



GENERAL PRODUCTS CATALOG

www.pecofacet.com

Oil & Gas Filtration

Innovative Filtration Solutions™



**SERVING CUSTOMERS FROM LOCATIONS
WORLDWIDE FOR OVER 75 YEARS**

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PROVIDING FILTRATION FOR THE OIL & GAS INDUSTRY

- Offshore Exploration & Production
- Water Disposal
- Gas Gathering
- Gas Processing
- Gas Transmission
- Gas Storage
- LNG Liquefaction
- Power Generation
- City Gates
- Vehicle CNG
- NGL Pipeline & Storage
- Fractionation
- Refining
- Petrochemical

A VERTICALLY INTEGRATED FILTRATION COMPANY

FOCUSING ON TECHNOLOGY AND
PROVIDING TURNKEY SOLUTIONS



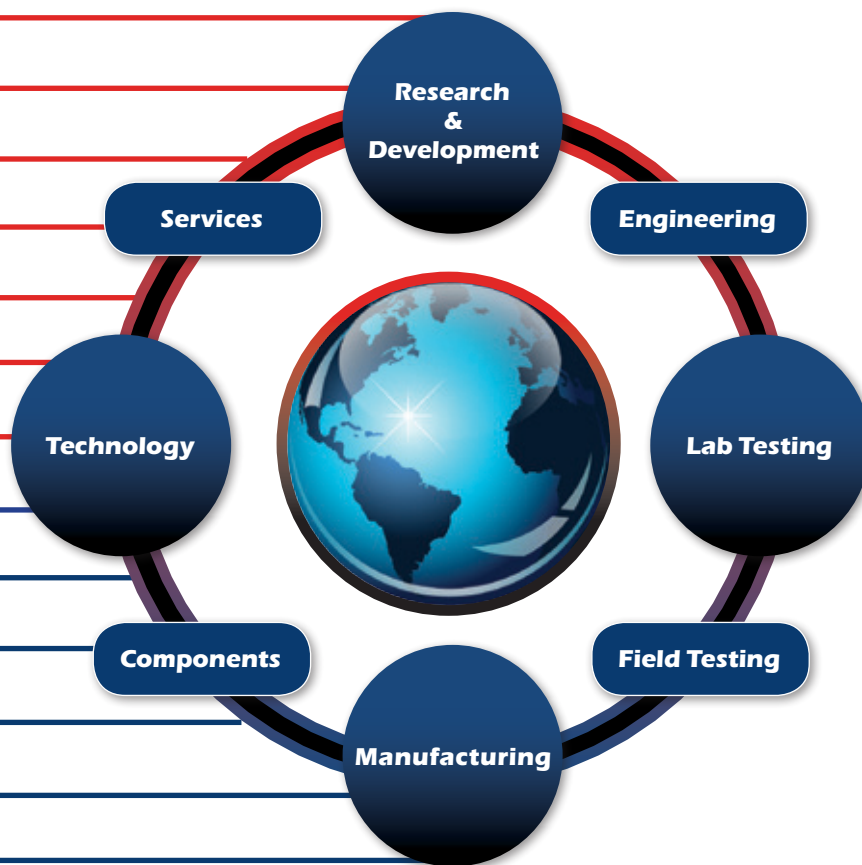
OUR COMPANY

PECOFacet is a leading manufacturer of filtration and separation products for the oil & gas, aviation, marine, environmental and general industrial markets. Working with customers around the world on diverse contaminant management challenges, PECOFacet is known for providing filtration solutions using innovative product designs and advanced testing and services.

PECOFacet is a part of CLARCOR and operates under their Industrial/Environmental segment. CLARCOR is a billion dollar plus holding company specializing in filtration and contaminant handling solutions. The companies under the CLARCOR umbrella, specializing in a broad range of filtration, make CLARCOR the most diverse filter company in the world.

The name PECOFacet was formed in 2007 when CLARCOR purchased Perry Equipment Corporation (PECO), a family owned leader in manufactured filtration products for the natural gas processing and transmission industries, and merged the company with Facet International, a leader in manufactured filtration products for fuel supply to aircraft and ships for the aviation and marine markets. Facet International had already been a part of the CLARCOR group since 1999.

Headquartered in Mineral Wells, Texas and with nearly 900 employees worldwide, PECOFacet has manufacturing locations in Australia, Canada, Mexico, Oklahoma, Spain and Texas. Sales and engineering offices are strategically located around the world. 2013 marked the completion of the Marney Dunman Perry Jr. Technology Center located in Mineral Wells, Texas which will focus on research and development for future product innovations, media development, and customer training.



OUR PRODUCTS

PECOFacet products include filter housings and aftermarket cartridges such as gas coalescers, dry gas filters, gas filter-separators, gas scrubbers, fuel/water separators and liquid filters. Aftermarket cartridges can also be built to retrofit competitor housings. Also manufactured are oily water separators, filtration systems, sewage treatment units, electronic sensors for particle measurement and coke removal units for ethylene plants.

TURNKEY PROVIDER

Not all filtration companies are created equal. At PECOFacet we don't want to just offer our customers a product. We want to partner with our customers to understand their contaminant challenges and provide valuable solutions to save them money, improve their process performance and reduce environmental impact. In order to do that, we have built a strong, reliable company. We invest in research, development and technologically advanced testing facilities. We employ engineers who design forward thinking products with our environment in mind. We manufacture several components that go into making our finished products such as media, end caps, cores, vanes, cyclotubes, risers, and closures. This ensures that our quality is closely monitored and maintained. Our employees make sure our customers come first, providing a world-class service experience.

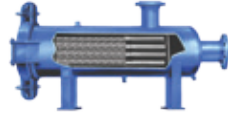
COMMITTED TO QUALITY

At PECOFacet we have a reputation for providing quality products. Our products conform fully to contractual requirements and are designed, manufactured and tested in accordance with the quality assurance principles set forth in ISO 9001:2008, with additional controls to satisfy national and international codes such as ASME Section VIII. PECOFacet is committed to continually improving the effectiveness of our Quality Management System, and thereby our products and services.

1936

Bypass Lube Oil Filter

1949



Dry Gas Filter

1953



Filter-Separator

1955

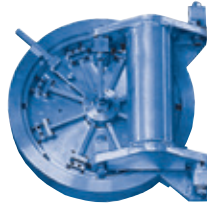
Hook Vane



Cyclotube Blade Design Improved



ProComp VKO[®] Vertical Knock-Out



SafeLock Closure



PEACH[®] Saturated Depth Coalescing[™]

2002

2001

2000

1999

2003



PEACH[®] GOLD Cartridges



SCIENTIFIC PROCESS SOLUTIONS

Scientific Process Solutions Testing Business Launched

Generation 2 performance level recipes for PEACH[®] Saturated Depth Coalescers

2004



SafeLock 2 Closure

2007



PEACH[®] Fusion



PlantGard[®]

2008

1965



Quick Opening Closure

1973



Cyclonic Cyclotube

1981



Wave Plate Vane

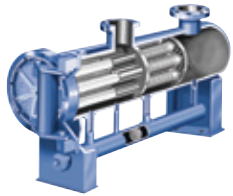
1985



High Efficiency Vertical Gas Coalescer



PEACH® Cartridge Process



PEACH® Gemini PuraSep®



Cyclonic Mini-Cyclone

1998

1995

1990

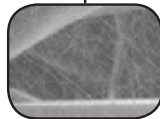


XtreamPure® High Flow Liquid Filtration



VKC Cyclonic Technology

Generation 3 performance level recipes for PEACH® Saturated Depth Coalescers



Protura PEACH® (Nano Technology)



BlastPure® Auto-Clean Filtration System



Chemelean™ Economy Liquid Filtration

2012

2013

2014

2015

For a complete timeline please visit us online at www.PECOFacet.com/About-Us/History.

Your Contaminant Management PartnerSM

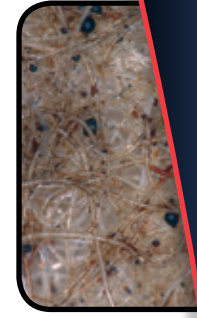
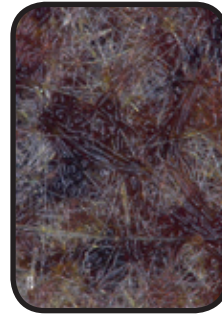
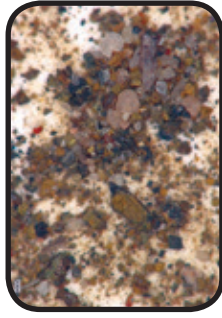
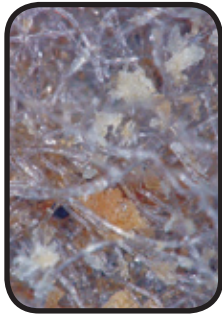
Today's oil & gas environment requires more than just managing day-to-day filter changes. There is an urgency to address complex contaminant management issues that interconnect us all. Smart companies leverage partnerships that synergize with overall corporate sustainability. PECOFacet is one of these companies.

Working with our customers' commercial and technology teams, we create contaminant management solutions that fuse innovative technologies, products, advanced testing and services.

Our global resources allow us to easily propagate these solutions from one facility to another throughout the world. The outcome generates improved operational metrics that drive sustainability and profits.

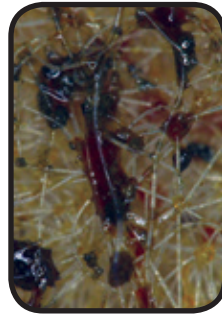
With over 75 years of industry knowledge, engineering vision, ongoing research, and a vast network of resources, PECOFacet continually produces innovative contaminant management solutions for an ever-changing industry landscape and an environmentally conscious world.





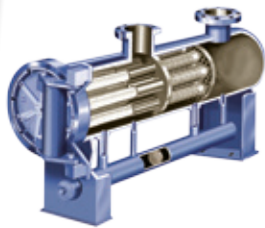
The contaminant dictates the method of filtration used to remove it.

In oil & gas applications contaminants come in a wide variety of forms. At PECOFacet we believe that proper filtration shouldn't be solved by just one type of equipment or cartridge style. That is why we have a variety of filter housings and cartridges to handle even the most trying of contaminant removal challenges. We always believe *'The Contaminant Dictates the Method'* upon which filter products we select. With over eight categories of filter housing and a multitude of depth and pleated cartridge options, we can ensure the right selection for our customers application needs.



ALL YOUR FILTRATION

**Wet Gas
High Capacity
Filtration &
High Efficiency
Coalescing**
0.3 µm



PEACH® Gemini
PuraSep®
Model PGCPH



PEACH® Gemini
PuraSep®
Model PGCPH-Slug

**Wet Gas
Aerosol Liquid
High
Efficiency
Coalescing**
0.3 µm



Model 89



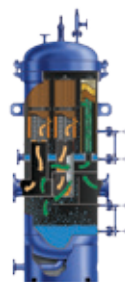
Model 77V



Model
77V-VKO



Model
VKOC

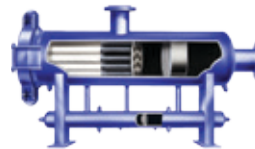


Model 3AGB

**Wet Gas
Filtration
& Separation
Filter-Sep**
1 µm



Model 85



Model 75H



Model 75V



Boot-Sep™
Model GPFS

**Wet Gas Bulk
Liquid
Separation**
3–10 µm



Model 95V



Model 95SV



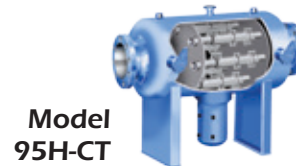
Model
95V-CT



Model
95SV-CT



Model
95H-VBANK



Model
95H-CT

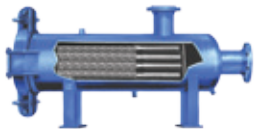


Model
95VKC

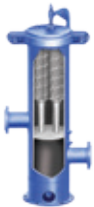
NEEDS IN ONE LOCATION

Dry Gas Filtration

1 μ m



Model 70



Model 70V



Model 90



Model 30, 30A



Model 30F



Model 95V-MC

Liquid Filtration

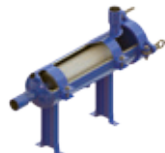
1–100 μ m



XtreamPure[®]
Model 55X



SuperFlex[™]



Chemelean[™]
Model 55C

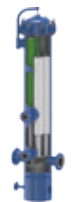


Model 55



Model 55HD

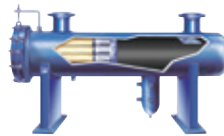
Liquid Phase Coalescing



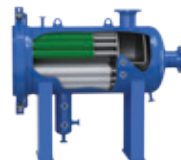
Model 110V



Model 110H
w/wafer pack



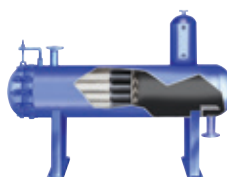
Model 110H
w/cartridges



Model 110H
w/cartridges



Model 110HR
w/wafer pack



Model 110HR
w/cartridges

Liquid Adsorption



Series 10



Model 10FB



PEACH[®] Fusion
Filtration System

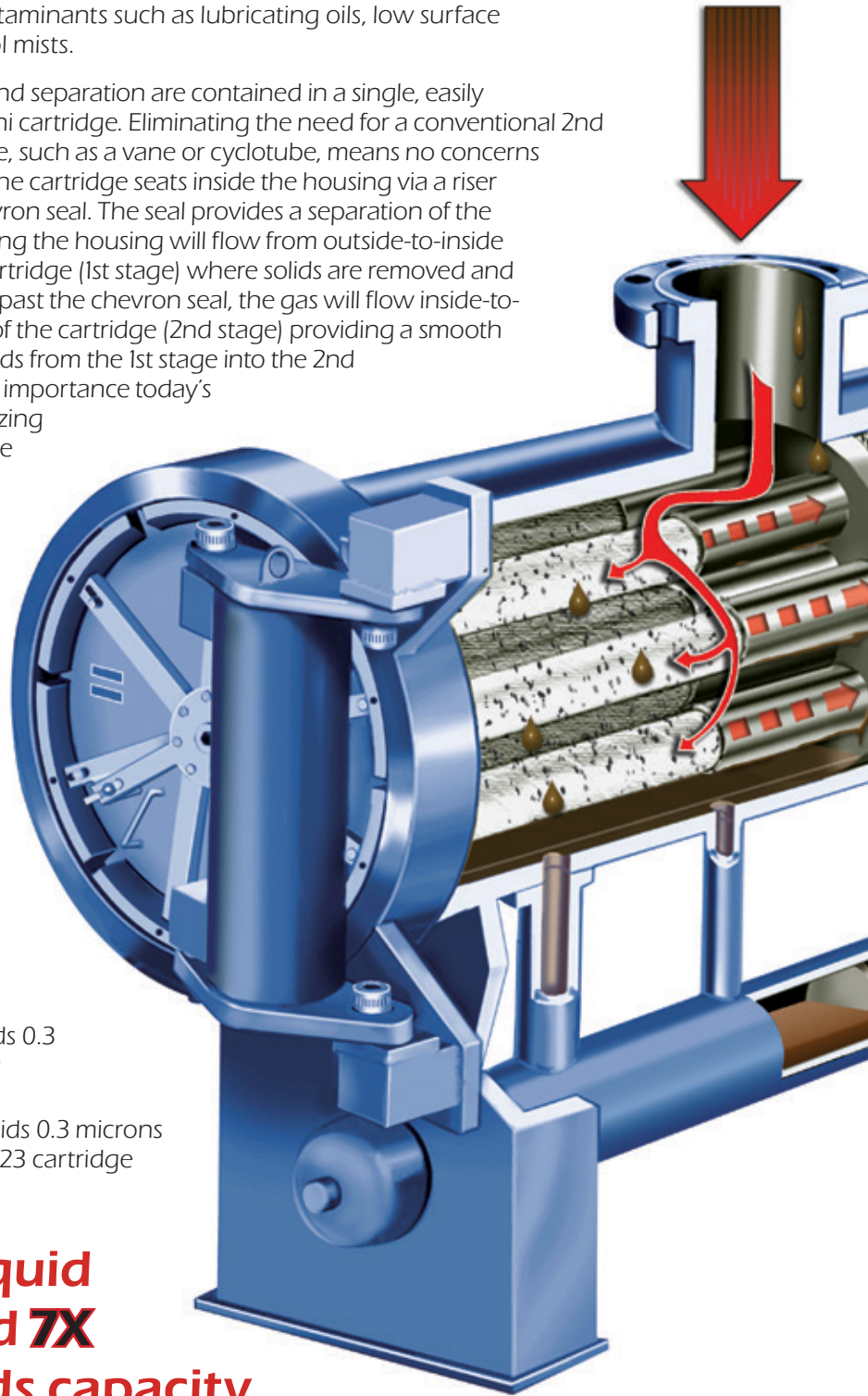
PEACH® Gemini PuraSep® The world's first horizontal designed gas coalescer

The PEACH® Gemini PuraSep® is an innovative concept in gas coalescing technology which provides the solids loading capabilities of a filter-separator with the liquid removal efficiency of a vertical coalescer. This patented design provides ultra-clean gas with high efficiency removal of solid and liquid contaminants down to 0.3 microns. It can effectively handle higher inlet solid and liquid loads versus conventional vertical coalescing equipment and is designed to remove a wide range of liquid contaminants such as lubricating oils, low surface tension liquids, and aerosol mists.

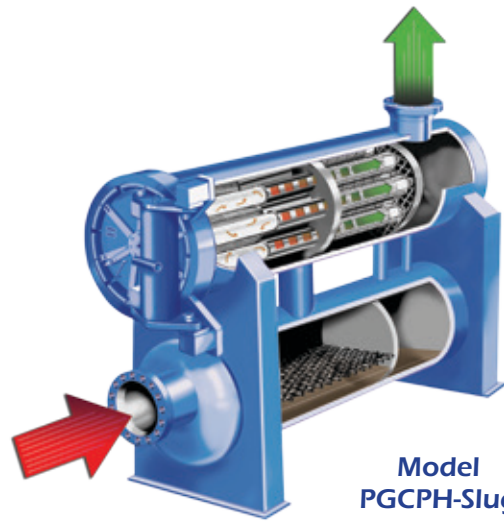
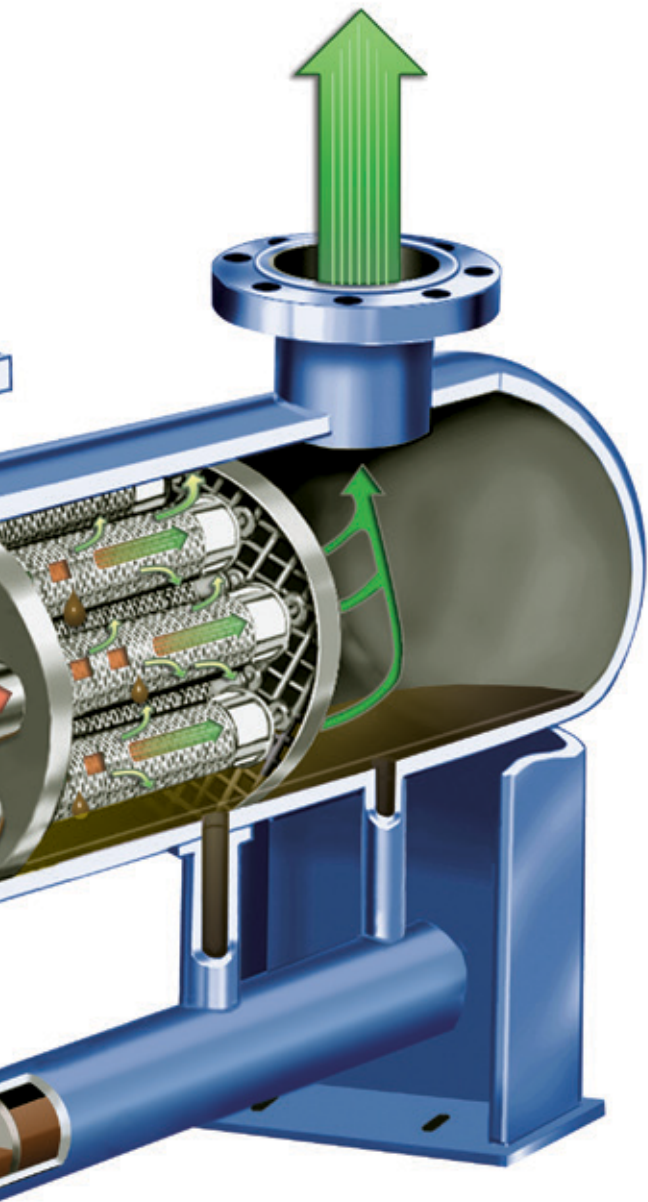
Two stages of coalescing and separation are contained in a single, easily replaceable PEACH® Gemini cartridge. Eliminating the need for a conventional 2nd stage mist extraction device, such as a vane or cyclotube, means no concerns of plugging or corrosion. The cartridge seats inside the housing via a riser tube with the use of a chevron seal. The seal provides a separation of the cartridge so that gas entering the housing will flow from outside-to-inside through the front of the cartridge (1st stage) where solids are removed and coalescing is begun. Once past the chevron seal, the gas will flow inside-to-outside through the back of the cartridge (2nd stage) providing a smooth transition of coalesced liquids from the 1st stage into the 2nd stage. Keeping in mind the importance today's customer places on minimizing operation and maintenance costs, simple, quick and trouble-free operation has been incorporated into the PEACH® Gemini PuraSep® design.

- 254mm to 1829mm diameter custom designs available
- 100% turn-down
- User-friendly
- Removes 99.9% of solids 0.3 microns and larger
- Removes 99.5% of liquids 0.3 microns and larger using standard PGC cartridge
- Removes 99.99% of liquids 0.3 microns and larger using PGC PL-20 cartridge
- Removes 99.99+% of liquids 0.3 microns and larger using PGC PL-23 cartridge (light foam)

28X more liquid capacity and 7X greater solids capacity than a vertical coalescer



Model PGCPH



**Model
PGCPH-Slug**



Cartridge Model PGC

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 tortuous (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.

US Patent 6,168,647 • US Patent 5,919,284



Model 77V



Model 77V-VKO

Vertical Gas Coalescers

PECOFacet **Model 77V** gas coalescers are highly efficient mist and aerosol removers down to the 0.3 micron level. Typical Model 77V coalescer applications include desiccant bed protection, compressor discharge lube oil removal, feed gas filtration, process liquid reclaiming, and general low surface tension mist removal. Standard design includes PEACH® technology Saturated Depth Coalescing™ cartridges, PECOFacet exclusive full diameter Quick Opening Closure, stilling screen and outlet baffle. Units are designed from 152mm through 1524mm diameter and constructed in accordance with all major design codes.

Stock units are available in 203mm, 406mm, 660mm, 864mm and 1219mm diameters at 600# ANSI rating.

Model 89 small volume vertical reverse-flow coalescers are typically used for fuel gas coalescing yielding a high level of aerosol and solid particle removal down to the 0.3 micron level. They are designed and code stamped in accordance with ASME Code Section VIII Div. 1.

Stock units are available from 152mm through 254mm diameter at 150# ANSI rating.



Model 89



PECOFacet recommends using **PEACH® DynaCeptor™** cartridges with Saturated Depth Coalescing™ technology. This technology is extremely different than pleated products which have to be tight to screen down to 0.3 micron and shed the coalesced liquids off quickly to prevent high differential pressure. Saturated Depth Coalescing™ provides a gradient depth structure with high porosity and permeability for the coalesced liquids to collect and saturate the cartridge without building up a high differential pressure or having to drain too quickly.

Cartridge Model NGGC

Available in various Performance Levels to handle many different kinds of coalescing applications.

ALL CARTRIDGE OPTIONS

PEACH® DynaCeptor™

- NGGC PL-01.....PEACH® Saturated Depth Polyester
 - 99.5% liquids & 99.9% solids $\geq 0.3\mu\text{m}$ • 116°C
- NGGC PL-20PEACH® Saturated Depth Polyester
 - 99.99% liquids & solids $\geq 0.3\mu\text{m}$ • 116°C
- NGGC PL-23PEACH® Saturated Depth Polyester
 - 99.99+% liquids & solids $\geq 0.3\mu\text{m}$ • 116°C (light foam applications)
 - Polypropylene version available for applications with trace amine
 - Use PZC version for housings with z-bar riser post

p-Ceptor™

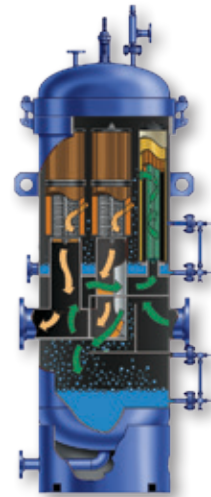
- NGGC PL-51Pleated Microglass • 99.97% liquids & solids $\geq 0.3\mu\text{m}$ • 116°C

FibrCeptor™

- FF.....Depth Microglass • 99.5% liquids & solids $\geq 0.3\mu\text{m}$ • 177°C
- FFPDepth Microglass with internal pleat pack
 - 99.5% liquids & solids $\geq 0.3\mu\text{m}$ • 177°C
- FF-HTO.....Depth Microglass • 99.5% liquids & solids $\geq 0.3\mu\text{m}$ • 232°C

Vertical Air/Gas Coalescers

PECOFacet Model **3AGB** air/gas coalescers remove solids and liquids from air or gas streams. The vertical housing provides easy access for inspection and change-out of cartridges. The unique baffle plate design at the inlet removes large amounts of solid particulate and entrained liquids, including slugs, from the air or gas stream before entering the coalescer and separator cartridges. Units are designed from 254mm through 914mm diameter at 10 barg and constructed in accordance with ASME design codes.



Model 3AGB

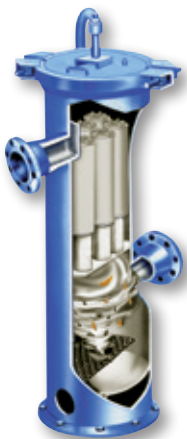


Cartridge Models:

Coalescers: CD6V, CD13, CB28

Separators: SP408NC-1,
SPI11NG-1,
SPI14NC-1

AGB cartridges consist of coalescers and separators. The coalescer cartridge performs the dual function of coalescing liquids and filtering microscopic solid particles. Construction includes a depth glass media, resin impregnated cellulose internal pleat pack to handle solid contaminant and outer perforated shell with cotton sock overlay to provide excellent coalescing drainage plus structural support for inside-to-outside flow direction. The separator is constructed of specially treated pleated resin impregnated cellulose and is used to repel any droplets of coalesced liquids which did not settle to the sump with gravity.



Model VKOF
and VKOC

ProComp VKO® Vertical Knock-Out Filters & Coalescers

PECOFacet **Model VKOF & VKOC** housings are specifically designed to handle the most demanding gas filtration applications found in the compression industry. Created to be efficient and economical, these units utilize proprietary Dynamic Separation Technology coupled with PEACH® cartridge technology. Model VKOF (Vertical Knock-Out Filter) is for applications on compressor inlets where bulk liquids and solids removal from gas streams is required. Model VKOC (Vertical Knock-Out Coalescer) is for gas/oil separation applications, like rotary screw compressors, where high discharge liquid levels are typical.

ProComp Gas/Liquid Vortex coalescer & particulate cartridges, utilizing PEACH® technology, are used in the Model VKOF & VKOC housings.

Model PGLVP is used in the VKOF housing and provides three grades of solids removal protection: Extra Fine, Fine and Coarse.

Model PGLVC is used in the VKOC housing and provides coalescing down to 0.3 microns.

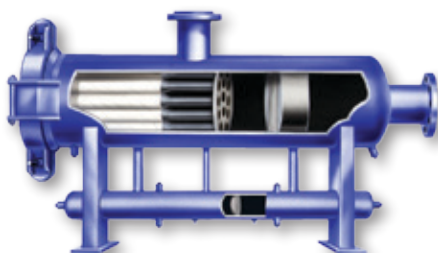


Cartridge Model PGLVP & PGLVC

Gas Filter-Separators



Model 75V

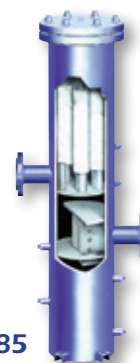


Model 75H

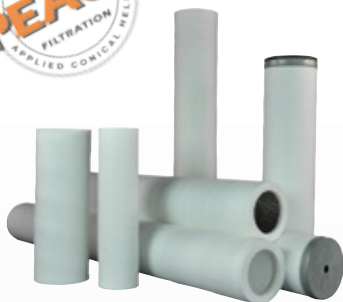
Since inventing the filter-separator in the 1950's, PECOFacet **Model 75** filter-seps have set the standard for reliability and performance on today's gas pipelines. Model 75 filter-seps are found removing solids and liquids on compressor suctions and plant entrances throughout the world. Standard construction includes PEACH® technology cartridges, the PECOFacet exclusive Quick Opening Closure, z-bar 4 point cartridge supports, and high efficiency mist extractors. Mist extractor options include wave plate vane, wire mesh and cyclotube technology. Housing design is available in all major design codes and certifications. Model 75 filter-seps are available in vertical and horizontal configurations in 152mm through 2134mm diameter sizes.

Model 85 small volume fuel gas filter-separators are used in fuel gas conditioning filtration for compressors and engines used throughout the industry. They are designed and code stamped in accordance with ASME Code Section VIII Div. 1.

Stock units are available from 152mm through 254mm diameter at 150# ANSI rating,



Model 85



PECOFacet recommends using **PEACH® DynaSep™** cartridges in filter-separators. This PEACH® technology cartridge is a great choice for removing deformable and shear-sensitive contaminants typically found in natural gas applications. The rigid structure maintains an open porosity and permeability, while the tortuous flow path increases the probability for contaminants to impact filter fibers.

Cartridge Model PCHG

Available from 0.3 microns to capture iron sulfide and other shear sensitive contaminant, all the way up to 10 microns for larger debris removal.

ALL CARTRIDGE OPTIONS

PEACH® DynaSep™

PCHG.....PEACH® Polyester • 99.98% efficiency • 0.3, 0.5, 1, 5, 10µm • 116 °C

PCHG-PP...PEACH® Polypropylene • 99.98% efficiency • 0.3, 0.5, 1, 5, 10µm • 82 °C

FibrSep™ GX

FGX..... Depth Polyester • Great for Scheduled Maintenance

• 99.5% efficiency • 1µm • 116 °C

FibrSep™

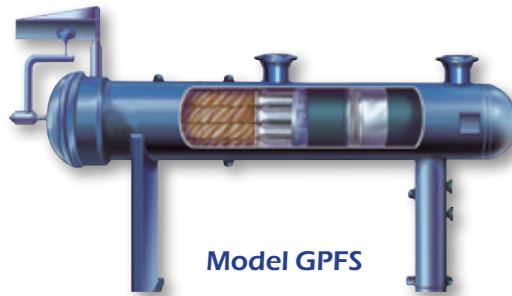
FG..... Depth Glass • 98% efficiency • 0.3, 0.5, 1, 5, 10, 25, 50µm • 135 °C

FGGF..... Depth Glass • 98% efficiency • 1µm • 288 °C

Boot-Sep™ Gas Filter-Separators for Production & Gathering

PECOFacet **Boot-Sep™ Model GPFS** is designed specifically for the demands of the natural gas production and gathering industry providing three types of units in stock ready for same day shipment and competitive pricing. Boot-Sep™ filter-seps are easy to install and maintain and come with FibrSep™ GX synthetic depth cartridge technology. Whether you're building a new gathering system or trying to improve the performance of existing compressors and processing equipment, the Boot-Sep™ is a great investment for your filtration needs!

Stock units are designed and constructed to ASME code and available in horizontal configurations in 305mm, 406mm and 610mm diameter sizes.



FibrSep™ GX cartridges are the perfect pairing to the Boot-Sep™ housing. The cartridges provide an upgrade in filtration performance from traditional fiberglass cartridges at an economical price point. FibrSep™ GX is a great choice for those changing cartridges on a scheduled maintenance versus maximum differential pressure.

Cartridge Model FGX

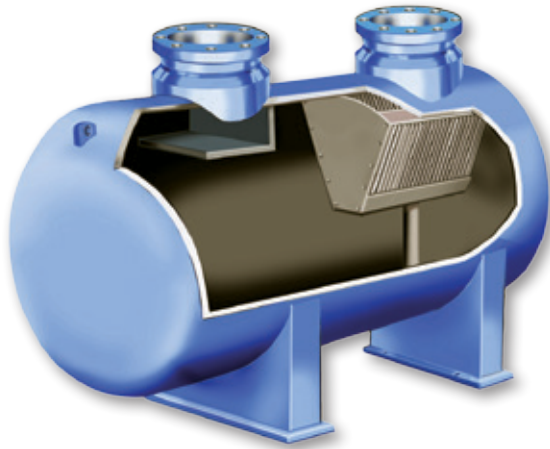
Available in polyester media at 1 micron filtration.



Model 75H Filter-Separator loaded with contaminants

Vane Style - Gas Separators & Scrubbers

PECOFacet **Model 95** vane mist extractors can be found throughout the industry as production separators, three phase separators, knock-out drums and in a variety of other applications where liquid removal is required. The Model 95 offers the PECOFacet Hook Vane and proprietary Wave Plate Vane mist extractors for high efficiency, reliable free liquid and aerosol mist removal. Units are available with or without slug catching ability, in vertical and horizontal configurations. Design is available in all major design codes and certifications. Sizes are available from 305mm through 3048mm diameter.



**Model 95H-VBANK
Scrubber**



**Model 95V
Separator**

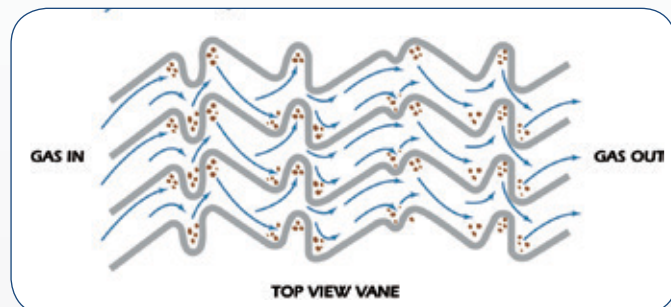
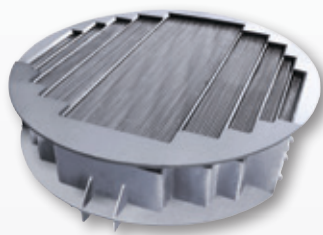


**Model 95SV
Scrubber**

WAVE PLATE VANES

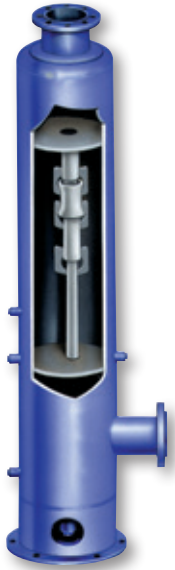
The Wave Plate Vane, PECOFacet's most popular vane style, provides a controlled change of direction for the gas stream. Liquid droplets impinge upon the vane plates and become trapped in individual drain passages where they collect and coalesce until heavy enough to drain out by gravity.

- 98% efficiency of liquid droplets 8-10 microns and larger
- High liquid loading capability
- Best for removing hydrocarbon liquids and water
- 10 to 1 turn-down ratio

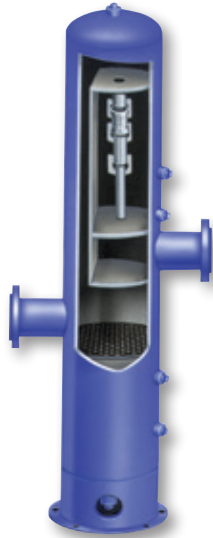


Cyclotube Style - Gas Separators & Scrubbers

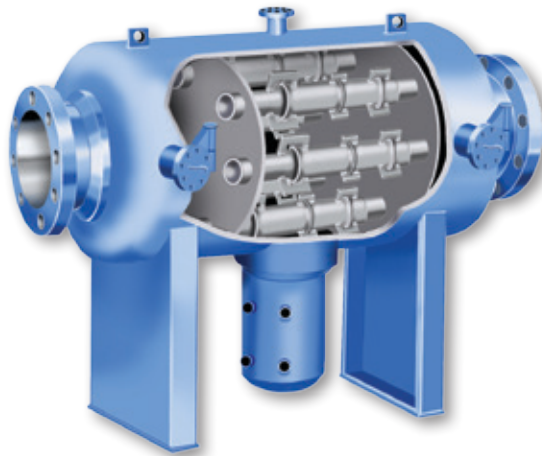
The PECOFacet **Model 95-CT** proprietary two stage vertical tube separation system has proven to yield high efficiencies for mechanical or non-disposable separation devices. PECOFacet Cyclotubes are used in production as initial liquid separators, on gas coalescer and filter separator inlets as bulk liquid knockouts, as multistage compression separators, process liquid reclaimers downstream of contact towers and in many other critical locations. Units are available with or without slug capacity, in vertical or horizontal configurations and in diameter sizes ranging from 305mm through 3048mm. Designs in all major design codes and certifications are available.



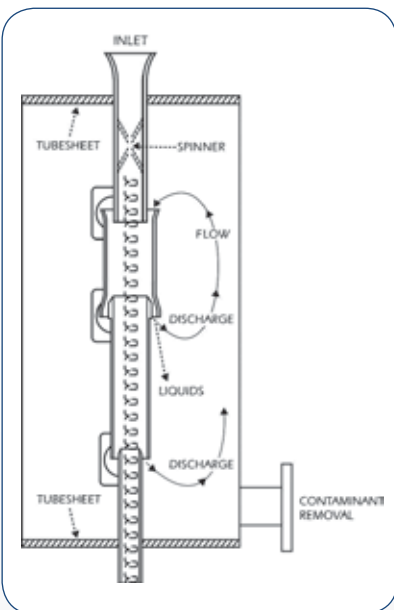
**Model 95V-CT
Separator**



**Model 95SV-CT
Scrubber**



**Model 95H-CT
Separator**



CYCLOTUBES

The Cyclotube takes the incoming gas stream and applies a centrifugal motion to it which separates particles from the gas. The inertia imparted upon the liquid particles by the swirling motion forces them to the outer wall of the Cyclotube, where they are ejected into a quiescent zone for removal.

- 98% liquid droplets 8-10 microns and larger (Low Energy)
- 98% liquid droplets 3-5 microns and larger (High Energy)
- Best for removing lube oil, glycol, paraffin, brine, asphaltenes
- Low susceptibility to plugging
- Highest efficiency on "crawling" liquids and low surface tension liquids
- 4 to 1 turn-down ratio



Vertical Knock-Out Gas Cyclone Separator

The PECOFacet Model **95VKC** (Vertical Knockout Cyclone) is a rugged, bulk solids removal, gas separator. The model 95VKC is designed to handle high flow rates and a larger volume of solids than a typical cyclone separator. The vertical knockout cyclone resists plugging in the presence of wet solids and operates at a lower pressure drop than other cyclone separators. The unit is designed to remove greater than 85% of 10 micron and larger contaminant, up to 40,000 ppm in the influent. Removing solids from the sump is easy with clean-out valves or a man way to facilitate the removal. The Model 95VKC can be used upstream of dry gas filters to reduce the cartridge change-out frequency for black powder or other high solids loading applications. The Model 95VKC has a turn-down ratio of 4 to 1.



Model 95VKC

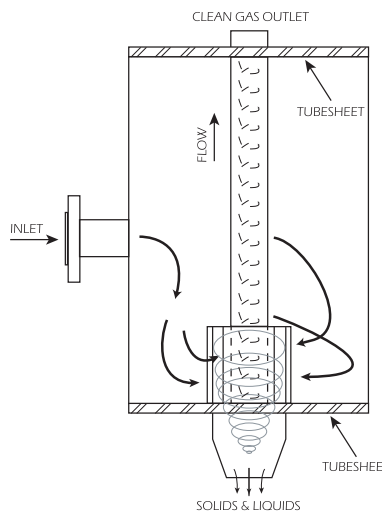


Model 95V-MC

Mini-Cyclone Gas Separator

The PECOFacet Model **95V-MC** (Mini-Cyclone) is a liquid or solids cyclonic gas separator. The Model 95V-MC offers a high efficiency, contaminant removal system that will remove dry solids in the gas stream up to 600 ppm(w) and free liquids to 20,000 ppm. The Model 95V-MC provides a rated efficiency for 100% removal of dry solid particles 8 micron and larger. For a liquid mist the Model 95-MC will remove 100% of the liquid particles 5 micron and larger including low surface tension liquid contaminant. Applications for the Model 95V-MC might include upstream of a fuel gas coalescer or storage gas

withdrawal locations. They have also been used upstream and downstream of amine and glycol contact towers. The Model 95V-MC has a turn-down ratio of 4 to 1.



Engineered Filtration & Separation Skid Packages

PECOFacet offers custom, complete packaged skid units which can be equipped to include a variety of PECOFacet's filtration equipment coupled with instrumentation, valves, piping, electrical, insulation, etc. to be ready for "Plug and Play" installation at the job-site.

The skid packages can be arranged in a variety of configurations in order to satisfy our customer's needs. Please consult the factory for more information regarding skid packages.

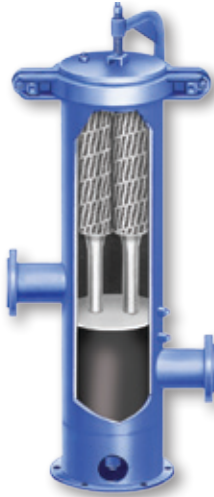
- **Fuel Gas Filtration Skids**
- **Duplex Filtration Skids**
- **Portable**
- **Efficient**
- **Cost Effective**
- **Turn Key**
- **Custom Design**



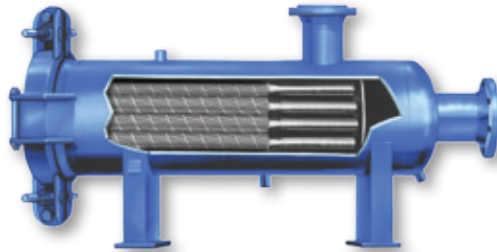
Dry Gas Filters

PECOFacet **Model 70** dry gas filters are designed to handle a variety of solid particle removal applications. Standard design includes the exclusive PECOFacet Quick Opening Closure and z-bar 4 point cartridge supports.

Model 70 dry gas filters add the flexibility of using a variety of filter cartridges to yield optimum economics and maximum performance under nearly any service condition. Design is available in all major codes and certifications. Sizes range from 152mm through 2134mm diameter in vertical and horizontal configurations.



Model 70V



Model 70H



Model 90

Model 90 small volume gas housings are used for dry, solid particle removal. They are designed and code stamped in accordance with ASME Code Section VIII Div. 1.

Stock units are available from 152mm through 254mm diameter at 150# ANSI rating.



TruGard™ cartridges are constructed of pleated media to trap rigid, solid particles and aid in building a “filter cake.”

Cartridge Model PSFG

Available from 0.5 microns to 50 micron to handle large contaminant spreads.

ALL CARTRIDGE OPTIONS

TruGard™

- PSFG -EPleated Polyester • 99.98% efficiency • 0.5, 1, 5, 10, 20, 50µm • 116 °C
- PSFG -GPleated Glass • 99.98% efficiency • 0.5, 1, 5, 10, 20, 50µm • 116 °C
- PSFG -LPleated Polypropylene • 99.98% efficiency • 0.5, 1, 5, 10, 20, 50µm • 82 °C
- PSFG -NPleated Nylon • 99.98% efficiency • 0.5, 1, 5, 10, 20, 50µm • 149 °C

PEACH® DynaSep™

- PCHGPEACH® Polyester • 99.98% efficiency • 0.3, 0.5, 1, 5, 10µm • 116 °C
- PCHG-PPPEACH® Polypropylene • 99.98% efficiency • 0.3, 0.5, 1, 5, 10µm • 82 °C

FibrSep™ HTO

- FGGFDepth Glass • 98% efficiency • 1µm • 288 °C

In-Line Dry Gas Filters

PECOFacet offers a full line of dry gas filters for gas distribution, regulator stations, instrument gas, and a variety of other dry gas applications.



Model 30

Model 30 is a cast steel design available in 51mm, 76mm and 102mm flange connections up to 600# ANSI rating.

Model 30A offers an economical alternative to the Model 30. It is lightweight cast aluminum available in 51mm, 76mm and 102mm" flanged connections at 150# ANSI rating.

GritGard™ cartridges are constructed of pleated media to trap rigid, solid particles and aid in building a "filter cake." Flow is outside-to-inside and with compression spring sealing.



Cartridge Models PEPP & PEPS

Available in polyester or cellulose medias from 2 micron to 20 micron.

A unique PEACH® version of this cartridge is available in our **DynaGard™** Series for handling shear sensitive contaminants or for providing added durability versus pleats.



Cartridge Models PCHG-6-3.12 & 6-7.18



Model 30F

Model 30F is a fabricated steel design available in 51mm through 305mm flange connections up to 600# ANSI and is designed in accordance with ASME Code Section VIII Div. 1.

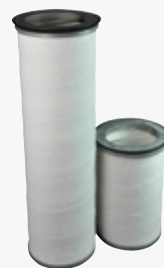
PleatGard™ cartridges are constructed of pleated media to trap rigid, solid particles and aid in building a "filter cake." Cartridges are similar to a bag design flowing inside-to-outside and trapping contaminants on the inside leaving the housing clean once the cartridge is removed.



Cartridge Models PS-559, PS-5519, PS-819

Available in polyester media from 2 micron to 20 micron.

Cartridge Model PCHG-30F



A unique PEACH® version of this cartridge is available in our **DynaGard™** Series for handling shear sensitive contaminants or for providing added durability versus pleats.



Flow-Back and Production Water Auto-Clean Filtration System

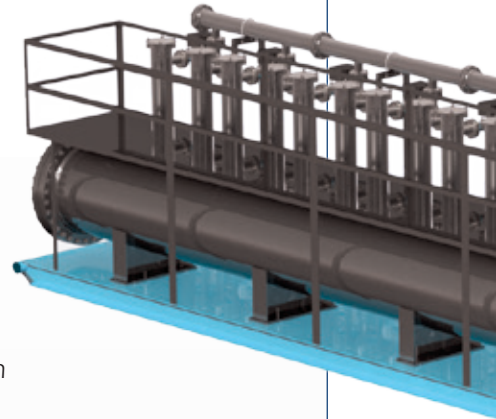
BlastPure® water filtration systems are self-contained and field proven to remove heavy concentrations of bulk solids and semi-solids from a liquid stream without the use of consumable bags or cartridges. Automatic continuous operation and media cleaning are driven by an industrial rated micro-controller. Operation can be easily adjusted through a locally mounted HMI screen.

BlastPure® systems utilize a patent pending cyclonically aided filtration system designed to minimize back-flushing cycles and waste generation. The filtration system employs a unique back flush that literally “blasts” the system’s stainless steel filter media clean of the most troublesome fouling type contaminants during the cleaning cycle.

BlastPure® filtration systems are simple, robust units designed to provide continuous trouble-free operation. Engineered, cleanable filter media’s are used to handle applications such as:

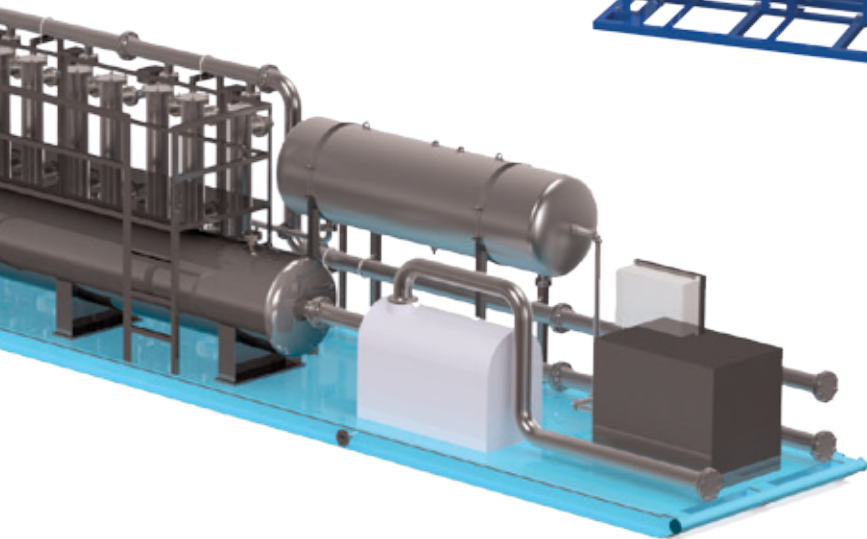
- Pre frac water filtration
- Final stage water polishing filtration
- Injection pump and reservoir protection
- Truck off-load service handling heavily fouled water loaded with gel, oil, and drilling mud

BlastPure® systems can be sized for any liquid filtration application and can be employed as permanent facility units or as mobile units for flow back sites or other field operation services. The systems can handle a contaminant concentration up to 20% with removal levels from 10 to 500 microns available.

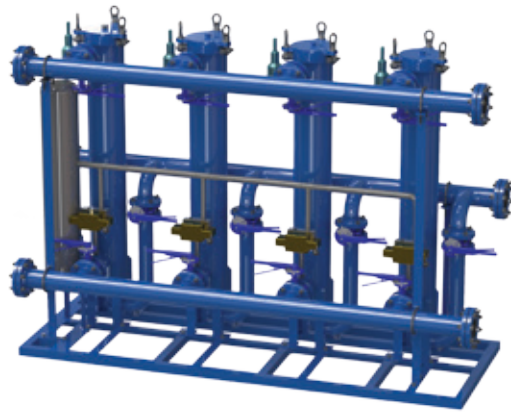


Dirty Influent

Clean Effluent



Model BPS 30
4,770 Liters/Minute
Automatic System, Hands-Free Operation,
Computer Control



Model BPS 14
2,226 Liters/Minute
Manual System

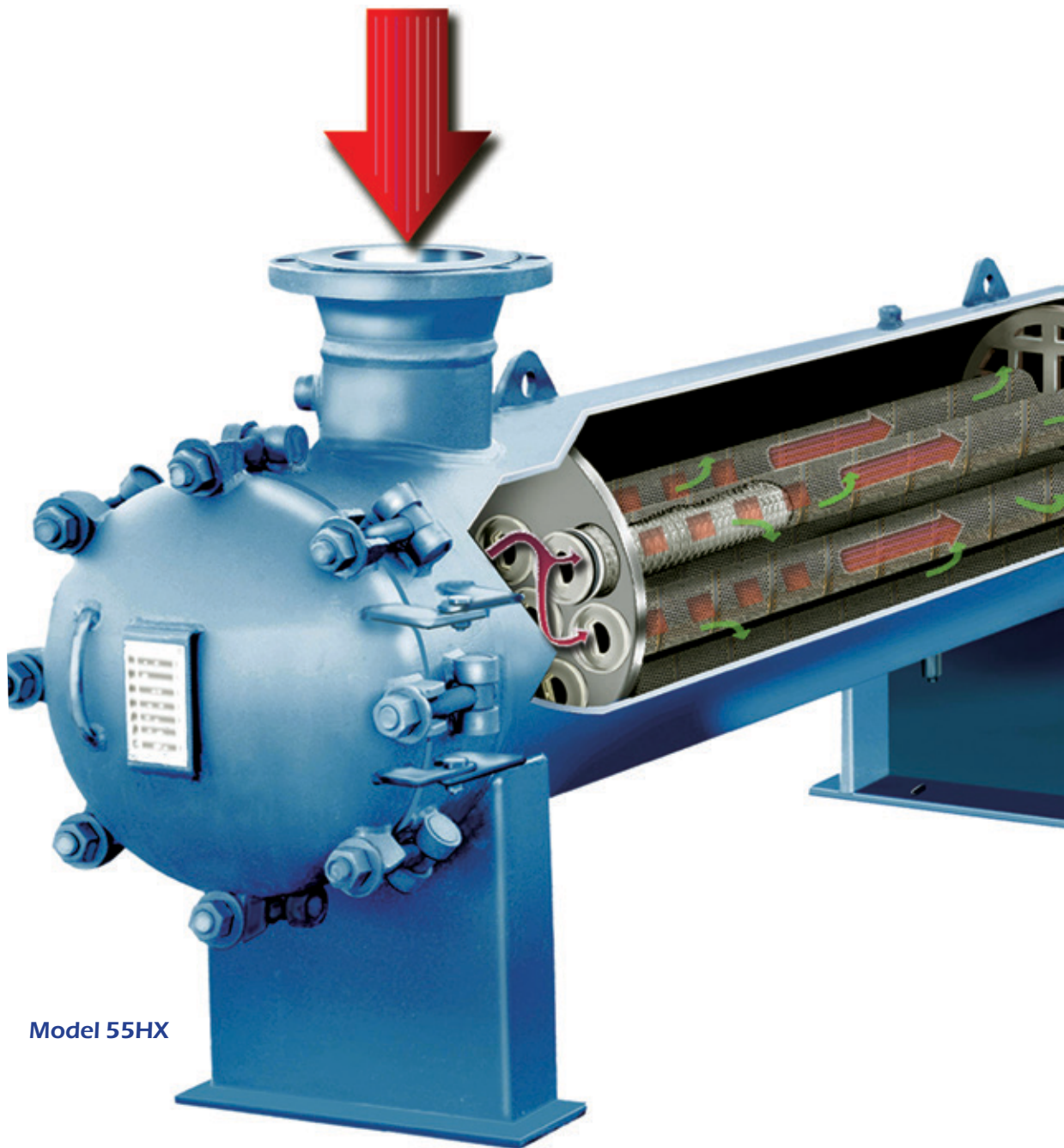


XTREAMPURE®

High Flow Capacity & High Contaminant Loading Liquid Filters

The latest liquid housing line in PECOFacet innovation, the **XtreamPure®** provides high capacity filtration for virtually any liquid application by utilizing large 152mm diameter cartridges in 1016mm and 1524mm lengths with a variety of material choices for compatibility and performance needs. The inside-to-outside flow through the cartridge makes sure contaminant is captured within the cartridge allowing a cleaner cartridge extraction during change-outs. Design is in accordance with all major design codes and available in vertical and horizontal configurations, 254mm through 2134mm diameter.

Stock units are available in 254mm and 457mm diameter at 150# and 600# ANSI ratings.



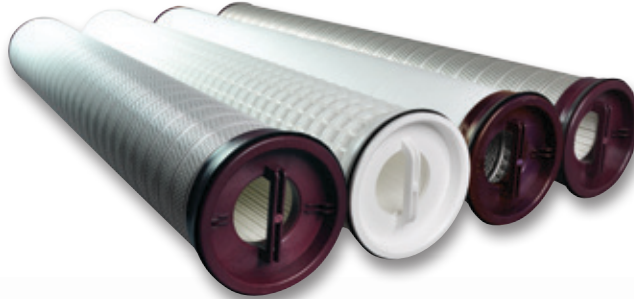
Model 55HX

Cartridge Model XP

Available in depth or pleated styles with various material choices for best contaminant removal selection.

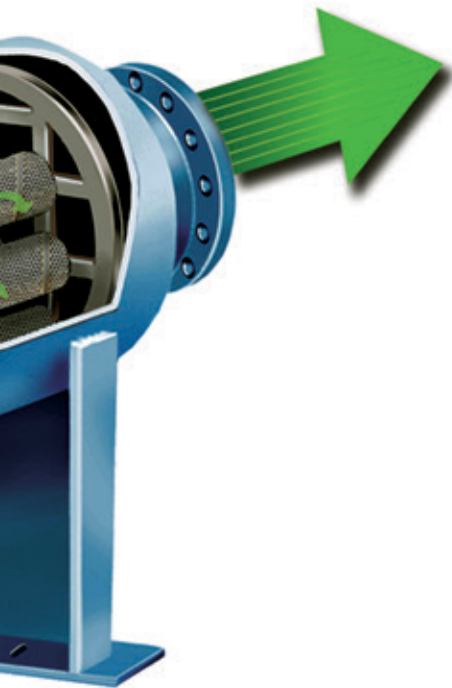
Cartridge Model XPHP

High performance, enhanced multi-layered media/screen pleated cartridge options for maximum contaminant loading and service life.



ALL CARTRIDGE OPTIONS

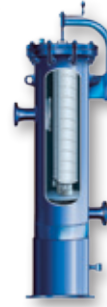
XP-E _____	Pleated Polyester with Louvered Outer Support 99.98% efficiency • 5µm-100µm • 240°F
XPHP-E _____	
XP-L _____	Pleated Polypropylene with Polypropylene Cage Outer Support 99.98% efficiency • 5µm-100µm • 82°C
XPHP-L _____	
XP-G1 _____	Pleated Glass/Acrylic with Louvered Outer Support 99.98% efficiency • 1µm-30µm • 121°C
XPHP-G1 _____	
XP-G2 _____	Pleated Glass/Acrylic with Corrosion Resistant Outer Support 99.98% efficiency • 5µm-100µm • 121°C
XPHP-G2 _____	
XP-GHT1 _____	Pleated Glass/Epoxy with Louvered Outer Support 99.98% efficiency • 1µm-30µm • 177°C
XPHP-GHT1 _____	
XP-GHT2 _____	Pleated Glass/Epoxy with Corrosion Resistant Outer Support 99.98% efficiency • 1µm-30µm • 177°C
XPHP-GHT2 _____	
XP-PCHL _____	PEACH® Polypropylene 90% efficiency • 5µm-40µm • 82°C
XP-PCHE _____	PEACH® Polyester 90% efficiency • 5µm-40µm • 116°C
XP-C1 _____	Pleated Cellulose with Louvered Outer Support 90% efficiency • 5µm-40µm • 121°C
XP-C2 _____	Pleated Cellulose with Corrosion Resistant Outer Support 90% efficiency • 5µm-40µm • 121°C



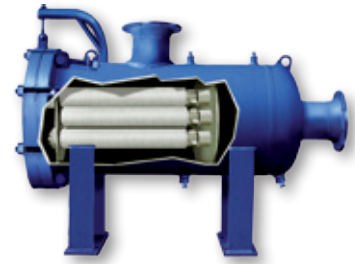
Superior Contaminant Loading Liquid Filters

PECOFacet **Model 55HD** liquid housings are designed around GOLDXtream® and PleatXtream™ cartridges that flow outside-to-inside. Cartridges flow up to 227 lpm and hold on average around 9 kg of contaminant. 55HD housings have removable cartridge support posts and a front-end cartridge support plate as part of the standard design and can handle a wide array of liquid applications. Design is in accordance with all major design codes and available in vertical and horizontal configurations, 254mm through 1524mm diameter.

Stock units are available in 254mm, 457mm, 610mm and 914mm diameter at 150# ANSI rating.



Model 55HDV



Model 55HDH

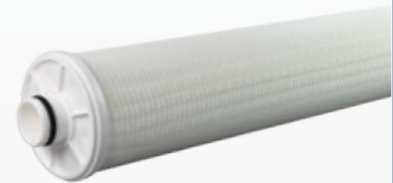


GOLDXtream® cartridges utilize PEACH® Gradient Optimized Liquid Depth technology which forces the liquid stream in a tortuous flow path through not one, but two depth media tubes with a shock zone between, changing the annular velocity of the fluid allowing for maximum contaminant removal. GOLDXtream® cartridges have proven to provide excellent filtration performance in amine and glycol systems where deformable contaminants are quite common.

Cartridge Model PHD

Available in polyester or polypropylene medias from 1 micron to 100 micron.

PleatXtream™ cartridges utilize w-Pleat technology with multi-layered medias and screens to keep pleats in place and provide maximized surface area for contaminant "cake" build up.



Cartridge Model OPHD

Available in polyester or polypropylene medias from 2 micron to 70 micron.

Economy Liquid Filters for Flow Rates up to 760 lpm



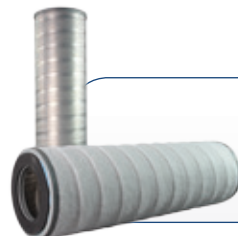
Model 55C

The PECOFacet **Chemelean™** series liquid housings and cartridges offer versatility to adapt to a wide variety of process liquid applications up to 757 lpm. The housings come in two sizes to hold either a 508mm length cartridge or 1016mm length cartridge. Chemelean™ cartridges come in a wide range of media choices for suitable fluid compatibility.

Stock units are available in 203mm diameter at 150# ANSI rating.

51mm NPT standard connections with option for changing to 51mm flange connections.

Dual rated: 19 barg at 121°C without corrosion allowance and 10 barg at 121°C with 3mm corrosion allowance.



Cartridge Model CM

Available in pleated polypropylene, polyester, glass or cellulose and PEACH® polyester or polypropylene.



Traditional Liquid Filters

PECOFacet **Model 55** liquid housings fit a variety of different style 64mm diameter and 76mm diameter cartridges depending on the application need. Housings have diameter ranges from 152mm through 1829mm and come standard with 3mm corrosion allowance, all major design codes and certifications, Quick Opening Swing-Bolt Closures, and easy-to-use closure davits. Flow rates up to 18,075 lpm and design pressures through 690 barg are available.

Stock units are available in 152mm, 203mm, 305mm, 457, 610mm and 914mm diameter at 150# ANSI rating.



Model 55

DEPTH STYLE CARTRIDGE OPTIONS



**Models
PPL & P90**

PEACH-Pure™
Made from PEACH® technology in polyester or polypropylene media. Bonded fibers with tortuous flow path.



Model PRB

Res-Pure™
Resin bonded acrylic and polyester. Good for use with high viscosity fluids.



Model EPC

EPIC™ II
Polypropylene meltblown with internal core for added strength and dual zone layering.



**Models FT, FTS,
FMP, GF, CS, WC**

Tex-Pure™
An industry icon known as the "sock filter" or "rolled depth" filter. Available in a variety of materials with the most common being a cotton/excelsior blend.



Model MP

Melt-Pure™
Economy polypropylene meltblown without core.



Model U

PureClear™
String wound style offered in a variety of string materials for a wide range of applications and chemical compatibilities.

PLEATED STYLE CARTRIDGE OPTIONS



Model PS

Tru-Pleat™
Pleated synthetic or microglass media with synthetic hardware (metal optional).



Model FI

CelluPleat™
Pleated cellulose media with steel hardware.



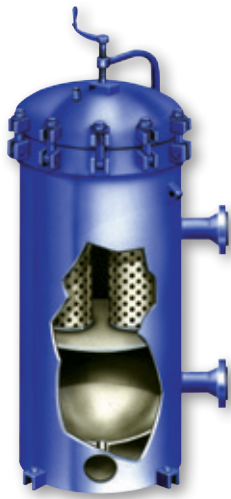
Model CP

Tru-Cell™
Pleated composite blend of synthetic and cellulose fibers with synthetic hardware (metal optional). Provides economical alternative to pure synthetics.



Model CF

CelluPleat™ E
Pleated cellulose media with synthetic hardware.



Model 10

Granular Activated Carbon Adsorbers

The PECOFacet model of carbon housings utilize quality activated carbon to adsorb dissolved liquid impurities from process streams such as air, gas, water, amine and glycol. Removal of these impurities is critical to prevent problems such as foaming, odor and contaminant build up.

The **Model 10** uses activated carbon canisters to allow fast, easy change-outs through a full diameter PECOFacet Quick Opening Swing-Bolt Closure. Diameters from 356mm through 1676mm are available to all major codes with 3mm corrosion allowance.

Stock Units are available in 356mm, 610mm and 914mm diameter at 150# ANSI rating.

CarboMax™ Canisters

Activated carbon bound in a canister form is a safe, easy to manage, and economical way to effectively remove dissolved impurities from process streams such as amine and glycol systems. PECOFacet uses the highest quality activated carbon making sure that high efficiency adsorption is achieved.



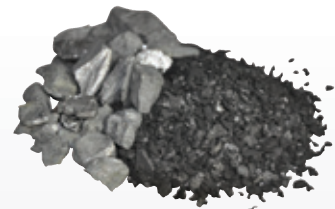
Model 10FB

The **Model 10FB** uses a fixed bed of activated carbon beneficial for large liquid and gas purification services. The 10FB utilizes the PECOFacet outlet header lateral system to eliminate bed channeling and carbon fine discharge. Diameters from 610mm through 3556mm are available to all major codes with 3mm corrosion allowance.

CarboMax™ Bulk

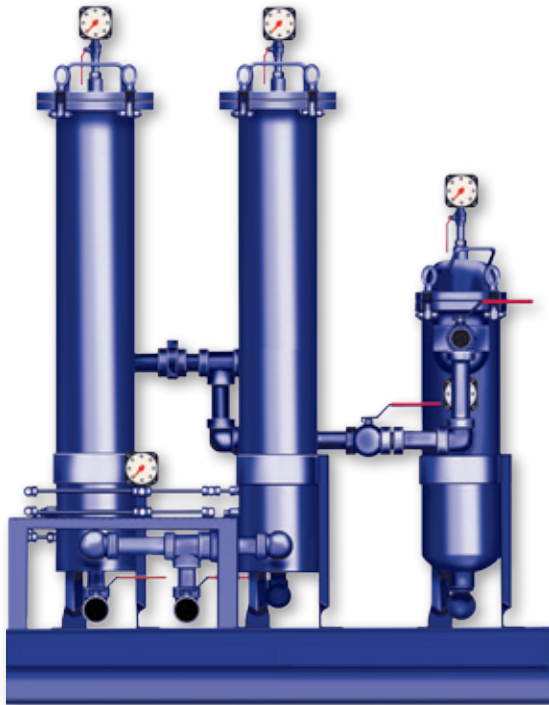
Loose activated carbon and non-activated support carbon for fixed bed style housings.

Available in 4x12 and 8x30 mesh sizes.



PEACH® Fusion Advanced Activated Carbon Adsorber Skid Lower Hydrocarbon Content and Suspended Solids

PECOFacet offers a skid-mounted, portable, full-stream filtration system featuring PEACH® Fusion technology. In the natural gas industry, treating solvents contain a variety of contaminants which are most economically removed through a multistage system.



The **PEACH® Fusion Filtration System** is a three-stage system which can be mobilized and plumbed in easily. It can treat amine or glycol systems with 20 MMSCFD or less of gas throughput and 19 lpm or less amine or glycol flow rate.

Stage 1 – a coarse grade, oil absorbing bag removes large, rigid particles such as rust, sand and weld slag

Stage 2 & 3 – are the different sections of the PEACH® Fusion cartridge

Stage 2 – helical layers of the PEACH® outer sleeve remove deformable and shear sensitive contaminants such as degradation products, iron sulfide and iron carbonate and absorbs free hydrocarbon liquid

Stage 3 – activated carbon block captures and adsorbs any residual traces of hydrocarbon liquid

The “Fusion” of activated carbon block with engineered PEACH® filtration makes this cartridge a winning combination!

At the heart of **PEACH® Fusion** technology cartridges is a porous, extruded block of activated carbon. This form of activated carbon maximizes hydrocarbon removal efficiency and limits carbon fines into the amine or glycol stream. The carbon block is encased in a specially designed PEACH® filter sleeve that has been optimized for service in treating solvents. The PEACH® sleeve filters particulate and absorbs hydrocarbons, extending the on-stream life of the carbon block it encases.



Cartridge Model CB

Smaller and easier to handle footprint than granular canisters. Sizes available to retrofit PECOFacet Model 10 granular canister housings.

Liquid/Liquid Phase Coalescers

PECOFacet Liquid/Liquid Phase Coalescers have provided years of trouble-free service in refineries, production fields and plants around the world. PECOFacet process engineers have combined scientific principles and proven separation techniques to perform the coalescence and separation between two immiscible liquids with different densities. Design is in accordance with all major design codes and certifications. Units are available for flow rates up to 4,350 gpm.



Model 110V

Model 110V vertical liquid/liquid phase coalescers utilize first stage hydrophilic coalescer cartridges and second stage hydrophobic separator cartridges to perform the separation. The flow through the coalescer cartridge is from inside-to-outside where fine liquid droplets of the discontinuous/immiscible phase are coalesced into larger droplets and separated by gravity. The coalescer will also filter out solid particles which would reduce coalescing effectiveness and require more frequent cartridge change-outs, increasing operation costs. So if solids are present, it is recommended to have a particulate pre-filter, such as the XstreamPure[®], to remove solids before going into the 110V. After the discontinuous liquid phase is coalesced, the continuous phase liquid flows from outside-to-inside through the separator cartridge. This step further purifies the continuous phase by removing any remaining discontinuous/immiscible droplets still entrained. The 110V design handles immiscible liquids with an inlet concentration up to 5% by volume (50,000 PPMV) and removes water down to 10 PPMV or less. Design is available in 14" through 60" diameter.

Common applications include removal of free water from:

- hydrocarbon condensate
- diesel
- kerosene
- LPG
- lube oil
- aromatics



Models PLPC & TLPC

CARTRIDGE OPTIONS

XstreamPhase[®] 6P & 6T

- Available in two media types
- Depth polymeric media utilizing PEACH[®] Saturated Depth Coalescing[™] technology recommended for water separation from hydrocarbons
- Pleated Timlar[™] fluoropolymer media recommended for low interfacial surface tension and corrosive separation applications



Models C, CB, CC, CR

InterPhase[™] C

- Depth glass coalescer

InterPhase[™] CPF

- Depth glass coalescer with internal pleat pack for solid contaminant removal
- Available in 1, 5, and 25 micron pre-filtration



Models SP, SS, ST

InterPhase[™] SP

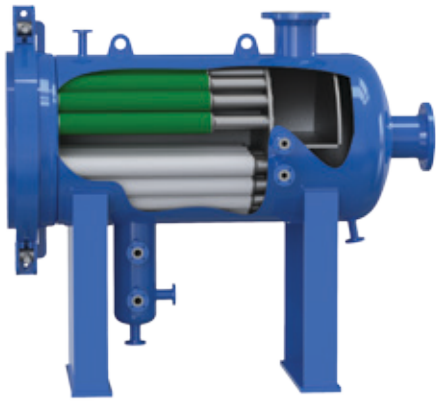
- Pleated, silicone treated cellulose separator

InterPhase[™] SS

- Hydrophobic synthetic mesh separator

InterPhase[™] ST

- Hydrophobic Teflon coated screen separator



Model 110H w/ cartridges

Model 110H & 110HR horizontal liquid/liquid phase coalescers utilize hydrophilic coalescer cartridges or a wafer pack to coalesce the discontinuous phase fluid from the continuous phase fluid. The housing length is designed to provide enough settling distance after the coalescer cartridges or wafer pack to allow for coalesced droplets to separate from the continuous phase fluid. In this design the difference in density between the two fluids needs to be at least 20%. If the discontinuous phase fluid is heavier than the continuous phase fluid, then the 110H model is used. The 110H outlet nozzle for the continuous lighter phase fluid is located on the top of the housing and includes a “boot” at the bottom of

the housing to collect the heavier discontinuous fluid. If the discontinuous phase fluid is lighter than the continuous phase fluid then the 110HR model is used. The 110HR outlet nozzle for the continuous heavier phase fluid is on the bottom of the housing and includes a “dome” at the top of the housing to collect the lighter discontinuous fluid. The 110H & 110HR designs handle immiscible liquids with an inlet concentration up to 10% by volume (100,000 PPMV). Removal of the discontinuous phase fluid down to 15-20 PPMV is achieved using the coalescer cartridge style. When using wafer packs, the removal level will vary by the wafer pack material chosen. A fiberglass wafer pack will remove down to 15-20 PPMV while an excelsior or stainless steel wafer pack will remove down to 50-75 PPMV. Design is available in 8” through 84” diameter.

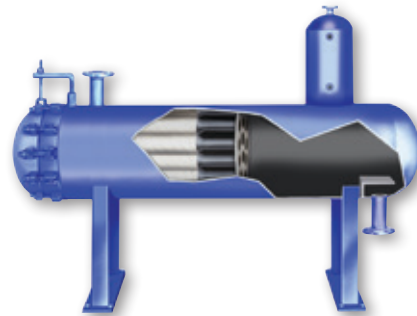
3 Phase Separator designs are also available.

Common applications include removal of:

- Caustic from fuels
- Amine from hydrocarbons
- Oil from ammonia
- Free water from Hydrogen Peroxide
- Oil from water
- Hydrocarbon from quench water



Model 110H w/ wafer pack



Model 110HR w/ cartridges

WAFFER PACK OPTIONS

InterPhase™ Packs

Wafer shaped mass packed coalescing media are available for the Model 110H units in three material choices based on desired liquid and solids removal efficiencies.

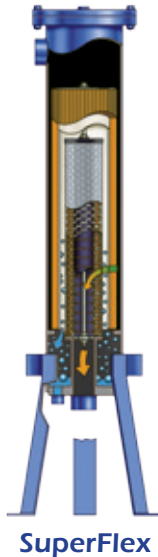
- Excelsior (wood)
- Fiberglass
- Stainless Steel Wool



SuperFlex™ Multi-Purpose Filters

PECOFacet **SuperFlex™** housings are small, economical, carbon steel units that may be used as particulate filters, air/gas filter-separators, liquid phase separators or clay/carbon adsorbers depending on the cartridges used.

Stock units are available in 203mm diameter with 51mm NPT connections, built to ASME Code, Section VIII, Div. 1 and designed for 17 barg. Stainless steel versions are also available.



Model MS removes solid contaminants from liquids, compressed air or natural gas.

Cartridge options:

- CelluPleat™ XL, Model FI, Pleated Paper Style
- Tru-Pleat™ XL, Model PS Pleated Synthetic Style
- GOLDXstream® 600D, Model 600D PEACH® GOLD Depth Style

Model AGS removes oil, water, mist and solids from compressed air or natural gas.

Cartridge options:

- Model CC-23-7 or CC-23C Coalescer
- Model CS-98-2 Separator

Model VCS removes water from hydrocarbons.

Cartridge options:

- Model CC-23-7 or CC-23C Coalescer
- Model CS-94 or CS-94-C Separator

Model FS removes hydrocarbon and degradation products from fluids such as amine, glycol, oils and fuels. Clay can also be used to remove surfactant from fuels.

Cartridge options:

- Model C-766-4 Clay
- Model CA718-C Carbon

Fuel-Gard® Multi-Purpose Filters

PECOFacet **Fuel-Gard® VF-21SB/22SB** housings are small, economical, in-line units that may be used as particulate filters, air/gas filter-separators, liquid phase separators or absorptive filters depending on the cartridges used. These single cartridge housings are made from carbon steel and epoxy coated on the interior and exterior to protect against corrosion.

Stock units are available to hold either a 229mm or 305mm cartridge and are designed for 10 barg maximum working pressure on liquid flows up to 189 lpm, or 306 m³/hr on air/gas. Inlet and outlet connections are 38mm NPT female threaded.



Model VF-21SB housing is approximately 406mm long and holds a 229mm cartridge.

Cartridge options:

- Model CF-609-2PLO, CF-609-10PLO, CF-609-25PLO Particulate Removal
- Model CC-21-7, CC-21B, CC-21C Separator

Model VF-22SB housing is approximately 508mm long and holds a 305mm cartridge.

Cartridge options:

- Model CF-612-2PLO, CF-612-10PLO, CF-612-25PLO Particulate Removal
- Model CC-22-7, CC-22B, CC-22C Separator



Cartridge Model CF removes solid contaminants from liquid, compressed air or natural gas.

Cartridge Model CC works as either an air/gas filter-separator removing aerosol oil, water and solids from compressed air or natural gas, or as a liquid phase separator removing water and solids from petroleum based products.

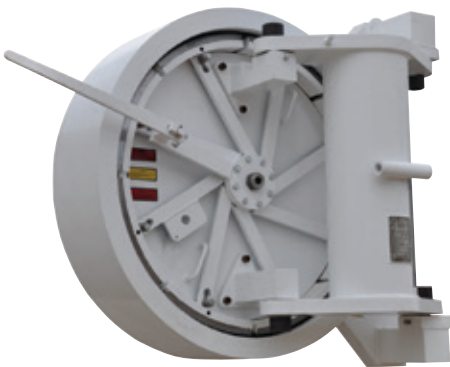
Quick Opening Closures

PECOFacet **Quick Opening Closures** have no blind flanges, a welcome benefit when frequent access to the housing is required.

One person with standard wrenches can open and close even the largest PECOFacet Quick Opening Closure. Opening is as simple as venting the pressure, checking the Pressure Warning Device (PWD), removing safety bolts and turning draw bolts to disengage the two piece yoke. The head then swings open easily. A trolley system, which bears the weight of the yoke, assures the same quick, convenient operation on larger closures.



Model OOC



Model SLC 2

SafeLock 2 Closures

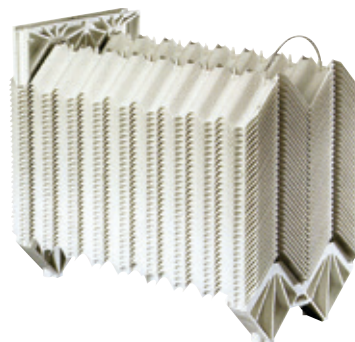
In applications where safety is paramount, or when quick and frequent access to a housing is required, the SafeLock 2 Closure is the ideal solution.

The closure is easily opened by first removing the pressure warning device to check for internal pressure. Once zero internal pressure is confirmed, the EZYOpen[®] lever is pulled down or pushed up by hand to its open position, retracting the segment rings. Then, the closure lid is simply pulled out and swung aside, granting access to the housing or pipeline.

The SafeLock 2 Closure features the proprietary Accuralign System to allow easy realignment of the swing arm assembly in the field without having to rely on factory field service technicians.

MPak[®] Coalescing Plates

PECOFacet's patented **MPak[®]** coalescing plates are designed to separate oil and solids from water, to limits as low as 5 PPM, using the differences in their specific gravities. They have integral molding that ensures the spacing is accurately controlled while at the same time promoting the transfer of solids to the bottom of the installation. The plates can be assembled into packs which are securely held together by molded polypropylene supports with either stainless steel wires or rods.





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For inquiries email to:
sales@pecofacet.com

Visit our website to find:

- An office location near you
- Installing & Operation Instructions
- Housing Registration Form
- Associated cartridge information
- Most current literature editions

pecofacet.com

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

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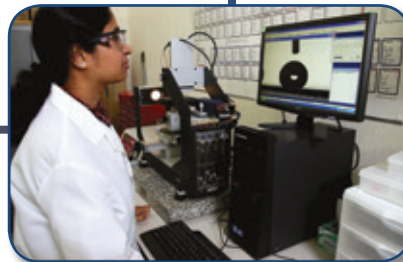
Field Inspection / Training



PECOFacet provides information & training on proper closure inspection and operation in the field as well as proper installation and removal of filter cartridges.

On-Site Testing

Scientific Process Solutions[®] (SPS) offers contaminant measurement, monitoring, analysis and consulting services. On-site testing is performed by highly trained personnel who provide process related consulting and support worldwide.



Laboratory Testing

PECOFacet laboratories provide identification and characterization of contaminants from fluid samples and spent cartridge analysis, as well as product QA and validation testing.

Our laboratories contain advanced technology testing equipment such as particle counters, 3-D imaging microscopes and ISO test stands.

**YOUR
CONTAMINANT
MANAGEMENT
PARTNERSM**