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# **XtreamPhase**<sup>®</sup> PECO Series 110 Liquid/Liquid Phase Coalescers

IS0 9001



ENGINEERING YOUR SUCCESS.

# PECO Series 110XP Horizontal Liquid/Liquid Phase Coalescers with High Flow Style Cartridges

Having an unwanted immiscible fluid in a product stream can be costly. It can create maintenance issues on equipment and cause product to be off-spec. Parker coalescing and separation technologies provide solutions to improve our customers operating costs and improve product quality. Our cartridges are designed to take a mixture of two liquids and remove the unwanted free, immiscible, dispersed droplets from the continuous fluid stream.



The new XtreamPhase, Series 110XP single stage horizontal coalescers take liquid separation to the next level of performance. The 110XP utilizes high flow style coalescer cartridges that flow inside-tooutside. The cartridges include a handled end cap with PECOSeal<sup>™</sup> technology so there is no need for tools when sealing making them a safe, user friendly choice while also reducing maintenance time and money.

# HIGH FLOW COALESCING

### SEPARATION OF:\_\_

- Amine from Hydrocarbons
- Caustic from Fuels
- Hydrocarbon from Quench Water
- Oil from Ammonia

### PARAMETERS FOR USE:\_\_\_

- Interfacial Tension (IFT)  $\geq$  15 dynes/cm
- Viscosity of continuous fluid ≤ 5 cP
- Liquid density difference  $\geq 20\%$

- Oil from Water
- Oil from Caustic
- Other immiscible liquids
- Water from Hydrocarbons
- Inlet concentration of discontinuous phase up to 10% by volume [100,000 ppm(v)]

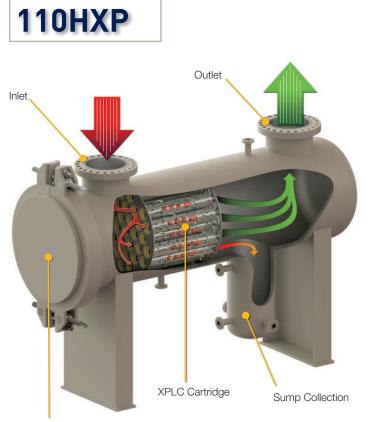
Options available for low IFT and density difference applications.

### High Flow Style, Coalescer Cartridge Options

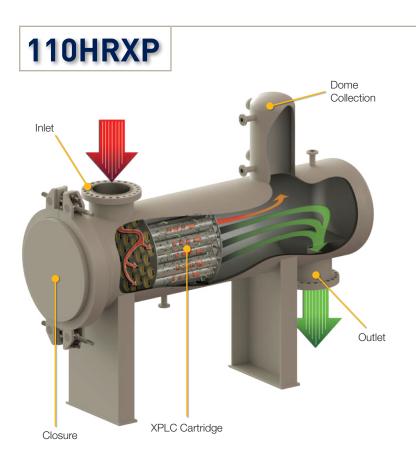


Cartridge	Recommended Usage	Max. Temperature	ppm(v)* Effluent Level	Media	pН		
XPLC-C	HC/Water	240°F/115°C	<u>&lt;</u> 8	Fiberglass	5–9		
XPLC-IPC	HC/Water	240°F/115°C	<u>≤</u> 8	Fiberglass w/ Pleat Pack	5–9		
XPLC-PLPC	HC/Water	240°F/115°C	≤ 15–20	Polyester	3–9		
XPLC-HCP	HC/Amine/Caustic/ Quench Water	400°F/204°C	<u>≤</u> 10–15	PPS	2–14		
XPLC-TLPC	Low IFT	300°F/ 149°C	<u>≤</u> 10–15	Fluoropolymer	5–9		

\* Data based on Parker testing protocols.



Closure



# VESSEL SPECIFICATIONS

### STANDARD

- 10" to 84" diameter
- ASME Code Section VIII, Div.1
- Design Temperature from -20°F to 400°F
- Design Pressure 285 psig to 1480 psig
- Swingbolt or Quick Opening Closure
- Pressure Parts: Carbon Steel
- External Attachments: Carbon Steel
- Basket Internals: Stainless Steel
- Hydrostatic testing at 1.3 to 1.5 x design pressure

### OPTIONS

- Other Design Codes
- High Design Pressure upon request
- Materials of Construction
   Carbon Steel
  - 304 Stainless Steel
  - 304L Stainless Steel
  - 316 Stainless Steel
  - 316L Stainless Steel
  - Other Materials Upon Request
- 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



# PECO Series 110V Vertical and 110H Horizontal Liquid/Liquid Phase Coalescers with Two Stage Cartridges

Having an unwanted immiscible fluid in a product stream can be costly. It can create maintenance issues on equipment and cause product to be off-spec. Parker coalescing and separation technologies provide solutions to improve our customers operating costs and improve product quality. Our cartridges are designed to take a two-phase liquid stream and remove the dispersed phase from the continuous fluid stream. The XtreamPhase, Series 110 two stage coalescer utilizes first stage hydrophilic coalescer cartridges and second stage hydrophobic separator cartridges to perform liquid separation.



# TWO STAGE COALESCING

### SEPARATION OF:\_\_\_

• Water from Hydrocarbon Product Stream

### PARAMETERS FOR USE:\_\_\_

- Interfacial Tension (IFT)  $\geq$  15 dynes/cm
- Viscosity of continuous fluid  $\leq$  5 cP
- Liquid density difference of  $\geq 10\%$

 Inlet concentration of discontinuous phase up to 5% by volume [50,000 ppm(v)]

Special sizing for applications with viscosity > 5 cP.

### **Coalescer Cartridge Options**

Cartridge	Max. Temperature	ppm(v)* Effluent Level	Media	pН
С	240°F/115°C	<u>≤</u> 8	Fiberglass	5–9
IPC	240ºF/115ºC	≤8	Fiberglass	5–9
PLPC	240°F/115°C	≤ 15–20	Polyester	3–9

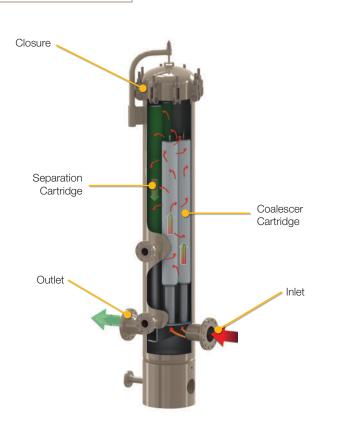
\* Data based on Parker testing protocols.

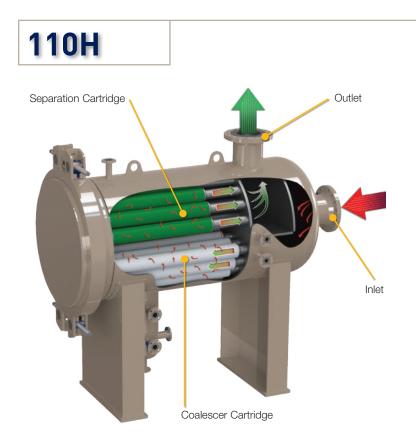
### **Separator Cartridge Options**

	Cartridge	Max. Temperature	Media	pН
	S	240°F/115°C	Treated, Pleated Cellulose	5–9
	S-SH	240°F/115°C	Treated, Synthetic Screen	5–9
U	S-TF	240°F/115°C	Teflon Coated Mesh	3–9

\* Data based on Parker testing protocols.

# 110V





# VESSEL SPECIFICATIONS

### STANDARD

- 10" to 84" diameter
- ASME Code Section VIII, Div.1
- Design Temperature from -20°F to 250°F
- Design Pressure 285 psig to 1480 psig
- Swingbolt or Quick Opening Closure
- Pressure Parts: Carbon Steel
- External Attachments: Carbon Steel
- Basket Internals: Stainless Steel
- Hydrostatic testing at 1.3 to 1.5 x design pressure

### OPTIONS

- Other Design Codes
- High Design Pressure upon request
- Materials of Construction
  Corbon Steel
  - Carbon Steel - 304 Stainless Steel
  - 304 Stainless Steel
  - 316 Stainless Steel
  - 316L Stainless Steel
- Other materials on request
- 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



# PECO Series 110H Horizontal Liquid/Liquid Phase Coalescers with Single Stage Wafer Pack

Having an unwanted immiscible fluid in a product stream can be costly. It can create maintenance issues on equipment and cause product to be off-spec. Parker coalescing and separation technologies provide solutions to improve our customers operating costs and improve product quality. Our equipment is designed to take a two-phase liquid stream and remove the unwanted free, immiscible, dispersed droplets from the continuous fluid stream.

The XtreamPhase, Series 110H-WP utilizes a permanent mesh pad design to coalesce the discontinuous phase liquid. The vessel is designed to include enough space after the mesh pad to allow for gravity separation. The mesh pads are wafer shaped and come in three different materials with varying removal efficiencies.



# NON-CARTRIDGE COALESCING

Oil from Water

Oil from Caustic

• Other immiscible liquids

• Water from Hydrocarbons

### SEPARATION OF:\_\_\_

- Amine from Hydrocarbons
- Caustic from Fuels
- Hydrocarbon from Quench Water
- Oil from Ammonia

### PARAMETERS FOR USE:\_\_

- Interfacial Tension (IFT)  $\geq$  15 dynes/cm
- Viscosity of continuous fluid  $\leq$  5 cP
- Liquid density difference of  $\geq 20\%$

 Inlet concentration of discontinuous phase up to 10% by volume [100,000 ppm(v)]

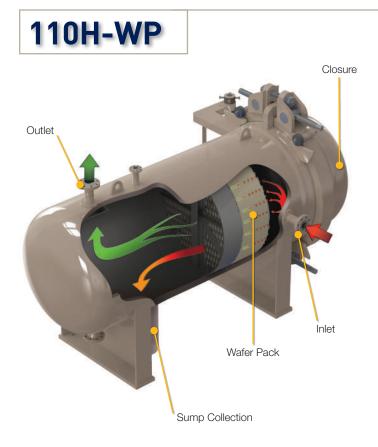
Special sizing for applications with liquid density < 20% or viscosity > 5 cP. Not recommended for low IFT applications.



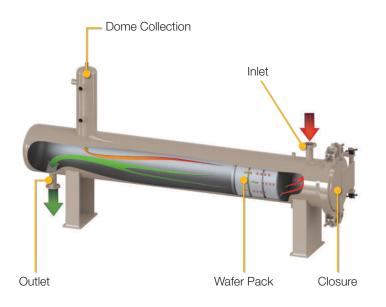
### Wafer Pack Coalescer Options

Wafer Pack	Max. Temperature	ppm(v)* Effluent Level	Media
EX	240°F/115°C	50-75	Excelsior (Wood)
FG	300°F/149°C	15-20	Fiberglass
SS	600°F/315°C	50-75	Stainless Steel

\* Data based on Parker testing protocols.



# 110HR-WP



# VESSEL SPECIFICATIONS

### STANDARD

- 10" to 84" diameter
- ASME Code Section VIII, Div.1
- Design Temperature from -20°F to 600°F
- Design Pressure 285 psig to 1480 psig
- Swingbolt or Quick Opening Closure
- Pressure Parts: Carbon Steel
- External Attachments: Carbon Steel
- Basket Internals: Stainless Steel
- Hydrostatic testing at 1.3 to 1.5 x design pressure

## OPTIONS

- Other Design Codes
- High Design Pressure upon request
- Materials of Construction
   Carbon Steel
  - 304 Stainless Steel
  - 304L Stainless Steel
  - 316 Stainless Steel
  - 316L Stainless Steel
- Other materials on request
- 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





### **GLOBAL OIL & GAS FILTRATION OFFICES**

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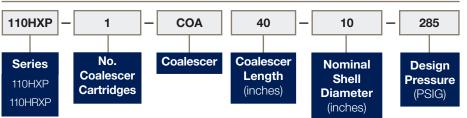
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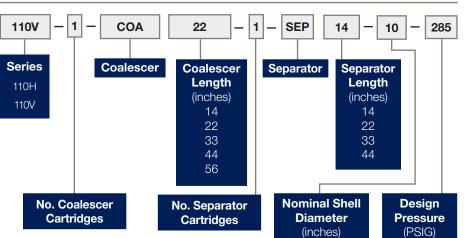
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# **VESSEL ORDERING INFORMATION**

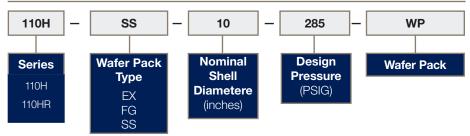
### SINGLE STAGE VESSEL WITH HIGH FLOW CARTRIDGES



### **TWO STAGE VESSEL WITH CARTRIDGES**



### SINGLE STAGE VESSEL WITH WAFER PACK



### The following information is required when requesting a quote for a **XtreamPhase**

- Operating pressure range
- Operating temperature range
- Liquid identification both phases
- Liquid continuous phase viscosity
- Concentration of Discontinuous Phase Liquid in wt or vol %
- Total flow rate
- Design pressure
- Design temperature
- Corrosion allowance requirements
- Special design requirements

XtreamPhase® products protected by USA Patent Nos. US8961644B2 and US10137391B2 as well as patents in various other countries.

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