Diachrom
BIOTECHNOLOGY

# PARALLEL
# BIOREACTORS

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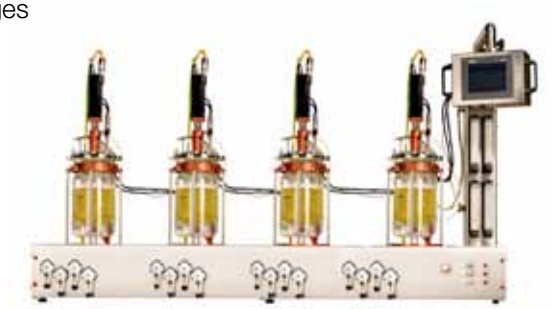
# DIACHROM BIOTECHNOLOGY **PARALLEL BIOREACTORS**

Diachrom Biotechnology as new generation of parallel bioreactors offers advanced controller functionalities designed for meeting demanding requirements in both research and process development as well as for media optimization and screening studies.
DIABENCH Parallel Bioreactor Systems can be used for microbial and cell cultivation applications in research and development allow for advanced screening of bacteria, yeasts, fungi, Cell Culture, Stem Cell, Biofuels and Phototrophic organisms.
Parallel Bioreactors are particularly of the advantages in strain characterization, strain development and media optimization.



DIABENCH FLEXIBILITY FOR ADVANCED PROCESS DEVELOPMENT :

Fully flexbile choose between:

- TWIN-BENCH, 1 tower and 2 vessel
- QUAD-BENCH, 1 tower and 4 vessel
- MULTI-BENCH, 1 tower and 6 or more vessel

DIABENCH ultra-flexible PLC based controller allow up to twelve culture vessels to be operated in parallel.

## SPECIFICATIONS

- Working volume from 0.5L up to 15L
- Excellent scalability and reproducibility
- Higher cell densities per mL
- Compact and pre-assembled equipments
- Small footprint for laboratory usage
- Trusted PLC hardware and software technologies
- Flexible, power full and intuitive controller
- Pre-Defined recipes for standard applications
- Variable speed pumps, autoclavable type
- Batch, Feed Batch and Continuous perfusion modes
- Mechanical or magnetical drive motors
- Individual temperature and agitation control
- pH control using acid and base or gasses
- pO2 control with cascate modes on agitation, gas mixing and pumps
- Individual gas mixture from Air, O2, CO2 and N2 via MFC's
- Gassing to headspace, sparger and/or overlay
- Antifoam and Level control
- Weight monitoring with scales and balances
- In-situ optical density measurement
- Individual real-time gas-analysis of O2, CO2, NH4, SO2 for direct calculation of OTR, CTR and RQ
- Available integration to bioprocess analyzer, biomass analyzers, cell counter, HPLC, etc.
- LED lights control for Algae, Cyonabacteia and other phototrophic cultures.