



# BIOSTREAM

## Product Portfolio

Ready to start big with something small?

# About Biostream

**Biostream** is a Dutch-based manufacturer of a comprehensive range of **fermenters and bioreactors**, serving the full spectrum from laboratory to production scale. Founded on a legacy of **service, maintenance, and customization**, Biostream has evolved into a full-solution provider, offering a robust line of **standardized and modular bioreactor systems**. Our headquarters is located in **Doetinchem, the Netherlands**, near the German border strategically positioned within Europe's life sciences and bioprocessing corridor.



## Our Vision

At Biostream, we aim to be more than an equipment supplier. We are your **long-term bioprocessing partner**. Our mission is to deliver **total solutions**, supported by a team of experienced fermentation researchers and engineers who deeply understand your needs, both today and as your process evolves.

We believe biotechnology is one of the most **advanced and complex scientific domains**, and selecting the right equipment is not just a matter of price or specification. It requires:

Deep understanding of your **current and future needs**

Confidence in **technical support and adaptability**

A partner that invests in **long-term collaboration**

# Why Choose Biostream?

## 1. True Modularity & Flexibility

No need to buy everything upfront. Start small and expand later.

Biostream bioreactors are built with **unlimited sensor and actuator connectivity** and **modular configurations**, ensuring your setup can evolve with your process needs **without high initial CAPEX**.

## 2. Grow With Your Equipment

Your process isn't static and your bioreactor shouldn't be either.

Unlike rigid systems, Biostream units are designed for **scalable adaptation**, making it easy to adjust hardware and software for new applications, new scales, or improved processes.

## 3. One Software, All Scales

From benchtop to production. Same interface, same logic.

Our **Java-based, license-free software** is **identical across all systems** (lab, pilot, and production scale). No retraining, no reconfiguring: just seamless scale-up.

## 4. Full Access Software, No Hidden Paywalls

Make changes without waiting (or paying) for vendor approval.

Unlike competitors who restrict access, Biostream software is **fully open** to the user. Adjust control loops, add devices, and integrate data.

## 5. Lower Service Costs, Smart Diagnostics

Support when you need it. No expensive visits for minor issues.

With **built-in PCB diagnostics (LED indicators)** and **remote access capabilities**, many issues can be solved **without on-site service**. Saving (down) time and money.

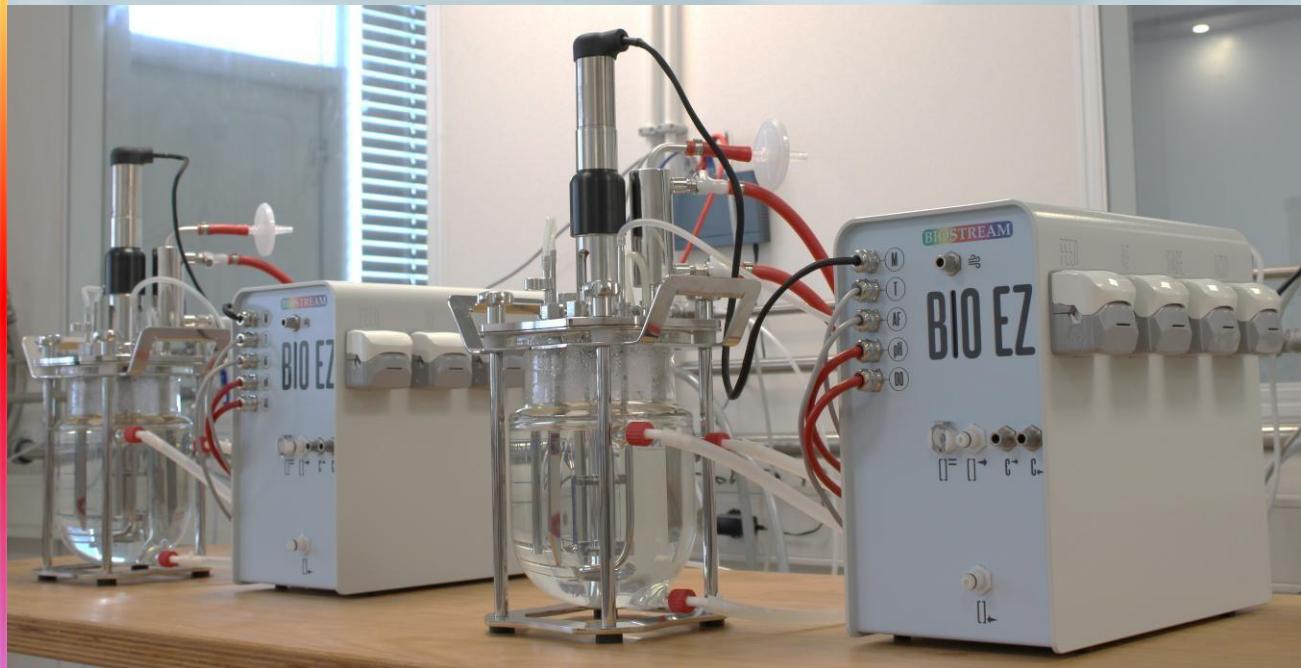
## 6. Engineering Support That Listens

We're your partner, not just a vendor.

We co-engineer solutions with our clients. Whether it's adapting vessel geometries, modifying software, or designing feed strategies. We **don't just sell bioreactors, we build solutions together**.

# BIO EZ

# Fermentation & Cell Culture



**Ready to start big with something small?**

# Why the BIO EZ was created?

## Breaking Barriers in Bioprocessing

For many innovators, the first step into biotechnology is the hardest. High costs, complex equipment, and steep learning curves can delay progress, or even prevent great ideas from ever leaving the notebook.

We developed the **Bio EZ** to change that.

Our goal was simple: create a **professional-grade bioreactor** that's **affordable, intuitive, and scalable**, so that start-ups, researchers, and small producers can bring their projects to life without unnecessary obstacles.

By combining a **plug-and-play design, pre-configured packages, and the same BOS 3.0 software basis** used in our high-end systems, the Bio EZ offers a smooth path from first experiment on the way to full production.

**The result:** a compact, reliable, and budget-conscious solution that empowers anyone, from first-time users to seasoned scientists, to focus on innovation, not on learning how to use the machine.



### Plug & Play

Start fermentations within hours, even with no prior experience



### Build-in-Safety

Robust protection against dry-run and overheating



### Guided Operation

Seamless multimedia integration



### Budget Friendly



### Easy Scale-Up

Same BOS software across all Biostream systems for effortless process transfer



### Bring Your Own Device

Operates from your own laptop or PC



### Swiss-Made Quality

High Quality MFC and pH C DO sensors



### Flexible Volume

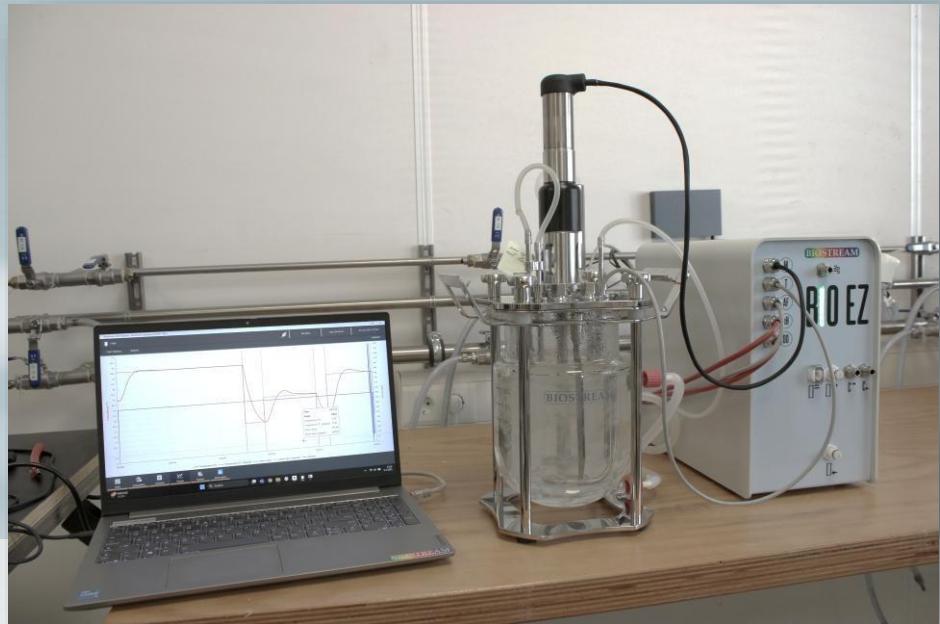
Easily switch from 2 L to 7.5 L vessels



### High temperature range

Broad range by default

# Bio EZ Packages



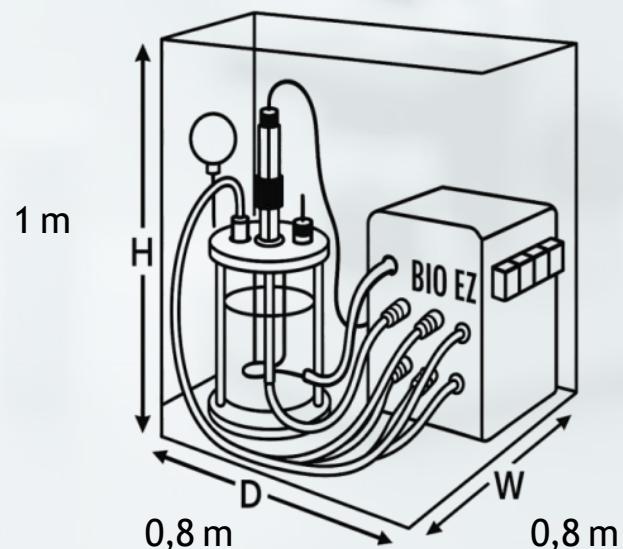
## Standard Package Fermentation

### Included

1 Vessel  
0.75 L, 2 L, 5 L, 7.5 L  
2 Rushton Impellers  
Baffles  
Mechanical Motor Drive  
1 MFC Air  
4 Pumps  
pH Sensor  
Antifoam Sensor  
Sample Tube C Taker  
Ring Sparger  
BOS 3.0 EZ Package

### Optional

DO Sensor  
Starter Kit  
MFC O2,N2,CO2  
Chiller  
Laptop



Installation space

# Technical specifications

| System specifications |                   |                                                                                                   |                                                                 |                                                                 |
|-----------------------|-------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|
|                       |                   | 2L                                                                                                | 5L                                                              | 7.5L                                                            |
| Console               | Dimensions        | 359x182x320mm (wxdxh)                                                                             |                                                                 |                                                                 |
|                       | Weight            | 9,1 Kg                                                                                            |                                                                 |                                                                 |
| Vessel                | Working range (L) | 0.2 – 1.8                                                                                         | 0.3 – 4.6                                                       | 0.3- 7                                                          |
|                       | Material          | Borosilicated glass and 316 L stainless steel                                                     |                                                                 |                                                                 |
| Temperature           | Range             | 5 (above room temp) to 70°C (80°C for 20min)<br>With chiller maximum 15 °C under room temperature |                                                                 |                                                                 |
|                       | Accuracy          | 0.1°C                                                                                             |                                                                 |                                                                 |
|                       | Sensor            | Pt100                                                                                             |                                                                 |                                                                 |
|                       | Control           | PID                                                                                               |                                                                 |                                                                 |
| Agitation             | Range             | Max 1200 rpm depending on application                                                             |                                                                 |                                                                 |
|                       | Accuracy          | 1 RPM till 600 RPM and 5 RPM above 600 rpm                                                        |                                                                 |                                                                 |
|                       | Impeller          | 2 Rushton impellers                                                                               |                                                                 |                                                                 |
| pH                    | Measuring Range   | 1-13                                                                                              |                                                                 |                                                                 |
|                       | Accuracy          | 0.1                                                                                               |                                                                 |                                                                 |
|                       | Control           | PID control with Acid/Base pump,                                                                  |                                                                 |                                                                 |
| DO                    | Measuring Range   | 0-200% Air                                                                                        |                                                                 |                                                                 |
|                       | Control           | Cascade with RPM, Flow (flexible)                                                                 |                                                                 |                                                                 |
| Aeration              | MFC- Air, lpm     | 5,10                                                                                              | 5,10,20                                                         | 5,10,20                                                         |
|                       | O2, lpm (opt)     | 2,5,10                                                                                            | 2,5,10                                                          | 2,5,10                                                          |
|                       | N2, lpm (opt)     | 2,5,10                                                                                            | 2,5,10                                                          | 2,5,10                                                          |
|                       | CO2, lpm (opt)    | 2,5,10                                                                                            | 2,5,10                                                          | 2,5,10                                                          |
|                       | Accuracy          | ± 1.5% reading or ± 0.2% full scale.<br>Or whichever is greater                                   | ± 1.5% reading or ± 0.2% full scale.<br>Or whichever is greater | ± 1.5% reading or ± 0.2% full scale.<br>Or whichever is greater |
|                       | Spargers          | Ring-sparger                                                                                      |                                                                 |                                                                 |
|                       |                   |                                                                                                   |                                                                 |                                                                 |
| Pumps                 | Type              | 4 integrated peristaltic pumps                                                                    |                                                                 |                                                                 |
|                       | Range             | 0.1-50 ml/min                                                                                     |                                                                 |                                                                 |
|                       | Control           | Digital                                                                                           |                                                                 |                                                                 |

# BOS 3.0 EZ

The Bio EZ is our entry-level bioreactor, purpose-built for straightforward and essential bioprocessing. It runs on **BOS 3.0 EZ**, offering **the core features** you need without unnecessary complexity. The advanced BOS 3.0 functionalities, such as enhanced automation, complex control strategies, and multi-system coordination, are fully available across the rest of our bioreactor portfolio, ensuring that when your needs grow, your system can grow with you.

| Feature                             | BOS 3.0 EZ | BOS 3.0 |
|-------------------------------------|------------|---------|
| Standard Fermentation Control       | ✓          | ✓       |
| Parameter logging and data trending | ✓          | ✓       |
| OPC connectivity                    | ✓          | ✓       |
| Basic recipes                       | ✓          | ✓       |
| Extended Sensor info                | ✓          | ✓       |
| PID cascade control                 | ✓          | ✓       |
| Multi-language UI                   | ✓          | ✓       |
| Preconfigured device template       | ✓          | ✓       |
| Multi vessel operation              | ✗          | ✓       |
| Multiple program Types              | ✗          | ✓       |
| Global variables                    | ✗          | ✓       |
| Advanced Cascade logic              | ✗          | ✓       |
| Advanced Recipes                    | ✗          | ✓       |
| Runtime sterilization               | ✗          | ✓       |
| Extension board support             | ✗          | ✓       |

# Biostream Bench-Product Portfolio

|                                                                                                            |                                                                                                                                                    |                                                                                                                                        |                                                                                                             |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Bio EZ</b><br>         | <b>BioCompact</b><br>                                             | <b>BioBench</b><br>                                   | <b>BioBench Twin</b><br> |
| <b>Volume Range</b>                                                                                        |                                                                                                                                                    |                                                                                                                                        |                                                                                                             |
| <b>0.75 L - 7.5 L</b> (Glass)                                                                              | <b>0.25 L - 7,5 L</b> (Glass)                                                                                                                      | <b>0.25 L - 15 L</b> (Glass)<br><b>2 L - 15 L</b> (Steel and Sterilizable)                                                             | <b>0.25 L - 15 L</b> (Glass)                                                                                |
| <b>Product description</b>                                                                                 |                                                                                                                                                    |                                                                                                                                        |                                                                                                             |
| <i>Smart Simplicity<br/>for Serious<br/>Science</i>                                                        | <i>Parallel Power for<br/>Smarter Selection</i>                                                                                                    | <i>Limitless<br/>Configurations at<br/>Lab Scale</i>                                                                                   | <i>Double Capacity,<br/>Clean Design</i>                                                                    |
| <b>Customizability Level</b>                                                                               |                                                                                                                                                    |                                                                                                                                        |                                                                                                             |
| <b>Medium:</b><br>Selected options                                                                         | <b>High:</b><br>Selected options                                                                                                                   | <b>High:</b><br>Extensive options & Specials                                                                                           | <b>Medium:</b><br>Selected options                                                                          |
| <b>Keywords</b>                                                                                            |                                                                                                                                                    |                                                                                                                                        |                                                                                                             |
| <ul style="list-style-type: none"><li>• Plug &amp; Play</li><li>• Accessible</li><li>• Low CAPEX</li></ul> | <ul style="list-style-type: none"><li>• High Throughput</li><li>• Strain Optimization</li><li>• Parallel Cultivation</li><li>• Stackable</li></ul> | <ul style="list-style-type: none"><li>• SIP</li><li>• Algae</li><li>• Solid-State</li><li>• Airlift</li><li>• Legacy Vessels</li></ul> | <ul style="list-style-type: none"><li>• Dual Reactor</li><li>• Parallel Production</li></ul>                |

# Why choose Biostream?

## Scalable bioprocessing solutions, co-created with customers and backed by in-house expertise

At Biostream, technology is only part of the story. What truly makes us unique are the people behind our products. From sales to service, from application specialists to R&D, every step is driven by dedicated experts who bring knowledge, creativity, and care to our customers. The overview below shows how each product flows through our company, whether standard or custom, always guided by the people who make biotechnology accessible and scalable.



Customer



Sales



R&D



Production



Application

Defines the need and drives innovation forward, providing feedback that shapes products and ensures real-world relevance.

Translates customer needs into solutions, guiding choices and connecting clients with the right Biostream technology.

Designs and develops tailored solutions, transforming complex bioprocessing challenges into scalable, future-ready technologies.

Builds reliable systems with precision and care, ensuring every product meets Biostream's high-quality standards.

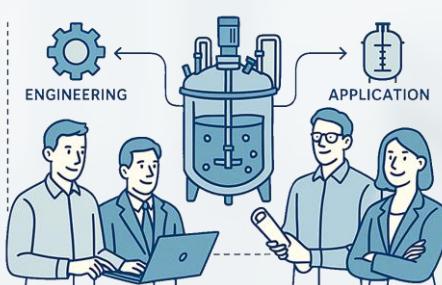
Supports customers in real-world use, offering expertise, training, and optimization to maximize process success.

### REMOTE SERVICE AND APPLICATION SUPPORT



### LOW CUSTOMER COSTS

### ONE-STOP SHOP FOR PILOT PLANTS



### USER GROUPS

Contact:

[Sales@Biostream-international.com](mailto:Sales@Biostream-international.com)

+31 (0) 314 2000 41

P.O. Box 669 - 7000 AR Doetinchem - The Netherlands