

Press release

Culturefuge 200 B redefines recovery of high-density fermentations as Alfa Laval innovation delivers a major boost to medium-sized biopharma producers

The launch of the Culturefuge 200 B separator opens new possibilities for pharmaceutical businesses of all sizes. They can now operate medium-scale processes, turning to high-density fermentation to boost productivity and maximize the yield of valuable biologics, such as monoclonal antibodies. The Culturefuge 200 B extends our successful Bactofuge® portfolio, bringing proven technology and gentle, continuous separation to medium-sized biopharma producers.

[Stockholm, Sweden]: The Culturefuge 200 B is built on Alfa Laval's unique Hermetic Design™, already trusted by biopharma producers for gentle cell handling and best-in-class results. With integrated Bactofuge® technology, it enables continuous separation of high-density fermentation broths.

That's exciting news for medium-sized producers: Recent results from a major biopharma manufacturer showcased the power of this technology. Switching from a conventional clarifier to Alfa Laval's separator with Bactofuge technology, they achieved a **6.08% increase in product yield** for probiotics and starter cultures, generating an **added value of \$7.1 million** per batch and reaching payback in less than half a batch.

The Culturefuge 200 B means that manufacturers using high-density fermentation can cultivate more cells per batch and extract more protein, which directly translates into higher yield and allows them to achieve their goals of:

- Increasing output without expanding facility footprint
- Improving cost-efficiency per litre of fermentation
- Meeting growing global demand for advanced therapeutics

Patrik Kagevi, Global Sales Manager, Life Science Technology, Biopharm & Industrial Fermentation, says: "This is a unique offering in the market, and we are already receiving a lot of interest in the Culturefuge 200 B. This is a game-changer for medium-sized operators, giving them access to Alfa Laval's latest industry-leading technology, proven at larger scale.

"The unique Hermetic Design for gentle handling of the product at the inlet and outlet and the continuous separation with Bactofuge technology means increased yields of these high-priced products, with reliable and foreseeable outcomes and no variations in concentrations."

It represents a major boost for those biopharmaceutical companies who have been increasingly turning to high-density fermentation, but then wrestling with the downstream processing challenges, including:

- Thicker fermentation broth with higher solids content that is harder to clarify.
- Potential clogging, frequent discharge, and reduced separation efficiency that cause traditional disc stack centrifuges and filters to struggle.
- Impacted cell integrity, which has negative impacts, especially for mammalian cells like CHO, which are fragile and easily damaged.
- Yield loss and longer processing times that result in costly bottlenecks, where every gram of harvested protein counts.
- Alfa Laval's Culturefuge 200 B is purpose-built to solve these challenges. It combines two proprietary technologies from Alfa Laval that set it apart in the Hermetic Design™ and powerful Bactofuge® technology.

Unlike conventional intermittently discharging separators, which must reduce feed flow on concentrated feeds to avoid excessive discharge frequency, the Culturefuge 200 B enables continuous handling of high-density broths without flow restrictions. While nozzle-type machines can also manage concentrated feeds,

they lack the benefits of Hermetic Design and flexibility that make Bactofuge technology uniquely suited for variable feed conditions in biopharma applications.

The Hermetic Design offers a fully enclosed system that minimizes shear and air contact, ensuring gentle treatment that preserves cell integrity and product quality, and reduces oxidation and foaming, which is ideal for sensitive cell cultures.

Meanwhile, the Bactofuge technology efficiently handles a wide range of volume and cell densities without frequent discharge, delivering a high yield from its continuous operation and higher throughput, while reducing downstream filtration needs and shortening processing time.

With its sanitary design and low temperature pick-up, the Culturefuge 200 B is FDA compliant and meets USP Class VI regulations for seal rings and wetted polymers.

The new centrifuge also allows biopharma producers to confidently scale up their high-density fermentation processes-knowing that their downstream separation is just as advanced as their upstream innovation.

The Culturefuge 200 B is specifically designed for high-density industrial fermentation harvesting and can be used for cell harvesting, microbial cells and cell debris separation, probiotics separation and suspended protein.

This is Alfa Laval

The ability to make the most of what we have is more important than ever. Together with our customers, we're innovating the industries that society depends on and creating lasting positive impact. We're set on helping billions of people to get the energy, food, and clean water they need. And, at the same time, we're decarbonizing the marine fleet that's the backbone of global trade.

We pioneer technologies and solutions that free our customers to unlock the true potential of resources. As our customers' businesses grow stronger, the goal of a truly sustainable world edges closer. The company is committed to optimizing processes, creating responsible growth, and driving progress to support customers in achieving their business goals and sustainability targets. Together, we're pioneering positive impact.

Alfa Laval was founded 140 years ago, has customers in 100 countries, employs more than 22,300 people, and annual sales were SEK 66.9 billion (5.8 BEUR) in 2024. The company is listed on Nasdaq Stockholm.

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