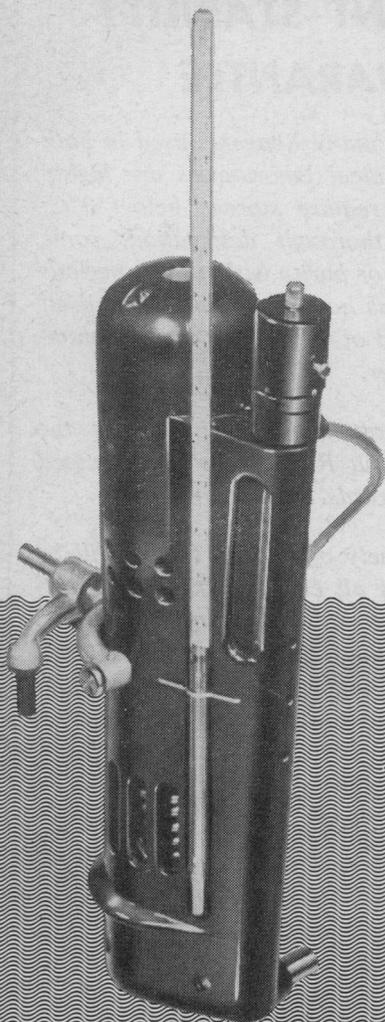


# UNITHERM HAAKE CONSTANT TEMPERATURE CIRCULATOR



## FEATURING:

- Accuracy to  $\pm 0.01^\circ\text{C}$
- Range  $0\text{-}150^\circ\text{C}$
- Pumps to 5 GPM
- Magnetic Temperature Setting
- Automatic "water level" shut off device
- Separate control unit protected from fumes
- Additional heater may be connected
- Cooling coil
- Suitable for open tank or closed circuit pumping.

SEND FOR COMPLETE DESCRIPTIVE CATALOG

## BRINKMANN

Brinkmann Instruments, Inc.,  
Cutter Mill Road, Great Neck, L. I., N. Y.

## New Products

*The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither Science nor the writer assumes responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to Science, Room 740, 11 West 42 St., New York 36, N.Y. Include the name(s) of the manufacturer(s) and the department number(s).*

■ **CONDUCTIVITY METER** for nonmagnetic metals is a portable, battery-powered, transistorized instrument that operates by inducing eddy currents within the material being measured. The instrument reads conductivity from 8 to 107 percent of the International Annealed Copper Standard. Accuracy is said to be  $\pm 3$  percent of scale reading. (Magnaflex Corp., Dept. 178)

■ **SAMPLE HOLDER** for metallographic preparations accommodates up to six specimens simultaneously for grinding and polishing. Adapters permit specimens to be of different diameters. Insertion does not involve clamping, and samples can be removed during processing. The relative movement of disk and specimen is regulated by a liquid brake. (William J. Hacker & Co., Dept. 181)

■ **VOLTMETER** for panel mounting has input impedance 5 megohm paralleled by 25 pf. Full-scale ranges extend from 10 mv to 300 volts r.m.s. Frequency range is 20 cy to 200 kcy/sec with accuracy  $\pm 2$  percent of full scale. The effect of  $\pm 10$  percent variation in line voltage is within  $\pm 1$  percent. (Metronix, Inc., Dept. 182)

■ **ELECTRON-BEAM WELDER** for welding reactive metals in high vacuum operates by directing a beam of high-energy electrons onto the work from a gun positioned at the top of the welding chamber. Beam current is 0 to 100 ma at 0 to 10 or 0 to 20 kv. A work table can be moved longitudinally and rotated without breaking the vacuum. Pump-down time is 8 min. Maximum welding speed is  $\frac{1}{2}$  in./sec longitudinally and 5 rev/min for circular welds. Circular welds up to 8 in. in diameter and longitudinal welds up to 4-in. long can be made without modifying the unit. (NRC Equipment Corp., Dept. 183)

■ **GAMMA IRRADIATOR** provides an average dose rate of 200,000 r/hr in a chamber 2.5 in. in diameter and 9 in. deep. The central chamber is surrounded by a cylindrical metal assembly containing the radioactive source. Around this assembly are wound two bonded stainless-steel coils, one to carry fluid samples, the other to carry heating or cooling fluids. A layer of thermal insulation and 9-in.-thick lead shielding surround the coils. (Victoreen Instrument Co., Dept. 190)

■ **PORTABLE OSCILLOSCOPE**, transistorized, will operate up to 3 hr on ten high-current, size D, flashlight cells and up to 6 hr on rechargeable cells. It will also operate on line power. Specifications are: vertical passband, d-c to 5 Mcy/sec; rise time, 0.07  $\mu\text{sec}$ , deflection factor, 10 mv/div; sweep range, 0.5  $\mu\text{sec}$  to 0.5 sec/div in 19 steps; triggering, fully automatic or preset with amplitude-level selection. Amplitude calibration is provided. Weight is 12 lb, size  $5\frac{1}{4}$  by  $8\frac{1}{4}$  by 16 in. (Tektronix, Dept. 204)

■ **REFERENCE VOLTAGE SOURCE** is variable from 0 to 600 volts in steps of 0.1 mv. Fluctuation due to line-voltage variation between 90 and 135 volts is said to be less than 2 parts in  $10^6$ ; drift  $\pm 3$  parts in  $10^5$  per day under laboratory conditions. Voltages are set by four decade output switches and a fine adjustment control. (Gyra Electronics Corp., Dept. 186)

■ **NEAR-INFRARED FILTERS** of interference type commence to transmit at wavelengths up to 1.2  $\mu$ . The filters use evaporated films of silicon and magnesium fluoride. Operating temperature range is  $-40^\circ$  to  $+100^\circ\text{C}$ . Diameters up to 6 in. are available. (Metavac, Inc., Dept. 188)

■ **THERMISTOR PROBES** are offered with matched resistance-temperature characteristics in any quantity. Absolute resistance of each probe is given in increments of  $1^\circ\text{F}$  from  $0^\circ$  to  $350^\circ\text{F}$ . Probes are said to be within  $\pm 2$  percent of nominal resistance at any point in the range. (Fenwal Electronics, Dept. 196)

■ **DIGITAL OHMMETER** for low-resistance measurement is said to be accurate to  $\pm 1$  mohm over the range 1 to 9999 mohm. Sensitivity of 100  $\mu\text{ohm}$  is available with reduced accuracy. Scanning and print-out modules can be added. (Electro Instruments, Dept. 194)

■ **CENTRIFUGE** incorporates into one end of its rotating boom a hydraulic vibration system capable of 0.5-in. double amplitude and acceleration level up to 20 g from 5 to 500 cy/sec. A 12-in. cube weighing 40 lb can be supported. (Genisco, Dept. 195)

■ **INSULATION TESTER** measures leakage current as low as 0.05  $\mu\text{a}$  and up to 2000  $\mu\text{a}$  with d-c test potentials continuously variable from 0 to 5000 volts. Operation is on 115-volt a-c power. Weight is 24 lb, size  $13\frac{1}{2}$  by 13 by 7 in. (Associated Research, Dept. 203)

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