

JADAVPUR UNIVERSITY WEBSITE

Enquiry No. Chem.Engg./DST-PURSE/6/2017

09/02/2017

Call for Quotation for BIO DIGESTOR

Specification

Total Capacity of Vessel :- 3.0 Liters

Total Working Volume :- 2.0 Liters

Can be used for both aerobic and anaerobic conditions.

Material of Construction of Vessel :-

Double Jacketed Stainless Steel with Round Bottom and SS Top flange, Table top Autoclavable type, suitable for the production and research on Microbial / Cell Culture Fermentation.

Top Flange / Plate :-

Made of SS and having sensor ports provision for pH / DO / Temperature and Stirring along with outlet and dosing Nozzles for Acid / Base / Antifoam / Air, Purging Port, Sample Harvesting etc. and port for Inoculation and Exhaust Condenser. The top plate is having Lifting Handles for easy handling of vessel.

Baffles :-

Four numbers Baffles provided for breaking the vortex for proper mixing. Baffles are removable type.

Pressure sensor with display

CONTROLS AND INSTRUMENTATION

Programmable PID control for temperature. Larger Display having Glance Screen to Display all the Parameter Values on a Single Screen.

Provision for AGITATION in the reactor.

TEMPERATURE CONTROL

Temperature Control Type :-

PID control having controlling Range from 4° to 70°C and controlling accuracy of $\pm 0.1^\circ\text{C}$ and Measurement Range from 0 to 100°C.

Temperature Sensor :- Pt 100 RTD

Heating and Cooling for Temperature Control :-

Inbuilt heating element of 300 watt in SS housing for efficient temperature increase. Cooling SS coil provided for the circulation of chilled / cold water inside the vessel for lowering the temperature below ambient (Chilled water from External source required).

AERATION

With Oil / moisture free Air pump and controlled with Glass Metered Needle Valve

Kajari Kargupta

DR. KAJARI KARGUPTA
Professor & Head
CHEMICAL ENGINEERING DEPARTMENT
JADAVPUR UNIVERSITY
Kolkata-700 032

Rotamter 0 to 1 LPM variable and fitted with 0.22 μ outlet filter for measuring the flowrate. The filter is PTFE, Hydrophobic and Autoclavable type.

Sparger Type :-

Ring type air sparger with fine pin holes provided towards bottom of the vessel for uniform distribution of Air / Gas.

Inlet / Exhaust Filters :- 0.22 micron absolute Hydrophobic PTFE / Autoclavable filter of PTFE, 0.22 micron Hydrophobic, 50 mm dia, autoclavable 20 times.

Quotations are invited within 2 pm of 21.02.2017. The quotations will be opened on 21-02-2017 at 3 pm.

To

The Head,

Chemical Engineering Department

Jadavpur University

Kolkata-700032

Kajari Kargupta

09/02/2017

DR. KAJARI KARGUPTA
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With Oil/Inert gas free Air pump and controlled with Glass Metered Needle Valve

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