



DHRUV FABROTECH®

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500 Lit Fermenter



❖ **TECHNICAL SPECIFICATIONS & SCOPE OF SUPPLY: -**

1. Fermenter vessel: -

- Material SS304
- Total capacity -500 liters
- Working volume 60-70%
- Stainless steel tank with jacket, ports & fittings for the following:
 - Air sparger
 - Air Vent
 - Inoculation port cum sampling
 - Pressure Gauge
 - Safety valve
 - Temp. Sensor port
 - pH Sensor port
 - Spare port with blind plug.

2. Tank's Jacket Nozzles:

- Water in
- Water out
- Steam in
- Steam out
- Spare ports

3. Agitation (stirring) arrangement: -

- Bottom driven seal-less & totally leak-proof magnetic drive agitator with single/double turbine impeller
- Industrial grade AC induction motor
- Variable frequency (ACVF) drive for motor speed variation, range 100 – 300 RPM.
- Digital RPM meter for motor speed

4. Aeration control system: -

- Air compressor
- Air flow rotameter with needle valve for manual flow control setting
- Autoclavable air filter capsules, rating 0.2 micron, for air inlet & exhaust

5. Cooling-based temperature measurement & control system: -

- RTD Pt-100 temperature sensor
- Microprocessor-based digital on/off type temperature controller for cold water control
- Control range: From temp. 15°C up to 45°C.

6. Control panel console: -

- Powder coated control panel console with electrical switchgear, panel accessories & mounting arrangement for various panel-mounted instruments
- Suitable for Trolley/Wall mounting adjacent to fermentor

7. Mounting arrangement: -

- Sturdy Trolley top mounting stand for the complete system to move.

Optional Features:

- Automated Electric operated Steam generator trolley mounted.
- Air compressor
- Water chiller
- Automated PH control
- Automated DO control

This model is suitable for the following applications: - (Description)

- Demonstration, Manufacturing.
- Batch production on the following: -
Microbial cultures (bacteria, yeasts, actinomycetes, fungi)
- Low, medium or high conditions of the following: -
Broth viscosity, broth density & cell density