

# Jain Laboratory Instruments







**Product Code. JL-TWL-9111** 

# **Aerobic Digester**

## **Description**

Aerobic Digester

### **Description:-**

The equipment consists of a ten-liter reactor vessel mounted on a vacuum formed the plastic base, with a liquid feed pump, air supply and instrumentation for monitoring and controlling the process.

The cylindrical wall of the reactor is made from a porous plastic material to retain the suspended solids while allowing treated water to pass through to the outer, annular exit chamber.

This design allows the essential features of the aerobic treatment process to be studied without the distractions of having to settle the solids adequately enough for external recycle - a well-known laboratory problem.

The porous liner is removable for cleaning, and a spare liner is supplied.

Wastewater is drawn from a floor-standing feed tank (not supplied) by a DC motor is driven peristaltic pump.

Rotational speed and thus flow rate, are accurately set by a ten-turn potentiometer.

The pump delivers the feed to the reactor vessel through a transparent lid.

#### Feature:-

A 10-liter bench mounted aerobic reactor, complete with peristaltic feed pump, air compressor, and temperature control system.

Dissolved oxygen and pH probes and meters are included.

The reactor consists of a cylindrical porous liner held in position with sealing rings between the lid and the base to facilitate removal for cleaning and replacement.

Suspended solids are thus held within the reactor volume, whilst treated water permeates through the porous liner into an outer annular exit chamber.

The water level is maintained by an adjustable constant head overflow device.

This digester system is designed to operate safely and reproducibly for periods of many days.

The equipment is mounted on a moulded plastic base, equipped with an internally moulded drain channel, designed to cope with spillages and wash-down water.

#### **Technical Details:-**

Feed pump: 24V DC, peristaltic, 0-30rpm corresponding to 0-40 litres/day

Air compressor: 240V /120V, 0-3.0 litres/minute

Reactor vessel: 10 liters maximum capacity

pH meter: Range: 0.00 to 14.00

Dissolved oxygen meter: Range: 0-100% saturation

Resolution: 2%

Reactor heater: Toughened glass, electrical immersion 200W

Temperature controller: 3-term PID

Temperature limit set at 35°C

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