

FERMENTATION ROOM



- **Custom Designed to Meet Specific Production Requirements**
- **Controlled Environment - Heat, Humidity and Cooling Conditioning Unit**
- **Quality Control - Pre-programmed Cycle Time**
- **Automatic Trough Handling Reduces Chance of Injury**

FERMENTATION ROOM

FEATURES & BENEFITS

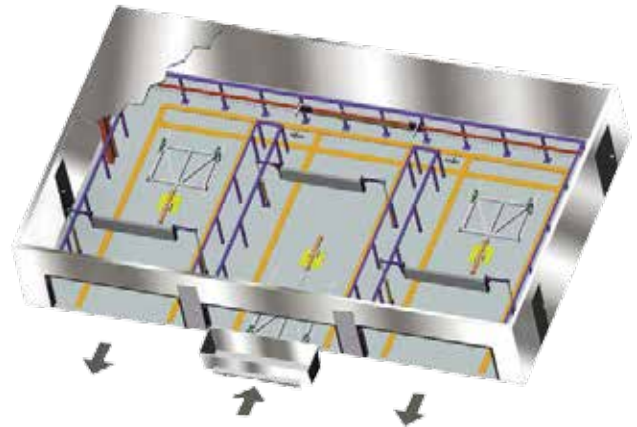
- A sponge dough is discharged from the sponge mixer into a sponge trough. This trough is then pulled into the inlet row of the room. Shortly after, a trough is ejected from the outlet row. Troughs cycle throughout the room automatically. Available in two configurations:

Semi-Automatic

- The operator manually moves the trough from the sponge mixer to the inlet row carrier. When the trough is ejected from the outlet row, the operator manually moves the trough to the hoist cradle and back to the sponge mixer.
- The cycling time inside the room is programmed to meet the desired fermentation time.

Automatic

- The trough movement between the mixers, hoist and the room is mechanized and automatically controlled. The sponge mixer, final dough mixers and hoist are located closer to the room.
- The cycling time inside the room is programmed to meet the desired fermentation time.



MECHANICAL FEATURES

- Fermentation room is made of stainless steel structural material and accessories such as cylinders are rust protective coated.
- Wear surfaces such as trough guides are protected with wear resistant material.
- The caster runways are made of stainless steel flats bolted to the room floor (room floor must be level).
- Note: PVC conduits are necessary in the floor for the hydraulic piping and electrical wiring.
- Trough displacements in and out are achieved by hydraulic cylinders connected to a central power unit. Cross feed motions are done by electrical gear head motor with acceleration and deceleration by an AC inverter.
- Automatic version includes a stainless steel hazardous guard rail surrounding the area and one door at each end protected by safety switch.
- Automatic version includes pneumatic operated stainless steel heavy-duty dough degasser bars. Air cylinders are mounted outside of trough sides guides, not over dough.
- Automatic version includes trough oiling station with Graco pump to spray troughs on the way back to the sponge mixer.
- A wide passageway along the interior walls of the fermentation room is provided to allow for easy maintenance and sanitation.
- When supplied with enclosure, structure is designed to support the conditioning and hydraulic units.
- The enclosure includes personnel doors and trough openings.



ELECTRICAL FEATURES

Operator panel is a wall mounted stainless steel electrical enclosure and includes the following:

- Allen Bradley main breaker
- Allen Bradley bulletin 140 motor protector
- Allen Bradley bulletin 100 motor starters (IEC rated)
- Allen Bradley AC inverters
- Allen Bradley programmable controller
- Operator interface with stainless steel pedestal and console
- Push-button stations
- Proximity sensors
- Emergency safety wire in the room
- Safety latches on fence doors
- Fermentation time is displayed in a schematic screen on the interface

OPTIONS

Front Wall Only

- Stainless Steel front wall for customer supplied enclosure

Enclosure

- Made of 4" (102 mm) thick urethane insulated, camlock type, gasketed panels
- 22 gauge stainless steel embossed exterior walls, 26 gauge #2 stainless steel interior walls and interior/exterior ceiling
- The structure for the top is made of structural anodized aluminum

Conditioning System

- Conditioning unit provides heat, humidity, and cooling.
- Stainless steel housing
- Copper tube steam radiator
- Aluminum fan and Freon coil with aluminum impingement air filters
- Aluminum distribution ducting
- Cooling is provided by Freon based compressor
- Humidifying is provided by brass atomizing nozzles located around the room
- The controls operate the heating, cooling and humidifying systems to regulate the dry bulb temperature and relative humidity.

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SPECIFICATIONS

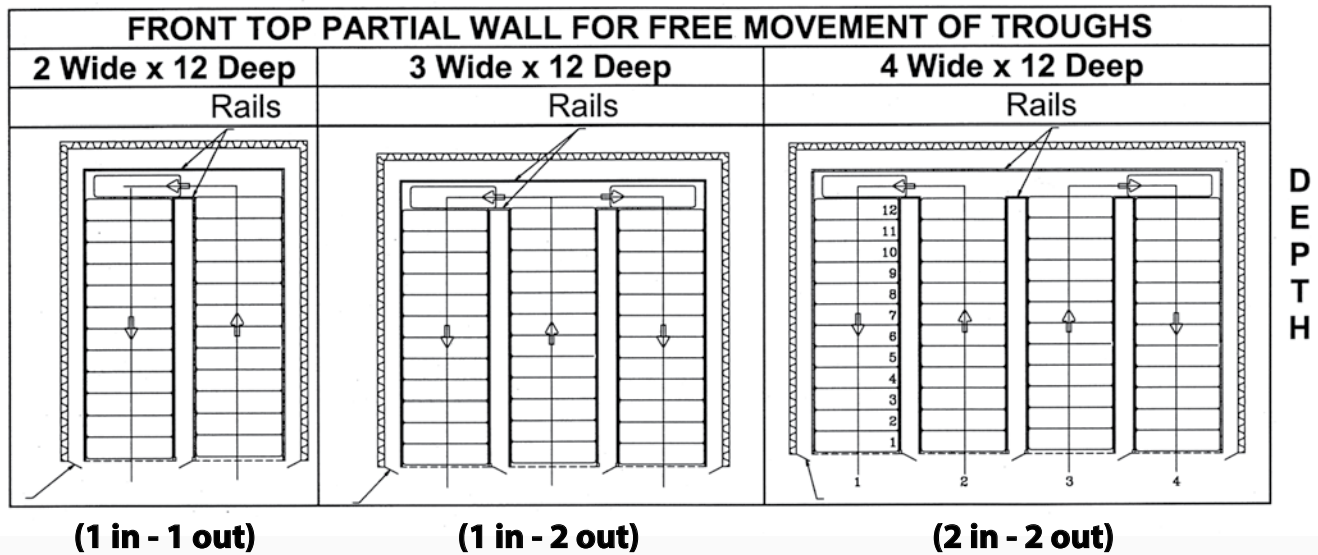
Capacity Calculation

Basic capacity is determined by multiplying the required batches per hour by the amount of fermentation time (hours).

Example: 4 batches per hour x 4 hours fermentation time = 16 troughs capacity
2 hours of 8 (1 in - 1 out)

Number of batches per hour per mixer: B _____ Batches
 Number of mixers: M _____ Mixers
 Fermentation time (hour): T _____ Hour
 Capacity of the room (trough): B*M*T: C _____ Troughs

SCHEMATIC TEMPLATE



Layout of the room and space requirement depend on the trough size utilized to meet the production requirement

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