



# BENCHTOP BIOREACTOR

## TEC-BIO-FLEX-II

Fermentations and Bioprocesses; Cultivation of animal cells and OM (bacteria, fungi and yeasts); Enzymatic and Acid Hydrolysis; 2G Biomass, Biofuels and Ethanol; Production of Enzymes, Vaccines and Drugs; Biological Control, Bioinoculants and Biofertilizers; Bioremediation and Waste Treatment; Studies in Mining and Bioleaching of Ores; Production of oils, creams and cosmetics; Chemical reactions.

## Technical Characteristics

### TEC-BIO-FLEX-II

- ON/OFF button: With luminous indication on the "power" symbol ;
- Energy cable: Conforms to NBR14136 with IEC standard three-pole adapter ;
- Max environmental conditions: 0 to 50°C at 80% RH, non-condensing ;
- Dimensions: W=330 x D=450 x H=710mm ;
- Weight: 25 kg ;
- Power/Voltage: 2000W / 220V single phase ;
- Software: Shake/rotation control loop - Foam level control loop through peristaltic pump - Temperature control loop through blanket and coil or thermostated bath - pH control loop through peristaltic pumps - Dissolved oxygen control loop with cascade (agitation control) - Photoperiod control mesh (Leds) with PAR radiation sensor - Monitoring of oxygen and carbon dioxide gas - Torque monitoring;
- Torre TEC-BIO-FLEX-II: Control module for TECNAL bioreactors - 7 inch touch screen - USB port for data storage - Ethernet port for remote access - Cable for level/foam sensor - Has connections/inputs for: - Temperature sensor (Pt-100) - Digital pH sensor - Digital dissolved oxygen sensor (polarographic or optical) - O<sub>2</sub>/CO<sub>2</sub> gas sensor - Photoperiod System - Up to 4 peristaltic pumps - stirring engine - rotameter;
- Volumes: 'Tower compatible with 1.5-15L vessels (autoclave) 25-75 L (in situ)' ;

## Benefits and Advantages

- Compact model and software with the main control loops
- Touch Screen interface and data storage via pen drive, dispensing with the use of an external computer
- 7-inch HMI monitor with built-in software for process control and monitoring, SETPOINT settings, parameter adjustments, calibrations, recipe creation, data archiving and graph viewing
- Allows you to configure password-protected users
- Allows working in continuous, semi-continuous and batch mode
- Compatible with all models and sizes of TECNAL bench top vases (Single Wall/Single Wall/AIRLIFT)
- Allows working with in situ sterilization for vessels between 25 and 75 liters