



# Filtration Housings

For food and beverage applications



ENGINEERING YOUR SUCCESS.





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# ENGINEERING YOUR SUCCESS.

Parker's filter housing range is designed both to meet international industry standards and specific customer application requirements. With over 50 years' experience designing and fabricating major systems for the food and beverage industry, a combination of hands on experience, design and manufacturing excellence have gained Parker a reputation for supplying high quality products.

As a customer of Parker you have access to highly skilled engineers, trained to meet your exact product and service requirements at the highest possible standards.

#### Additional services include:

- ▶ Project management
- ▶ Process system design
- ▶ Global support
- ▶ Operator training
- ▶ Dedicated technical team
- ▶ Quality management systems



All Parker vessels adhere to manufacturing best practice  
ISO9001  
ISO14001

Vessels are built to meet industry standards  
PED (2014/68/EU)  
ATEX (2014/34/EU)





# Dedicated filtration range

As well as supplying vessels, Parker supply automated filtration systems and manufacture a range of microfiltration cartridges for liquid and gas applications.

Since 1963, Parker have continually innovated to support food and beverage producers and packagers worldwide. Product ranges have been designed to deliver optimum operational performance and maintain key commitments to protecting product quality, reducing processing costs and providing specialist support.

Dedicated products are available for various beverage industries including;

- ▶ Brewing
- ▶ Wine making
- ▶ Dairy
- ▶ Bottled water
- ▶ Ingredients

Supported by innovative products, state-of-the-art technical facilities and a specialized international team, Parker's capability is based on understanding the specific needs of your business and providing a total solution.

# Quick reference

Standard housing range for food and beverage applications

Air / Gas

Liquid

- ▶ Air / CO<sub>2</sub> / Nitrogen filtration
- ▶ Top pressure / blanketing to water, beer, wine or dairy
- ▶ Compressed air to blow dry clean bottles or cans
- ▶ Industrial fermentation
- ▶ Steam (up to 3.5 Bar)

- ▶ Water, beer, wine
- ▶ Clarification, stabilisation and sterilisation to remove particles or microorganisms.

T-Port

In-line

T-Port

In-line

PHB

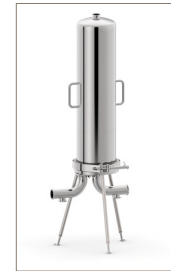
PHB  
(Multi)

PHF  
(Z-Style)

PHI

PHP

PHI







Vent

- ▶ Industrial or food and beverage tank vents
- ▶ Vent to atmosphere

Open

T-Port

PHV

PHB



Industrial Liquid / Pre-filtration

- ▶ Water treatment
- ▶ Prefiltration
- ▶ Clarification

T-Port

Stepped

Various

PHW (Single)

PHW (Multi)

PHM



# PHP Single and Multi Housings



- ▶ Specifically designed for liquid filtration applications in the food and beverage industry.
- ▶ PED 2014/68/EU, ATEX 2014/34/EU and food grade EC1935/2004 compliance.
- ▶ Easy handling sanitary single and multi cartridge filter housings.
- ▶ Cost effective housing without compromising quality.
- ▶ Supplied with adjustable support legs.

## Applications

The PHP housing range is specifically designed for liquid applications in:

- ▶ Beer
- ▶ Wine
- ▶ Bottled Water

Suitable for use with PED Group 2 liquid and gas.

## Availability

The PHP liquid filter housing range is available for 1 to 30 round cartridges. They will accept Parker's full range of C-Style (226), D-Style (222) liquid filter cartridges of nominal length 10" to 40".

## Materials

AISI 316L grade stainless steel is used for all wetted parts assuring corrosion resistance and durability. All gasket materials meet FDA regulatory requirements and Food Grade EC 1935/2004 compliance.

## Surface Finish

Internal surfaces are mechanically polished to <math><0.8\mu\text{m}</math>. External surfaces are mechanically mirror polished.

## Cleanability

Sanitary crevice free design and mirror polished surfaces guarantee enhanced cleanability. This range is suitable for both SIP and CIP.

## Connections

The PHP range is available with a range of standard connections including ASME BPE clamp, DIN 11851 and butt weld. *(other options available on request).*

## Certification

Each filter housing is supplied as standard with a manufacturer's report test certificate, declaration of conformity (where applicable) and user manual.

## Directives

Parker filter housings are manufactured in accordance with European Directives: PED 2014/68/EU and ATEX 2014/34/EU.



## Technical Data

Materials (wetted surfaces):	316L Stainless Steel
Gasket Materials:	Silicone (EPDM or PTFE/FEP enc. Silicone also available)
Housing Closure:	Vee-Clamp (01, 03, 05 and 08) / Screw Clamp (12, 18, 24 and 30)
Number of Cartridges:	01, 03, 05, 08, 12, 18, 24 and 30
Cartridge Height:	10", 20", 30" and 40"
Cartridge Location:	C-Style (226) / D-Style (222)
Internal Surface:	Ra <0.8um Mechanical Polish
External Surface:	Mechanical Mirror Polish
Design Conditions:	FV to 10 Bar @ -20 to 40°C (-14 to 145 psi @ -4 to 104°F) FV to 4 Bar @ -20 to 150°C (-14 to 58 psi @ -4 to 302°F)

## Standard Housing - Ordering Information

Part Code	Size	Cartridge Loc.	Seal	Inlet / Outlet	Vent	Drain
PHP0117S21M8T010	1 x 10"	C-Style (226)	Silicone	Clamp ASME BPE (1")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1")
PHP0127S21M8T010	1 x 20"	C-Style (226)	Silicone	Clamp ASME BPE (1")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1")
PHP0137S21M8T010	1 x 30"	C-Style (226)	Silicone	Clamp ASME BPE (1")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1")
PHP0147S21M8T010	1 x 40"	C-Style (226)	Silicone	Clamp ASME BPE (1")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1")
PHP0327S21M8T015	3 x 20"	C-Style (226)	Silicone	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP0337S21M8T015	3 x 30"	C-Style (226)	Silicone	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP0347S21M8T015	3 x 40"	C-Style (226)	Silicone	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP0527S21M8T020	5 x 20"	C-Style (226)	Silicone	Clamp ASME BPE (2")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP0537S21M8T020	5 x 30"	C-Style (226)	Silicone	Clamp ASME BPE (2")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP0547S21M8T020	5 x 40"	C-Style (226)	Silicone	Clamp ASME BPE (2")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP0827S21M8T020	8 x 20"	C-Style (226)	Silicone	Clamp ASME BPE (2")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP0837S21M8T020	8 x 30"	C-Style (226)	Silicone	Clamp ASME BPE (2")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP0847S21M8T020	8 x 40"	C-Style (226)	Silicone	Clamp ASME BPE (2")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP1237S21M8T030	12 x 30"	C-Style (226)	Silicone	Clamp ASME BPE (3")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP1247S21M8T030	12 x 40"	C-Style (226)	Silicone	Clamp ASME BPE (3")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP1837S21M8T030	18 x 30"	C-Style (226)	Silicone	Clamp ASME BPE (3")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP1847S21M8T030	18 x 40"	C-Style (226)	Silicone	Clamp ASME BPE (3")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP2437S21M8T030	24 x 30"	C-Style (226)	Silicone	Clamp ASME BPE (3")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP2447S21M8T030	24 x 40"	C-Style (226)	Silicone	Clamp ASME BPE (3")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP3037S21M8T030	30 x 30"	C-Style (226)	Silicone	Clamp ASME BPE (3")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")
PHP3047S21M8T030	30 x 40"	C-Style (226)	Silicone	Clamp ASME BPE (3")	Clamp ASME BPE (1.5")	Clamp ASME BPE (1.5")

Other part code variations are available. Refer to drawings 179502687 (PHP01), 179502702 (PHP03), 179502703 (PHP05), 179502704 (PHP08), 179502705 (PHP12), 179502706 (PHP18), 179502707 (PHP24) and 179502708 (PHP30).

## Further Documentation

- ▶ Material Certificates 3.1 (609500552)
- ▶ Roughness Certificate 3.1 (609500346)
- ▶ Weld Procedure Book (609500339)
- ▶ Weld Qualification Book (609500340)

Available at extra cost, to be requested at time of order.

## Accessories

Part Code	Part Number	Description
XPGSS08TC1	639503426	0 - 10 Bar pressure gauge with vent valve
XGSSS08TC1	639503425	0 - 10 Bar pressure gauge with sight glass and valve
XVASS05TC3	639503421	Sample valve (1.5" TC)
XVASS06TC	639503423	Ball valve (1.5" TC)



# PHB Multi Housings



- ▶ Specifically designed for gas filtration applications in the food and beverage industry.
- ▶ PED 2014/68/EU and food grade EC1935/2004 compliance.
- ▶ Includes plenum chamber for condensation management.
- ▶ Available with 5 Bar or 10 Bar design pressure.
- ▶ Screw clamp closure system for added security.

## Applications

The PHB multi round housing range is specifically designed for high flow rate gas filtration applications in:

- ▶ Beer
- ▶ Wine
- ▶ Bottled Water
- ▶ Dairy
- ▶ Industrial Fermentation

Suitable for use with PED Group 2 gas.

## Availability

The PHB multi round gas filter housing is available in sizes: 3, 5, 8 or 12 round. These housings will accept Parker's full range of C-Style gas filter cartridges of nominal lengths 10", 20" and 30". Larger housings up to 32 round, for higher flow rates, are available upon request.

## Materials

AISI 316L grade stainless steel is used for all wetted parts assuring corrosion resistance and durability. All gasket materials meet FDA regulatory requirements and food grade EC 1935/2004 compliance.

## Surface Finish

As standard, internal surfaces in the downstream are mechanically polished to  $<0.8\mu\text{m Ra}$ . Internal surfaces in the upstream are as fabricated and pickled. External surfaces are shot peened.

## Connections

The PHB multi round comes as standard with EN1092-1 flange or ISO 1127 butt weld connections. Vent and drain ports are  $\frac{1}{2}$ " BSPF and are supplied with plugs as standard.

## Certification

Each filter housing is supplied as standard with a manufacturer's report test certificate, declaration of conformity (where applicable) and user manual.

## Directives

Parker filter housings are manufactured in accordance with European Directives: PED 2014/68/EU .

## Technical Data

Materials (wetted surfaces):	316L Stainless Steel
Gasket Materials:	Silicone (EPDM or FEP enc. Silicone also available)
Housing Closure:	Screw Clamps
Number of Cartridges:	03, 05, 08 and 12
Cartridge Height:	10", 20" and 30"
Cartridge Location:	C-Style (226)
Internal Surface (Downstream):	Ra <0.8um Mechanical Polish
Internal Surface (Upstream):	Pickled
External Surface:	Shot Peened
Design Conditions:	FV to 5 Barg @ 150°C (-14 to 72.5 psi @ 302°F) FV to 10 Barg @ 150°C (-14 to 145 psi @ 302°F)

## Standard Housing - Ordering Information

Part Code	Size	Design Pressure	Cartridge Loc.	Seal	Inlet / Outlet	Vent / Drain
PHBE0317SS88A8E080P	3 x 10"	5 Bar	C-Style (226)	Silicone	DN80 EN1092-1 Flange	BSPF (1/2") c/w plug
PHBE0327SS88A8E080P	3 x 20"	5 Bar	C-Style (226)	Silicone	DN80 EN1092-1 Flange	BSPF (1/2") c/w plug
PHBE0337SS88A8E080P	3 x 30"	5 Bar	C-Style (226)	Silicone	DN80 EN1092-1 Flange	BSPF (1/2") c/w plug
PHBE0517SS88A8E100P	5 x 10"	5 Bar	C-Style (226)	Silicone	DN100 EN1092-1 Flange	BSPF (1/2") c/w plug
PHBE0527SS88A8E100P	5 x 20"	5 Bar	C-Style (226)	Silicone	DN100 EN1092-1 Flange	BSPF (1/2") c/w plug
PHBE0537SS88A8E100P	5 x 30"	5 Bar	C-Style (226)	Silicone	DN100 EN1092-1 Flange	BSPF (1/2") c/w plug
PHBE0827SS88A8E150P	8 x 20"	5 Bar	C-Style (226)	Silicone	DN150 EN1092-1 Flange	BSPF (1/2") c/w plug
PHBE0837SS88A8E150P	8 x 30"	5 Bar	C-Style (226)	Silicone	DN150 EN1092-1 Flange	BSPF (1/2") c/w plug
PHBE1227SS88A8E150P	12 x 20"	5 Bar	C-Style (226)	Silicone	DN150 EN1092-1 Flange	BSPF (1/2") c/w plug
PHBE1237SS88A8E150P	12 x 30"	5 Bar	C-Style (226)	Silicone	DN150 EN1092-1 Flange	BSPF (1/2") c/w plug

Other part code variations are available. Refer to drawings 179502689 (PHB\_03), 179502697 (PHB\_05), 179502698 (PHB\_08), 179502699 (PHB\_12).

## Further Documentation

- ▶ Material Certificates 3.1 (609500552)
- ▶ Roughness Certificate 3.1 (609500346)
- ▶ Weld Procedure Book (609500339)
- ▶ Weld Qualification Book (609500340)

Available at extra cost, to be requested at time of order.

## Accessories

Part Code	Part Number	Description
XPGSS04AL10	639509116	0 – 6 Bar pressure gauge, 1/2" BSP c/w manual ball valve vent and staubli coupling
XPGSS04AL11	639509117	0 – 10 Bar pressure gauge, 1/2" BSP, c/w manual ball valve vent and staubli coupling
XVASS04AL6	639509056	1/2" BSP manual ball valve



# PHB Demi and Single Housing



- ▶ Specifically designed for gas filtration applications in the food and beverage industry.
- ▶ PED 2014/68/EU, ATEX 2014/34/EU and food grade EC1935/2004 compliance.
- ▶ Includes plenum chamber for condensation management.
- ▶ Available with 10 Bar or 16 Bar design pressure.
- ▶ Clamp closure system allows easy handling.

## Applications

The PHB liquid filter housing range is specifically designed for gas filtration applications in:

- ▶ Beer
- ▶ Wine
- ▶ Bottled Water
- ▶ Dairy

Suitable for use with PED Group 2 Gas.

## Availability

The PHB gas filter housing range is available for Parker's full range of True Seal (2.5" & 5") and C-Style (5" to 30") gas filter cartridges.

## Materials

AISI 316L grade stainless steel is used for all wetted parts assuring corrosion resistance and durability. All gasket materials meet FDA regulatory requirements and Food Grade EC 1935/2004 compliance.

## Surface Finish

As standard, internal surfaces downstream are mechanically polished to  $<0.8\mu\text{m Ra}$ . Internal surfaces upstream are fine brushed. External surfaces are mechanically polished. All assembly welds are polished but remain evident.

## Connections

The PHB Demi comes as standard with BSP connections (BSP vent and drain). The PHB Single comes as standard with ASME BPE clamp connections (BSP vent and drain). Both housing sizes offer options on the connection type including ANSI Flange, EN1092-1 Flange, Butt Weld (PHB Single only) and NPT.

## Certification

Each filter housing is supplied as standard with a manufacturer's report test certificate, declaration of conformity (where applicable) and user manual.

## Directives

Parker filter housings are manufactured in accordance with European Directives: PED 2014/68/EU and ATEX 2014/34/EU.

## Technical Data

Materials (wetted surfaces):	316L Stainless Steel
Gasket Materials:	Silicone (EPDM or PTFE also available - PTFE requires double bolted clamp)
Housing Closure:	Clamp (Double Bolted Clamp on 16 Bar version)
Number of Cartridges:	01
Cartridge Height:	Demi (True seal) 2.5" and 5", C-style (226) 5", 10", 20" and 30"
Cartridge Location:	C-Style (226)
Internal Surface (Downstream):	Ra <0.8um Mechanical Polish
Internal Surface (Upstream):	Fine Brushed
External Surface:	Mechanical Polish
Design Conditions:	FV to 10 Barg @ 150°C (-14 to 145 psi @ 302°F) FV to 16 Barg @ 150°C (-14 to 232 psi @ 302°F)

## Standard Housing - Ordering Information

Part Code	Size	Design Pressure	Cartridge Loc.	Seal	Inlet / Outlet	Vent / Drain
PHB001BTSC77M8B0051	2.5"	10 Bar	True seal (126)	Silicone	BSPF (1/2")	BSPF (1/4") c/w plug
PHB001BTSC77M8B0101	2.5"	10 Bar	True seal (126)	Silicone	BSPF (1")	BSPF (1/4") c/w plug
PHB001ATSC77M8B0051	5"	10 Bar	True seal (126)	Silicone	BSPF (1/2")	BSPF (1/4") c/w plug
PHB001ATSC77M8B0101	5"	10 Bar	True seal (126)	Silicone	BSPF (1")	BSPF (1/4") c/w plug
PHB001K7SC77M8T0151	5"	10 Bar	C-Style (226)	Silicone	Clamp ASME BPE (1.5")	BSPF (1/4") c/w plug
PHB001K7SC77M8T0201	5"	10 Bar	C-Style (226)	Silicone	Clamp ASME BPE (2")	BSPF (1/4") c/w plug
PHB00117SC77M8T0151	10"	10 Bar	C-Style (226)	Silicone	Clamp ASME BPE (1.5")	BSPF (1/4") c/w plug
PHB00117SC77M8T0201	10"	10 Bar	C-Style (226)	Silicone	Clamp ASME BPE (2")	BSPF (1/4") c/w plug
PHB00127SC77M8T0151	20"	10 Bar	C-Style (226)	Silicone	Clamp ASME BPE (1.5")	BSPF (1/4") c/w plug
PHB00127SC77M8T0201	20"	10 Bar	C-Style (226)	Silicone	Clamp ASME BPE (2")	BSPF (1/4") c/w plug

Other part code variations are available. Refer to drawings 179502680 (PHB single) and 179502678 (PHB Demi) for full part coding structure.

## Further Documentation

- ▶ Material Certificates 3.1 (609500552)
- ▶ Roughness Certificate 3.1 (609500346)
- ▶ Weld Procedure Book (609500339)
- ▶ Weld Qualification Book (609500340)

Available at extra cost, to be requested at time of order.

## Accessories

Part Code	Part Number	Description
XPGSS03AL1	639509074	0 - 10 Bar pressure gauge, c/w manual ball valve with nipple
XPGSS03AL2	639509075	0 - 16 Bar pressure gauge, c/w manual ball valve with nipple
XVASS03AL	639509076	Ball valve, BSPM 1/4" c/w hose adaptor

# PHF Demi Housings



- ▶ Specifically designed for liquid and gas filtration applications in the food and beverage industry.
- ▶ PED 2014/68/EU, ATEX 2014/34/EU and food grade EC1935/2004 compliance.
- ▶ Demi housing with Z-Style (116) cartridge location.
- ▶ Mirror polished finish.

## Applications

The PHF filter housing range is specifically designed for low flow rate liquid and gas applications in:

- ▶ Beer
- ▶ Wine
- ▶ Bottled Water
- ▶ Dairy

Suitable for use with PED Group 1 and 2 liquids and gas.

## Availability

The PHF filter housing range is available in a single round, demi format. These housings will accept Parker's full range of 5" Z-Style (116) liquid and gas filter cartridges.

## Materials

AISI 316L grade stainless steel is used for all wetted parts assuring corrosion resistance and durability.

## Surface Finish

The PHF range comes as standard with an internal surface finish that is mechanically polished to  $<0.8\mu\text{m}$  Ra (BSP model) or  $<0.4\mu\text{m}$  Ra (Tri-Clamp model). External surface finish is a mechanical mirror polish.

## Connection

The PHF housing range is available with BSPF or Tri-Clamp inlet and outlet connection.

## Certification

Each filter housing is supplied as standard with a manufacturer's report test certificate and user manual.

## Directives

Parker filter housings are manufactured in accordance with European Directives: PED 2014/68/EU & ATEX 2014/34/EU.



## Technical Data

Materials (wetted surfaces):	316L Stainless Steel
Housing Closure:	Clamp (PED Group 2) / Double Bolted Clamp (PED Group 1)
Number of Cartridges:	01
Cartridge Height:	5"
Cartridge Location:	Z-Style (116)
Internal Surface:	BSP Model: Mechanical Polished <0.8µm Ra TC Model: Mechanical Polished <0.4µm Ra
External Surface:	Mechanical Mirror Polish
Design Conditions:	FV to 10 Bar @ -20 to 150°C (-14 to 145 psi @ -4 to 302°F)

## Standard Housing - Ordering Information

Part Code	Size	Cartridge Loc.	Seal	Closure	Inlet / Outlet	Vent / Drain
PHF01AJSC77M8B005	5"	Z-Style (116)	Silicone	Clamp	BSPF (1/2")	BSPF (1/4")
PHF01AJSH77M8B005	5"	Z-Style (116)	Silicone	Double Bolted Clamp	BSPF (1/2")	BSPF (1/4")
PHF01AJSC77M4T010	5"	Z-Style (116)	Silicone	Clamp	Clamp ASME BPE (1")	BSPF (1/4")
PHF01AJSC77M4T010	5"	Z-Style (116)	Silicone	Double Bolted Clamp	Clamp ASME BPE (1")	BSPF (1/4")

Other part code variations are available. Refer to drawing 179502686 for full part coding structure.

## Further Documentation

- ▶ Material Certificates 3.1 (609500552)
- ▶ Roughness Certificate 3.1 (609500346)
- ▶ Weld Procedure Book (609500339)
- ▶ Weld Qualification Book (609500340)

Available at extra cost, to be requested at time of order.

## Accessories

Part Code	Part Number	Description
XPGSS03AL1	639509074	0 - 10 Bar pressure gauge, c/w manual ball valve with nipple
XVASS03AL	639509076	Ball valve, BSPM 1/4" c/w hose adaptor
XVASS04AL3	639509083	Sanitary drain valve, 0.5" Tri-Clamp to Hosebarb c/w clamp and seal
XVASS04AL4	639509084	Sanitary drain valve, 0.5" Tri-Clamp to Staubli RBE03 c/w clamp and seal
XVASS04AL5	639509085	Sanitary drain valve, 0.5" Tri-Clamp to Rectus 21 c/w clamp and seal

# PHI Single Housings



- ▶ Specifically designed for liquid and gas filtration applications in the food and beverage Industry.
- ▶ PED 2014/68/EU, ATEX 2014/34/EU and food grade EC1935/2004 compliance.
- ▶ In-line sanitary single round housing.
- ▶ Available with 10 Bar or 16 Bar design pressure.
- ▶ Mirror polished finish.

## Applications

The PHI filter housing range is specifically designed for in-line liquid and gas applications in:

- ▶ Beer
- ▶ Wine
- ▶ Bottled Water
- ▶ Dairy

Suitable for use with PED Group 2 liquid and gas.

## Availability

The PHI filter housing range will accept Parker's full range of C-Style (226) liquid and gas filter cartridges, of nominal lengths 5" to 40".

## Materials

AISI 316L grade stainless steel is used for all wetted parts assuring corrosion resistance and durability. All gasket materials meet FDA regulatory requirements and food grade EC 1935/2004 compliance.

## Surface Finish

As standard, internal surfaces in the downstream are mechanically polished to  $<0.8\mu\text{m Ra}$  and in the upstream are fine brushed. External surfaces are mirror polished. All assembly welds are polished but remain evident.

## Connections

The PHI range is available with ASME BPE clamp (1.5") inlet and outlet. This range comes with or without vent and drain connections. Options include ASME BPE clamp (vent and drain) and lateral sanitary bleed valve (vent only).

## Certification

Each filter housing is supplied as standard with a manufacturer's report test certificate, declaration of conformity (where applicable) and user manual.

## Directives

Parker filter housings are manufactured in accordance with European Directives: PED 2014/68/EU and ATEX 2014/34/EU.

## Technical Data

Materials (wetted surfaces):	316L Stainless Steel
Gasket Materials:	Silicone (EPDM or PTFE also available - PTFE requires double bolted clamp)
Housing Closure:	Clamp / Double Bolted Clamp
Number of Cartridges:	01
Cartridge Height:	5", 10", 20", 30" and 40"
Cartridge Location:	C-Style [226]
Internal Surface (Downstream):	Ra <0.8µm Mechanical Polish
Internal Surface (Upstream):	Fine Brushed
External Surface:	Mirror Polished
Design Conditions:	FV to 10 Barg @ 150°C (-14 to 145 psi @ 302°F) FV to 16 Barg @ 150°C (-14 to 232 psi @ 302°F)

## Standard Housing - Ordering Information

Part Code	Size	Design Pressure	Cartridge Loc.	Seal	Inlet / Outlet	Vent	Drain
PHI001K7SC00M8T0150	5"	10 Bar	C-Style [226]	Silicone	Clamp ASME BPE (1.5")	No vent	No drain
PHI00117SC00M8T0150	10"	10 Bar	C-Style [226]	Silicone	Clamp ASME BPE (1.5")	No vent	No drain
PHI00127SC00M8T0150	20"	10 Bar	C-Style [226]	Silicone	Clamp ASME BPE (1.5")	No vent	No drain
PHI001K7SC91M8T0150	5"	10 Bar	C-Style [226]	Silicone	Clamp ASME BPE (1.5")	No vent	Clamp ASME BPE (0.5")
PHI00117SC91M8T0150	10"	10 Bar	C-Style [226]	Silicone	Clamp ASME BPE (1.5")	No vent	Clamp ASME BPE (0.5")
PHI00127SC91M8T0150	20"	10 Bar	C-Style [226]	Silicone	Clamp ASME BPE (1.5")	No vent	Clamp ASME BPE (0.5")

Other part code variations are available. Refer to sales drawing 179502682 for full part coding structure.

## Further Documentation

- ▶ Material Certificates 3.1 (609500552)
- ▶ Roughness Certificate 3.1 (609500346)
- ▶ Weld Procedure Book (609500339)
- ▶ Weld Qualification Book (609500340)

Available at extra cost, to be requested at time of order.

## Accessories

Part Code	Part Number	Description
XVASS04AL3	639509083	Sanitary drain valve, 0.5" Tri-Clamp to Hosebarb c/w clamp and seal
XVASS04AL4	639509084	Sanitary drain valve, 0.5" Tri-Clamp to Staubli RBE03 c/w clamp and seal
XVASS04AL5	639509085	Sanitary drain valve, 0.5" Tri-Clamp to Rectus 21 c/w clamp and seal



# PHV Single and Multi Housings



- ▶ Atmospheric single and multi-round filter housings for filtration of tank air.
- ▶ Designed for the food and beverage industry.
- ▶ Available in 1, 3, 5, 8 and 12 round.
- ▶ Easy handling with light bowl.

## Applications

The PHV vent filter housing range is specifically designed for food and beverage applications that require filtration of tank air to atmosphere in:

- ▶ Beer
- ▶ Wine
- ▶ Bottled Water
- ▶ Dairy

## Availability

The PHV vent filter housings are available as single and multi-round for 1, 3, 5, 8 and 12 filter cartridges. The series will accept Parker's full range of C-Style (226) filter cartridges of nominal lengths 10", 20" and 30".

## Materials

AISI 316L grade stainless steel is used for all wetted parts assuring corrosion resistance and durability.

## Surface Finish

Internal and external surfaces are mechanically polished (<0.8µm Ra on the tank side).

## Connections

The PHV vent filter range is available with Tri-Clamp, DIN 11851 liner or DIN 11851 male connections.

## Certification

Each filter housing is supplied as standard with a manufacturer's report test certificate, declaration of conformity (where applicable) and user manual.

## Directives

Parker filter housings are manufactured in accordance with European Directives: PED 2014/68/EU & ATEX 2014/34/EU.

## Technical Data

Materials (wetted surfaces):	316L Stainless Steel
Housing Closure:	Vee-Clamp (Single) / Hand Wheels (Multi)
Number of Cartridges:	01, 03, 05, 08 and 12
Cartridge Height:	10", 20" and 30"
Cartridge Location:	C-Style (226)
Internal Surface:	Mechanical Polish (Ra <0.8µm on tank side)
External Surface:	Mechanical Polish

## Standard Housing - Ordering Information

Part Code	Size	Cartridge Loc.	Tank Connection	Handles
PHV0117T020	1 x 10"	C-Style (226)	Clamp ASME BPE (2")	No
PHV0127T020	1 x 20"	C-Style (226)	Clamp ASME BPE (2")	No
PHV0137T020	1 x 30"	C-Style (226)	Clamp ASME BPE (2")	No
PHV0317T030	3 x 10"	C-Style (226)	Clamp ASME BPE (3")	No
PHV0327T030	3 x 20"	C-Style (226)	Clamp ASME BPE (3")	Yes
PHV0337T030	3 x 30"	C-Style (226)	Clamp ASME BPE (3")	Yes
PHV0517T040	5 x 10"	C-Style (226)	Clamp ASME BPE (4")	No
PHV0527T040	5 x 20"	C-Style (226)	Clamp ASME BPE (4")	Yes
PHV0537T040	5 x 30"	C-Style (226)	Clamp ASME BPE (4")	Yes
PHV0817T040	8 x 10"	C-Style (226)	Clamp ASME BPE (4")	No
PHV0827T040	8 x 20"	C-Style (226)	Clamp ASME BPE (4")	Yes
PHV0837T040	8 x 30"	C-Style (226)	Clamp ASME BPE (4")	Yes

Other part code variations are available. Refer to sales drawing 179502683 for full part coding structure.

## Further Documentation

- ▶ Material Certificates 3.1 (609500552)
- ▶ Roughness Certificate 3.1 (609500346)
- ▶ Weld Procedure Book (609500339)
- ▶ Weld Qualification Book (609500340)

Available at extra cost, to be requested at time of order.

# PHW Single Housings



- ▶ Specifically designed for liquid pre-filtration applications in the food and beverage industry.
- ▶ PED 2014/68/EU and ATEX 2014/34/EU Compliance.
- ▶ Accepts C-Style (226), D-Style (222) and DOE cartridges, 10" to 40".
- ▶ Vee-Clamp closure for quick opening.
- ▶ Suitable for SIP and CIP.
- ▶ Cost effective housing without compromising quality and performance.

## Applications

The PHW single round filter housing range is specifically designed for liquid pre-filtration applications in:

- ▶ Beer
- ▶ Wine
- ▶ Bottled Water

The range is suitable for use with PED Group 1 and 2 liquids, and PED Group 2 gas.

## Availability

The PHW single cartridge housing range can accept Parker's full range of C-Style (226), D-Style (222) and DOE cartridges of nominal length 10" to 40".

## Materials

AISI 316L grade stainless steel is used for all wetted parts assuring corrosion resistance and durability.

## Surface Finish

As standard, internal surfaces are pickled only. External surfaces are mechanically polished.

## Connections

The PHW single is available with inlet and outlet connection options of 3/4" and 1" BSPF or butt weld (33.7 x 1.65mm). There are 2 x 1/4" BSPF drain ports and a 1/4" BSPM vent port. Vent and drains are supplied with plugs as standard.

## Certification

Each filter housing is supplied as standard with a manufacturer's report test certificate, declaration of conformity (where applicable) and user manual. 3.1 material certification is not available for this range, a 2.1 declaration of conformity can be supplied upon request.

## Directives

Parker filter housings are manufactured in accordance with European Directives: PED 2014/68/EU and ATEX 2014/34/EU



## Technical Data

Materials (wetted surfaces):	316L Stainless Steel
Gasket Materials:	EPDM (Silicone also available)
Housing Closure:	Vee-Clamp (High Pressure Clamp must be selected for gas applications)
Number of Cartridges:	01
Cartridge Height:	10", 20", 30" and 40"
Cartridge location:	C-Style (226), D-Style (222) and DOE
Internal Surface:	Pickled
External Surface:	Mechanical Polish
Design Conditions:	PED Group 1 Liquid: 5 Bar @ -20 to 150°C PED Group 2 Liquid and Gas: 8 Bar @ -20 to 40°C / 6.2 Bar @ 150°C

## Standard Housing - Ordering Information

Part Code	Size	Cartridge Loc.	Seal	Inlet / Outlet	Vent	Drain
PHW00119033	10"	C-Style (226)	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW00129033	20"	C-Style (226)	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW00139033	30"	C-Style (226)	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW00149033	40"	C-Style (226)	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW10119033	10"	D-Style (222)	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW10129033	20"	D-Style (222)	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW10139033	30"	D-Style (222)	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW10149033	40"	D-Style (222)	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW20119033	10"	DOE	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW20129033	20"	DOE	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW20139033	30"	DOE	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")
PHW20149033	40"	DOE	EPDM	BSPF (1")	BSPM (1/4")	BSPF (1/4")

Other part code variations are available. Refer to drawing 179502684 for full part coding structure.

## Accessories

Part Code	Part Number	Description
XPGSS03AL1	639509074	0 - 10 Bar pressure gauge, c/w manual ball valve with nipple
XVASS03AL	639509076	Ball valve, BSPM 1/4" c/w hose adaptor

# PHW Multi Housings



- ▶ Specifically designed for liquid pre-filtration industrial and food and beverage applications.
- ▶ PED 2014/68/EU and ATEX 2014/34/EU Compliance.
- ▶ Accepts C-Style (226), D-Style (222) and DOE cartridges, 20" to 40".
- ▶ Split body for easy access to cartridges.
- ▶ Off-set geometry for easy installation and piping connections.
- ▶ Suitable for CIP.

## Applications

The PHW multi round filter housing is specifically designed for liquid pre-filtration applications in:

- ▶ Beer
- ▶ Wine
- ▶ Bottled Water

Suitable for use with PED Group 2 liquids.

## Availability

The PHW multi round housing range is available for 3, 5 or 8 filter cartridges. This housing is available to accept Parker's full range of C-Style (226), D-Style (222) and DOE liquid filter cartridges of nominal lengths 20", 30" and 40".

## Materials

AISI 316L grade stainless steel is used for all wetted parts assuring corrosion resistance and durability.

## Surface Finish

As standard, internal surfaces are pickled only. External surfaces are shot peened.

## Connections

The PHW multi is available with inlet and outlet connection options of BSPM or EN1092-1 Flange.

## Certification

Each filter housing is supplied as standard with a manufacturer's report test certificate, declaration of conformity (where applicable) and user manual. 3.1 material certification is not available for this range, a 2.1 declaration of conformity can be supplied upon request.

## Directives

Parker Hannifin filter housings are manufactured in accordance with European Directives: PED 2014/68/EU and ATEX 2014/34/EU.

## Technical Data

Materials (wetted surfaces):	316L Stainless Steel
Gasket Materials:	EPDM (Silicone also available)
Housing Closure:	Vee-Clamp
Number of Cartridges:	03, 05, 08
Cartridge Height:	20", 30" and 40"
Cartridge Location:	C-Style [226], D-Style [222] or DOE
Internal Surface:	Pickled
External Surface:	Shot Peened
Design Conditions:	10 Bar @ -20 to 40°C 6 Bar @ 90°C

## Standard Housing - Ordering Information

Part Code	Size	Cartridge Loc.	Seal	Inlet / Outlet	Vent / Drain
PHW0327EB020	3 x 20"	C-Style [226]	EPDM	BSPM (2")	BSPF (1/2")
PHW0337EB020	3 x 30"	C-Style [226]	EPDM	BSPM (2")	BSPF (1/2")
PHW0347EB020	3 x 40"	C-Style [226]	EPDM	BSPM (2")	BSPF (1/2")
PHW0537EB025	5 x 30"	C-Style [226]	EPDM	BSPM (2.5")	BSPF (1/2")
PHW0547EB025	5 x 40"	C-Style [226]	EPDM	BSPM (2.5")	BSPF (1/2")
PHW0837EB020	8 x 30"	C-Style [226]	EPDM	BSPM (3")	BSPF (1/2")
PHW0847EB020	8 x 40"	C-Style [226]	EPDM	BSPM (3")	BSPF (1/2")
PHW0328EB020	3 x 20"	D-Style [222]	EPDM	BSPM (2")	BSPF (1/2")
PHW0338EB020	3 x 30"	D-Style [222]	EPDM	BSPM (2")	BSPF (1/2")
PHW0348EB020	3 x 40"	D-Style [222]	EPDM	BSPM (2")	BSPF (1/2")
PHW0538EB025	5 x 30"	D-Style [222]	EPDM	BSPM (2.5")	BSPF (1/2")
PHW0548EB025	5 x 40"	D-Style [222]	EPDM	BSPM (2.5")	BSPF (1/2")
PHW0838EB020	8 x 30"	D-Style [222]	EPDM	BSPM (3")	BSPF (1/2")
PHW0848EB020	8 x 40"	D-Style [222]	EPDM	BSPM (3")	BSPF (1/2")
PHW0323EB020	3 x 20"	DOE	EPDM	BSPM (2")	BSPF (1/2")
PHW0333EB020	3 x 30"	DOE	EPDM	BSPM (2")	BSPF (1/2")
PHW0343EB020	3 x 40"	DOE	EPDM	BSPM (2")	BSPF (1/2")
PHW0533EB025	5 x 30"	DOE	EPDM	BSPM (2.5")	BSPF (1/2")
PHW0543EB025	5 x 40"	DOE	EPDM	BSPM (2.5")	BSPF (1/2")
PHW0833EB020	8 x 30"	DOE	EPDM	BSPM (3")	BSPF (1/2")
PHW0843EB020	8 x 40"	DOE	EPDM	BSPM (3")	BSPF (1/2")

Other part code variations are available. Refer to drawing 179502685 for full part coding structure.

## Accessories

Part Code	Part Number	Description
XPGSS04AL11	639509117	0 - 10 Bar pressure gauge, 1/2" BSP, c/w manual ball valve vent and staubli coupling
XVASS04AL6	639509056	1/2" BSP manual ball valve

# PHM Single and Multi Housings



- ▶ Specifically designed for high flow liquid pre-filtration applications and Parker's Prepor Max cartridges.
- ▶ Available as single or multi round, for up to 5 cartridges.
- ▶ Available to install in horizontal or vertical orientation.
- ▶ Includes mesh basket to retain cartridge.

## Applications

The PHM is designed specifically for high flow rate liquid pre-filtration applications in:

- ▶ Beer
- ▶ Wine
- ▶ Bottled Water

Suitable for use with PED Group 2 liquids.

## Availability

The PHM filter housing range is available as single and multi round to locate 1, 3 or 5 large format filter cartridges. The PHM will accept Parker's Prepor Max cartridge of nominal length 20", 40" and 60".

## Materials

AISI 316Ti grade stainless steel is used for all wetted parts assuring corrosion resistance and durability.

## Surface Finish

As standard surface finish is as fabricated, pickled and passivated.

## Orientation

The PHM range is available for installation in either in horizontal or vertical orientation. For the single round there are options on the position of the liquid outlet.

## Connections

The PHM range comes as standard with DIN2633 Flange connections.

## Certification

Each filter housing is supplied as standard with a manufacturer's report test certificate, declaration of conformity (where applicable) and user manual.

## Directives

Parker Hannifin filter housings are manufactured in accordance with European Directives: PED 2014/68/EU.



## Technical Data

Materials (wetted surfaces):	316 Ti Stainless Steel
Gasket Materials:	EPDM
Housing Closure:	Bolted Flange
Number of Cartridges:	01, 03, 05
Cartridge Height:	20", 30" and 60"
Cartridge Location:	Large format
Surface Finish:	As Fabricated, Pickled and Passivated
Design Conditions:	FV to 10 Barg @ -10 to 90°C (-14 to 145 psi @ 14 to 194°F)

## Standard Housing - Ordering Information

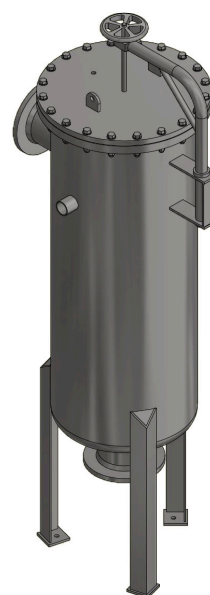
Part Code	Size	Inlet & Outlet	Seal	Vent / Drain	Orientation
PHM014LELBEI-HA	1 x 40"	DN100 DIN2633 Flange	EPDM	BSPF	Horizontal
PHM014LELBEI-VA	1 x 40"	DN100 DIN2633 Flange	EPDM	BSPF	Vertical
PHM016LELBEI-HA	1 x 60"	DN100 DIN2633 Flange	EPDM	BSPF	Horizontal
PHM016LELBEI-VA	1 x 60"	DN100 DIN2633 Flange	EPDM	BSPF	Vertical
PHM034LHLBEI-HX	3 x 40"	DN200 DIN2633 Flange	EPDM	BSPF	Horizontal
PHM034LHLBEI-VX	3 x 40"	DN200 DIN2633 Flange	EPDM	BSPF	Vertical
PHM036LHLBEI-HX	3 x 60"	DN200 DIN2633 Flange	EPDM	BSPF	Horizontal
PHM036LHLBEI-VX	3 x 60"	DN200 DIN2633 Flange	EPDM	BSPF	Vertical
PHM054LJLBEI-HX	5 x 40"	DN250 DIN2633 Flange	EPDM	BSPF	Horizontal
PHM054LJLBEI-VX	5 x 40"	DN250 DIN2633 Flange	EPDM	BSPF	Vertical
PHM056LJLBEI-HX	5 x 60"	DN250 DIN2633 Flange	EPDM	BSPF	Horizontal
PHM056LJLBEI-VX	5 x 60"	DN250 DIN2633 Flange	EPDM	BSPF	Vertical

Other part code variations are available. Refer to drawings 179502170.

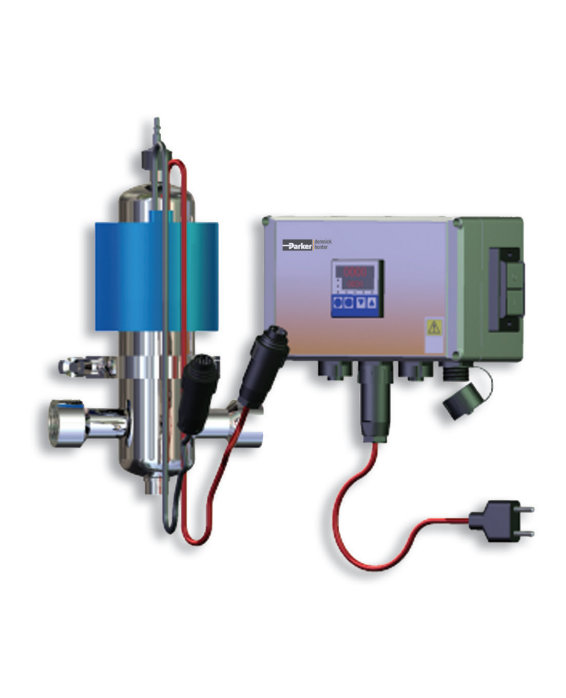
## Further Documentation

- ▶ Material Certificates 3.1

Available at extra cost, to be requested at time of order.



# Heating Equipment



- ▶ Suitable for tank venting applications.
- ▶ Available for demi (5") and single cartridge gas filter housings (K to 30")
- ▶ 'Cool to touch' silicone heater jacket
- ▶ PID (Proportional, integral, differential) controller in a polycarbonate housing.
- ▶ Foolproof connection of plugs and sockets.

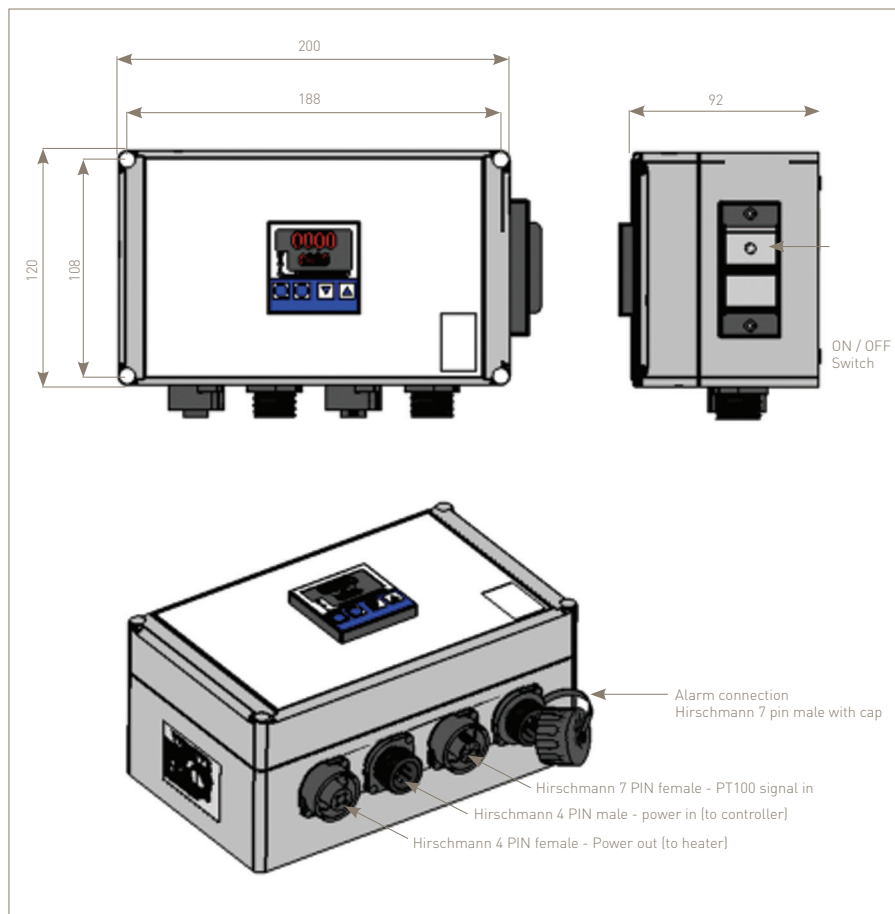
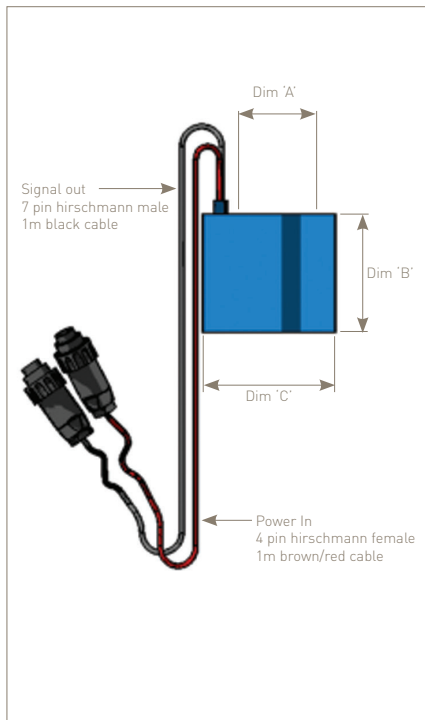


- ▶ Blue silicone foam rubber heating jacket with internally meshed heating wires. Open longitudinal slit down the length to slide over a housing.
- ▶ Five standard sizes, A (Demi), K, 10", 20", 30". 230 (240) volts supply, not grounded.
- ▶ Protection rating: IP65.
- ▶ Design standards: EN 60519-1 and 2.
- ▶ Temperature sensor, PT100, built-in with 1m cable.
- ▶ Maximum temperature 200°C (392°F).
- ▶ Temperature limiter at 150°C ± 5°C (302°F ± 41°F).
- ▶ 1m power cable with plug to controller.
- ▶ Silicone heater is moisture and weather proof.
- ▶ To be used with temperature controller.
- ▶ Parker logo adhered to silicone heater.
- ▶ Comprehensive installation, operation and maintenance instructions (IOMI).

- ▶ ISOPAD temperature controller.
- ▶ On / Off switch.
- ▶ 230 V live and neutral.
- ▶ Maximum ambient temperature 55 °C (131 °F).
- ▶ Set temperature display: 8mm red LED.
- ▶ Actual temperature display: 10mm green LED.
- ▶ Protection rating: IP65.
- ▶ Design standards: EN61010-1.
- ▶ 1m power cable. (available as accessory kit)
- ▶ Volt free output for an alarm.
- ▶ Comprehensive installation, operation and maintenance instructions (IOMI).
- ▶ PID Control
  - SSR Output (12V)
  - Alarm relay (2.4A)
  - Auto tuning
  - PT100 sensor
- ▶ Suitable for wall or panel mounting.

## Physical Characteristics

Housing	A	B	C
Demi A	63.5	90	130
K	88.9	125	150
10"	88.9	250	150
20"	88.9	500	150
30"	88.9	750	150



## Housings

The heating jacket offers support to Demi A, K to 30" housings including:

- ▶ PHB
- ▶ PHI
- ▶ PHV\*

\* Single round only



## Standard Housing - Ordering Information

Part Code	Part Number	Housing Size	Supply Voltage	Controller
XBHSI05-230V	639503145	5" Demi	230V	Included
XBHSI05KN-230V	639504399	5"	230V	Included
XBHSI10N-230V	639504400	10"	230V	Included
XBHSI20N-230V	639504401	20"	230V	Included
XBHSI10N-230V-NC	639504403	10"	230V	Not Included
XBHSI20N-230V-NC	639504404	20"	230V	Not Included

Kit excludes mains power cable.

## Accessories

Part Code	Part Number	Description
XBHXT2M	639503496	2 meter power and signal cable extension
XBHPS1M-PSEU	639503199	Power cable with European plug
XBHPS1M-PSUK	639503200	Power cable with UK plug
XBHPS1M-PS	639503640	Power cable with no plug

# Related products

## PREPOR NG



- ▶ Polypropylene 0.5 - 1.0 micron
- ▶ Validated yeast removal and bacteria reduction
- ▶ Haze reduction
- ▶ Graded density construction for increased retention and throughput
- ▶ Strong, pleated polypropylene construction for backwash and chemical CIP.

## BEVPOR BR



- ▶ Polyethersulphone 0.45 micron
- ▶ Cold stabilisation of beers before packaging
- ▶ Validated microbial retention for effective stabilisation
- ▶ Optimised PES membrane structure
- ▶ High filtration area - 0.8m<sup>2</sup> per 10"
- ▶ Integral prefilter layer up to 0.8m<sup>2</sup>

## BEVPOR PH



- ▶ Polyethersulphone 0.45, 0.65 micron
- ▶ Validated microbial retention for effective stabilisation
- ▶ High filtration area - 0.8m<sup>2</sup> per 10"
- ▶ Integral prefilter layer up to 0.8m<sup>2</sup>

## BEVPOR PS



- ▶ Polyethersulphone 0.45, 0.65 micron
- ▶ Validated microbial retention for effective stabilisation
- ▶ Up to 0.6m<sup>2</sup> filtration area per 10"

## BEVPOR MH



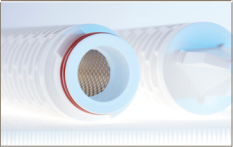
- ▶ Polyethersulphone 0.2, 0.45 micron
- ▶ Final stabilisation and sterilisation of beverages before packaging
- ▶ Fully validated microorganism retention characteristics.
- ▶ Hydrophilic construction for repeated integrity testing.
- ▶ Unique construction offers maximum lifetime to blockage and service life.
- ▶ Integrated prefiltration layer and high filtration area construction.

## PREPOR PP



- ▶ Polypropylene 0.6 - 1.0 micron
- ▶ Yeast and bacteria reduction
- ▶ Haze reduction
- ▶ Strong, pleated polypropylene construction for backwash and chemical CIP

## ASEPT-X



- ▶ Expanded PTFE 0.2 micron
- ▶ Fully validated bacterial, spore and bacteriophage retention
- ▶ Resistant to >1bar dP in reverse direction at max SIP temperature
- ▶ Ability to withstand liquid condensate

## HIGH FLOW BIO-X



- ▶ PTFE Impregnated glass fibre - 0.01 micron sterilising
- ▶ Fully retentive to aerosol bacteria
- ▶ 94% voids volume PTFE impregnated glass fibre
- ▶ Exceptional flow rates with low pressure drops
- ▶ Integrity testable by aerosol challenge



As well as providing filter vessels, Parker offer a wide range of products to support you within the food and beverage industry.

**HIGH FLOW TETPOR II**



- ▶ Polypropylene expanded PTFE 0.01-0.2 micron
- ▶ Assured biosecurity with absolute rated filtration
- ▶ High flow rates with low pressure drops
- ▶ High voids volume PTFE membrane
- ▶ Fully integrity testable

**TURBOSEP**



- ▶ Highly efficient separation of liquid and foam from off-gas
- ▶ Increases fermenter capacity by up to 30%
- ▶ Protection of off-gas filters for extended life
- ▶ Reduction in antifoam usage of up to 60%

**Valairdata 3**



- ▶ Aerosol challenge test
- ▶ Integrity testing of gas filters
- ▶ Portable, secure and easy to use.

**Bevcheck**



**Bevcheck Plus**



- ▶ Liquid filter test
- ▶ Pressure decay and diffusional flow testing
- ▶ Bevcheck: Hand held portability with rechargeable battery option
- ▶ Bevcheck Plus: Convenient built-in printer provides printed test report
- ▶ Flexible: suitable for use with compressed air or nitrogen

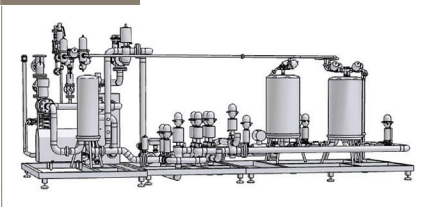
**Automated Systems**

Together with Agidens Process Automation, Parker can offer a platform of hygienic, fully flexible cold stabilisation modules (CSM).

- ▶ Automated CIP of each filter stage with two chemicals
- ▶ Automated integrity testing of membrane filters
- ▶ Full process sensing and data management

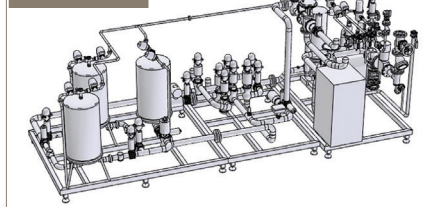


**CMS 11**



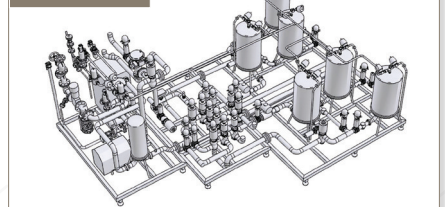
- ▶ One prefilter stage, one final filter stage
- ▶ Flow range: 40-100l/hr
- ▶ Batch processing

**CMS 12**



- ▶ One prefilter stage, two final filters (duplex)
- ▶ Flow range: 100-300l/hr
- ▶ Batch processing

**CMS 24**



- ▶ Two prefilters (duplex), four final filters (duplex)
- ▶ Flow range: 300-600l/hr
- ▶ Continuous processing

[www.parker.com/bioscience](http://www.parker.com/bioscience)



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