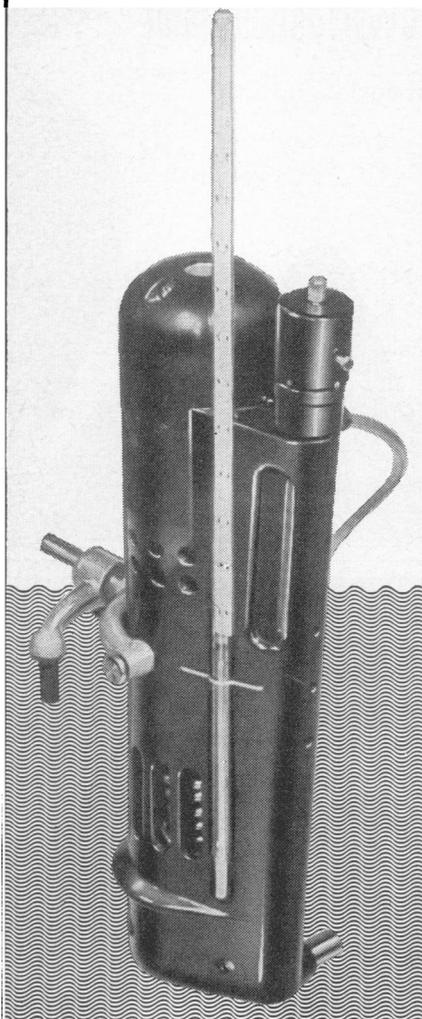


UNITHERM

HAAKE CONSTANT TEMPERATURE CIRCULATOR



FEATURING:

- Accuracy to $\pm 0.01^{\circ}\text{C}$
- Range $0-150^{\circ}\text{C}$
- 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 the manufacturer. Include the department number in your inquiry.

■ **HIGH-VACUUM PUMPING STATION** switches automatically from roughing setting to high-vacuum setting upon reaching a predetermined pressure. The 4-in. system is said to achieve pump-down to 5×10^{-6} mm-Hg in less than 35 sec and ultimate pressure less than 5×10^{-7} mm-Hg. Manual control is also provided. (Veeco Vacuum Corp., Dept. Sci951, Terminal Drive, Plainview, N.Y.)

■ **TURBIDIMETER** of Wagner type determines the fineness of Portland cement. Included is all apparatus needed in the test as specified by ASTM. Included are photoelectric cell, approximately collimated light source, timing burette and stand, microammeter, wet screening assembly, sedimentation tanks, flasks, test tubes, and a stirring apparatus. (Soiltest, Inc., Dept. Sci953, 4711 W. North Ave., Chicago 39, Ill.)

■ **THERMOCOUPLE** for measurement of surface temperature is said to have a response time less than 10 μsec . Thin-ribbon thermocouple wire and mica insulation 0.002 in. thick are used. Sensing tip extension up to 4 in. permits access through thick container walls. Operating temperature range for continuous service is 2000°F and operating pressure ranges to 25,000 lb/in.² Models are available in all standard thermocouple elements. (Nanmac Corp., Dept. Sci954, P.O. Box 8, Indian Head, Md.)

■ **PROXIMITY SWITCH** responds to any metal part that remains within range of the pickup for 50 msec or more. Input is 117 volts, 50 to 60 cy/sec at 15 watts; output is a single-pole, double-throw relay rated at 5 amp, noninductive. A sensitivity control permits adjustment of operating range. Size is 6 by 8 by 4 in. (Electro Products Laboratories, Inc., Dept. Sci961, 4500 N. Ravenswood Ave., Chicago 40, Ill.)

■ **DECADE COUNTER** element provides digital display of $1\frac{1}{2}$ in. numerals, zero through nine, said to be readable at 30 ft. Counting rate is 100 kcy/sec. Power requirements are 12 volts d-c at 240 ma and 20 volts d-c at 10 ma. Triggering pulse may be positive or negative (4 volts minimum, 12 volts maximum). Output impedance is 330 ohms. The elements, measuring $2\frac{3}{8}$ by $1\frac{1}{2}$ by $8\frac{1}{2}$ in., can be combined as a preset counter. (Telemetrics, Inc., Dept. Sci962, 12927 S. Budlong Ave., Gardena, Calif.)

■ **PROGRAMMED CALIBRATION SUPPLY** delivers preselected calibration voltages over the range 0 to 10 volts from a constant-impedance output of 10 ohms. Absolute accuracy is said to be better than ± 0.01 percent for line voltage variations of ± 10 percent over the temperature range from 40° to 125°F ; tracking accuracy better than ± 0.005 percent; and 30-day stability better than ± 0.005 percent. Selection of 10 programmed voltages is provided by mercury contactors. (Owen Laboratories, Inc., Dept. Sci955, 55 Beacon Place Pasadena, Calif.)

■ **EPOXY ADHESIVES** are offered in small packages for mixing and using in small quantities without waste. The packages are small plastic containers each holding a premeasured quantity of adhesive and catalyst. Types offered are metal-to-metal adhesive, glass-to-ceramic bonding adhesive and Teflon treating agent. (Plastic Associates, Dept. Sci964, 2900 S. Coast Ave., Laguna Beach, Calif.)

■ **BEARING ANALYZER**, for nondestructive inspection of ball and roller bearings, operates on the basis of vibrations produced by the rotating bearing. Indication is provided by a meter, a cathode-ray-tube display, and a loudspeaker. Average test time is said to be less than 30 sec. Bearings from $\frac{1}{8}$ in. to 10 in. outside diameter are accommodated. (Bearing Inspection, Inc., Dept. Sci965, 3311 E. Gage Ave., Huntington Park, Calif.)

■ **GROUND DETECTOR** senses the presence of a ground in isolated a-c systems used in anesthetizing areas. Both visible and audible warnings are given. The detector is housed in a single ventilated enclosure that may be located for best access. Units are said to conform to the 60,000 ohm capacitive reactance specification recommended by the National Electrical Code. (Custom Control & Manufacturing Co., Dept. Sci958, P.O. Box 291, Buena Park, Calif.)

■ **LOW-NOISE AMPLIFIER** has a nominal band width of 0.1 cy to 320 kcy/sec, adjustable in steps. Gain is adjustable in 3-db steps from 100 to 10,000. Noise developed with input shorted is less than that developed across a 1000-ohm resistor at room temperature. Noise at full band width is less than 3 μV ; it drops to 1.5 μV at 80 kcy/sec band width. Hum is less than 0.25 μV , distortion less than 0.5 percent. Maximum output is 30 volts (peak). Output impedance is less than 100 ohms. (Electronic Instruments, Dept. Sci957, 1130 Mission St., South Pasadena, Calif.)

JOSHUA STERN

National Bureau of Standards,
Washington, D.C.

Science

New Products

Joshua Stern

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