

# HSL Filter Housings

Sanitary Liquid



- Single element sanitary liquid housing
- Designed specifically for the food & beverage and pharmaceutical industries
- Sanitary tri-clamp body closure as standard
- STANDARD product
  - Sanitary surface finish
  - Tri-clamp connections
- PLUS product
  - Available in 3 different vessel classes: Standard (CE), ATEX and High Pressure
  - Sanitary or sanitary electropolished surface finish options
  - Wide range of vent and drain connections
  - 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™ / FKM 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:	Electropolished 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.

#### Directives

Housings designed in accordance with the European Council Pressure Equipment Directive (PED). ATEX (where applicable).

#### Design Basis

ASME VIII Division 1.

#### Approvals

EAC 010-2011, (No. TC N RU D-GB. AИ01.B.00512)  
Approval type: Import Certificate, TR CU  
Pressure Equipment (available on request).



## Standard Range

Working Condition PED			Maximum Pressure				
Fluid Group	State	Temperature	01A	01B	011	012	013
Non Dangerous	Liquid / Gas	150 °C (302 °F)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)
Dangerous	Liquid / Gas	150 °C (302 °F)	10 barg (145 psig)	10 barg (145 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)
PED Conformity Assessment Category			SEP	SEP	SEP	SEP	CAT I
Volume (litres)			0.75	0.5	2.9	4.8	6.7

## Plus Range

Working Condition PED			Maximum Pressure						
Fluid Group	State	Temperature	01A	01B	01K	011	012	013	014
Non Dangerous	Gas / Vapour	150 °C (302 °F)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)
Dangerous	Gas / Vapour	150 °C (302 °F)	10 barg (145 psig)	10 barg (145 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)
Non Dangerous	Liquid	150 °C (302 °F)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)
Dangerous	Liquid	150 °C (302 °F)	10 barg (145 psig)	10 barg (145 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)
PED Conformity Assessment Category			SEP	SEP	SEP	SEP	SEP	CAT I	CAT I
Volume (litres)			0.75	0.5	1.7	2.9	4.8	6.7	8.6

Working Condition PED			Maximum Pressure						
Fluid Group	State	Temperature	01A	01B	01K	011	012	013	014
Non Dangerous	Gas / Vapour	135 °C (275 °F)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)
Dangerous	Gas / Vapour	135 °C (275 °F)	10 barg (145 psig)	10 barg (145 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)
Non Dangerous	Liquid	135 °C (275 °F)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)	10 barg (145 psig)
Dangerous	Liquid	135 °C (275 °F)	10 barg (145 psig)	10 barg (145 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)	5 barg (72.5 psig)
PED Conformity Assessment Category			SEP	SEP	SEP	SEP	SEP	CAT I	CAT I
Volume (litres)			0.75	0.5	1.7	2.9	4.8	6.7	8.6

Working Condition PED			Maximum Pressure						
Fluid Group	State	Temperature	01A	01B	01K	011	012	013	014
Non Dangerous	Gas / Vapour / Liquid	205 °C (401 °F)	16 barg (232 psig)	16 barg (232 psig)	16 barg (232 psig)	16 barg (232 psig)	16 barg (232 psig)	16 barg (232 psig)	16 barg (232 psig)
PED Conformity Assessment Category			SEP	SEP	SEP	SEP	CAT I	CAT I	CAT I
Volume (litres)			0.75	0.5	1.7	2.9	4.8	6.7	8.6

Note: All housings are full vacuum rated.

# HSL Filter Housings

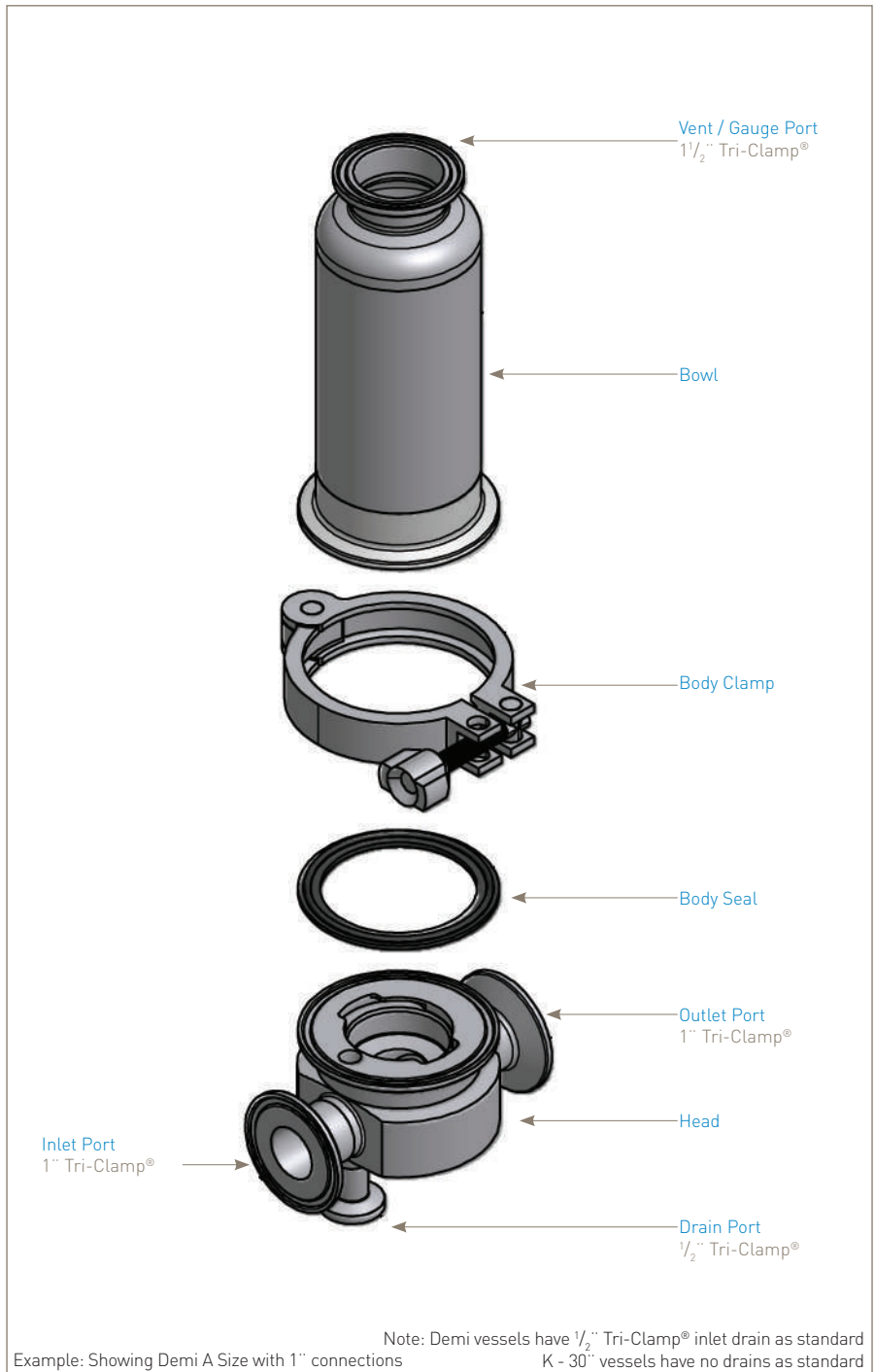
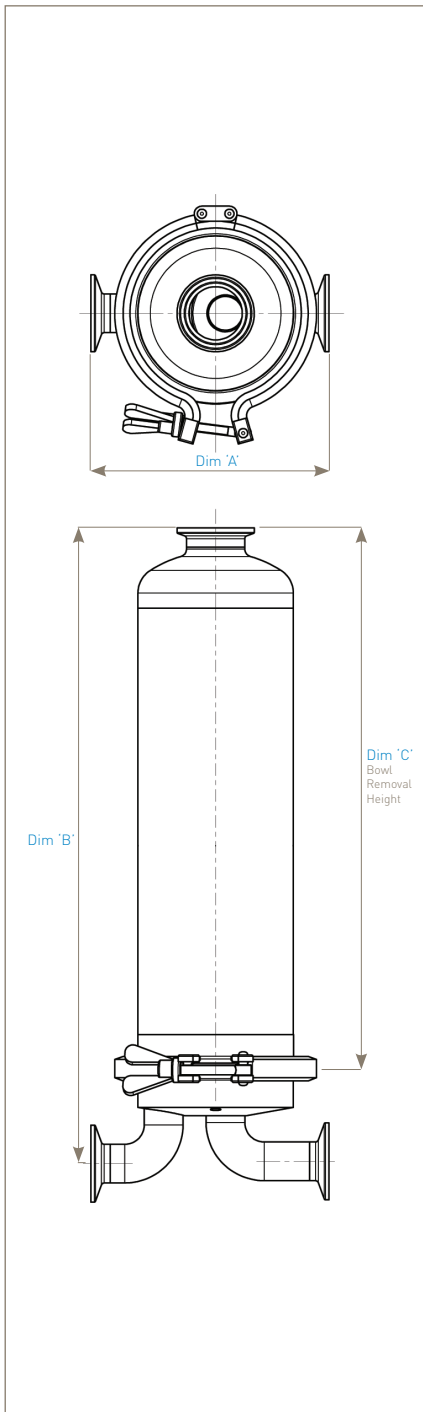
Sanitary Liquid



## Physical Characteristics

Bowl Height	Dimensions (mm)			Typical Weight
	'A'	'B'	'C'	
A Size 125 mm (5")	117 mm (4.6")	191 mm (7.5")	130 mm (5.1")	2.0 Kg (4.4lbs)
B Size 65 mm (2 1/2")	117 mm (4.6")	136 mm (5.4")	70 mm (2.8")	1.8 Kg (3.9lbs)
250 mm (10")	156 mm (6.1")	417 mm (16.4")	313 mm (12.3")	3.8 Kg (8.3 lbs)
500 mm (20")	156 mm (6.1")	667 mm (26.3")	561 mm (22.1")	4.8 Kg (10.5 lbs)
750 mm (30")	156 mm (6.1")	912 mm (35.9")	809 mm (31.8")	5.7 Kg (12.5 lbs)
1000 mm (40")	156 mm (6.1")	1160 mm (45.7")	1057 mm (41.6")	6.7 Kg (14.7 lbs)

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



Note: Demi vessels have 1/2" Tri-Clamp® inlet drain as standard  
 Example: Showing Demi A Size with 1" connections  
 K - 30" vessels have no drains as standard

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

# HSL Filter Housings Sanitary Liquid

## STANDARD Range - 10" to 30"

HSL  01   -  -

Code   Vessel Class	Code   Length (Nominal)	Code   Connection Size	Code   Standard	Code   Cartridge	Code   Seal
CE Standard	1 10" (250 mm) 2 20" (500 mm) 3 30" (750 mm)	B 1" (25.4 mm)	T Tri-Clamp®	C 226	S Silicone

Note: No drain(s) as standard.

## STANDARD Range - Demi A & B

HSL  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

Note: 1/2" Tri-Clamp® inlet drain as standard.

## PLUS Range - K to 40"

HSL  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	K 5" (125 mm) 1 10" (250 mm) 2 20" (500 mm) 3 30" (750 mm) 4 40" (1000 mm)	B 1" (25.4 mm)	D DIN11851(M) F <sup>(1)(2)</sup> ANSI RF 150 H <sup>(2)</sup> ANSI RF 300 L <sup>(2)</sup> EN1092-1 PN16 R RJT(M) S SMS Union (M) T Tri-Clamp® W <sup>(3)</sup> Butt Weld BS4825 Pt.1	C 226	E EPDM P* PTFE S Silicone V Viton™ / FKM	A 1 1/2" Tri-Clamp® & 2 x Rectus 21 B 1 1/2" Tri-Clamp® & 2 x Staubli™ RBE03 H 1 1/2" Tri-Clamp® & Hosebarb I 1 1/2" Tri-Clamp® & Staubli™ RBE03 M 1 1/2" Tri-Clamp® & 1/2" Tri-Clamp® R 1 1/2" Tri-Clamp® & Rectus 21 S Staubli™ RBE03 Vertical T 1 1/2" Tri-Clamp® Only	H Hosebarb Inlet Only R Rectus 21 Inlet Only S Staubli™ RBE03 Inlet Only X No Drain Y 1" Tri-Clamp® Inlet Only Z 1" TCF Inlet & Outlet									
* Supplied complete with a double bolted clamp						<table border="1"> <thead> <tr> <th>Code   Surface Finish</th> <th>Internal</th> <th>External</th> </tr> </thead> <tbody> <tr> <td>B Sanitary</td> <td>0.4 µm</td> <td>0.25 µm</td> </tr> <tr> <td>P Sanitary Electropolished</td> <td>0.4 µm EP</td> <td>0.25 µm</td> </tr> </tbody> </table>		Code   Surface Finish	Internal	External	B Sanitary	0.4 µm	0.25 µm	P Sanitary Electropolished	0.4 µm EP	0.25 µm
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<small> <sup>(1)</sup> Not suited for High Pressure Vessels. HP Vessels to use ANSI RF 300.  <sup>(2)</sup> Flanged vessels based on 1" O.D. pipe but use 1/2" or NW20 flanges.  <sup>(3)</sup> 25.4 x 1.6mm weld end                 </small>						<table border="1"> <thead> <tr> <th>Code   Tagged</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>T</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>X</td> <td>No</td> <td>Yes</td> </tr> </tbody> </table>		Code   Tagged	Yes	No	T	Yes	No	X	No	Yes
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## PLUS Range - Demi A & B

HSL  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	A 5" (125 mm) B 2 1/2" (65 mm)	B 1"	D DIN11851 F <sup>(1)(2)</sup> ANSI RF 150 H <sup>(2)</sup> ANSI RF 300 L EN1092-1 PN16 R RJT S SMS Union (M) T Tri-Clamp® W <sup>(3)</sup> Butt Weld BS4825 Pt.1	T 126	E EPDM P* PTFE S Silicone V Viton™ / FKM	A 1 1/2" Tri-Clamp® & 2 x Rectus 21 B 1 1/2" Tri-Clamp® & 2 x Staubli™ RBE03 H 1 1/2" Tri-Clamp® & Hosebarb I 1 1/2" Tri-Clamp® & Staubli™ RBE03 M 1 1/2" Tri-Clamp® & 1/2" TCF R 1 1/2" Tri-Clamp® & Rectus 21 S Staubli™ RBE03 T 1 1/2" Tri-Clamp® Only	H Hosebarb Inlet Only R Rectus 21 Inlet Only S Staubli™ RBE03 Inlet Only T 1/2" Tri-Clamp® Inlet Only X No Drain									
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<small> <sup>(1)</sup> Not suited for High Pressure Vessels. HP Vessels to use ANSI RF 300.  <sup>(2)</sup> Only available in 1/2".  <sup>(3)</sup> 25.4 x 1.6mm weld end                 </small>						<table border="1"> <thead> <tr> <th>Code   Tagged</th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>T</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>X</td> <td>No</td> <td>Yes</td> </tr> </tbody> </table>		Code   Tagged	Yes	No	T	Yes	No	X	No	Yes
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Staubli™ is a trademark of Staubli AG.

Tri-Clamp® is a trademark of Alfa-Laval, Inc.

Viton™ is a registered trademark of DuPont Performance Elastomers L.L.C..

Note: All Tri-Clamp® connections conform to BS4825 Pt. 3

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