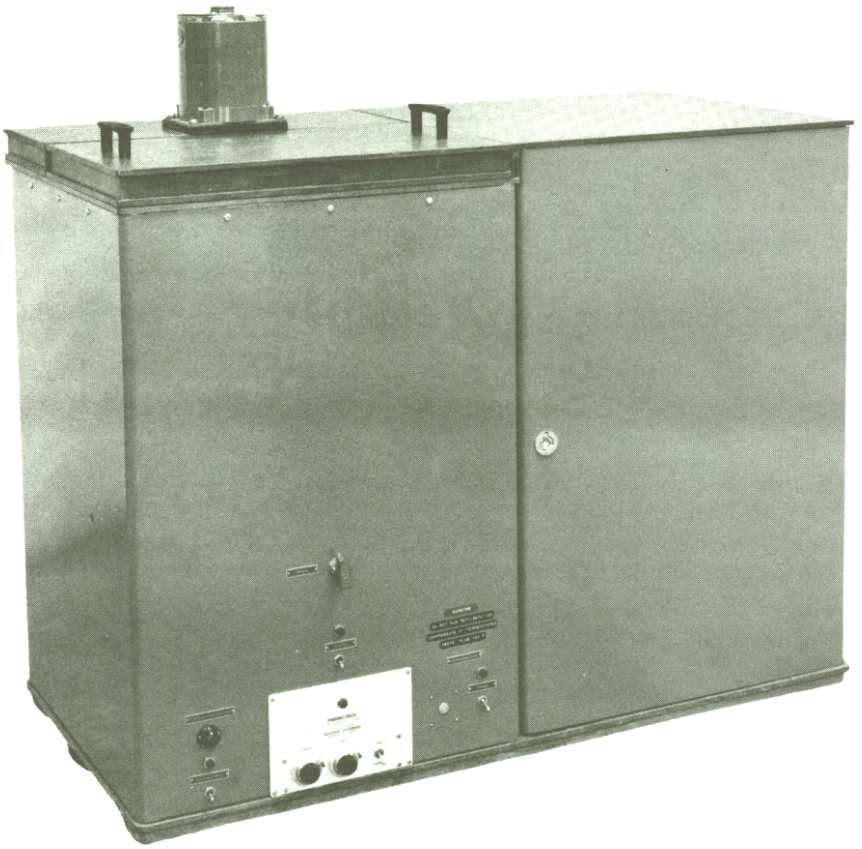
HALLIKAINEN *Instruments*
INDUSTRIAL and SCIENTIFIC
750 NATIONAL COURT, RICHMOND, CALIFORNIA, 94804

LOTEMP CONSTANT TEMPERATURE BATH

Cooling by Mechanical Refrigeration

Operating Range From -100°F. to +200°F.



GENERAL DESCRIPTION

Temperature control is achieved by "bucking" a constant cooling capacity with a variable heat input. High heat transfer ratio and minimum temperature gradients result from the action of the Jet-Stir Impellers which are used to agitate the bath medium.

The bath tank has a capacity of 6½ gallons for 12" deep tank and 10 gallons for 18" depth. The bath tank is provided with a drain and overflow. Stainless steel evaporator coils run concentrically around the inside diameter of the tank providing for an effective 12" diameter tank cross section. The tank opening is about 70 sq. in. (more than one half a 12" diameter circle) and is at the top front of the bath. It is accessible by means of a removable lid. The bath tank is formed from 16 gauge stainless steel with a heavier bottom. The bath housing is fabricated of 16 gauge steel with mist blue baked enamel finish.

A high limit thermoswitch is provided to protect the bath from possible overtemperature.

SPECIFICATIONS

Refrigeration: Cooling is by means of two ¾ HP air cooled hermetically sealed compressors arranged in a cascade system.

Temperature Control: The temperature controller used is a Hallikainen THERMOTROL Temperature Controller (see separate brochure for complete details). Controller is located at front bottom of cabinet unless supplied for external mounting in a separate case. Controller can be either standard THERMOTROL or decade type.

Dimensions: Both the 12" and 18" depth tanks have the same outside dimensions for housing. These are 48" wide by 24" deep by 37½" high (not including stirrer motor). Top and bottom are made of ⅜" thick vinyl impregnated charcoal COLORLITH. Note: At least 4" clearance must be allowed at the rear of the bath for air circulation to fan port and for drain and overflow connections to the bath tank.

Insulation: Low "K" factor closed cell (vapor barrier) foam.

Bath Heaters: Fast response AEROROD immersion heaters all located within the bath medium to maximize control effectiveness. Heaters total 1150 watts. Control heat selections through a 4 way adjustable switch are 115, 150, 500 or 650 watts. By adding an additional 500 watts through an auxiliary switch, heating loads then can be 615, 650, 1000 or 1150 watts.

Power Supply: 230 volt, single phase, 60 cycle 20 amperes required.

Stirrers: Two Hallikainen Model 1117 Size 1 Jet-Stir Impellers are used to maximize bath accuracy.

Stirrer Motor: General Electric 1/12 HP, 1725 RPM, 60 cycle, single phase, 230 volt, totally enclosed ball bearing.

Pull Down Time: When Methanol is used as bath medium, pull down time is approximately 6 hours.

Accuracy: ± .002°F. with water as bath medium
± .005°F. with Methanol as bath medium

MODELS

12" Deep Tank	18" Deep Tank	Controller
1451	1452	Thermotrol, Integral
1453	1459	Thermotrol, External
1455	1456	Decade Thermotrol, Integral
1457	1458	Decade Thermotrol, External