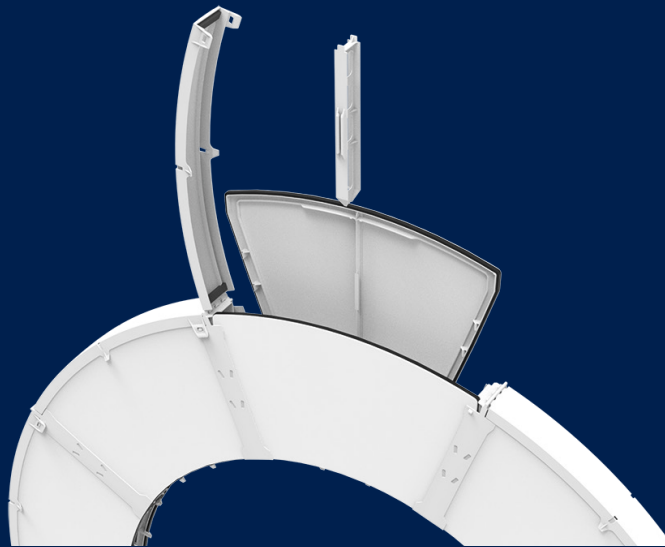




BioGuard SWIFT with TIDE Technology

Water treatment for aquaculture

The success of fish farming is totally dependent on the water quality.

Securing good water conditions to allow for good fish health and high production yield, is therefore one of the most vital factors.



NP Innovation's BioGuard SWIFT represents the next generation of disc filtration. With the patent pending TIDE Technology, it combines sustainability with user-friendly design to enhance daily operations, reduce environmental impact, and ensure high water quality.

Simplicity meets sustainability in one smart panel

BioGuard SWIFT from NP Innovation represents a new generation of particle removal through disc filtration systems, developed with a clear focus on operational simplicity, long-term sustainability, and cost-efficiency. At the core of this innovation is TIDE Technology – Tool-less Integrated Detachable Element – a patent pending design optimized for rapid, tool-free maintenance procedures.

BioGuard SWIFT delivers an exclusive technological solution you won't find elsewhere. It's designed for the realities of modern aquaculture, where uptime, ease of maintenance, and environmental considerations are critical to operational success.

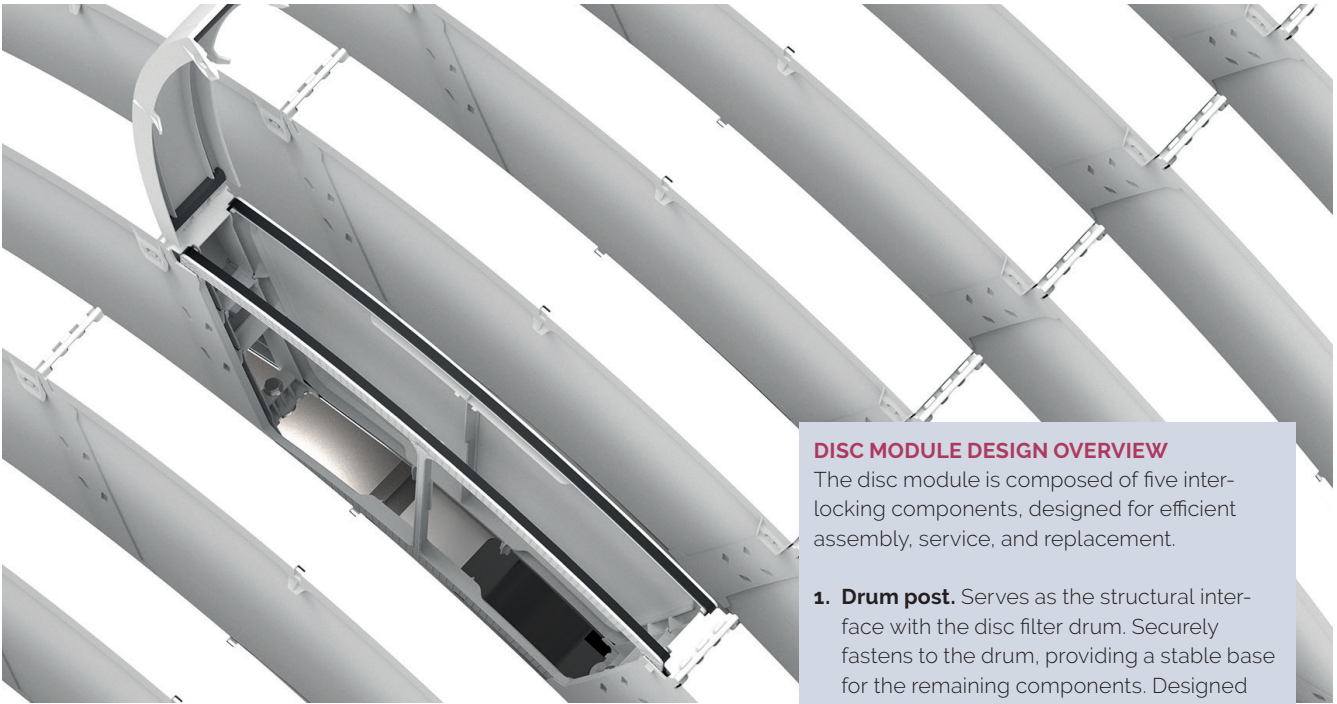
KEY ADVANTAGES:

- **Tool-free maintenance:** Thanks to its top-opening design, the BioGuard SWIFT panel can be removed and replaced entirely without tools. This simplifies service and minimizes downtime during maintenance operations.
- **Improved performance:** BioGuard SWIFT has been developed to enhance large particle removal – boosting filtration efficiency to optimize water quality, fish health and enable high-yield aquaculture.
- **Simplified cleaning:** The panel design provides direct access to the reject channel for easy inspection and effective washdown, which provides a significantly improved capability for process

oversight. The panels can be smoothly removed, making routine cleaning and hygienic maintenance simple.

- **Cost-effective:** Only the panel needs to be replaced – not the entire cassette. This reduces long-term replacement costs and allows for up to a 50% reduction in spare part stock volume.
- **Environmentally responsible:** BioGuard SWIFT is manufactured from a single recyclable material and a patent pending glue-free process. The compact design also enables optimized packaging and reduced shipping volume – contributing to a reduction in our environmental impact.
- **Smart integration:** Designed with retrofit compatibility in mind, BioGuard SWIFT integrates effortlessly into your existing disc filter system – whether upgrading a large RAS facility or enhancing a compact land-based installation. The modular design supports gradual implementation – one disc at a time – or complete system replacement with minimized impact on ongoing operations.



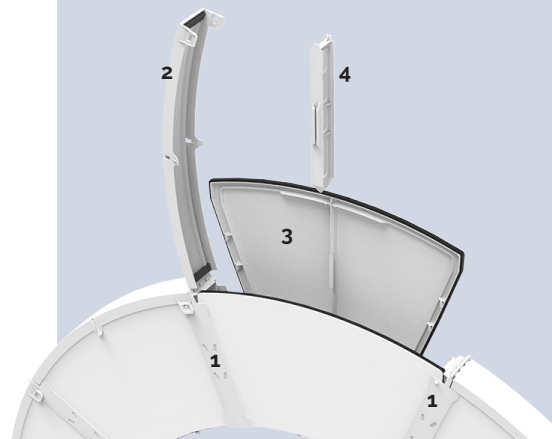


The panel design allows direct access to the reject channel for easy inspection and washdown, greatly improving process oversight.

DISC MODULE DESIGN OVERVIEW

The disc module is composed of five interlocking components, designed for efficient assembly, service, and replacement.

- 1. Drum post.** Serves as the structural interface with the disc filter drum. Securely fastens to the drum, providing a stable base for the remaining components. Designed with retrofit compatibility for disc filter.
- 2. Lid.** Features a tool-free, snap-fit design for quick access. Can be opened, closed, or fully removed without the use of tools.
- 3. Disc Panels.** Individually inserted into the disc and removable as single units. This modular approach allows targeted cleaning and replacement.
- 4. Mid Support.** The mid support component is designed to maximize filter area and increase large particle removal while maintaining a stable construction.





NP Innovation

**– a company dedicated to
the development of
water treatment solutions for
aquaculture applications.**



NP Innovation AB
Flintyvegatan 8 a, 213 76 Malmö, Sweden
www.npinnovation.se