



HFX™ Series – Housing Filtration Excellence Engineered for Performance

HFX-SS-CF-SC-SAN™ – Stainless Steel Sanitary Single Cartridge Housing Technical Overview

Filtracore Asia's **HFX-SS-CF-SC-SAN™ – Stainless Steel Sanitary Single Cartridge Housings** are engineered for **high-purity liquid processing** in **pharmaceutical, biotech, food & beverage** and **other regulated industries**.



Built from 316L stainless steel (304 optional), they feature sanitary tri-clamp connections, **low hold-up volume** and an electropolished internal finish (typically 0.4–0.8 μm Ra) **to support hygienic performance and CIP/SIP operation**. Sanitary vee-clamp closures **enable rapid, tool-free cartridge change-outs with reliable sealing**.

The housings accept SOE cartridge styles (Code 7/8; 222/226 O-ring) in 10, 20 and 30 inch lengths (40 inch on selected models), providing **leak-tight integrity with sterilising-grade cartridges**; DOE formats are available on request for non-sterile duties. Elastomer options (EPDM, FKM/Viton®, PTFE-encapsulated, others) can be **specified with FDA and USP Class VI documentation to meet regulatory and chemical-compatibility needs**.

Fabricated under orbital/TIG weld protocols and available to ASME BPE design practice, the internal geometry is **crevice-minimising** and includes vent/drain ports with optional DP/gauge connections for process monitoring. Models can be supplied with PED or ASME Section VIII conformity when specified and documented, with **3-A sanitary** and **ATEX** versions available on request.

Rated up to **10 bar at ambient** and **suitable for SIP cycles up to ~150 °C (seal-dependent, with pressure/temperature derating)**, HFX-SS-CF-SC-SAN™ provides robust, compliance-ready performance for sanitary and sterile filtration applications.

**Engineered for Hygiene. Designed for Compliance.
Trusted for High-Purity Filtration.**

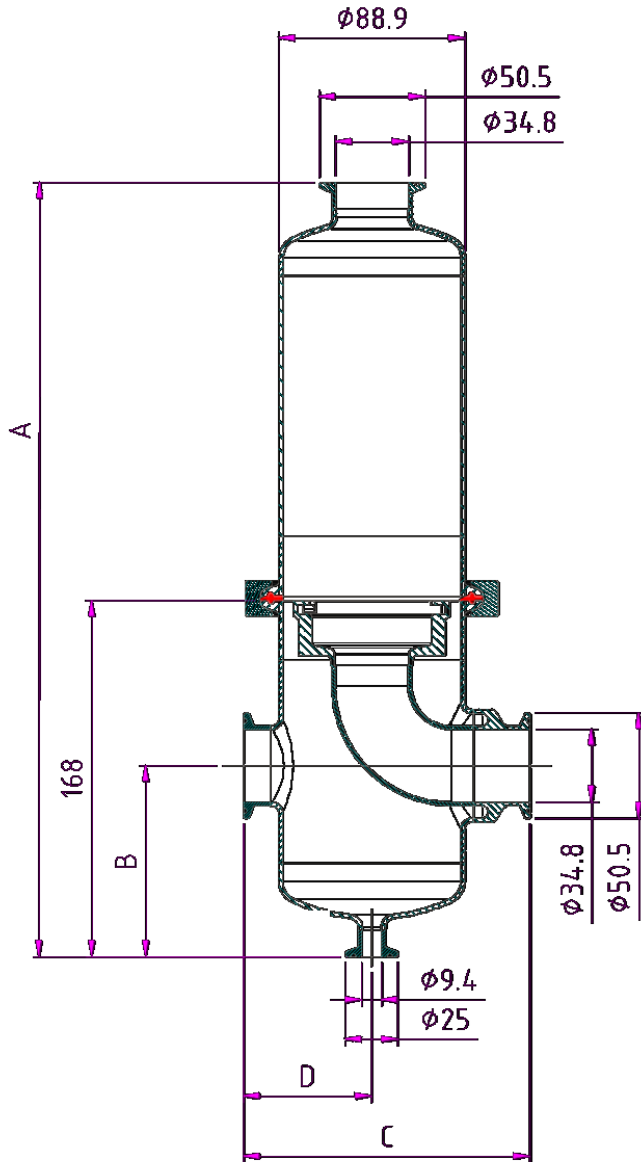
Technical Specifications

- **Model:** HFX-SS-CF-SC-SAN™ – Stainless Steel Sanitary Single Cartridge Housing
- **Filter Compatibility:** 10", 20", 30" (40" available on selected models); SOE (222/226 O-ring, Code 7/8) as standard; DOE available on request for non-sterile service; supports depth, pleated or membrane cartridges
- **Housing Material:** SS316L (standard), SS304 optional
- **Seal Options:** EPDM, Buna-N, Viton® (FKM), PTFE, PTFE-encapsulated (FDA & USP Class VI options available)
- **Closure:** Sanitary vee-clamp (quick clamp) closure (standard); swing-bolt or screw-cap designs available on request
- **Inlet/Outlet:** Sanitary Tri-Clamp ferrules (standard, 1.5" typical; 2" optional; 3" on request for high-flow/40"); optional DIN 11851 hygienic unions for food & beverage service, or DIN 11864 aseptic unions / ANSI / EN flanges for pharmaceutical and regulated applications
- **Vent & Drain Ports:** Tri-Clamp vent (top) and drain (bottom), typically ½"-1" TC; optional instrumentation ports for gauges/DP
- **Pressure Rating:** Up to 10 bar (145 psi) @ 20 °C (standard); higher ratings available on request
- **Temperature Range:** -20 °C to 121 °C continuous; up to ~150 °C during SIP cycles (seal-dependent; apply pressure/temperature derating)
- **Design Pressure & Code:** PED 2014/68/EU or ASME Section VIII Div. 1 conformity available when specified and documented; ASME BPE design practice optional
- **Surface Finish:** Sanitary mechanical polish (~0.6 µm Ra typical); electropolished finish (~0.4 µm Ra) for biotech/pharma service
- **Shell Thickness:** Dependent on size and code requirements (typically 2.5–5.0 mm)
- **Hydrostatic Test:** Per applicable code requirements (ASME VIII UG-99 / PED)
- **Flow Range (typical water service):** 10" up to ~1.5 m³/h; 20" up to ~3 m³/h; 30" up to ~4.5 m³/h; 40" up to ~6 m³/h (indicative, based on clean water at ~1 bar ΔP and 20 °C; media/viscosity/system dependent)
- **Finish:** Natural metallic, pickled & passivated (standard); electropolished optional
- **Mounting:** Base plate or skid-ready supports; vertical installation standard
- **Compliance:** Food-contact compliant variants available when specified and documented; USP Class VI elastomers available; ASME BPE and 3-A Sanitary Standards optional; PED / ASME Section VIII conformity available; ATEX Directive 2014/34/EU versions on request



Technical Specifications - Dimensions

- Adapter Filter Cartridge – Code 7
- I/O Connections - Sanitary tri-clamp ferrules 1.5"



Cartridge Length (in)	Housing Weight (kg)	Housing Volume (ℓ)	Dimensions - mm			
			A	B	C	D
10	5	3	501	91	137	61
20	6	4.5	751	91	137	61
30	8	6	1,001	91	137	61

Dimensions for reference only and approximate. Exact dimensions for installation purposes available on request.

All data, dimensions, and ratings are provided for general reference only. FiltraCore housings are designed and hydrotested in accordance with relevant industry standards; however, actual performance will vary with process conditions, media, and installation. Maximum operating pressure and temperature are subject to material selection, gasket/elastomer choice, and design code (ASME/PED, where applicable). Standard rating is 10 bar (145 psi) @ 20 °C, with a maximum operating temperature of 120 °C, or up to 150 °C with PTFE/silicone seals for SIP duty.

Chemical compatibility of housing materials, seals, and gaskets with the process fluid is the sole responsibility of the user; data provided are general guidelines derived from industry sources and laboratory testing, and actual performance may vary with concentration, temperature, and process variables.

Wetted parts in SS304/SS316L (optional Duplex SS 2205/2507 or Titanium Grade 2) provide broad resistance to aqueous solutions, hydrocarbons, and process chemicals not corrosive to stainless steel, while elastomer options (EPDM, Viton®, PTFE, PTFE-encapsulated) extend compatibility across most industrial and sanitary applications. For specific chemical resistance, consult the FiltraCore Chemical Resistance Guide or contact our technical team.

FiltraCore assumes no liability for improper use, chemical incompatibility, installation, or operation beyond published ratings. Specifications are subject to change without notice as part of continuous product improvement.

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■ sales@filtracoreasia.com ■ www.filtracoreasia.com ■ +65 89-FILTER (+65 89-345837)

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