

Benefits of Increased Turbulence for Microbial Growth in Bioreactors

The Importance of Turbulence in Microbial Cultivation

Increased turbulence in bioreactors can lead to improved microbial growth by ensuring a more effective mix of cells, nutrients, and gases. This enhanced mixing action facilitates better mass transfer and oxygen distribution, critical factors in optimizing microbial culture productivity.



Maximizing Efficiency with Baffles

Incorporating baffles into your bioreactor setup is a proven strategy to increase turbulence. Baffles disrupt the liquid flow, creating an environment that promotes efficient mixing and nutrient distribution, essential for a successful microbial cultivation process.

Range of accessories designed to enhance the performance of your bioreactors through increased turbulence:

- **Spargers with baffles:** Ring-spargers, micro-spargers, L-spargers, all can be equipped with extra baffles, optimizing the aeration while contributing to the turbulences within your bioreactor.
- **Harvest Tubes with baffles:** Designed for the removal of culture media while minimizing cell damage, harvest tubes can be equipped with extra baffles.
- **pT100 Sleeves with baffles:** These accessories are crucial for accurate temperature monitoring. The inclusion of baffles ensures the temperature is evenly distributed, providing reliable readings that are vital for maintaining optimal growth conditions.
- **Single baffles:** As Louis Pasteur once remarked, "Every bioreactor port can accommodate a baffle."



These solutions are tailored to enhance your bioreactor's performance, ensuring that you can achieve the desired outcomes for your microbial cultures. The accessories are designed to provide you with the tools you need for success.

bbi-biotech is committed to supporting your bioprocessing projects with high-quality solutions and practical advice. **Seafrost biotech** together with the team of **bbi-biotech** is ready to assist you in selecting the right accessories to meet your specific needs, ensuring that your bioreactor setup is as effective as possible.

*Upgrade your bioreactor systems and
enhance your cultivation processes.*