Copyright 2006 Forestry Suppliers, Inc. All rights reserved. Used by permission 570005

Torsional Vane Shear Tester
3043

Use in the field or lab to quickly determine shear strength of cohesive soils.

To use, place rod tip on reasonably flat soil surface at least 25 mm in diameter, insert vanes into soil, and turn torque head until failure develops. The point at which vanes break free in soil is automatically locked on the dial so you can record soil's maximum shear value. Divisions on dial are as small as 0.05 kg/cm^2, allowing visual interpretation to nearest 0.01 kg/cm^2. **Three vanes are provided so you can select the kg/cm^2 range you need:** 1, 0.2 or 2.5. Use tester simultaneously with a penetrometer to rapidly evaluate internal friction degree of soil in shear strength or to determine if soil is essentially cohesive. Tester is approximately 3-1/8″L. Two-pocket carrying case with belt loop included. Case is 8″L x 6″W x 2-1/2″H.

Torsional Vane Shear Tester	M	1 lbs.	**77299**

Field Scout Soil Compaction Meter
7028

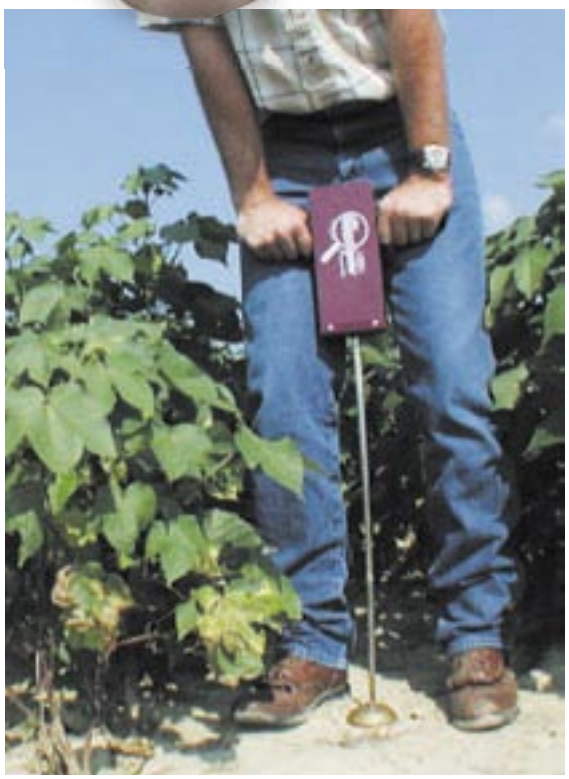
With built-in data logger.

This versatile electronic meter features a built-in data logger with a capacity of 772 profiles without GPS readings, 579 profiles with GPS readings and an RS232 port with recall button. A sonic depth sensor provides accurate depth determination at a resolution of every inch. The two-piece shaft disassembles easily for convenient storage and transport. The load cell measures penetration resistance. Compaction data is shown on the 16-character, two-line LCD digital display in PSI/IN or kPa/CM. An alarm is activated when penetration is too fast. Designed to ASAE standards. Includes software to download data, change logger settings, and configure the meter.

Specifications

Accuracy: ±.5″ Depth; ±15 PSI (1.25 cm; ±103 kPa). **Range:** 0 to 18″ Depth (0 to 45 cm); 0 to 1,000 PSI (0 to 7,000 kPa). **Resolution:** 1″ Depth; 5 PSI. **Power:** 2 AA batteries (included).

Field Scout Soil Compaction Meter	C	8.25 lbs.	**77048**
GPS Cable		3 oz.	**77348**



Soil Compaction Tester
3042

Test soil compaction down to subsoiling depths.

Long, stainless steel rod (with depth marks of 3″, 6″, 9″, 12″, 15″, and 18″) can be inserted to 24″, allowing you to test compaction levels as far down as subsoiling depths. **As you insert rod, compaction needle rotates within the stainless steel housing, indicating compaction levels in psi (in three ranges:** 0-200 psi, 200-300 psi and 300+ psi) along a color-coded dial. Incremental 3″ depth markings along shaft help you monitor and record changes in compaction levels at different depths. Features two interchangeable stainless steel tips (3/4″, 1/2″), and rugged, molded plastic housing/handle.

Soil Compaction Tester	E	5.25 lbs.	**77143** 2+

E English
M Metric
C Combination English and Metric

Forestry Suppliers Lang Penetrometer
3041

Measures soil compaction quickly, accurately, and conveniently.

Press probe into soil and read resistance to penetration expressed in pounds. Reads from 1 to 20 in unit increments and calibrates easily with adjustment at base of unit. Green Generation model features color-coded scale of recommended readings for the forest industry, agriculture, and turf managers and allows you to calculate soil compaction from 0 to 630.77 psi. Measures 18-3/4″ long.

Green Generation Model for Turf Managers		1.75 lbs.	E	**77108** 2+

Pocket Penetrometer
3044

Measures the compressive strength of soil easily.

Spring-operated penetrometer is used to measure compressive strength of soil by pushing a ground and polished 1/4″ diameter loading piston into soil to a depth of .25″. End area is .05 square inch. Compressive load in tons per square foot or kg per square cm is indicated by reading scale on piston barrel. Maximum reading reach is shown by friction ring. Made of anodized aluminum. Allen wrench and plastic carrying case with belt loop are included. 6-1/4″ Long.

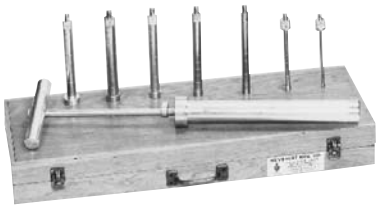
Pocket Penetrometer		5 oz.	C	**77114**
Adapter Foot for use in sensitive soils. 1″ Dia.		1 oz.		**77116**

BAP Equipment Ltd
www.bapequipment.com
Phone: 1-800-561-3600
Fax: 1-800-452-0881

H-4200

H-4200F

H-4205



H-4139

H-4212M

Soil Penetrometer, Pocket Type

Superior to others:
• Easy-to-read as a tire gauge • No little parts to come off & get lost
• Won't plug-up with soil & moisture to invalidate reading or rust spring

For use by field personnel to check visual classification of soils. Verifies whether excavation side walls require shoring, based on OSHA cohesive soils classifications (see chart). Indicates consistency, shear strength, and approximate unconfined shear strength. Direct-reading scale—in tons/sq ft, or kg/sq cm-corresponds to equivalent unconfined compressive strength. Range: 0 to 4.5 tons. High quality construction. Includes belt-loop style carrying case and operating instructions. Optional adapter foot. Should not replace laboratory testing or field analysis, or be used to produce foundation design data.

Description	Model
Pocket penetrometer.	H-4200

Penetrometer Adapter Foot

Adapter foot is recommended when testing extremely low strength cohesive soils. Foot is 1" (25mm) dia., compared to the 1/4" (6.35mm) penetrometer piston so the effective area of the piston is increased 16 times with the adapter foot. Divide by 16 to obtain correct unconfined compressive strength of material being tested when the reading in tons per square foot or kilograms per square centimeter is on the low-load side.

Description	Model
Penetrometer adapter foot.	H-4200F

Dial Pocket Penetrometer

A sophisticated pocket penetrometer offering greater capacity and sensitivity than others. Maximum value is retained on the dial until released via pushbutton. Inner dial scale 0 to 6.0, with 0.1 divisions in tsf and kg/cm2. Outer scale gives load strength over 0 to 11.0 with 0.1 divisions in tsf and kg/cm2. This reading is used with charts (included) to estimate safe bearing pressures, depending on plunger used and soil type. Values indicated relate to the standard 1/4" dia plunger. In addition, readings with four other included plungers (10, 15, 20, 25mm) indicate safe bearing pressures for foundations in consolidated soils over a range of sandy to clayey soil types. The 2.5" (63mm) dia dial can be easily recalibrated using register plates (included) and any readable scale of 10-15 lbs. capacity. Includes data tables, register plates, instructions, and carrying case.

Description	Model
Dial pocket penetrometer kit.	H-4205

Proctor Penetrometer Set

Establishes the moisture-penetration resistance relations of fine-grained soils. Includes these interchangeable needles (area in sq. in. or sq. cm): 1 (6.45), 3/4 (4.84), 1/2 (3.22), 1/3 (2.15), 1/5 (1.29), 1/10 (.65), 1/20 (0.32) 1/30 (0.22cm2) and 1/40 (0.16cm2). Replacement needles available. Meets ASTM D1558.

Description	Model
Proctor Penetrometer Set.	H-4139

Shipping wt. 17 lbs. (7.7kg).

Penetration Resistance Needles

Replacement interchangeable needles for H-4139 Proctor Penetrometer. Available as set or separately. Meet ASTM D1558.

Description, Replacement Parts & Accessories	Model
Replacement resistance needle set.	H-4143N
1 sq. in. (6.45 cm2) needle.	H-4143.1
3/4 sq. in. (4.84cm2) needle.	H-4143.75
1/2 sq. in. (3.22cm2) needle.	H-4143.50
1/3 sq. in. (1.29cm2) needle.	H-4143.33
1/5 sq. in (2.15cm2) needle.	H-4143.20
1/10 sq. in. (0.65cm2) needle.	H-4143.10
1/20 sq. in. (0.32cm2) needle.	H-4143.05
1/30 sq. in. (0.22cm2) needle.	H-4143.033
1/40 sq. in. (0.16cm2) needle.	H-4143.025

Torvane Shear Tester Set, Metal

Torvane rapidly measures approximate shear strength of cohesive soils in the field or laboratory. May be used for place testing of test pits or trenches, ends of thin-walled tube samples or with undisturbed samples with a flat 2" (51mm) dia. surface available. Dial range of 0-1.0x0.05kg/cm2 is read directly when using standard vane. Multiply readings by 0.2 and 2.5 ratiis when using large (sensitive) and small (high-capacity) vanes. Set includes driver, three vanes (standard, large and small) of different shear strength ranges and lightweight carrying case.

Description	Model
Torvane shear tester set.	H-4212M