

# IRROMETER®

*Service Units are designed to aid users in the placement and installation, interpretation of readings, and maintenance of IRROMETER soil moisture indicators. Several helpful items are included in the kit. The primary component of a Service Unit is a small hand vacuum pump. The pump is designed to seal on the reservoir portion of the instrument body and is used to create a vacuum manually, evacuating any air contained in the tensiometer. These instruments function with the greatest accuracy when all air has been removed. One Service Unit will service multiple instruments.*

*Two versions of the vacuum pump are available. The standard pump included with the #1001 Service Unit is used for most applications. The #1002 Test Pump Service Unit is different in that it includes a pump with an integral vacuum gauge that registers in centibars (cb) or kilopascals (kPa). This is used to validate accuracy of the gauge on the IRROMETER being serviced.*



## Service Unit – #1001

### Specifications –

#### PUMP BODY

MATERIALS: Anodized aluminum tube and shaft; rubber end fittings, plunger, suction cup and finger valve; plastic knob and coupling; nylon ball.

#### DIMENSIONS:

Compressed – 10.375 in. (26.35 cm)

Fully Extended – 15.5 in. (39.37 cm)

Suction Cup Diameter – 2.25 in. (5.715 cm)

Tube Diameter – 1.25 in. (3.175 cm)

WEIGHT: 1.07 lb. (.484 kg)

WARRANTY: One year

#### ORDERING INFORMATION: **Catalog #1001 Service**

**Unit** includes hand vacuum pump, pad of 4.5 x 6.25 in. (11.43 x 15.87 cm) chart forms, 1 fluid ounce (29.57 cc) bottle of IRROMETER Fluid (concentrated dye) and a copy of IRROMETER's *Moisture Indicator Reference* book.

### Pump Features:

- **Designed for outdoor field use**
- **Non-corrosive construction**
- **Easily serviceable**
- **Long lasting**

**OPERATING PRINCIPLE:** The Service Units provide the IRROMETER user with valuable tools to ensure their soil moisture indicators function accurately and are easily operated and maintained. The hand vacuum pump serves to evacuate entrapped air from the IRROMETER body which optimizes accuracy and response time. This is important for initial installation and also for periodic maintenance purposes, as air may be drawn into the instrument from the soil under normal operating conditions. Viewing of the fluid level in the instrument and refilling is made easier by using the IRROMETER Fluid concentrate to color the fill water. Included Chart Forms provide a convenient way to graph the periodic IRROMETER readings for use when analyzing soil moisture trends. The instruction booklet provides detailed information on unpacking, preparing, installing, servicing and storing IRROMETERS as well as guidance on instrument placement and data interpretation.



**Test Pump Service Unit – #1002**

**Specifications –**

**PUMP BODY**

**MATERIALS:** Anodized aluminum tube and shaft; rubber end fittings, plunger, suction cup and finger valve; plastic knob and coupling; nylon ball.

**DIMENSIONS:**

- Compressed – 11.06 in. (28.1 cm)
- Fully Extended – 16.25 in. (41.27 cm)
- Suction Cup Diameter – 2.25 in. (5.715 cm)
- Tube Diameter – 1.25 in. (3.175 cm)

**WEIGHT:** 1.44 lb. (.654 kg) – includes #1008 gauge

**WARRANTY:** One year

**1008 – Standard Vacuum Gauge**

**Specifications –**

**DIAL SIZE:** 2 in. (51 mm)

**CASE:** Hermetically Sealed Thermo Plastic Rubber

**WINDOW:** Inner – Polycarbonate, Outer – Butyrate

**DIAL:** Scale of 0-100 cb (kPa), white with contrasting green markings.

**ACCURACY:** ±3-2-3% of span ASME B40.1 Grade B

**MECHANISM:** Bronze Bourdon Tube

**CONNECTION:** Standard 1/4 in. NPT – Brass Bottom Mount

**OPERATING TEMPERATURE:**

- 40° to 150° F (-40° to 65° C),
- 32° to 150° (0° to 65° C) for water service

**WARRANTY:** One year

**ORDERING**

**INFORMATION:** **Complete #1002 Service Unit** includes hand vacuum pump with test gauge, pad of 4.5 x 6.25 in. (11.43 x 15.87 cm) chart forms, 1 fluid ounce (29.57 cc) bottle of IRROMETER Fluid (concentrated dye) and a copy of IRROMETER's *Moisture Indicator Reference* book.



**SPECIFICATION INFORMATION:** The irrigation system shall include IRROMETER soil moisture indicators and at least one IRROMETER Service Unit (catalog #1001 or #1002) to ensure proper operation. It shall be the IRROMETER Service Unit as manufactured by The IRROMETER Company, Inc. of Riverside, California.

**IRROMETER®**

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