

LABORATORY REFINER/ CONCHES

CHOCOLATE REFINER/CONCHE

45Kg Batch Capacity

RC45



NEXT GENERATION - 4.0 Compatible!



MACINTYRE
CHOCOLATE SYSTEMS

PROBAT GROUP



- New Siemens PLC Control & Software

Benefits

- Cost effective system for the production of fat based masses including compound, pure chocolate & couverture. Recipe development assistance available incorporating laboratory trials.
- Requires the minimum of floor space as this universal system performs the function of a sugar mill, cocoa mill, pre-mixer, refiner and conche, all in the one machine (the non requirement of milled sugar reduces the need for additional fats / cocoa butter).
- Low energy consumption.
- Easy to operate, minimal labor requirements.
- Moisture content achievable as low as 0.3%.
- Low metal count (approximately 15 added parts per million (iron), 2 added parts per million (manganese).
- Fat contents of 24% to 60% can be handled.
- No initial lecithin dose required for most standard recipes.

The Next Generation MacIntyre Refiner/Conche Incorporates:

- Energy efficient geared motor assembly - for rotating of the refining assembly.

- Handwheel for increasing and decreasing pressure.
- Electric immersion heater, controlled by PT100 probe, 4-20 mA, within the jacket water system.
- Electric extract fan, providing cross refiner air flow through hopper vent, for reduction of volatiles, acidity & moisture.
- Product temperature control using PT100 probe, 4-20 mA.
- Chilled water inlet solenoid valve, 1" BSP, 24V DC, controlled by product temperature probe.
- Loading of powders through machine hopper.
- Hinged delivery end for easing cleaning.
- Supplied on feet - height adjustable by 36mm for leveling.

Control System - Siemens

- Operator interface by 10" color touchscreen.
- NOTE - this PLC package is for control of Refiner/Conche functionality alone.

NOTE: Lwa = 100 dB depending on installation environment.

Options

- NEW Sound Reduction Booth - noise reduction by approximately 20 decibels.

| Machine Capacity (kg) | Main Drive Motor (kw) | Electric Immersion (kw) | Length (mm) | Width (mm) | Height (mm) | Net Weight (kg) |
|-----------------------|-----------------------|-------------------------|-------------|------------|-------------|-----------------|
| RC45 | 1.5 | 1-3 | 1382 | 1068 | 1488 | 846 |

Subject to technical alterations!

Service Requirements

- Ideally a minimum 1 meter clearance is required around the equipments perimeter. The area should be adequately ventilated to prevent overheating of the motors and gearboxes
- The machine is best installed on a flat standard industrial floor
- The machine does not have to be bolted to the floor
- Control panel mounted on machine base and pre-wired ready, to connect to 3 phase supply
- Consideration of service provision to and from the machine should also be made and electrical supplies
- Three phase electrical supply is required
- Water feed and return lines will need to be connected to the machine to provide cooling

| | |
|---------------------------|-----------|
| Ambient Temperature | 25°C |
| Cooling Water Temperature | 12 - 16°C |

| Machine Capacity (kg) | Cylinder Capacity (Litres) | Consumption (Litres per Hour) | Water Cooling Capacity (kW) |
|-----------------------|----------------------------|-------------------------------|-----------------------------|
| RC45 | 13 | 100 - 140 | 2.9 |

Notes

- Values are for guidance only and will vary depending upon the ambient temperature, the cooling water temperature, the product being manufactured and the machine's settings.
- If the ambient temperature in the room where the machine operates is between 35 – 40°C then the above water consumption values should be increased by 40%.
- When cooling water temperature is 25 – 30°C and ambient temperature is 25°C then the above water consumption values should be increased by 60%.
- Maximum pressure permitted in the cylinder water cooling jacket is 1.5 bar (21.5 psi).
- Cooling capacity based upon 6.5 kW/m² transferred to cooling water over effective area of internal cylinder wall giving a 5°C temperature gradient through the wall and 0.2 kW/m² lost to ambient atmosphere through cylinder jacket giving a 1°C temperature gradient through the jacket wall.

Cycle Times

- Cycle times are dependant on recipe, quality of raw materials, fineness required and model of Refiner/Conche being used. Please contact the sales office for a cycle time estimation.

MacIntyre reserves the right to change specifications without prior warning.

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