

## **IN-SITU STEAM STERILIZABLE FERMENTOR**



We manufacture a wide range of economically priced, yet high-performance in-situ sterilizable fermentation systems with world class features, in plot plant scale & commercial scale models.

Our perfected proprietary equipment design & selection of appropriate instruments for process control effectively overcomes operational difficulties inherent to in-situ steam sterilizable fermentors.

All standard components forming part of the system, such as complete piping assembly for operating the fermentor, air filters, sterilizable sampling valve, sterile addition ports, seal-less magnetic drive agitator, removable baffles, etc. are provided.

A user-selectable instrumentation package is supplied for measurement & control of fermentation parameters such as airflow, temperature, pH, dissolved oxygen, motor speed, foam, exhaust gas composition, nutrient addition, heat load, etc.

A complete fermentation plant, consisting of fermentors, seed vessels, in-situ sterilizable dosing vessels with transfer pumps, continuous media sterilizer & process control instrumentation can be custom-designed & supplied as per requirements.

Salient features of our product :-

1. Available in a wide range of sizes from 20 litres to 2000 litres (total volume)
2. Available in stainless steel AISI304 or AISI316 as per requirement
3. Suitable for virtually any fermentation process application
4. Suitable for batch, fed-batch & continuous (chemostat) modes of operation
5. Variety of on-line instruments are available for monitoring of fermentation parameters
6. PLC-based process control with SCADA fermentation software available
7. Rugged design; full stainless steel construction
8. Magnetic agitator is provided, which is ideally suited for aseptic processes
9. No loss of sterility even during long fermentation batches
10. User friendly; easy to operate & clean; low maintenance downtime & cost
11. Accessories such as electro steam boiler, air compressor & water conditioner can be provided

*Manufactured in India by :-*

### **NAVIN PROCESS SYSTEMS**

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