HFX Series

HFX™ Series – Housing Filtration Excellence Engineered for Performance

HFX-SS-CF-MC™ – Stainless Steel High-Capacity Multi-Cartridge Housing Technical Overview

FiltraCore Asia's **HFX-SS-CF-MC™ – Stainless Steel High-Capacity Multi-Cartridge Housings** are purpose-built for **large-volume liquid filtration** where **capacity, uptime, and reliability** are critical. Designed to hold **multiple industry-standard 2.5″ OD cartridges** in 20″, 30″, and 40″ lengths, these housings consolidate filtration into a single vessel, **reducing change-out frequency**, **minimising downtime**, and supporting **consistent filtrate quality** across industrial and sanitary processes.

Available in **3 to 36 round configurations**, the housings provide **flexible scaling of system throughput** while maintaining **uniform cartridge sealing** via precision-machined seats and stainless-steel support plates. A **side-entry inlet with bottom outlet** is supplied as standard to promote even liquid distribution and facilitate drainage, while **tangential or side-outlet options** are available for compact skid integration. **Vertical orientation** is standard, with **horizontal designs** offered for installations where headroom is limited or **operator ergonomics** are a priority.

Constructed from **SS304 or SS316L** (standard), with **316Ti** available for EU-driven specifications and optional **Duplex SS (2205/2507)** or **Titanium Grade 2** for aggressive chemistries, the housings combine **mechanical strength** with **broad chemical resistance**. **Operator-friendly swing-bolt or eye-bolt closures** with **davit-assisted covers** provide safe, rapid cartridge access, while optional **sanitary polish (≤0.6 Ra µm)** or **electropolish (≤0.4 Ra µm)** finishes meet food, beverage, and pharmaceutical requirements.

All housings are **hydrostatically tested per ASME VIII UG-99 / PED** and may be supplied with **ASME Section VIII Div. 1 or PED 2014/68/EU certification** when specified and documented. Dimensions align with common multi-cartridge formats; **functional interchangeability** with Eaton®, Parker Hannifin®, Amazon Filters®, Pall®, and Shelco® is achievable when **dimensional and rating compatibility** are verified for the specific installation.

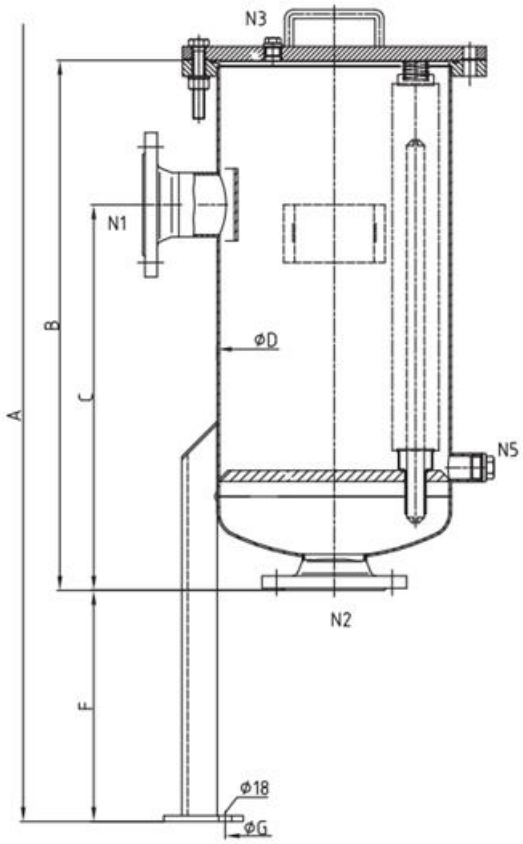
High Capacity. High Reliability. Proven at Scale.

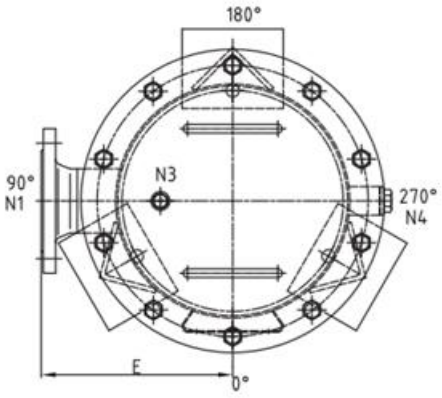
Technical Specifications

- **Model:** HFX-SS-CF-MC™ – Stainless Steel High-Capacity Multi-Cartridge Housing
- **Cartridge Compatibility:** Industry-standard 2.5″ OD cartridges in 20″, 30″, and 40″ lengths (standard). 10″ length available on request for compatibility with ECOCART™ and other compact multi-cartridge systems. Supports DOE, 222, and 226 end-cap styles. Micron ratings from 1–1000 µm depending on cartridge selection
- **Cartridge Count:** 3 to 36 cartridge configurations (others available on request). Flow ranges ~20–360 m³/h (water @ 25 °C, ΔP ≤ 0.5 bar)
- **Housing Material:** SS304 or SS316L (standard). Optional SS316Ti (for EU-driven specifications), Duplex SS (2205/2507) for chloride service, or Titanium Grade 2 for aggressive chemical/seawater applications
- **Internals / Tube Sheet:** Stainless steel cartridge plate and alignment guide, precision-machined for secure sealing. Electropolished option available for hygienic service
- **Seal Options:** Buna-N, EPDM, Silicone, Viton®, PTFE, PTFE-encapsulated elastomers. USP Class VI elastomers available for biopharma applications
- **Closure System:** Swing-bolt or eye-bolt cover with davit arm for safe access. Optional handwheel swing-bolt for high-frequency operation. Bleed/vent ports provided; mechanical interlocks available on request
- **Inlet / Outlet Connections:**
  – Standard: Side-entry nozzle with bottom outlet for compact footprint and facilitated drainage
  – Options: Side-outlet, tangential-outlet, or dual-nozzle configurations for skid integration or retrofit tie-ins
  – Flanged ANSI B16.5 Class 150 / EN 1092-1 PN16 (DN50–DN350, 2″–14″ depending on cartridge count). Other flange standards (JIS) available on request
- **Vent & Drain Ports:** ½″ BSPT/NPT vent (top) for depressurisation; 1″–2″ BSPT/NPT drain (bottom) for vessel emptying and CIP/SIP procedures
- **Pressure Ratings:** 10 bar (145 psi) standard; 16 bar and 20 bar available for higher rating applications
- **Temperature Range:** –20 °C to 120 °C continuous service; up to 150 °C with PTFE or silicone seals for SIP/CIP duty
- **Design Codes & Testing:** Designed per ASME Section VIII Div. 1 or PED 2014/68/EU. Hydrostatic test per applicable code requirements (ASME VIII UG-99 / PED). Weld maps, pressure test certificates, and MTRs available
- **Surface Finish:** Bead-blast (standard). Sanitary polish ≤0.6 Ra µm or electropolish ≤0.4 Ra µm optional
- **Mounting & Orientation:** Heavy-duty support legs with bolting pads. Standard vertical orientation; horizontal versions available for limited headroom or operator ergonomics
- **Compliance:** Food-contact compliant variants available when specified and documented. USP Class VI elastomers available. Weld-only construction (no adhesives, no coatings)
- **OEM Compatibility:** Compatible with industry-standard 2.5″ OD multi-cartridge formats used by Eaton® ECOCART™/TOPCART™, Parker Hannifin® Fulflo® S/MP Series, Amazon Filters® (61/62/63/64 Series), Pall® (FMO Series), and Shelco® (FOS / HF / UHF Series); verify port size/type and centres, nozzle class, footprint/height, closure/hold-down, plate/adapter geometry, and MAWP/temperature class before retrofit

Technical Specifications - Dimensions

- **Cartridge Quantity – 11 of 2.5" OD cartridges**
- **Adapter Filter Cartridge – DOE/SOE 222 & 226**
- **I/O Connections - Flange DN80-150/PN16 DIN EN 1092-1**



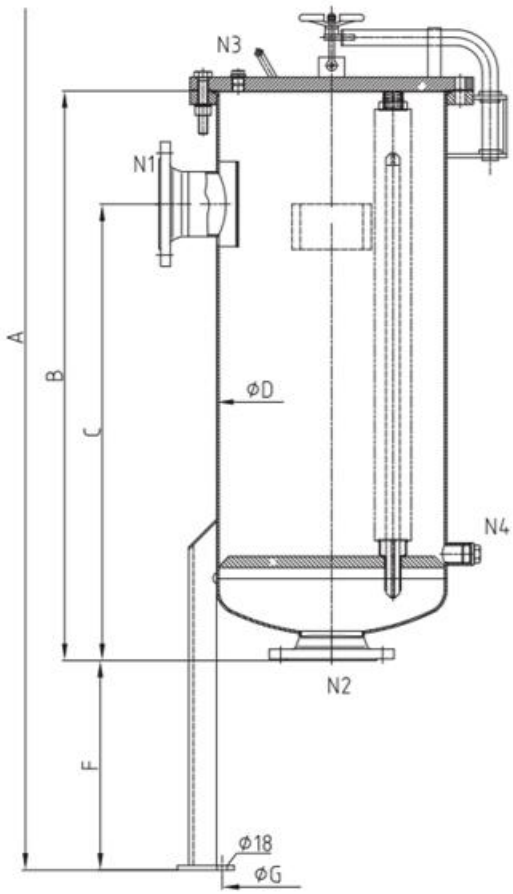


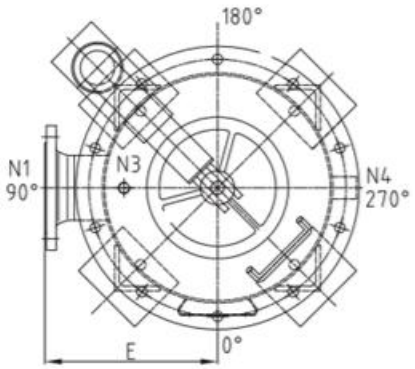
	Dimensions – mm								
Cartridge Length (in)	A	B	C	D	E	F	G	Housing Volume (ℓ)	Housing Weight (kg)
20	1,465	700	500	324	265	265	304	51	76
30	1,960	945	745	324	265	265	304	73	82
40	2,460	1195	995	324	265	265	304	93	88

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

Technical Specifications - Dimensions

- **Cartridge Quantity – 19 of 2.5" OD cartridges**
- **Adapter Filter Cartridge – DOE/SOE 222 & 226**
- **I/O Connections - Flange DN80-150/PN16 DIN EN 1092-1**

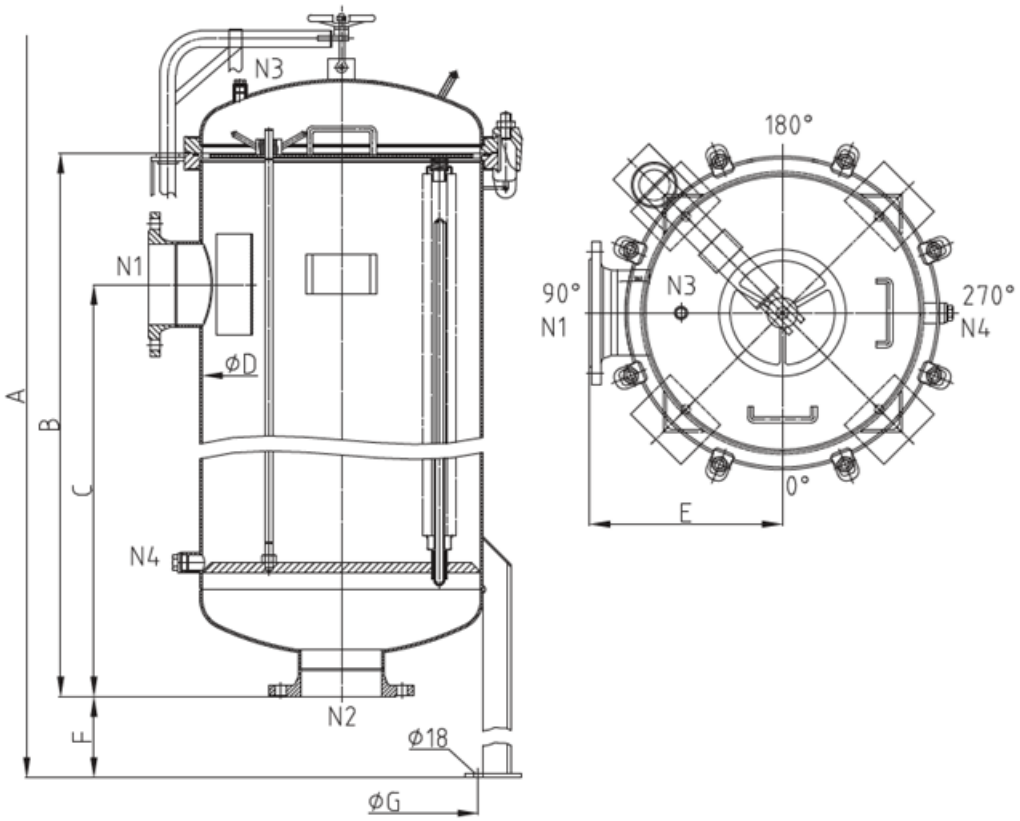




	Dimensions – mm								
Cartridge Length (in)	A	B	C	D	E	F	G	Housing Volume (ℓ)	Housing Weight (kg)
20	1,630	752	552	406	305	370	385	120	118
30	2,138	1,006	806	406	305	370	385	153	129
40	2,646	1,260	1,060	406	305	370	385	186	140

Technical Specifications - Dimensions

- **Cartridge Quantity – 37 of 2.5" OD cartridges**
- **Adapter Filter Cartridge – DOE/SOE 222 & 226**
- **I/O Connections - Flange DN80-150/PN16 DIN EN 1092-1**

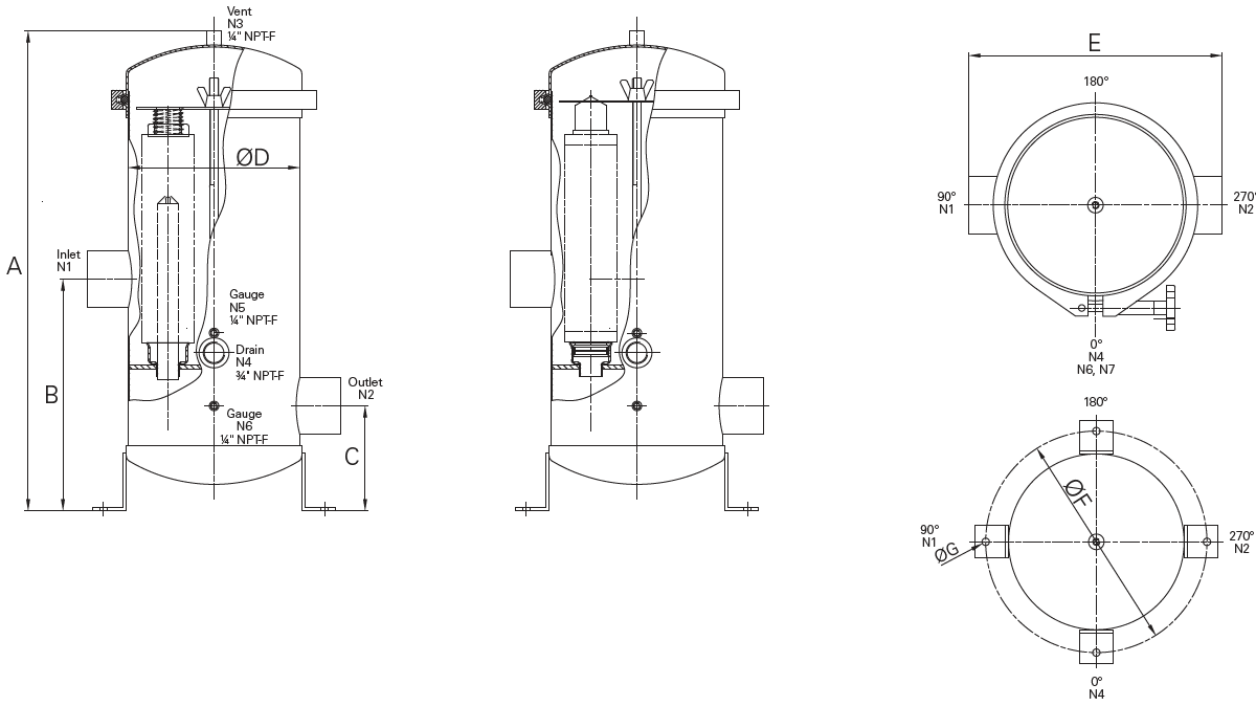


	Dimensions – mm								
Cartridge Length (in)	A	B	C	D	E	F	G	Housing Volume (ℓ)	Housing Weight (kg)
20	1,800	810	610	559	380	480	540	210	200
30	2,310	1,065	865	559	380	480	540	270	221
40	2,820	1,315	1,115	559	380	480	540	330	242

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

Technical Specifications - Dimensions

- **Cartridge Quantity – 4, 5 or 7 of 2.5" OD cartridges**
- **Adapter Filter Cartridge – DOE or SOE 222/Fin**
- **I/O Connections - 1 ½" NPT-F for 4 cartridges. 2" NPT-F for 5 and 7 cartridges**



Cartridge Quantity – 4 pieces of 2.5" OD cartridges

	Dimensions – mm								
Cartridge Length (in)	A	B	C	D	E	F	G	Housing Volume (ℓ)	Housing Weight (kg)
10	620	280	120	180	240	236	8.9	13	15
20	885	280	120	180	240	236	8.9	20	18
30	1,140	280	120	180	240	236	8.9	27	20
40	1,394	280	120	180	240	236	8.9	33	22

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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