

## Technical Specification of Butter Churner 500 Ltr with VFD Panel

ITEM:	Butter Churner (Cylindrical)
CAPACITY:	500 Ltrs
FUNCTIONAL REQUIREMENTS:	The churn shall be fed with approximately 200 Ltr of cream having 40-45% fat. The output of the butter per batch shall be approximately 100 Kgs

### DESIGN & SCOPE OF SUPPLY:

- **Churning barrel & beaters:** The churning barrel shall be cylindrical in shape Barrel and beaters shall be fabricated from stainless steel conforming to AISI 304 from 3 mm thick sheet.
- **Finish:** All welding joints shall be ground smoothly. All interior surfaces of butter churn including beaters shall be shot blasted to make it non-sticky.
- **Joint Curvature:** The inside radii of all welded and permanent attachment joints shall be at least 6 mm. Where the cone portion or the dished end joins the cylindrical portion of the drum of butter churn, the radii shall not be less than 25 mm.
- **Drive:** The drive arrangement shall consist of gear box and electric motor to provide speed of approx. 30 RPM. Drive shall also be provided with the VFD and Panel to operate the churn at lower speeds as per requirements. The drive arrangement shall also enable the churn to operate in forward or reverse directions.
- **Accessories**
  - Spray Pipe:- Stainless steel (AISI-304)spray pipe over the churn for spraying chilled water when the churn is in operation. The inlet to the spray pipe shall end in a complete stainless steel (AISI-304) union
  - Guard Railing:- Stainless steel (AISI-304) guard railing with frame. Safety switches shall be provided to prevent the operation of the motor when the guard rail is lifted.
  - Door:- Leak-proof hinged stainless steel (AISI-316) door with proper locking arrangements. It shall be lockable in both open and closed positions. The door shall be provided with synthetic rubber gasket of dairy standards.
  - Sight Glass:- Stainless steel (AISI-316) sight glass assembly of diameter 140 mm shall be provided with toughened glass.
  - Butter Milk Drain:- 50 mm diameter stainless steel (AISI-316) butter milk drain with drain valve ending in complete stainless steel union.
  - Air Release Cock:- It shall be press openable type.
  - Frame: Sturdy and heavy duty MS frame constructed from Channels shall be provided for mounting the churn thru bearing blocks.
  - Painting:- All mild steel parts of the butter churn shall be painted with a coat of epoxy primer followed by two coats of epoxy paint of approved shade after thorough de-rusting.
  - Tools:- Essential special tools shall be supplied with the machine without charging any extra cost.