

## HSA Filter Housing

- sanitary air / gas

- Flow efficient sanitary range of air / gas housings
- Designed specifically for the pharmaceutical industry
- Sanitary tri-clamp body closure
- STANDARD product
  - Sanitary connections and surface finish
- PLUS product
  - Available in 4 different vessel classes: Standard (CE), Atex, High Pressure and Oxygen Service
  - Sanitary and sanitary electropolished surface finishes available
  - Choice of gasket and seal materials



### Specification

#### STANDARD Range Materials of Construction

- Housing: 316L Stainless Steel
- Seals: Silicone FDA
- Clamps: 304 Stainless Steel

#### Surface Finish

- Internal: Polished 0.4 µm Ra (16 µIn Ra)
- External: Polished 0.25 µm Ra (10 µIn Ra)

*All finishes pickled & passivated.*

#### PLUS Range Materials of Construction

- Housing: 316L Stainless Steel
- Seals: EPDM FDA  
PTFE FDA  
Silicone FDA  
Viton FDA
- Clamps: 304 Stainless Steel

#### Surface Finish

- Sanitary Finish
  - Internal: Polished 0.4 µm Ra (16 µIn Ra)
  - External: Polished 0.25 µm Ra (10 µIn Ra)
- Sanitary Electropolished Finish
  - Internal: Polished 0.4 µm Ra (16 µIn Ra) and Electropolished
  - External: Polished 0.25 µm Ra (10 µIn Ra)

#### Welding

All assembly welds are full penetration. All welds are crevice and undercut free.

*Weld finish & detail drawings available upon request.*

#### Certification

Supplied as standard with vessel inspection certificate.

#### Material Test Certification

EN10204 3.1 supplied upon request.

#### Design Code

Housings designed in accordance with the European Council Pressure Equipment Directive (PED) 97/23/EC and the UK Statutory Pressure Equipment Regulations (PER) 1999 N° 2001.

PED / PER conformity assessments based on Fluid Group 2 Gas (harmless) including steam. Only housings over PS.V 50 bar / litres bear the CE mark.

#### Design Basis

ASME VIII Division 1.

## Standard Range

Working Condition PED 97/23/EC			Maximum Pressure				
Fluid Group	State	Temperature	01A	01B	01K	011	012
Non Dangerous	Gas / Vapour	150 °C (302 °F)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)
Dangerous	Gas / Vapour	150 °C (302 °F)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)
PED Conformity Assessment Category			SEP	SEP	SEP	SEP	SEP
Volume (litres)			0.75	0.5	1.9	3.1	5.0

## Plus Range

ATEX Working Condition PED 97/23/EC			Maximum Pressure						
Fluid Group	State	Temperature	01A	01B	01K	011	012	013	014
Non Dangerous	Gas / Vapour	135 °C (275 °F)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)
Dangerous	Gas / Vapour	135 °C (275 °F)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)	7.20 barg (104.42 psig)	5.60 barg (81.22 psig)
PED Conformity Assessment Category			SEP	SEP	SEP	CAT I	CAT I	CAT I	CAT I
Volume (litres)			0.75	0.5	1.9	3.1	5.0	6.9	8.8

CE Working Condition PED 97/23/EC			Maximum Pressure						
Fluid Group	State	Temperature	01A	01B	01K	011	012	013	014
Non Dangerous	Gas / Vapour	150 °C (302 °F)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)
Dangerous	Gas / Vapour	150 °C (302 °F)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)	7.20 barg (104.42 psig)	5.60 barg (81.22 psig)
PED Conformity Assessment Category			SEP	SEP	SEP	SEP	CAT I	CAT I	CAT I
Volume (litres)			0.75	0.5	1.9	3.1	5.0	6.9	8.8

High Pressure Working Condition PED 97/23/EC			Maximum Pressure						
Fluid Group	State	Temperature	01A	01B	01K	011	012	013	014
Non Dangerous	Gas / Vapour	205 °C (401 °F)	16.00 barg (232.06 psig)	16.00 barg (232.06 psig)	16.00 barg (232.06 psig)	16.00 barg (232.06 psig)	16.00 barg (232.06 psig)	16.00 barg (232.06 psig)	16.00 barg (232.06 psig)
PED Conformity Assessment Category			SEP	SEP	SEP	SEP	CAT I	CAT I	CAT I
Volume (litres)			0.75	0.5	1.9	3.1	5.0	6.9	8.8

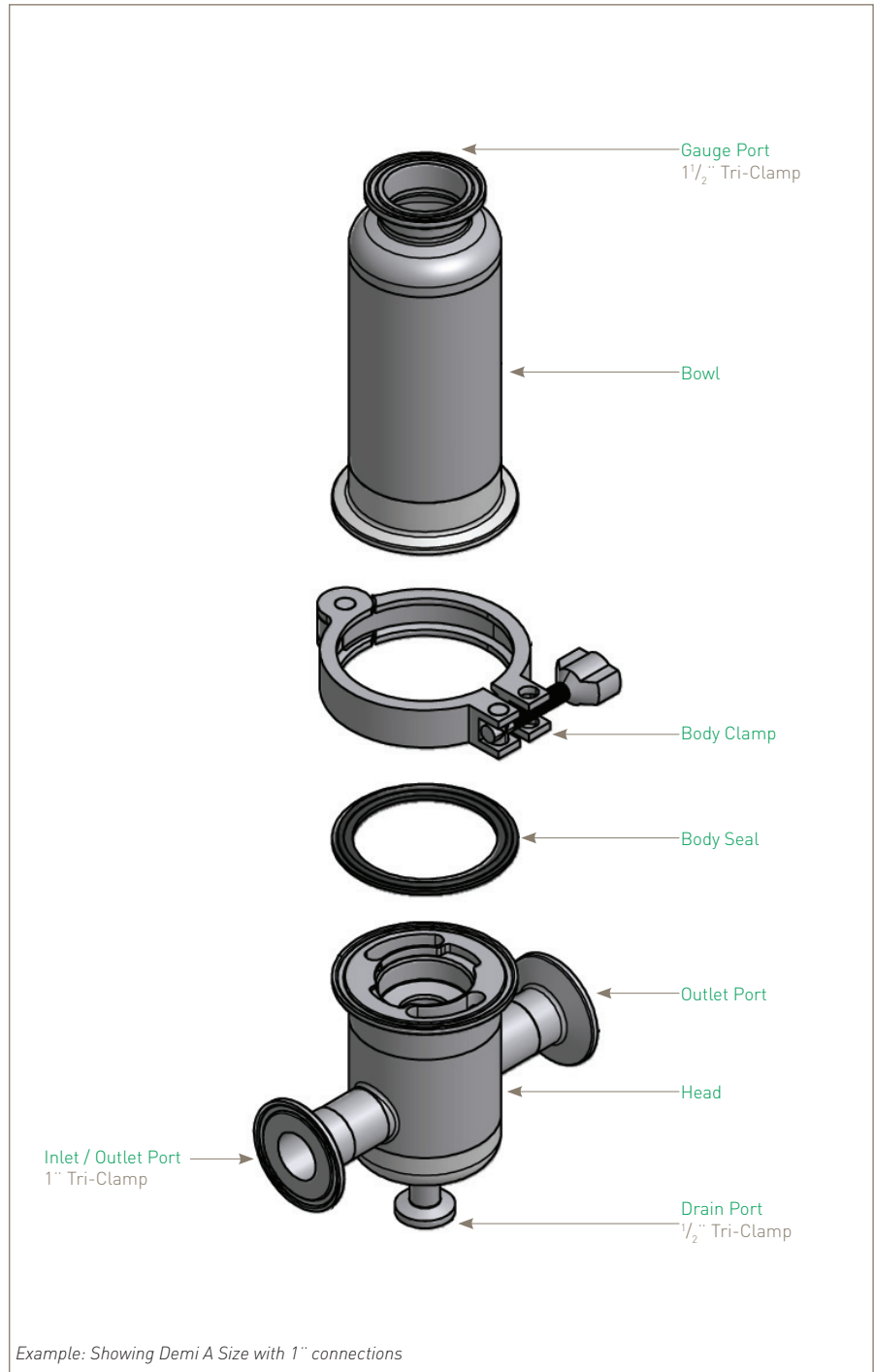
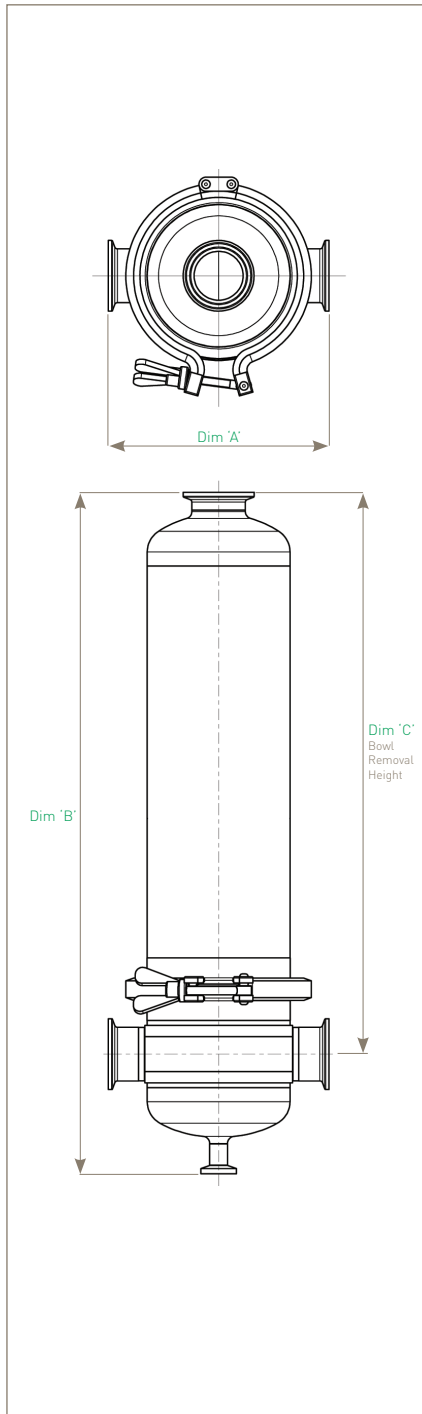
Oxygen Service Working Condition PED 97/23/EC			Maximum Pressure						
Fluid Group	State	Temperature	01A	01B	01K	011	012	013	014
Dangerous	Gas / Vapour	150 °C (302 °F)	10.00 barg (145.03 psig)	10.00 barg (145.03 psig)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)	8.00 barg (116.03 psig)	7.20 barg (104.42 psig)	5.60 barg (81.22 psig)
PED Conformity Assessment Category			SEP	SEP	SEP	SEP	CAT I	CAT I	CAT I
Volume (litres)			0.75	0.5	1.9	3.1	5.0	6.9	8.8

Note: All housings are fully vacuum rated.

## Physical Characteristics

Bowl Height	Dimensions			Typical Weight
	'A'	'B'	'C'	
A Size 125 mm [5"]	152 mm [6.0"]	227 mm [9.0"]	130 mm [5.1"]	1.3 Kg [2.86 lbs]
B Size 65 mm [2 1/2"]	152 mm [6.0"]	172 mm [6.8"]	70 mm [2.8"]	1.2 Kg [2.64 lbs]
125 mm [5"]	157 mm [6.2"]	337 mm [13.3"]	194 mm [7.6"]	5.1 Kg [11.22 lbs]
250 mm [10"]	157 mm [6.2"]	487 mm [19.2"]	313 mm [12.3"]	5.7 Kg [12.54 lbs]
500 mm [20"]	157 mm [6.2"]	737 mm [29.0"]	561 mm [22.1"]	6.7 Kg [14.74 lbs]

Dimensions shown are based on the STANDARD range. For accurate dimensions, please contact Parker domnick hunter.



Example: Showing Demi A Size with 1" connections

The PLUS product range is available with many options of connections, vents, drains, surface finish, seals classification, etc. Please see product coding.

## STANDARD Range - K to 20"

HSA [ ] 01 [ ] [ ] [ ] - [ ] - [ ]

Code   Vessel Class	Code   Length (Nominal)	Code   Connection Size	Code   Standard	Code   Cartridge	Code   Seal
CE Standard	K 5" (125 mm) 1 10" (250 mm) 2 20" (500 mm)	Y 1 1/2" (38.1 mm)	T Tri-Clamp	C 226	S Silicone

## STANDARD Range - Demi A & B

HSA [ ] 01 [ ] [ ] [ ] - [ ] - [ ]

Code   Vessel Class	Code   Length (Nominal)	Code   Connection Size	Code   Standard	Code   Cartridge	Code   Seal
CE Standard	A 5" (125 mm) B 2 1/2" (65 mm)	B 1"	T Tri-Clamp	T 126	S Silicone

## PLUS Range - K to 40"

HSA [ ] 01 [ ] [ ] [ ] [ ] [ ] [ ] - [ ] [ ] - [ ] - [ ]

Code   Vessel Class	Code   Length (Nominal)	Code   Connection Size	Code   Standard	Code   Cartridge	Code   Seal	Code   Vent	Code   Drain
CE Standard AT ATEX HP* High Pressure OX Oxygen Service	K 5" (125 mm) 1 10" (250 mm) 2 20" (500 mm) 3 30" (750 mm) 4 40" (1000 mm)	Y 1 1/2" (38.1 mm) C 2" (50.8 mm)	T Tri-Clamp	C 226	E EPDM P* PTFE S Silicone V Viton	C Rectus 21 Vertical H 1 1/2" TCF & Hosebarb I 1 1/2" TCF & Staubli RBE03 M 1 1/2" TCF & 1/2" TCF R 1 1/2" TCF & Rectus 21 S Staubli RBE03 Vertical T 1 1/2" TCF Only	H Hosebarb R Rectus 21 S Staubli RBE03 T 1/2" TCF

\* Supplied complete with a double bolted clamp

Code   Surface Finish	Internal	External
B Sanitary	0.4 µm	0.25 µm
P Sanitary Electropolished	0.4 µm EP	0.25 µm

Code   Tagged	
T	Yes
X	No

For Tagged Options customer identification numbers required at time of ordering

## PLUS Range - Demi A & B

HSA [ ] 01 [ ] [ ] [ ] [ ] [ ] [ ] - [ ] [ ] - [ ] - [ ]

Code   Vessel Class	Code   Length (Nominal)	Code   Connection Size	Code   Standard	Code   Cartridge	Code   Seal	Code   Vent	Code   Drain
CE Standard AT ATEX HP* High Pressure OX Oxygen Service	A 5" (125 mm) B 2 1/2" (65 mm)	B 1" T 3/4" A 1/2"	T Tri-Clamp	T 126	E EPDM P* PTFE S Silicone V Viton	C Rectus 21 Vertical H 1 1/2" TCF & Hosebarb I 1 1/2" TCF & Staubli RBE03 M 1 1/2" TCF & 1/2" TCF R 1 1/2" TCF & Rectus 21 S Staubli RBE03 Vertical T 1 1/2" TCF Only	H Hosebarb R Rectus 21 S Staubli RBE03 T 1/2" TCF

\* Supplied complete with a double bolted clamp

Code   Surface Finish	Internal	External
B Sanitary	0.4 µm	0.25 µm
P Sanitary Electropolished	0.4 µm EP	0.25 µm

Code   Tagged	
T	Yes
X	No

For Tagged Options customer identification numbers required at time of ordering