

# BENCH TOP COOLING TOWER SYSTEM

Model Number: GOTT-BTCT-1205



## INTRODUCTION

The GOTT-BTCT-1205 has been found in an industrial system serviced by a forced draught cooling tower. The unit incorporates a process load, circulating pump, packed column, water distribution, volume control system and fan.

The standard instrumentation allows measurement of the air, circulating water mass flow rate and all end state temperatures using wet and dry bulb thermocouples. The evaporation rates under varying load and flow conditions can also be investigated.

The unit is supplied complete with one column of packing density 110m2/m3. The columns with different packing densities together with a column enabling the construction of driving force diagrams and an empty column for student project work are available as optional items.

## **FEATURES**

A: 1.6 kW. 220-240 Volts, Single Phase 50Hz (with earth/ground)

B: 1.6 kW. 110-120 Volts, Single Phase, 60Hz (with earth/ground)

Deminerallised or distilled Approx. 2kg/hour

## **PRODUCT SPECIFICATION**

- **Basic Unit**
- Impact Resistant Plastic
- Housing load tank with 0.5 and 1.0 kW heaters
- Float level control, make-up tank, bronze circulating pump, air fan, electrical control panel with digital temperature indicator
- Packed Column 'B' Transparent P.V.C with eight decks of inclined laminated plastic
- packing, water distribution troughs and pressure tappings
- Packing density 110m2 per m3
- Cap: Transparent P.V.C fitted with 80mm dia
- Sharp edged orifice, droplet arrester and water distributor

- Digital Temperature indicator
- Channel selector switch for all wet bulb, dry bulb and water temperature
- Variable area water flowmeter and manometer for airflow
- Additional Columns
  - Column A: As column B but with a packing density of 77m2 per m3
- Column C: As column B but with a packing density of 200m2 per m3
- Column D: empty Column
- Column E: (Packing Characteristics Column). Similar to clumn C but with packing arranged to allow measurement of air and water properties within column. Fitted with thermocouple sensors, selector switch and digital thermometer

## **EXPERIMENT TOPICS:**

- Observation of water flow pattern and distribution
- Measurement of all "end states", and rates of water, air and make -up
- Plotting of end states on a psychrometric chart and the application of the steady flow equation to draw up energy balances
- Investigation of performance at:
  - (a) A range of process cooling loads
  - (b) A range of inlet temperatures

#### Manuals:

- (1) All manuals are written in English
- (2) Model Answer
- (3) Teaching Manuals

#### **General Terms:**

- (1) Accessories will be provided where applicable.
- (2) Manuals & Training will be provided where applicable.
- (3) Designs & Specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

# **ORDERING INFORMATION:**

ITEM	MODEL NUMBER	CODE
BENCH TOP COOLING TOWER SYSTEM	GOTT-BTCT-1205	640-000

Warranty:

2 Years