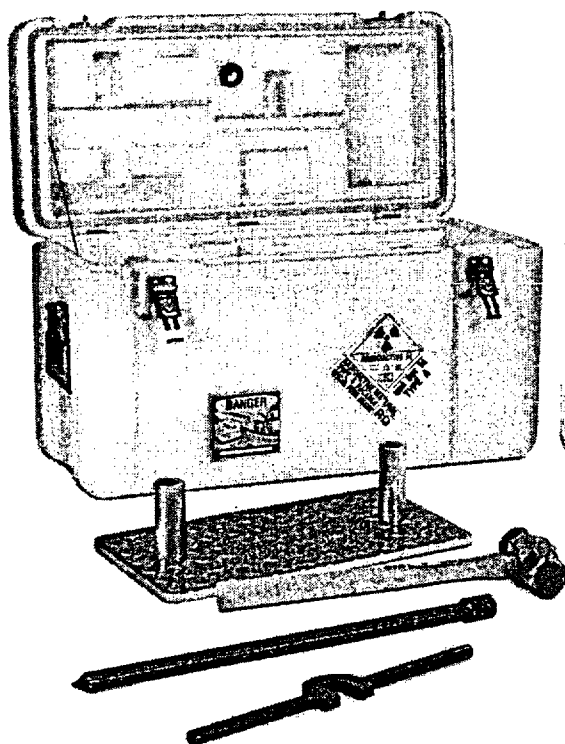
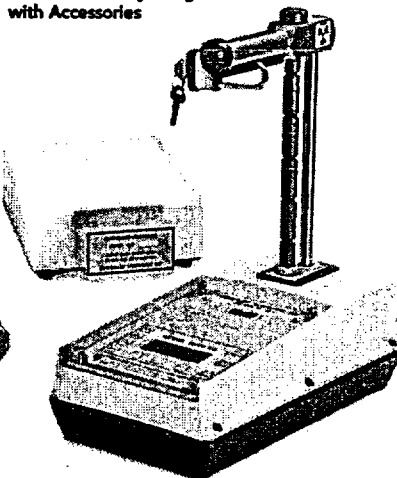


**HUMBOLDT**

Sales or Technical Assistance — 1-800-544-7220

Moisture/Density Gauge  
with Accessories

**Radiation Safety Training Courses**  
Available On-Site, or in Scheduled Cities.  
Call Humboldt: 1-800-537-4183

**Note:** Prior to shipment of radioactive equipment, a copy of your Radioactive or By-product Material License must be forwarded to Humboldt.

Humboldt is happy to assist you in obtaining or amending a license. For assistance with your application, call: 1-800-537-4183

## Moisture/Density Gauges

### Ideal for Compaction

Uses advanced microprocessor based technology to provide highly accurate measurements of moisture content and density of construction materials such as soil, aggregate and asphaltic concrete.

Automatically computes a variety of parameters, including direct readouts of wet density, dry density, moisture content, percent of moisture, percent of compaction (Proctor or Marshall), void ratio, and air voids. Reads in either English or S.I. units.

### Principle of Operation

**Density Measurement**—Is based on the attenuation of gamma radiation due to Compton scattering and photoelectric absorption directly related to the electron density of materials. This indicates the mass density of materials with a chemical composition similar to the crust of the earth.

**Moisture Content Measurement**—is based on the thermalization (or slowing down) of fast neutron radiation, a function of the hydrogen content of the materials. This calibration can be altered by the user to correct for other materials containing hydrogen.

## HS-5001 Series Moisture/Density Gauges

State-of-the-art design for precision accuracy and great reliability in day-to-day field conditions.

- Choice of three model series
- Choice of two measuring depth/increments

Models offer choice of either 8-inch (200mm) or 12-inch (300mm) rod lengths for measuring depth; choice of either 1-inch (25mm) or 2-inch (50mm) increments.

Unique indexing mechanism provides positive and accurate positioning of the source, yet eliminates the wear and potential damage common with most trigger-type mechanisms. Induction hardened stainless steel source rods minimize wear and deflection.

Modular design is easily serviced in the field (except the sealed radioactive source) without special tools or equipment. Designed for use in direct transmission and backscatter modes. Power supplied by 6 AA-size alkaline batteries having a life up to 2,000 hours.

Includes: transit case that meets USDOT specifications, reference standard, instruction and radiation safety manual, source and case certification, zippered accessory case, rod guide/scrapper plate, drill rod, 4-lb. hammer for driving drill rod, and rod extraction tool. Meets ASTM D2922, D3017, D2950; BS 1377, 1924, AASHTO T-310-02.

**Note:** See page 91 for specific models and accessories.

## Radiation Safety Training Courses Available On-Site, or in Selected Cities

"Radiation Safety & Proper Gauge Operation Procedures for Users of Portable Moisture/Density Gauges" is the subject of a one-day course taught by Humboldt technical experts. The class satisfies the USNRC and Agreement-State requirements for gauges. A training certificate will be issued to students who successfully complete this course. For Schedule/Enrollment Information, Call: 1-800-537-4183

### Radiactive Material Data for License Application

Radioactive Material	Chemical/Physical Form	Maximum Amount
Cesium-137	Sealed Source Humboldt 2200064	Not to exceed 11 millicuries per source
Americium-241:Be	Sealed Source Humboldt 2200067	Not to exceed 44 millicuries per source