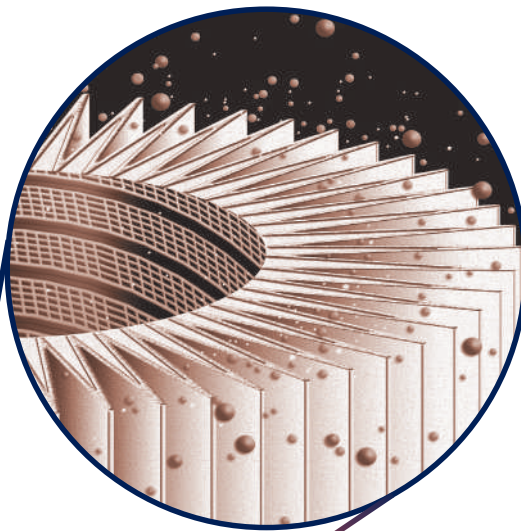
- Horizontal and Vertical Units
- 6" to 84" diameter
- ASME Code Section VIII, Div. 1
- Design temperature from -20°F to 550°F
- Quick Opening Closure
- Pressure Parts: Carbon Steel
- External Attachments: Carbon Steel
- Hydrostatic testing at 1.3 or 1.5 x design pressure

Options

- Other Design Codes
- Design Pressure up to 10,000 psig
- Materials of Construction
 - 304 Stainless Steel
 - 304L Stainless Steel
 - 316 Stainless Steel
 - 316L Stainless Steel
 - Low Temperature Materials
- Non-Destructive Testing (NDT)
 - Radiography
 - Magnetic Particle
 - Liquid Penetrant
 - Ultrasonic
 - Brinell Hardness
 - Charpy Impact
- Coating options
 - Sandblast: commercial, near white and white metal
 - Paint: 2 & 3 coat corrosion resistant
- Optional PECO SafeLock Closure
- Auxiliary Packages in Stock
- Flanged Connections



**TruGard
Cartridge Model EZ-PSFG**
Available in polyester or polypropylene media
and micron ratings of 0.5, 1, 5, 10, 20 and 50.



Optimized Surface Area for High Contaminant Removal

TruGard has an optimized pleat design which provides a high surface area for contaminant removal. Rigid, solid particles form a cake on the upstream side of the pleats. As the cake builds up it begins to contribute to the filtration and increases removal efficiency over time. The permeability of the cake determines the filter's service life.



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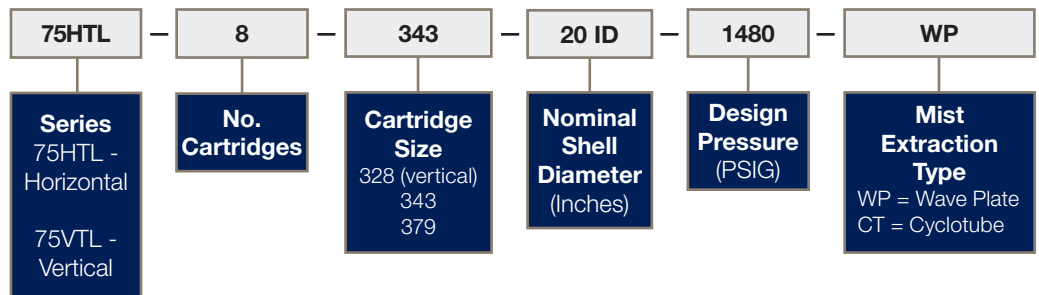
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Parker Hannifin has a policy of continuous product research and development and reserves the right to change design and specifications without notice.

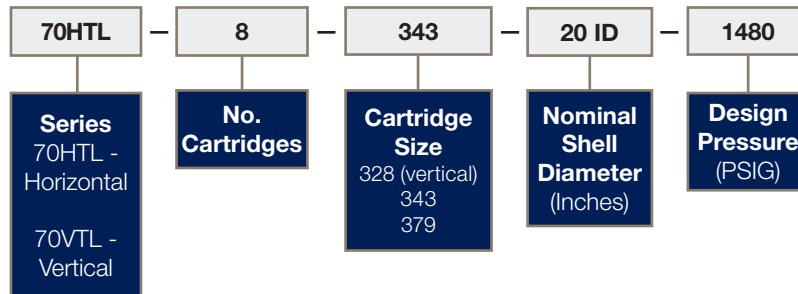
BR-OG-TITAN-70TL/75TL-190703



VESSEL ORDERING INFORMATION



Refer to data sheet DS-OG-PEACHDYNASEP-EZPCHG for detailed cartridge information.



Refer to data sheet DS-OG-TRUGARD-EZPSFG for detailed cartridge information.

The following information is required when requesting a quote for a Titan PuraSep

- Operating pressure range
- Operating temperature range
- Gas molecular weight, or specific gravity
- Type of liquid contaminant
- Liquid density or specific gravity
- Amount of liquid load
- Design pressure
- Design temperature
- Corrosion allowance requirements
- Special design requirements

Titan PuraSep® product is protected by USA Patent No. 10,195,558 as well as patents in various other countries.

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