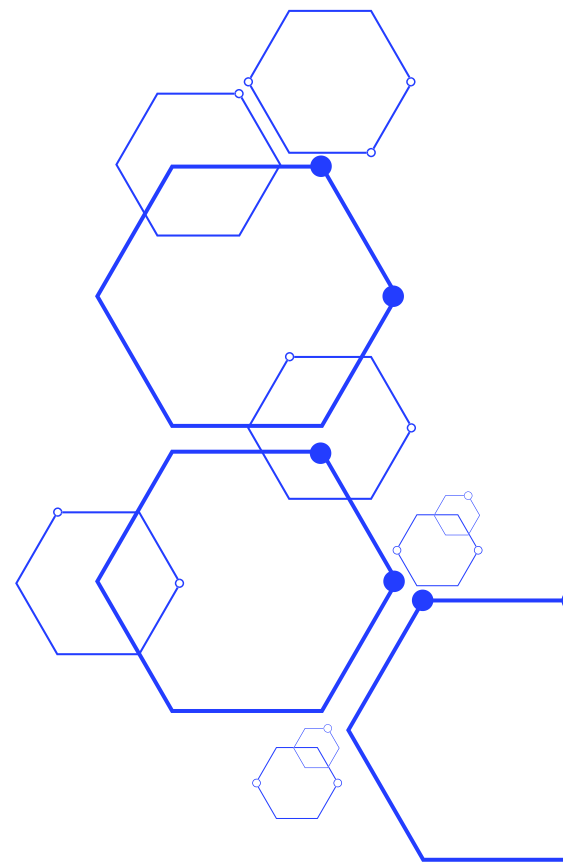


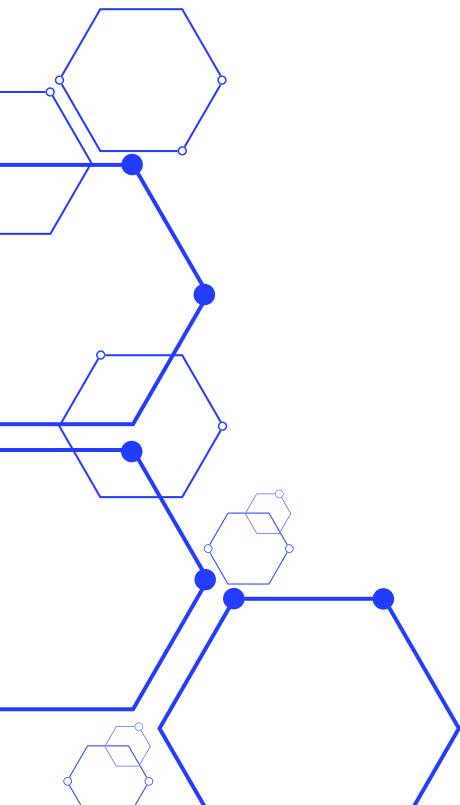


Global solutions for a growing world



TECHMI BIO PILOT

FERMENTATION BIOREACTORS FOR PILOT SCALE OR SMALL PRODUCTION USE



TECHMI BIO PILOT

FERMENTATION BIOREACTORS FOR PILOT SCALE OR SMALL PRODUCTIONS

MODEL: TECHMI BIO PILOT

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



Designed for R&D and pilot scale-up in volumes from 20 to 50 liters, our fermenters 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 for detailed experimentation and reliable scaling up to industrial production.

Equipped with high-precision control systems, our fermenters offer exact 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 high-quality and consistent products.

Designed with a focus on scalability, they allow data and processes obtained in these 20, 30, 50 and 100 litre units to be easily transferable 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.

MATERIAL: Stainless Steel

FEATURES

- Nominal volume: 20, 30, 50, 100L;
- Diameter-height ratio: 1:2-3 Filling coefficient: 75%.
- 316L stainless steel material
- Special sampling and discharge valves
- Transfer tubes
- Tank liquid level sight glass with wide viewing angle
- 12V Safety Light
- Temperature control
- PH, DO sensor
- Anti-foam system
- Liquid level interface
- Inoculation port
- Power port
- Multiple spare ports
- Design pressure 0.3Mpa
- Cover: design pressure 0.3Mpa
- Adopts 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
- Power port
- Port cleaning
- Four peristaltic pumps automatically control the addition of acid, alkali, antifoam, culture agent
- Automatic fermentation tank from 20 to 50L. TECHMI BIO50
- Servo motor for stirring the fermenter
- Direct mechanical agitation with top drive or indirect mechanical agitation with magnetic drive with bottom drive
- It has the function of liquid level alarm and automatic replenishment
- It has the function of foam level alarm and automatic addition of antifoam.
- All alarm events can be recorded and checked
- Speed, temperature, Ph value, DO value, etc. can be adjusted automatically and manually.
- The medium temperature, stirring speed, pH, DO and other parameters of the tank can be controlled by adjusting curves in sections according to the process requirements.
- Each parameter has PID tuning process display, such as setting value, real-time value, PID tuning value, upper and lower limit values, etc.
- Upper and lower limit value, curve display, manual/automatic switching, online adjustment, etc;
- Historical data and curves of various parameters can be saved for many years, and real-time curves can be restored when the 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 feeding and measuring, timing and quantitative feeding.
- 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 adjusted and corrected online on the screen of each peristaltic pump.
- The operation panel has a password protection function, and the password is divided into operator, user and administrator.

Volume	20, 30 50, 100 L
Load rate	30%-70%
Contact material	SUS 316L Stainless Steel
Gassing	Four air intakes
Gas control	Standard: Rotor flowmeter (manual)
	Optional: mass flow meter (automatic)
Sterilization	In situ sterilization (external steam source)
Basic control	Temperature, rotation speed, pH, OD, pressure, feed.
Bomb peristalsis	Standard 4 pieces
Stirring mode	Mechanical stirring / magnetic stirring

COMPLIANCE WITH GLOBAL REGULATIONS:

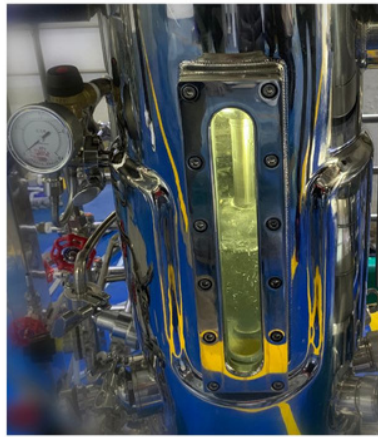
At TECHMI Group, we understand the importance of regulatory compliance in the biotechnology industry. Our fermenters are designed to comply with a wide range of international regulations, including GMP (Good Manufacturing Practices), FDA and CE guidelines, ensuring that your processes are safe and ready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

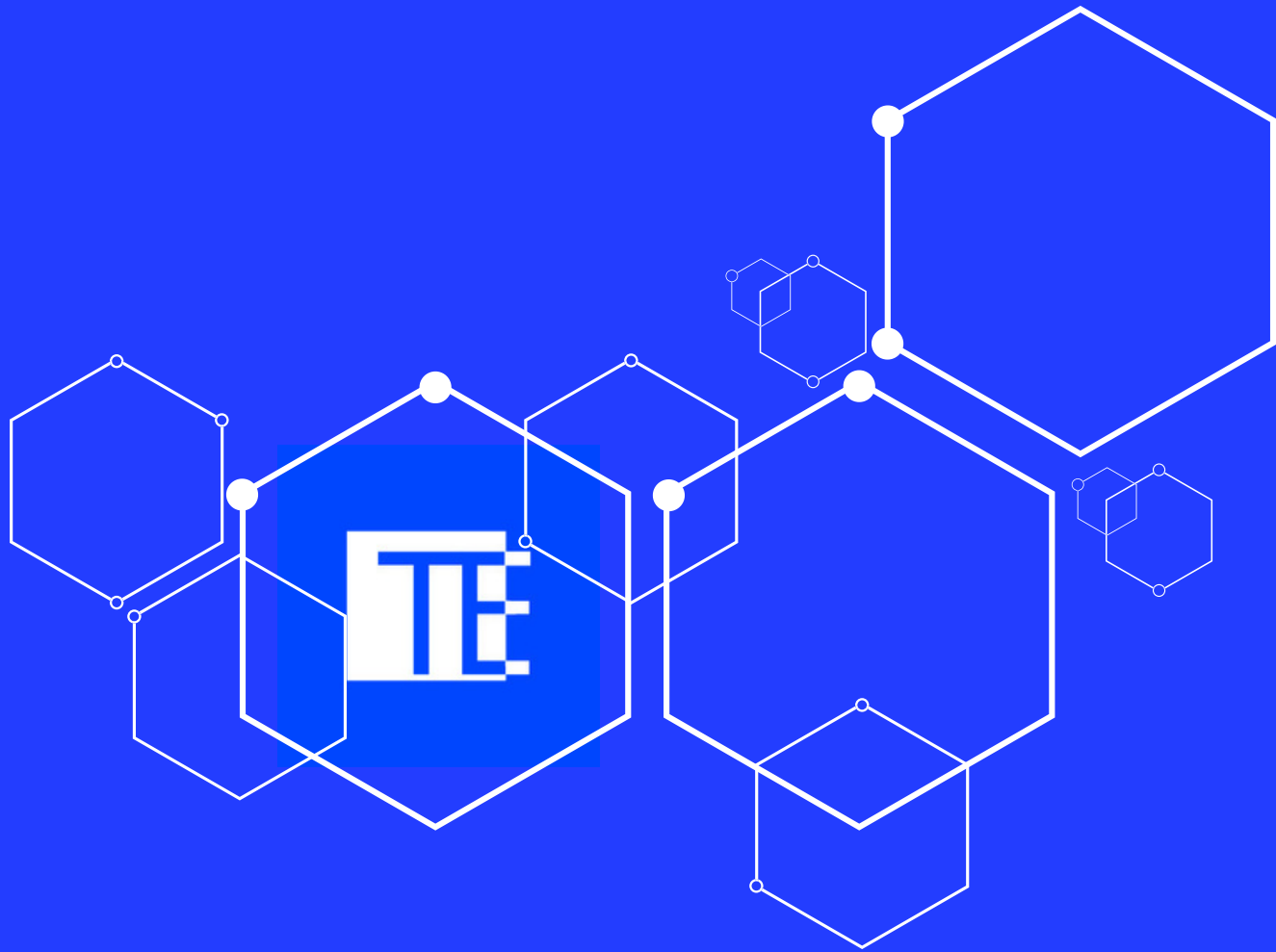
Made from high-quality materials, our fermenters not only meet the strictest hygiene and safety standards, but also offer durability and strength, ensuring long-term reliable operation.

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

In addition to meeting standard regulations, our fermenters can be customized to meet specific regulatory requirements of your industry or region, ensuring 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 that comes from knowing that your process is backed by technology that meets the most stringent regulations. Whether for research, development, or pilot-level scale-up, our fermenters provide you with a complete solution tailored to your needs.





EUROPE

Commercial office

Carrer del Mas del Jutge, 57, CP
46900, Torrente, Valencia, España

info@techmigroup.com

clientes@techmigroup.com

techmigroup.com