BIORREACTOR TECHMI BIO INDUSTRIAL 30.000L







30,000-L INDUSTRIAL FERMENTER / BIOREACTOR

TECHMI BIO INDUSTRIAL is a fermentation control system featuring a stainless-steel fermenter, custom-designed to meet customer needs and geared toward large-scale biotechnology production, with volumes of up to 30,000 liters. This equipment is essential for ensuring sustainable and scalable production, maximizing the efficiency of bioprocesses.
Each project is designed with the flexibility needed to adapt to future modifications or expansions.



KEY FEATURES

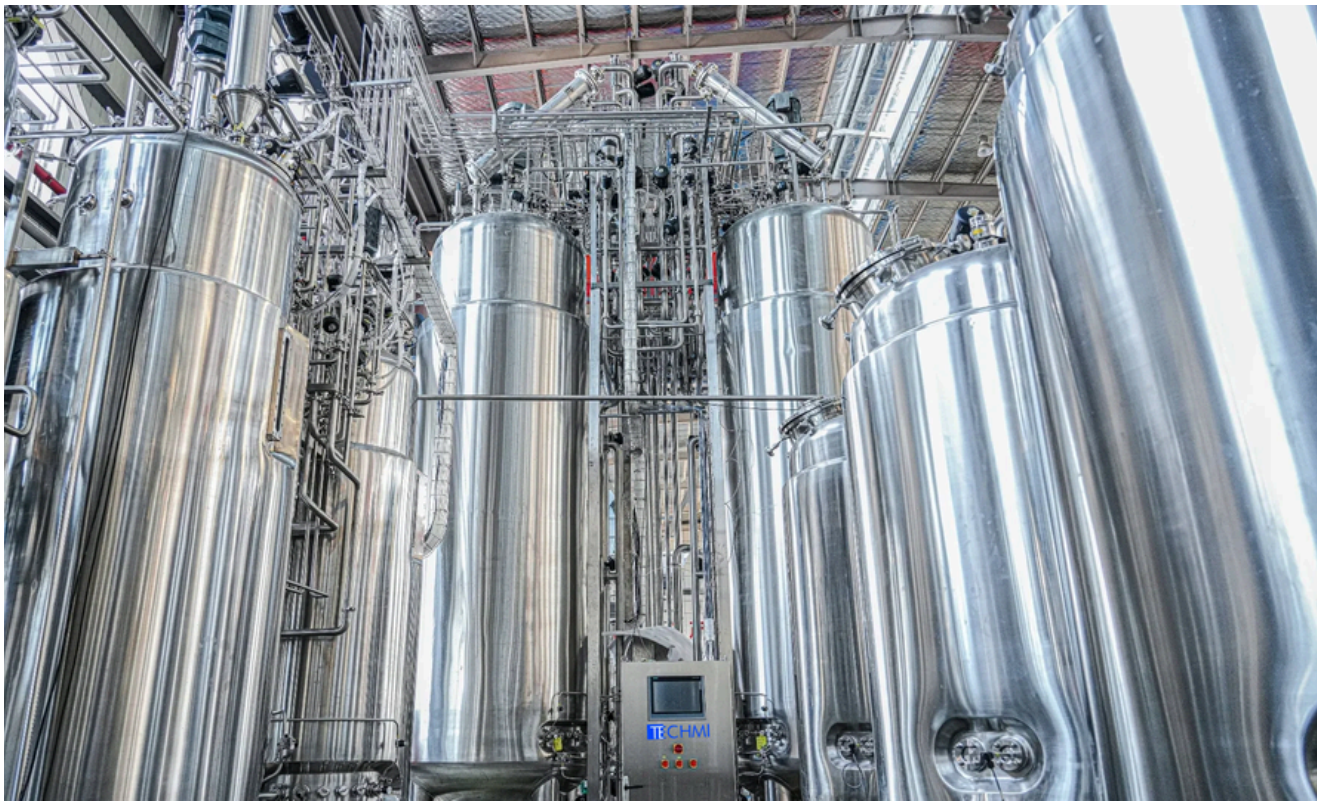
Parameter	**Specifications**
Model	TECHMI BIO INDUSTRIAL
Total geometric capacity	Up to 30,000 L
Manufacturing Material	AISI 316L stainless steel
Control System	Siemens S7-1200 PLC with LCD touchscreen
Control variables	Temperature, pH, dissolved oxygen (DO), defoamer, and level
Dosing System	Automatic peristaltic pumps (acid, base, defoamer, and nutrients/culture medium)
Additional Instruments	Mettler Toledo Liquid Level Interface and Load Cells
Process Ports	Inoculation, feeding, sampling, unloading, and multiple auxiliary ports

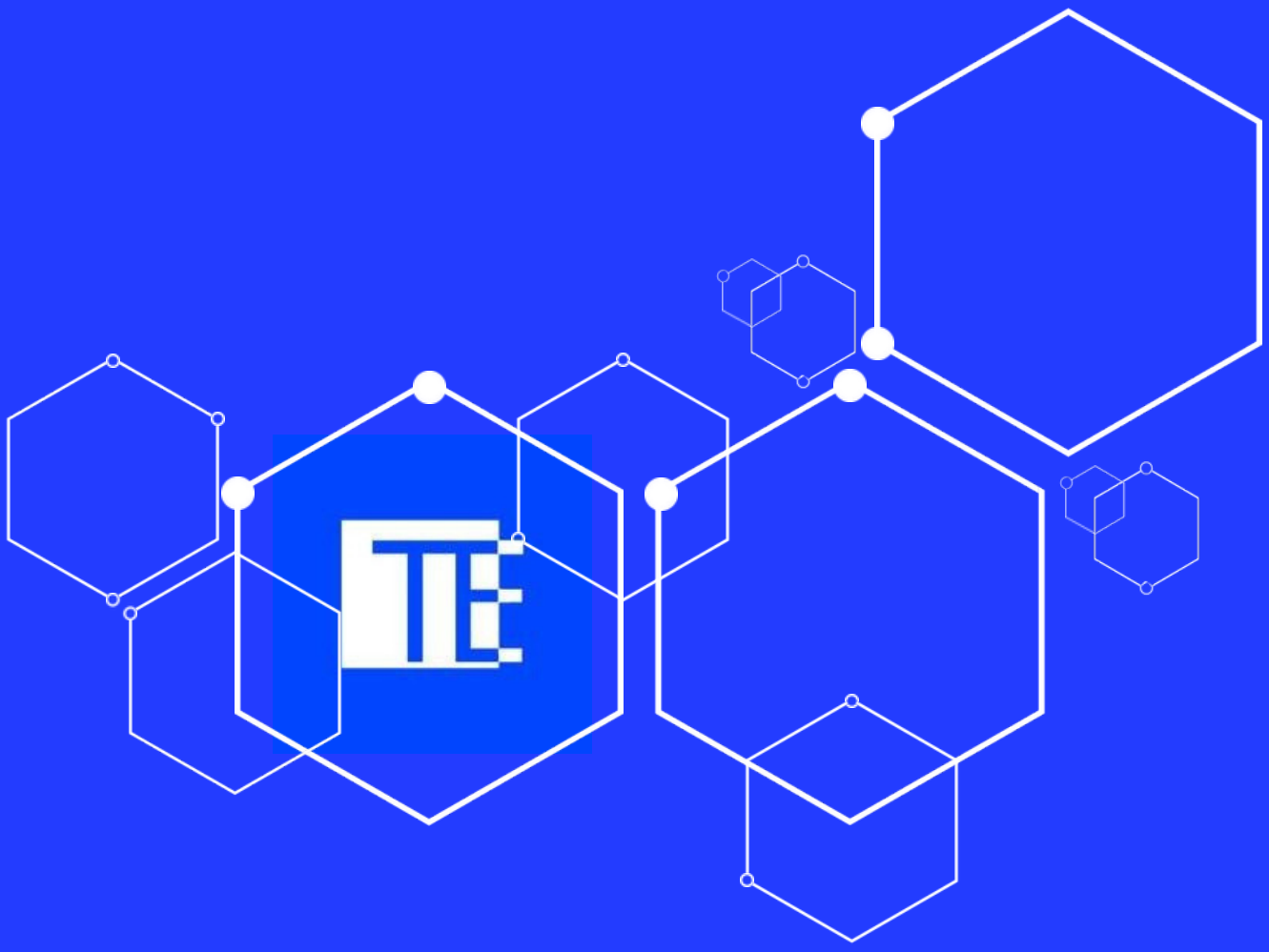
- Custom design and manufacturing, with capacities of up to 30,000 liters.
- Constructed of AISI 316L stainless steel for biotechnology applications.
- Automated control of temperature, pH, dissolved oxygen, defoamer, and level.
- Automatic peristaltic pumps for acid, base, defoamer, and nutrients.
- Ports for inoculation, feeding, sampling, and discharge, plus auxiliary ports.
- Automatic lid-lifting system to facilitate cleaning and maintenance.
- Custom automation and flow control, with remote monitoring.
- Compliance with international regulations (GMP, FDA, CE) and complete documentation for validation.
- Flexibility for future modifications or expansions.

Industrial applications:

The TECHMI BIO 30,000 is designed for fermentation processes and biotechnology development, including:

- **Pharmaceuticals:** antibiotics, vaccines, recombinant proteins, and enzymes.
- **Food and beverages:** fermented products, probiotics, and amino acids.
- **Biotechnology and bioenergy:** biofuels, bioplastics (PHA), and biofertilizers.
- **Cosmetics:** hyaluronic acid, collagen, and other active ingredients.
- **Chemistry:** organic acids and biodegradable polymers.
- **Agriculture, livestock, and waste treatment:** enriched silage, biological pest control, and organic waste degradation.





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