



# PEACH Gemini PuraSep<sup>®</sup>

PECO Series PGCPH Horizontal Gas Filter-Coalescer

ISO 9001



ENGINEERING YOUR SUCCESS.

# HOUSING SPECIFICATIONS

## Standard Housing

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- 254mm to 1829mm diameter
- ASME Code Section VIII, Div.1
- Design temperature from -29°C to 104°C
- Quick Opening Closure
- Pressure Parts: Carbon Steel
- External Attachments: Carbon Steel
- Hydrostatic testing at 1.3 to 1.5 x design pressure
- Full diameter flanged sump clean-outs on stock units

## Options

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- Other Design Codes
- Design Pressure up to 345 barg
- 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 Penetration
  - 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



## FEATURES

- **0.3 Micron High Efficiency Coalescing**  
The PEACH Gemini PuraSep provides 28 times more liquid capacity and 7 times greater solids capacity than a vertical coalescer.
- **Horizontal Configuration**  
Provides easy ground access to auxiliary controls and cartridges without the need for ladders and platforms.
- **100% turndown**  
PEACH Gemini PuraSep can be operated from 0% to 100% of its rated capacity without any effect on performance.
- **Quick Opening Closures**  
Easy and quick access to all internal parts is made available via a yoke/clamp style Quick Opening Closure or internal door style PECO SafeLock Closure.
- **User Friendly Design**  
Designed to provide trouble-free maintenance, the PEACH Gemini PuraSep internals are easy to remove and replace. The second stage LIB's are removable to make second stage inspection effortless. The bayonet cartridge design eliminates the need for hand tools when sealing.

## IMPROVE RELIABILITY with PEACH Gemini PuraSep

The PEACH Gemini PuraSep is a horizontal gas filter-coalescer that provides superior performance in a remarkable trouble-free design. It is widely used for protecting critical equipment from solid and liquid contaminants that can cause damage and costly repairs.

The Gemini is a proven winner in the field, doing the work of a gas filter-separator and vertical gas coalescer combined, by delivering ultra-clean gas with high efficiency removal of solids and liquid contaminants, while effectively handling higher inlet solid and liquid loads than conventional gas coalescers.

It can lower capital investment spend by eliminating the need to buy two pieces of equipment in instances where a gas filter-separator is required to protect a gas vertical coalescer from becoming plugged with solid contaminant.

**First of its kind  
Horizontal  
Gas Coalescer**



## INNOVATIVE TECHNOLOGY

### TYPICAL APPLICATIONS

- Compressor Suction and Discharge • Pre/Post Contactor • Fired Reboilers • Gas Analyzer
- Gas Injection System • Landfill Gas • Line Heaters • Propane Refrigeration System
- Solid Dessicant or Molecular Sieve Beds • Turbine Fuel Gas • Metering Stations • Plant Feed
- Low NOx Burner Tip Protection • Storage Withdrawal



#### Low NOx Fuel Gas Systems

- Reduce fuel tip problems
- Reduce Emission problems

#### Compressor Suction

- Protect compressor components & valves
- Removes salts & iron sulfides

#### Compressor Discharge

- Excellent lube oil recovery
- Enhance pipeline efficiency

#### Contactor Inlet

- Protect contactor internals from fouling
- Improve plant performance

#### Meter Station

- Improve accuracy of meters
- Eliminate shut-in's

# PEACH GEMINI PURASEP OPERATION

The PEACH Gemini PuraSep utilizes a single tube configuration PEACH® PGC cartridge with a chevron seal, which seats inside the riser tube and separates the two primary stages of coalescing. This design ensures a smooth transition of coalesced liquids from the 1st stage into the 2nd stage.

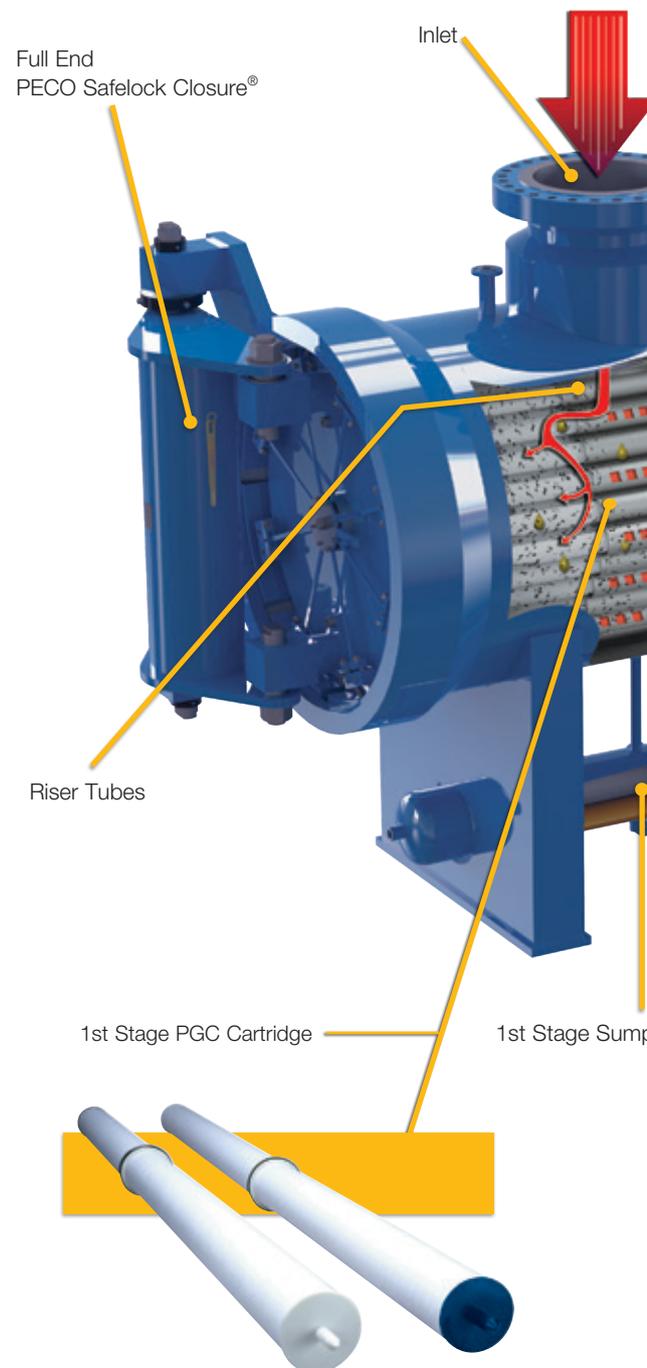
- Incoming liquids pass outside-to-inside through the first section of the PGC cartridge where solids are filtered and 1st stage liquid coalescing takes place. Large liquid droplets are removed in the 1st stage and collected in the 1st stage sump compartment.
- The gas, along with lighter coalesced liquids, then passes into the 2nd stage area of the PGC cartridge where they flow from inside-to-outside, causing them to be coalesced for a second time.
- A specially designed liquid impingement baffle (LIB), placed over the 2nd stage section of the PGC cartridge, captures the coalesced liquids along its surface where they drop out, due to gravity, and are collected in the 2nd stage sump compartment.
- The LIB directs the gas flow to the end of the PGC cartridge to yield a final scrubbing effect. The clean gas exits the housing through the outlet nozzle.



Removes 99.9% of solids  
0.3 micron and larger.

Removes 99.5% of liquids  
0.3 micron and larger.

Laboratory and field performance validated, under isokinetic conditions, with laser particle counter technology.



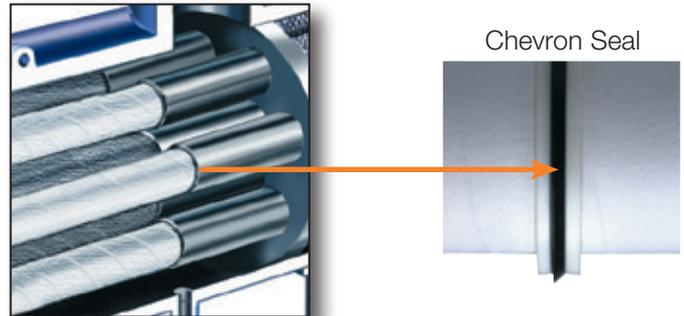
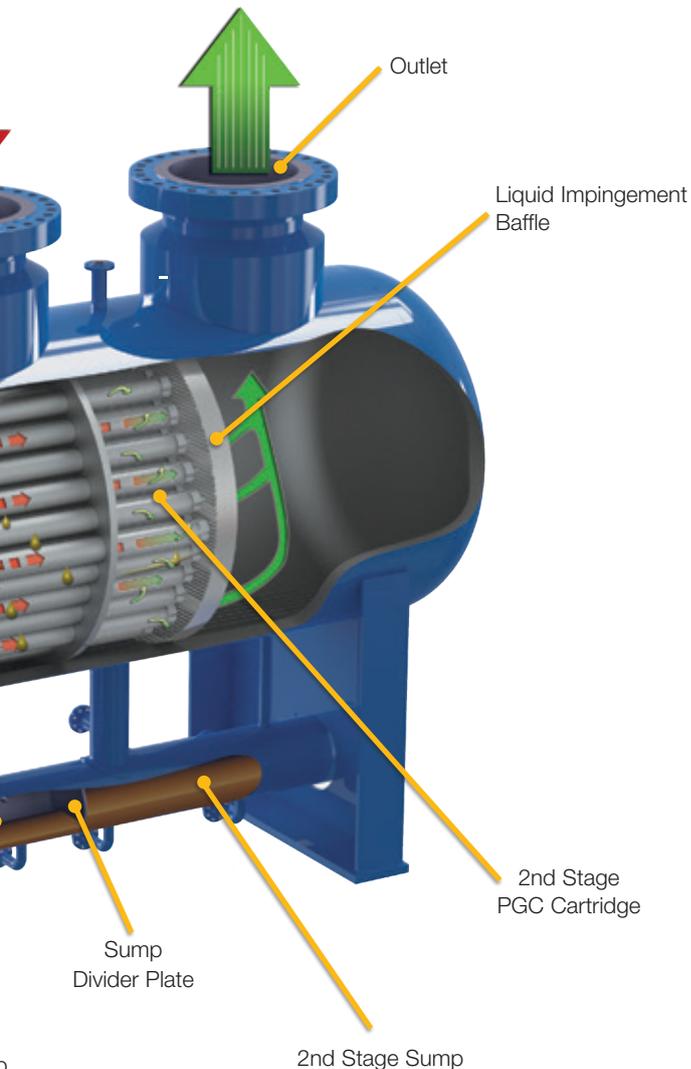
## Cartridge Series PGC

Available in polyester or polypropylene media with various performance level recipes at 0.3 micron rating.

## USER FRIENDLY DESIGN

The operation of the PEACH Gemini PuraSep is simple and trouble-free, allowing users to minimize their operating and maintenance cost.

- PGC cartridges have fixed bayonet ends. There is no torque of end caps or nuts to remove and reinstall when changing out cartridges.
- The Gemini contains a lightweight mounting plate with handles that easily fits over the bayonet end caps of the cartridges.
- There are no rigid cartridge support assemblies to maneuver the cartridges over, or to hinder removal. The PGC cartridge easily slides into place via the self-centering riser tubes mounted in the support plate.



### POSITIVE SEALING

Each PGC cartridge contains an integral sealing ring with a built-in chevron seal which seals within the 1st stage riser tube. Differential pressure between the 1st and 2nd stage compartments assures constant positive sealing with no bypass.

## ADVANCED TECHNOLOGY CARTRIDGES



The PEACH Gemini PuraSep uses the unique, patented PEACH Gemini cartridge technology. PGC cartridges are rigid enough to withstand abrasion and heavy liquids, yet maintain porosity and permeability for lower differential pressure and extended

contaminant removal capacity. PGC cartridges also provide a torturous (axial, radial and helical) flow path for the wet gas to take through the depth of the media, increasing the probability for contaminant particles to impact fibers and be captured throughout the depth of the media.

The PGC cartridge uses the concept of Saturated Depth Coalescing™ to provide an open 3-D depth matrix structure which allows liquids to saturate the media depth and grow to fullest potential, then drain with gravity when the droplet is ready, all while maintaining a low differential pressure.



**Parker Hannifin Corporation**  
**Industrial Process Filtration Division**

**North America**

**USA Oil & Gas Filtration**  
 Mineral Wells, TX  
 940-325-2575  
 industrialprocess.na@parker.com

**Canada Oil & Gas Filtration**  
 Calgary, Canada  
 403-717-2891  
 industrialprocess.na@parker.com

**Europe & Middle East**

**Europe Oil & Gas Filtration**  
 United Kingdom  
 +44 (0)191-4029200  
 peco.emea@parker.com

**Middle East Oil & Gas Filtration**  
 Dubai, UAE  
 +971-4-231-4520  
 peco.emea@parker.com

**Asia Pacific**

**Malaysia Oil & Gas Filtration**  
 Kuala Lumpur, Malaysia  
 +82-31-359-0782  
 KFDsales@parker.com

**Korea Oil & Gas Filtration**  
 Gyeonggi-do, Korea  
 +603-8941-2366  
 IPF\_Malaysia@parker.com

**Latin America**

**Latin America Oil & Gas Filtration**  
 São José dos Campos, Brazil  
 +55-12-4009-3500  
 falecom@parker.com

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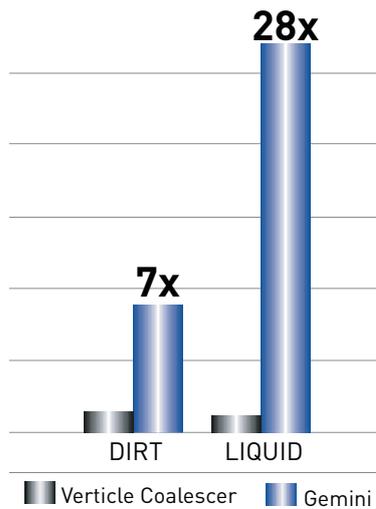
- Installation & Operating Instructions
- Housing Registration Form
- Associated cartridge information
- Most current literature editions

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BR-OG-GEMINI-PGCPH-A4 (10/18)

**Contaminant Loading Characteristics**



Gemini does the work of a filter-separator and a verticle coalscer in one.



**HOUSING ORDERING INFORMATION**

<b>PGCPH</b>	<b>18</b>	<b>382</b>	<b>34</b>	<b>285</b>
Series	No. Cartridges	Cartridge Size 373 382 394	Nominal Shell Diameter (Inches)	Design Pressure (PSIG)

Stock Units available from 254mm through 1524mm diameter in 600# ANSI rating. Refer to data sheet DS-OG-Gemini-PGC for detailed cartridge information.

**The following information is required when requesting a quote for a PEACH Gemini PuraSep**

- Operating pressure range
- Operating temperature range
- Gas molecule 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

**For quick delivery needs Parker has a filter vessel stocking program with various diameter PEACH Gemini PuraSep vessels.**

Consult factory for availability and pricing.

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PEACH Gemini PuraSep® products protected by USA Patent Nos. 5827430, 5893856, 5919284 and 6168647 as well as patents in various other countries.

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