



**77V**  
VERTICAL GAS COALESCER

A NEW ERA IN **FILTRATION PERFORMANCE AND INNOVATION™**



**Designed for Removing Aerosol Liquids  
from Natural Gas Streams**

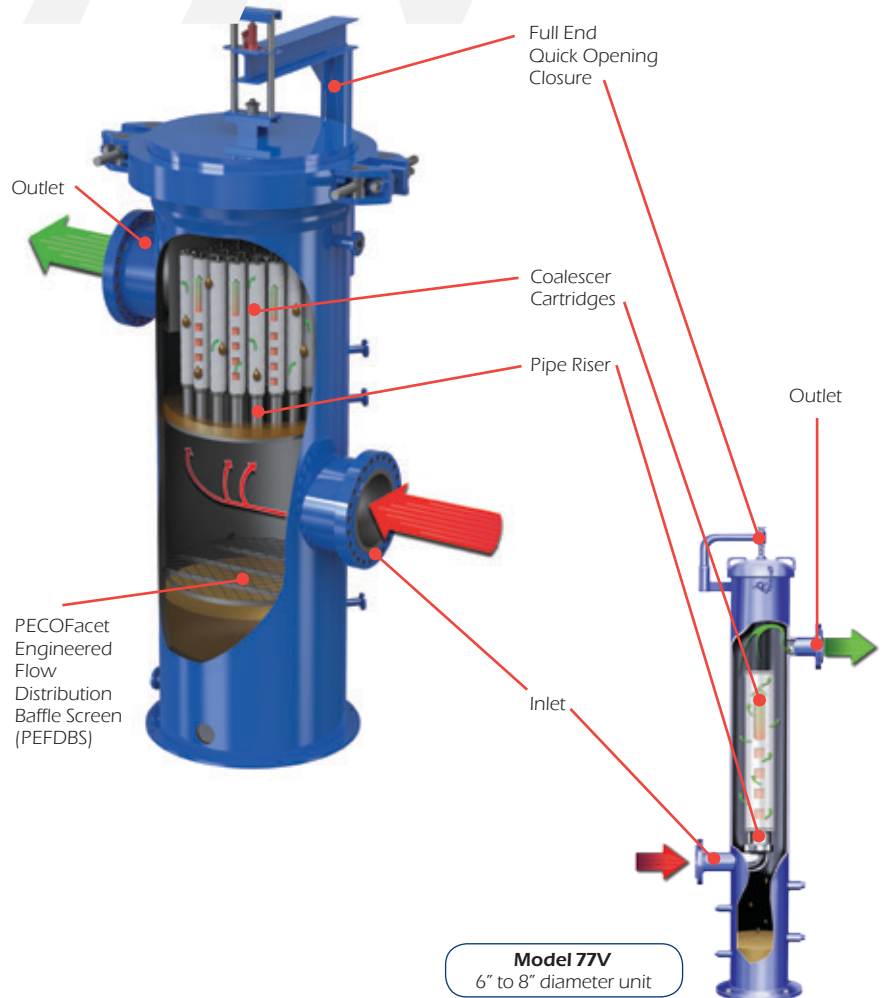


ISO 9001

## FEATURES & ADVANTAGES

- Full-end closure eliminates confined space entry
- Pipe Risers:
  - Provide an area for liquids to collect eliminating liquid build up on coalescer cartridges and eliminating gas flow from entering the drainage system during liquid drainage
  - Eliminate the need for spider bar supports
- Tripod riser support holds cartridge square to sealing surface and allows cartridge to self-center on riser
- Full cartridge length rod and lock down seal nut provides hold-down strength necessary to withstand upsets
- Rod supports are threaded and replaceable
- Knife-edge sealing surface on tripod riser ensures tight seal of flat gasket style cartridge and allows easy cleaning of surface unlike competitor o-ring type seals which can stick and become hard to remove
- Housing designed to accept a wide range of coalescer cartridge technologies to handle unique separation applications
- Standard design utilizes PEACH® DynaCeptor™ Advanced Technology cartridges with PECOFacet's exclusive internal drainage sleeve which provides a zero gas velocity drainage area to enhance liquid removal performance
- Free liquid knock-out section, larger than industry standard, which handles upsets and prolongs cartridge life
- PECOFacet Engineered Flow Distribution Baffle Screen (PEFDBS) reduces turbulence in bottom section of housing and keeps liquids in sump from re-entraining
- Outlet baffle, proven by CFD analysis, to equally distribute gas flow eliminating flow channeling through cartridges close to the outlet nozzle
- Outlet baffle also allows coalescer cartridges to be located closer to the closure, versus other designs, making them easier to install and remove while also eliminating confined space entry and the use of special removal tools

The Model 77V is a highly efficient coalescing housing utilizing patented PEACH® coalescing cartridges to remove liquid droplets and solid particles 0.3 micron and larger from gas streams.



### HOW IT WORKS:

Contaminated gas enters through the inlet in the lower portion (1st stage) of the housing allowing droplets with a heavy enough mass to drop out with gravity and be drained off. A proprietary PEFDBS baffle screen in the 1st stage ensures that liquid collected in the bottom will not re-entrain with the gas. The gas then flows inside-to-outside through the coalescing cartridges allowing aerosol liquid droplets to grow within the cartridge media then drain down the cartridge and collect on the support plate (2nd stage) where they are then drained off. Clean gas will exit the outlet.

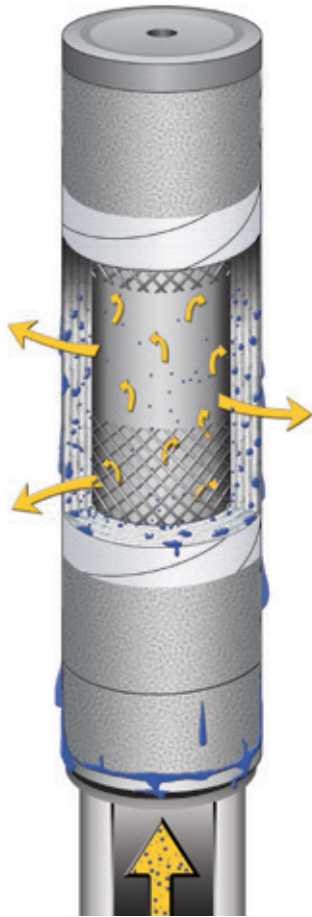
Although coalescing cartridges can capture solids contaminants, this is not the cartridges main purpose. Solids that enter the reverse flow coalescing cartridges will plug off pores and reduce coalescing efficiency over time. If heavy solids are present with the gas it is recommended to switch to a horizontal PEACH® Gemini PuraSep® housing which is designed to handle heavy solids and liquids.

### TYPICAL APPLICATIONS

- Compressor Discharge • Compressor Engines • Contactor Carryover • Fired Reboilers
- Gas Analyzer • Gas Injection System Landfill Gas • Line Heaters • Propane Refrigeration System
- Solid Dessicant or Molecular Sieve Beds • Turbine Fuel Gas



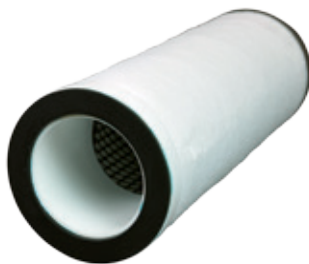
# HOUSING SPECIFICATIONS



### Advanced Technology Cartridges:

The Model 77V uses the PEACH® DynaCeptor™ cartridge. One of the best coalescer cartridge technologies on the market today! NGGC cartridges utilize Saturated Depth Coalescing™ to provide an open 3-D depth matrix structure which allows liquids to saturate the media depth and grow to their fullest potential then drain with gravity when the droplet is ready, all while maintaining a low differential pressure. These liquid droplets often take with them solid contaminant particles, as well, causing a “self-cleaning” effect within the media matrix.

**Tripod Riser Support**  
Self-centering tripod riser supports and provides a knife-edge sealing surface, preventing gas bypass.



**Internal Drainage Protection Sleeve**  
Creates a zero gas velocity drainage area which enhances liquid removal performance by giving the liquids a quiet area to drain and not be re-entrained into the gas stream.

CARTRIDGE PERFORMANCE LEVEL	STYLE	SERVICE	EFFICIENCY
NGGC PL-01	PEACH® Saturated Depth	Normal to heavy contaminant loading conditions	99.5% of 0.3 μm & larger liquid droplets ≤50 PPB (wt)* effluent
NGGC PL-20	PEACH® Saturated Depth	Polishing; protection of critical equipment such as gas turbines	99.99% of 0.3 μm & larger liquid droplets ≤2 PPB (wt)* effluent
NGGC PL-23	PEACH® Saturated Depth	Ultra-high effluent applications	99.98% of 0.1 μm & larger liquid droplets ≤0.5 PPB (wt)* effluent
NGGC PL-51	Pleated, Treated Glass	Light continuous oil or condensate removal	99.97% of 0.3 μm & larger liquid droplets ≤10 PPB (wt)* effluent

## STANDARD HOUSING

- Custom Design Vertical Units
- 6" to 72" diameter
- ASME Code Section VIII, Div. 1
- Design temperature from -20°F to 450°F
- Quick Opening Closure
- Pressure Parts: Carbon Steel
- External Attachments: Carbon Steel
- Hydrostatic testing at 1.3 x design pressure
- Comes with PEACH® DynaCeptor™ (Model NGGC) filter/coalescer cartridges in polyester at 0.3 micron rating with standard PL-01 performance level.

## OPTIONS

- Other Design Codes
- Design Pressure up to 5,000 psig
- Materials of Construction
  - 304 Stainless Steel
  - 304L Stainless Steel
  - 316 Stainless Steel
  - 316L Stainless Steel
  - Low Temperature Materials
- Non-Destructive Test (NDT)
  - Radiography
  - Magnetic Particle Examination
  - Liquid Penetration Examination
  - Ultrasonic Examination
  - Brinell Hardness
  - Charpy Impact
- Coating options
  - Sandblast: commercial, near white and white metal
  - Paint: 2 & 3 coat corrosion resistant
- Optional SafeLock Closure
- Auxillary Packages in Stock
- PEACH® DynaCeptor™ cartridge options
  - Polypropylene media for compatibility needs
  - various performance levels
- p-Ceptor™ pleated glass cartridge
  - PL-51 performance levels
- FibrCeptor™ FF depth glass cartridge
- FibrCeptor™ FFP depth glass with internal pleat pack cartridge
- FibrCeptor™ HTO high temperature depth glass cartridge good to 450°F

\* Based on standard PECOFacet test protocols.



### World Headquarters

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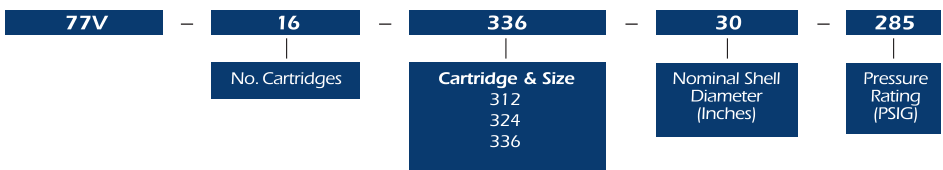
PECOFacet is a world leader in the design and manufacture of quality Filtration Equipment, specializing in the Oil and Gas Industry.

Founded in 1936, many of the filtration technologies used in the Industry today were originally developed by PECOFacet.

Our continued dedication to research and development of new advanced technologies has kept PECOFacet at the forefront of Engineered Filtration Solutions for use by our clients worldwide.

**YOUR  
CONTAMINANT  
MANAGEMENT  
PARTNER<sup>SM</sup>**

## HOUSING ORDERING INFORMATION



Refer to the following data sheets for detailed cartridge information:  
PEACH® DynaCeptor™ • p-Ceptor™ • FibrCeptor™ HTO