HFX™ Series – Housing Filtration Excellence Engineered for Performance

HFX-PL-GFPP™ – Glass-Filled Polypropylene Plastic Bag Housing Product Highlights

FiltraCore Asia's **HFX-PL-GFPP™ Glass-Filled Polypropylene Bag Housing** combines **chemical resistance**, **mechanical strength**, and **easy handling** in a cost-efficient package. Moulded from **reinforced GFPP**, it provides dependable service across a broad spectrum of **aqueous acids, bases, and saline solutions when operated within its rated pressure, temperature, and concentration limits**, making it a **smart alternative to stainless steel** in **low-pressure, moderate-temperature applications**.

The housing accepts **industry-standard #1 and #2 filter bags** and **common sealing geometries**, allowing **seamless integration** into existing filtration lines with minimal modification while maintaining **FiltraCore performance specifications**. Its **compact footprint**, **lightweight construction**, and **ergonomic lid design** enable **rapid installation**, **straightforward maintenance**, and **safe change-outs** – particularly valuable where **floor space is limited** or **servicing is frequent**.

Beyond corrosion resistance, the **GFPP build offers excellent dimensional stability and low moisture absorption**, ensuring **consistent sealing and flow** even under continuous duty. An **optimised internal flow path** supports **efficient particle capture** and **low pressure drop**, delivering **reliable, energy-conscious operation** in **chemical processing**, **water treatment**, and a **wide range of general industrial systems**. Properly mounted, it can also serve on **mobile skids for flexible deployment**.

Engineered for Strength. Optimized for Flow. Proven in Service

Applications - HFX-PL-GFPP™ – Glass-Filled Polypropylene Plastic Bag Housing

HFX-PL-GFPP™ Glass-Filled Polypropylene Bag Housings deliver lightweight, corrosion-resistant filtration where non-metallic construction and easy handling are critical. Typical applications include:

- **Chemical processing**: filtration of corrosive acids, bases, and saline streams in low-pressure, moderate-temperature service
- **Water treatment & desalination**: brackish water intake, RO prefiltration, and post-treatment polishing
- **Food & beverage production**: non-metallic housing option where food-contact compliant variants are available (FDA 21 CFR; EU 1935/2004 & 10/2011)
- **Pharmaceutical manufacturing**: buffer, cleaning, and non-sterile liquid processes requiring corrosion-resistant equipment
- **Marine & offshore**: seawater or brine filtration in compact skid packages
- **General industrial liquids**: mobile or fixed installations where lightweight portability and quick change-outs reduce downtime

OEM Compatibility & Replacement Cross-Reference

HFX-PL-GFPP™ Glass-Filled Polypropylene Bag Housings are designed to accept industry-standard #1 and #2 filter bags and common sealing geometries used in many single-bag thermoplastic housings. They may be suitable as replacements[1] or upgrades when installed within their rated pressure/temperature limits and after verifying dimensional and connection details for each system. Typical comparable product families include:

- **Pentair® / Pentek®** – PBH Thermoplastic Bag Housings
- **Hayward®** – TBH Series GFPP Bag Housings
- **Flow Clear Products (FCP®)** – Industrial Thermoplastic Filter Housings
- **USFilter®** – Legacy Thermoplastic Bag Housing Models

Other compatible OEM systems upon request

Ordering Information - HFX-PL-GFPP™ – Glass-Filled Polypropylene Plastic Bag Housing

- **Model:** HFX-PL-GFPP™ Glass-Filled Polypropylene Plastic Bag Housing
- **Size:** Standard #02 filter bags (Ø 180 mm × 810 mm); #01 (Ø 180 mm × 410 mm) on request
- **Inlet/Outlet:** 1"–2" NPT or BSP threaded; select models with ANSI/DIN flanged connections
- **Seal Options:** EPDM, Buna-N, Viton® – others by special order; pressure/temperature ratings depend on gasket
- **Colour:** UV-stabilised black GFPP (other colours by special order; subject to material verification)
- **Material:** Glass-filled polypropylene (GFPP) for chemical resistance and structural rigidity
- **Pressure Rating:** Maximum 6 bar at 20 °C (see derating chart; e.g., ~4 bar at 50 °C)
- **Temperature Range:** 0 °C to 80 °C depending on gasket and pressure derating
- **Closure System:** Standard hand-nut (clamp-ring available on request where specified)

Key Features - HFX-PL-GFPP™ – Glass-Filled Polypropylene Plastic Bag Housing

- **Lightweight construction** – Industrial-grade glass-filled polypropylene (GFPP) body for easy handling, transport, and installation without lifting equipment.
- **Chemical compatibility** – Resistant to many aqueous acids, bases, and saline solutions within rated concentration and temperature limits; not recommended for strong oxidisers or aromatic/chlorinated solvents.
- **Compact design** – Space-saving footprint ideal for mobile skids, offshore units, and tight plant installations.
- **Quick-access lid** – Tool-free hand-nut closure (clamp-ring available on request) for rapid filter-bag change-out, helping to minimise downtime.
- **Efficient flow performance** – Supports typical single-bag flow rates with low pressure drop when operated within published specifications.
- **Economical operation** – Cost-effective housing solution with minimal routine maintenance requirements.
- **Improved operator safety** – Enclosed design helps reduce contact with process fluids, enhancing workplace safety.
- **Fast changeovers** – Quick bag replacement shortens cleaning time and labour between production batches.
- **Food-contact compliant variants available** – Options certified to FDA 21 CFR, NSF/ANSI 61, and EU 1935/2004 & 10/2011 for food, beverage, and water treatment applications.
- **Filter bag versatility** – Accepts felt, mesh, or pleated bags across common micron ratings (#1 and #2 sizes).
- **All-polypropylene wetted parts** – Every fluid-contact component constructed from polypropylene for maximum chemical compatibility.
- **One-piece moulded body** – Injection-moulded construction with no adhesive joints, eliminating risk of adhesive contamination.
- **Industry-standard bag interface** – Accepts #1 and #2 filter bags with common sealing geometries; verify dimensional and connection details before retrofit into third-party housings.

[1] Compatibility is based on standard dimensions, ring types (welded/snap/steel), and micron ranges common across major housing manufacturers. Always verify final fit and sealing with housing type prior to use. Compatibility is based on housing dimensions and filter form factor.

All data, dimensions, and ratings are provided for general reference only. FiltraCore thermoplastic 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 published pressure–temperature derating curves. Standard rating is 6 bar (87 psi) @ 20 °C, with maximum operating temperatures of 60 °C for PP, 80 °C for GF-PP, and 120 °C for PVDF (subject to derating).

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 PP, GF-PP, or PVDF provide broad resistance to aqueous solutions and many process chemicals, 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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