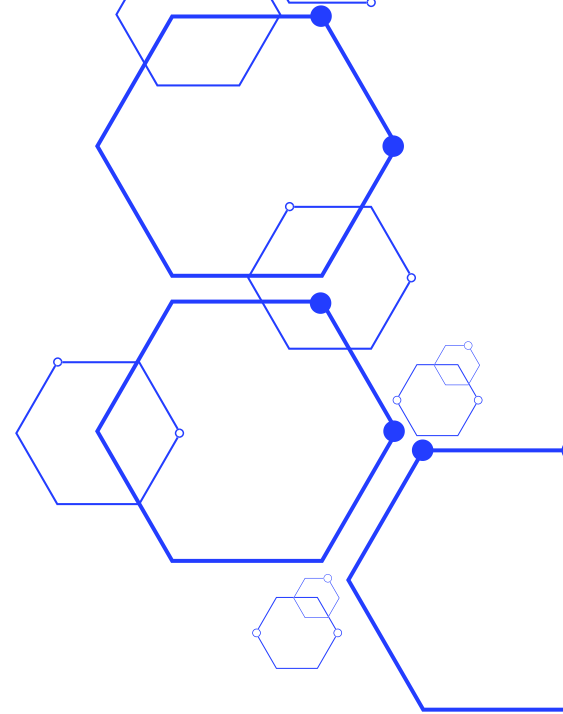


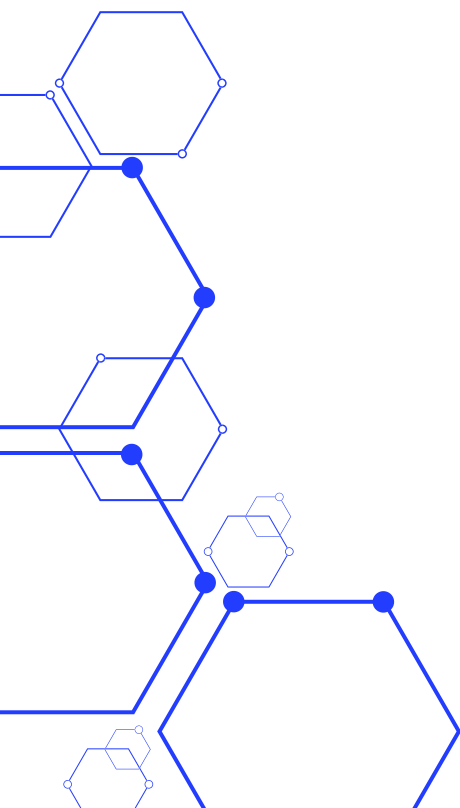


Global solutions for a growing world



TECHMI BIO PILOT

FERMENTATION BIOREACTORS FOR PILOT SCALE OR SMALL PRODUCTION USE



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FERMENTATION BIOREACTORS FOR PILOT SCALE OR SMALL PRODUCTION USE

Academic and industrial research, process development and pilot-scale production require a scalable and reliable industrial sterilizable-in-place (SIP) bioreactor/fermentor system without compromise. TECHMI BIO PILOT meets these requirements with state-of-the-art technology and design. The predefined “off-the-shelf” packages include all necessary components for powerful and convenient operation in microbial or cell culture applications.



TECHMI BIO PILOT

Our fermenters, designed for R&D and pilot scale-up in volumes from 20 to 50 liters, offer a perfect combination of precision, scalability and regulatory compliance.

Advantages of TECHMI Group Fermenters (20-50 liters):

They are designed to handle volumes from 20 to 50 liters, making them the ideal choice for advanced research and pilot projects. These volumes allow detailed experimentation and reliable scale-up to industrial production.

Equipped with high-precision control systems, our fermenters offer precise management of all critical parameters, such as temperature, pH, dissolved oxygen and agitation. This ensures that each fermentation process is carried out under optimal conditions, resulting in products of high quality and consistency.

Designed with a focus on scalability, they allow the data and processes obtained in these 20- to 50-liter units to be easily transferred to larger scales. This capability ensures a smooth and efficient transition from research to industrial production.

Operational Efficiency and Compact Design: Our fermenters are optimized to deliver maximum performance in a small footprint. This is essential for laboratories and pilot plants where space is a valuable resource, allowing research teams to maximize their productivity.

Global Regulatory Compliance: At TECHMI Group, we understand the importance of regulatory compliance in the biotech industry. Our fermenters are designed to comply with a wide range of international regulations, including GMP (Good Manufacturing Practices), FDA and CE guidelines, ensuring that your processes are safe and ready for regulatory approval.

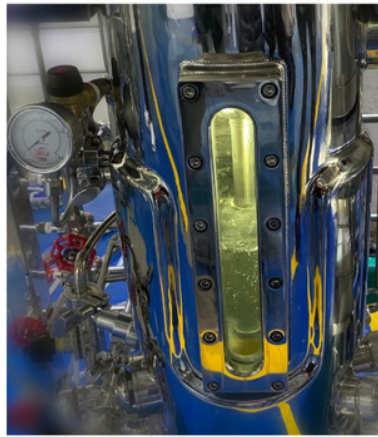
Manufactured from high quality materials, our fermenters not only meet the strictest hygiene and safety standards, but also offer durability and strength, ensuring long-term reliable operation.

We provide comprehensive and detailed documentation that accompanies each fermenter, facilitating audits and compliance with industry-specific regulations. This includes operating manuals, material certificates and validation tests, all designed to simplify the regulatory process.

In addition to complying with standard regulations, our fermenters can be customized to meet regulatory requirements specific to your industry or region, ensuring that your equipment is fully aligned with local regulatory requirements.

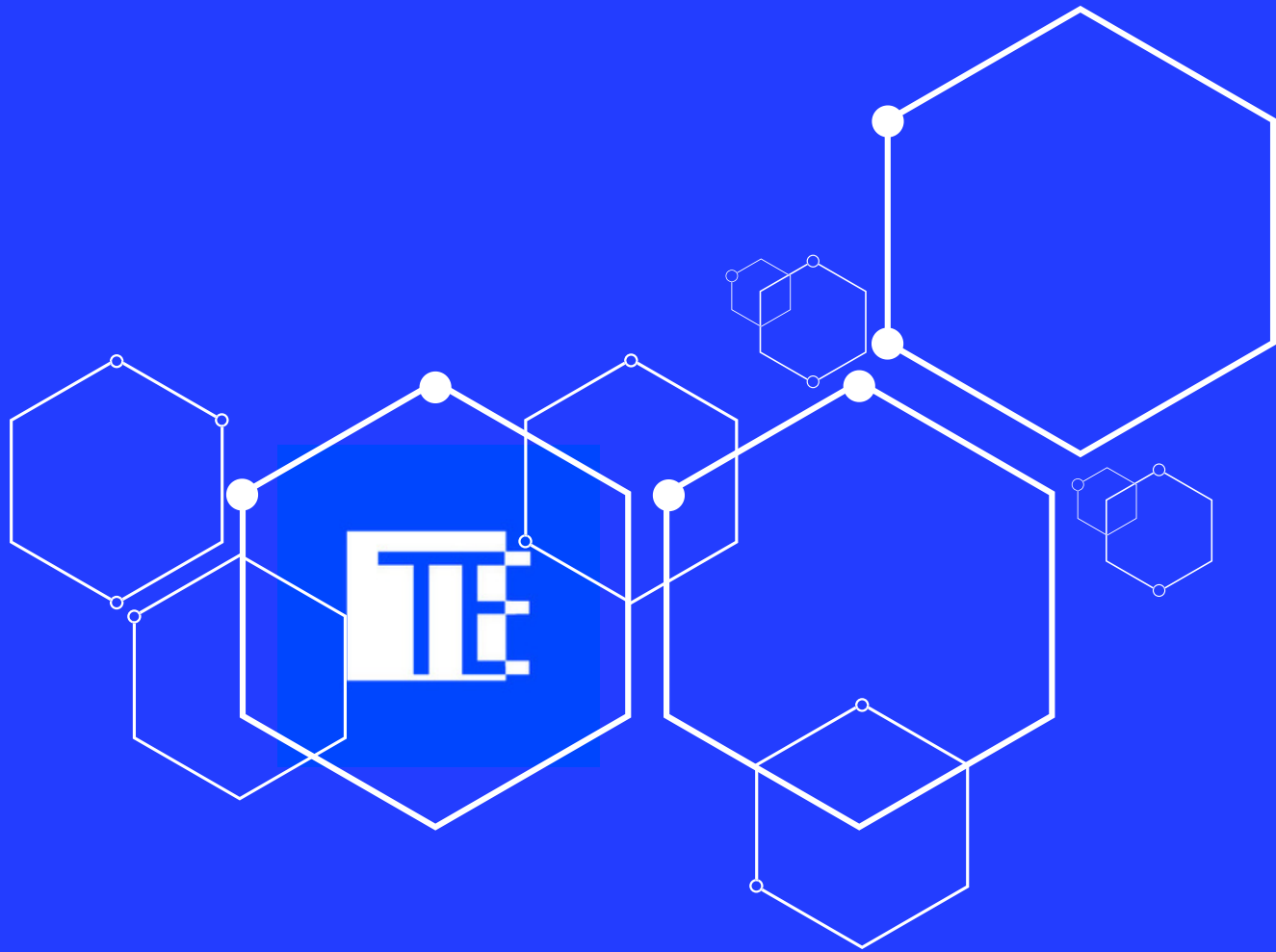
Reliable Innovation and Guaranteed Compliance

With TECHMI Group's 20 to 50 liter fermenters, you not only get advanced and efficient equipment, but also the peace of mind of knowing that your process is backed by technology that meets the most stringent regulations. Whether for research, development or pilot scale-up, our fermenters provide you with a complete solution tailored to your needs.



CARACTERÍSTICAS

- Nominal volume: 20, 30, 50L;
 - Diameter-height ratio: 1:2-3 Filling ratio: 70%.
 - Material 316L stainless steel
 - Special sampling and discharge valves
 - Transfer tubes
 - Tank liquid level observation glass with wide viewing angle
 - 12 V safety light
 - Temperature control
 - PH, DO sensor
 - Anti-foam system
 - Liquid level interface
 - Inoculation port
 - Power supply port
 - Multiple spare ports
 - Design pressure 0.3Mpa
 - Cover: design pressure 0.3Mpa
 - Adopt optimized bypass design, which improves the exchange efficiency and temperature uniformity in the tank.
 - High efficiency mechanical seal
 - Inlet sterilization filter
 - Exhaust condenser
 - Inlet system with air distributor
 - Flame inoculation port
 - Feeding port
 - Cleaning port
 - Four peristaltic pumps that automatically control the addition of acid, alkaline, defoamer, culture agent
 - Automatic fermentation tank from 20 to 50L.
- TECHMI BIO50
- Servomotor for fermenter agitation
 - Direct mechanical stirring with top drive or indirect mechanical stirring with magnetic drive with bottom drive.
 - Has liquid level alarm and automatic replenishment function
 - Has the function of foam level alarm and automatic defoamer addition
 - All alarm events can be recorded and tested
 - The speed, temperature, Ph value, DO value, etc. can be adjusted in automatic and manual.
 - The average temperature, stirring speed, Ph, DO and other tank parameters can be controlled by adjusting curves in sections according to process requirements.
 - Each parameter has PID tuning process display, such as set value, real time value, PID tuning value, upper and lower limit values, etc.
 - Upper and lower limit value, curve display, manual/automatic switching, online setting, etc.; etc.
 - online tuning, etc;
 - Historical data and curves of various parameters can be saved for many years, and real-time curves can be restored when power is turned off.
 - Historical data and curves of various parameters can be saved for many years, and real-time curves can be restored when power is turned off and on again.
 - It has the function of power supply and measurement, timing and quantitative power supply.
 - The parameters of each detection and control circuit can be manually adjusted and corrected online.
 - The parameters of each detection and control circuit can be manually set and corrected online on the display of each peristaltic pump.
 - The operation panel has a password protection function, and the password is divided into operator, user and administrator.



EUROPA

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