



DHRUV FABROTECH®

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50 lit. In-Situ Fermenter (Pilot Scale Plant)-



TECHNICAL SPECIFICATIONS & SCOPE OF SUPPLY:-

1. Fermenter vessel :-

- Material SS304/SS316
- Total capacity 50 liters
- Working volume 75%
- Stainless steel tank with jacket, ports & fittings for the following :

- Air sparger
- Vent
- Inoculation port cum sampling
- Pressure Gauge
- Safety valve
- Thermo well
- Sensor port(s)
- Spare port(s) with blind plug(s)

2. Tank's Jacket Nozzles:

- Water in
- Water out
- Steam in
- Steam out
- Steam Trap
- Pressure Gauge
- Safety Valve
- Vent
- 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 150 – 500 RPM
- Digital RPM meter for motor speed

4. Aeration control System :-

- Air compressor oil free
- 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 : temperature 20°C up to 40°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 fermenter

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/Thermostat
- Automated PH 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