

MINI PHOTO-BIO-REACTOR FOR ALGAE CULTURE



Non contractual photo

**SERVICE : POWER SUPPLY: 220V, 50HZ,
1.5KW**

DIMENSIONS : APPROX: 100X700X1800

WEIGHT : 90KG

REFERENCE : MP46BIO

The cultivation of algae is booming for the production routes in Green Chemistry: bio fuel, bio fertilizer etc.

Educational Objectives :

- Determination of oxygen consumption.
- Reaction monitoring
- Study of algae production parameters: photoperiod, substrate supply, stirring speed, oxygen level

Technical specifications :

- A 15 liter cylindrical-conical reactor with cover. The reactor has a low drain. The reactor is made of borosilicate glass with a PVC cover
- An agitator with display and electronic speed control. The agitation system provides for an interchangeable mobile. The mobile provided is a rushton type propeller, 6 blades
- A metering pump for supplying substrate made up of a PTFE membrane and a 316L stainless steel body, flow rate: 10L / h. A 10L PE feed container installed on a 15kg scale, precision 0.1g. The control system makes it possible to calculate the flow rate according to the variation in mass and according to the density of the reagents used.
- A control cabinet regrouping the on / off controls of the pump, compressor and agitator. The cabinet includes the oxygen sensor transmitter the pH / Redox transmitter
- The connections are made of PVC and the assembly is mounted on a mechanically welded stainless steel frame to be placed on a work surface (table, bench, etc.) or freestanding on casters
- pH / ORP measurement and transmitter
- Measurement of dissolved oxygen and regulation by threshold of aeration slaved to the measurement of dissolved oxygen
- A ventilation assembly with a stainless steel air diffuser with air flow meter and flow rate adjustment valve. If compressed air is supplied at your site of operation, a filter regulator will be included
- Temperature regulation system comprising: a 1000W electric immersion heater.
- Adjustment of the photoperiod: LED lamp with wavelength suitable for algae culture and timer

OPTIONS :

to be discussed according to your specifications