



DHRUV FABROTECH®

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1000 lit Fermenter Pilot Plant-



TECHNICAL SPECIFICATIONS & SCOPE OF SUPPLY:-

1. Fermentor vessel :-

- Material SS304/SS316
- Total capacity 200 lits to 1000 liters
- Working volume 70%
- Stainless steel tank with jacket, ports & fittings for the following :
- Air sparger
- Vent
- Inoculation port cum sampling
- Pressure Guage
- Safty valve
- Thermo well
- Sensor port(s)
- Level 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 Guage
- Safty Valve
- Vent
- Spare ports

3. Agitation (stirring) arrangement :-

- Top driven with mechanical seal totally leak-proof 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
- 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 : 5 above cold water temperature upto 130°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 :- (Discription)

- 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.

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