

Specifications CS-20000 Machine

Vinodrai has the privilege, of being the pioneer in introducing India's first Clamshell range of Rotational Moulding Machine for manufacturing high capacity tanks. **CS-20000** is bi-axial machine with one U-arm, which has capacity to mould a tank of 20000 liter vertical max.

CS-20000 is a fuel efficient rotational moulding machine with low power requirement and hence the production cost is very low.

CS-20000 includes the following equipments:-

1. Oven Chamber:

The oven chamber is constructed of stainless steel. To reduce heat losses an insulation of 75 mm is used. The oven is very compact and hence fuel efficient. For multilayer tanks top loading system is provided with ladder. For better appearance and long life the oven is painted with Polyurethane paint.

2. Burner:

Italian "REILLO" make burner, which is suitable for **Diesel** is used. The burner is most fuel efficient with low noise and smoke free firing. For higher efficiency and low maintenance a two stage 10 micron filter is used. It has flame failure indication along with safety feature which meets International safety standards. LPG and natural gas burner is optional at extra cost.

3. Re-Circulating Blower:

CS-20000 has twin impellers which are made of stainless steel and are dynamical balanced. It is a high capacity, low R.P.M and low noise blower. The blower shaft is supported on both sides with maintenance free high quality bearing. 10.0 Hp LHP standard motor is used to run blower. Standard taper lock "FENNER" make pulleys are used.

4. U Arm:

Heavy duty U arm can take up one mould of 20000 liter or 10000 liter. Mould rotates in both X and Y directions with 3 and 9 R.P.M max respectively. Variable speed A.C drive duty motors are provided. Heavy duty gear box is used for smooth operation. Chain drive is used for low maintenance. Mould mounting is very easy & fast.

5. Control Panel:

A user friendly control panel is provided with furnace. **Toshiba or Schneider** made drives are used for controlling speed of major and minor axis motor. For getting uniform thickness auto reversal facility is provided. Digital voltmeter for three phases, digital temperature controller, phase indicator lamp, and cycle timer are provided for easy operation & control. Hooter, flame failure lamp, safety interlocks are provided for safety propose.

Operating Parameters.

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|----|-----------------------|---|
| 1. | Production Per Cycle: | 20000 liter x 1 or 10000 liter x 1. |
| 2. | Total Cycle Time: | 180 min. (Heating: 80 min, Cooling: 60 min, Loading and unloading:40min.) |
| 3. | Production Per day: | 1,60,000 ltr. Max (24 hrs). |
| 4. | Production Capacity: | 8 tanks of 20000 ltr. |
| 5. | Electrical Load: | 27.5 Hp(415 volt 3 phase). |
| 6. | Diesel Consumption: | 35 liter/cycle |
| | OR | |
| | Gas Consumption: | 30 kg/cycle |
| 7. | Process Temperature: | 180 degree. |
| 8. | Space for Machine: | L 16 Mtr x W 9.5 Mtr x H 8.5 Mtr. |

9. Machine suitable for: Double layer, Triple layer, Four layer and Foam /Insulated tank.
10. Manpower: 2 Semi skilled persons.

Technical Specifications :

Model No. : CS-20000

Spindles.....	1
Maximum Weight on Straight Arm.....	2500 Kg
Spider Diameter.....	3200 mm
Major Axis R.P.M. (x-axis).....	0-5
Minor Axis R.P.M. (y-axis).....	0-7

Furnace / Oven

Maximum Kcal / Hr.....	3,60,000
Usage Normal (Kcal/cycle).....	3,30,000
Maximum Temperature °C.....	250.0
Circulating Blower C.F.M.....	30000

Electrical

Supply Voltage.....	415 V, 50 Hzs 3 Ph & Neutral
Oven Circulating Blower H.P (1 Nos.).....	10.0
Major Axis Drive AC Motor H.P.....	7.5 HP
Minor Axis Drive AC Motor H.P.....	3.0 HP
Burner H.P.....	0.5 HP
Hood Motor.....	5.0 HP

Scope Of our Supply :

Scope of supply includes machine and control panel as specified above.

Customer will have to provide for

- 1 Foundation and civil work as required.
- 2 Electrical connection up to panel .
- 3 2 T electric hoist for Loading / Unloading of mould and product.
- 4 Erection and commissioning as per agreed terms.
- 5 Diesel storage tank/ gas pipe line up to the burner.

Note:

Vinodrai also manufacture touch screen PLC based control panel on buyer's demand. It's a semi-automatic panel with ALEN BRADLY make PLC.

- ❖ Specification is subjected to improvement and development.

