



HFX™ Series – Housing Filtration Excellence Engineered for Performance

HFX-PL-PVDF™ – Polyvinylidene Fluoride Plastic Bag Housing Product Highlights

Filtracore Asia's **HFX-PL-PVDF™ Polyvinylidene Fluoride Plastic Bag Housing** delivers **high-purity liquid filtration** where **extreme chemical resistance** and **thermal stability** are essential.



Constructed from **high-performance PVDF**, the housing withstands **strong mineral acids, halogenated compounds, chlorinated water, and many industrial solvents** while maintaining dimensional stability at elevated temperatures. Its **non-metallic construction provides a corrosion-free wetted path** and supports long service life in harsh chemical or high-purity environments, while the lightweight body simplifies installation and maintenance.

Designed around **industry-standard Size #2 filter-bag diameters and common sealing geometries**, HFX-PL-PVDF™ can integrate into many existing thermoplastic bag-housing systems **once port and footprint dimensions are verified**, reducing retrofit effort and ensuring reliable system performance.

For applications where **metal housings risk leaching or contamination** – from **semiconductor wet processing and ultra-pure water** production to **pharmaceutical and demanding chemical processes** – PVDF offers **exceptional purity, chemical resistance, and long-term integrity**, setting a benchmark for high-purity filtration.

Engineered for Purity. Optimized for Resistance. Proven in Extremes.

Applications - HFV-PL-PVDF™ – Polyvinylidene Fluoride Plastic Bag Housing

HFV-PL-PVDF™ Polyvinylidene Fluoride Plastic Bag Housing provide high-purity liquid filtration where exceptional chemical resistance, thermal stability, and non-metallic construction are essential. Typical applications include:

- **Chemical processing:** filtration of strong acids, halogenated compounds, and aggressive solvents where stainless steel may corrode or leach
- **Semiconductor & electronics-grade ultrapure water (UPW):** wet benches, chemical delivery loops, and high-purity rinse systems requiring particle control and zero metal contamination
- **Pharmaceutical & biotechnology:** sterile or high-purity liquid handling where PVDF's low extractables safeguard process integrity
- **Chlorinated water & oxidising agents:** municipal water treatment, bleaching operations, and other services with high free chlorine or oxidiser content
- **High-purity food & beverage & speciality chemicals:** processes demanding food-contact compliant materials (FDA 21 CFR; EU 1935/2004 & 10/2011) and resistance to CIP/SIP chemicals
- **Marine, offshore & harsh environments:** saltwater and brine filtration where long-term corrosion resistance and lightweight handling are critical



OEM Compatibility & Replacement Cross-Reference

HFV-PL-PVDF™ Polyvinylidene Fluoride Plastic Bag Housings are designed to accept industry-standard Size #2 filter-bag diameters and common sealing geometries. They may be used as replacements¹ or upgrades when dimensional, connection, and pressure/temperature requirements are verified for the specific installation. Typical comparable product families include:

- **Eaton®** – POLYLINE™ PVDF single-bag housings
- **Hayward®** – TBH Series PVDF single-bag housings
- **Pentair® / Pentek®** – PBH Series thermoplastic single-bag housings (*polypropylene models; verify dimensional match when replacing PP with PVDF*)
- **Flow Clear Products (FCP®)** – industrial thermoplastic single-bag housings
- **USFilter®** – legacy thermoplastic single-bag housings

Other compatible OEM systems upon request



Ordering Information - HFX-PL-PVDF™ – Polyvinylidene Fluoride Plastic Bag Housing

- **Model:** HFX-PL-PVDF™ Polyvinylidene Fluoride Single-Bag Housing
- **Sizes:** Standard **#02** filter bags; **#01** available on request (customization)
- **Inlet/Outlet connections:** BSPT or NPT threaded (typ. 1"–2"); ANSI/DIN flanged variants available on select models
- **Seal options:** EPDM, FKM (Viton®), PTFE-enveloped elastomers (others on request). *For high-purity service, select low-extractables gasket options.*
- **Wetted material:** PVDF (polyvinylidene fluoride) for high-purity chemical resistance; all wetted parts non-metallic
- **Pressure rating:** Up to 6 bar at 20 °C (*model dependent*); pressure de-rates with temperature
- **Temperature range:** –20 °C to 110 °C continuous service, subject to pressure de-rating and gasket selection.
- **Closure system:** Hand-nut (standard) for tool-free servicing; clamp-ring available on request
- **Options:** Vent (top) and drain (bottom) ports for safe depressurisation, sampling and cleaning; compliance variants for food-contact (FDA 21 CFR; EU 1935/2004 & 10/2011) and low-extractables service when specified

Key Features - HFX-PL-PVDF™ – Polyvinylidene Fluoride Plastic Bag Housing

- **Superior chemical resistance** – PVDF wetted path withstands strong mineral acids, halogenated compounds and chlorinated water, and many industrial solvents; verify specific solvent, concentration and temperature against the compatibility chart.
- **High-purity design** – Low-extractables PVDF construction supports sensitive high-purity applications; select low-extractables gasket options for UPW/semiconductor service.
- **Thermal stability** – Reliable operation to ~110 °C continuous (with pressure derating); up to ~120 °C at reduced pressure where the design and gasket selection permit – exceeds typical polypropylene housings.
- **Compact footprint** – Suited to cleanroom skids, mobile high-purity units and space-limited installations.
- **Quick-access lid** – Hand-nut closure (standard) for tool-free servicing; clamp-ring available on request for rapid filter-bag change-out.
- **Improved operator and environmental protection** – Enclosed housing helps reduce contact with process fluids during operation and maintenance.
- **Fast product changeovers** – Short bag change-out cycles reduce downtime and cleaning labour between batches.
- **Food-contact options** – Food-contact compliant variants available (FDA 21 CFR; NSF/ANSI 61; EU 1935/2004 & 10/2011) when specified and supported by documentation.
- **Filter-media flexibility** – Accepts depth (felt), mesh, or pleated bag filters across a wide micron range in #1/#2 formats.
- **Moulded, adhesive-free wetted path** – One-piece moulded PVDF body with no adhesive joints in the wetted path to avoid contamination.
- **Industry-standard bag interface** – Designed for #1/#2 bag diameters and common sealing geometries; verify port centres, footprint, closure style and pressure/temperature class before retrofit into third-party housings.

¹ Compatibility is based on standard housing dimensions, ring types (welded/snap/steel), and micron ranges common across major manufacturers. Final fit and sealing should always be verified with the specific housing type prior to use.

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