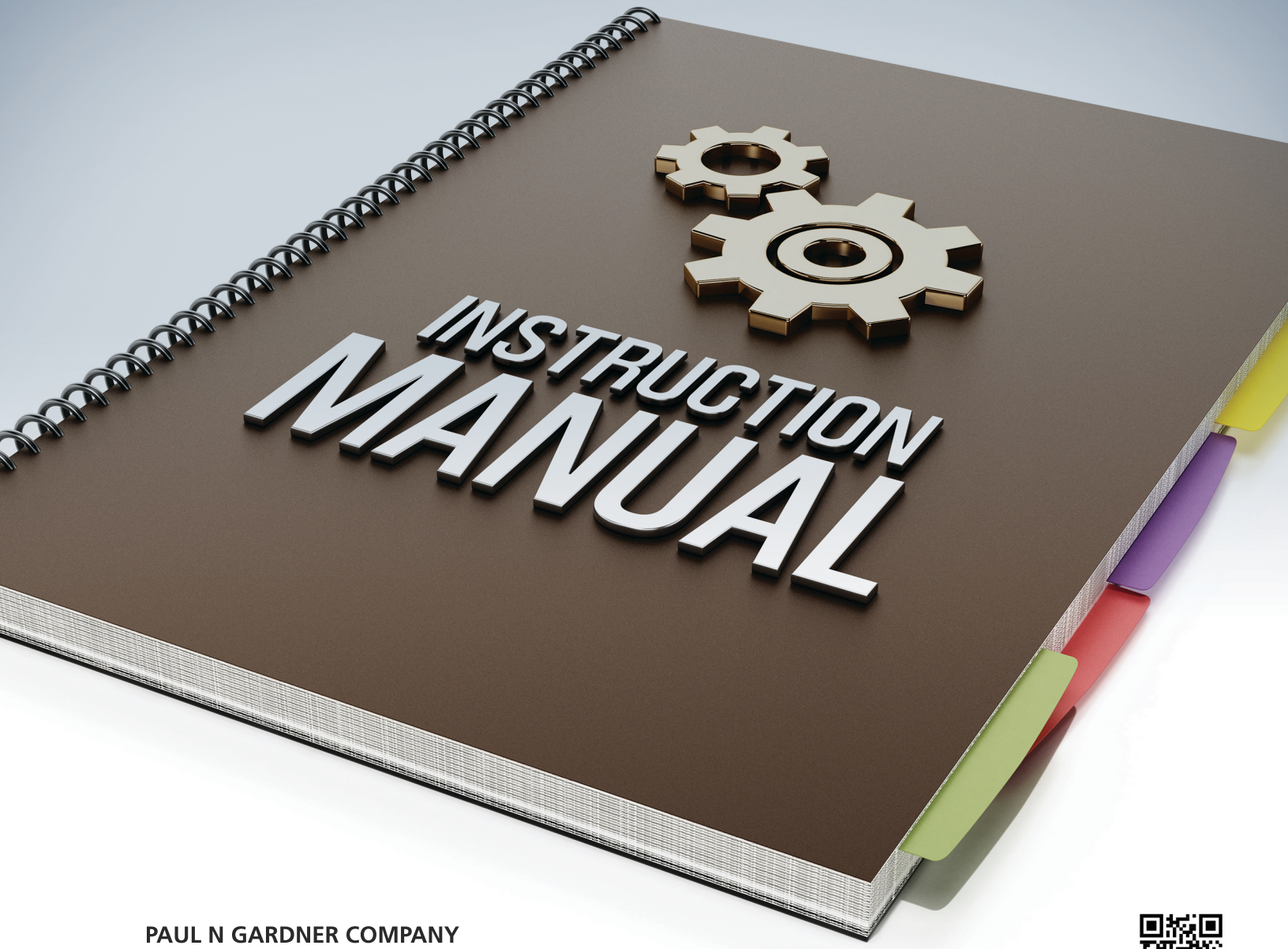

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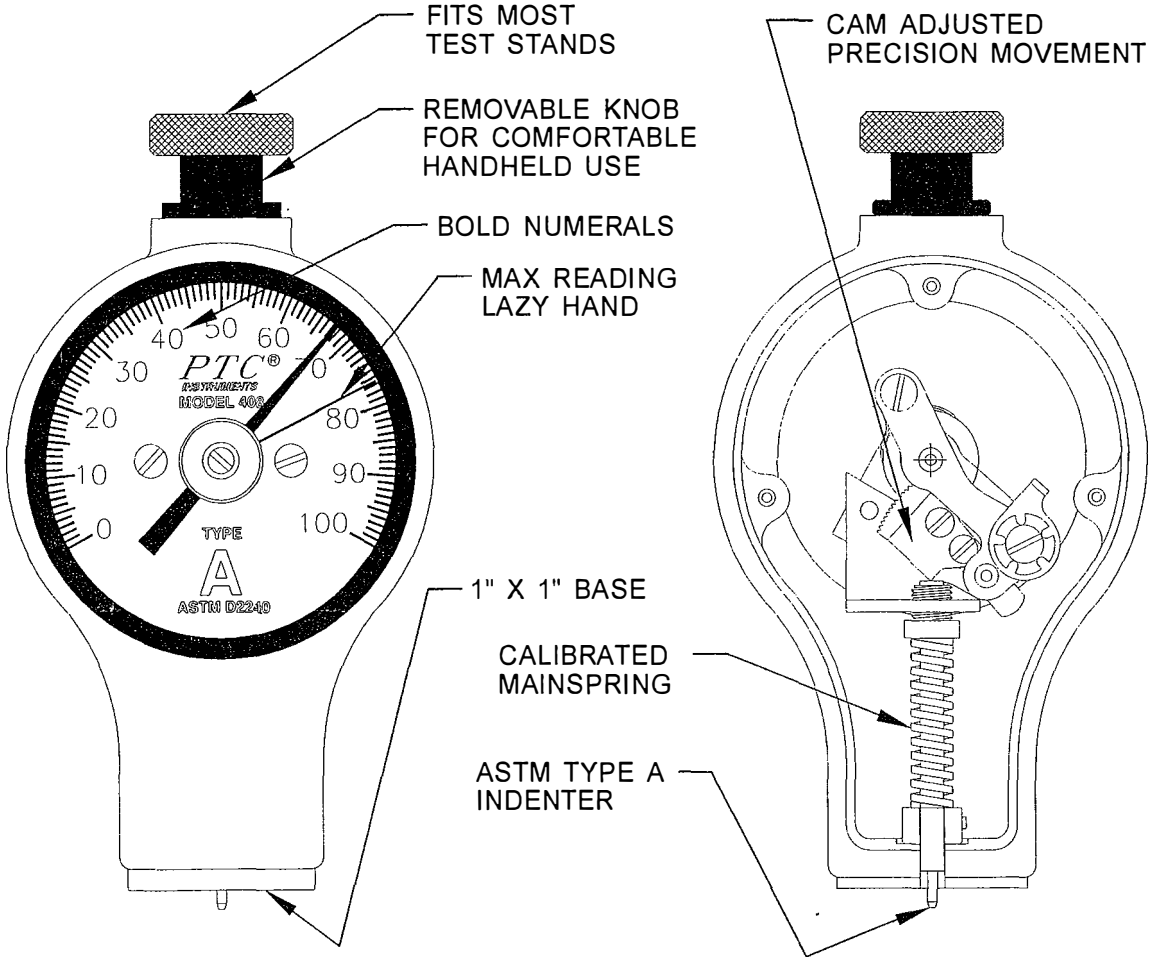
INSTRUCTIONS

GARDCO DISTRIBUTED PRODUCTS

GARDCO®

ASTM Type A Durometer



MODEL 408

- *Meets or exceeds current ASTM D2240 Specifications for Type A*
- *Base size of only 1" x 1"*
- *Easy to read 0 to 100 point dial*
- *Accuracy of ±1 point*
- *Max reading pointer standard*
- *Weighs only 6 oz. (170 g)*

Measure Indentation Hardness of:

Rubber, elastomers, neoprene, silicone, vinyl, butyl, and other rubberlike materials.

CERTIFICATION SERVICE

Durometers can be certified using standards traceable to NIST to ASTM D2240 Specifications. Calibration system is in accordance with MIL-STD-45662A.

OPERATING INSTRUCTIONS

The following procedures are based on ASTM Standard D2240. This standard is recognized as being definitive, however, not all applications require such stringent controls.

Readings below 10/A may be inexact and should not be reported for some materials. Readings above 90/A should be made on a Type D durometer.

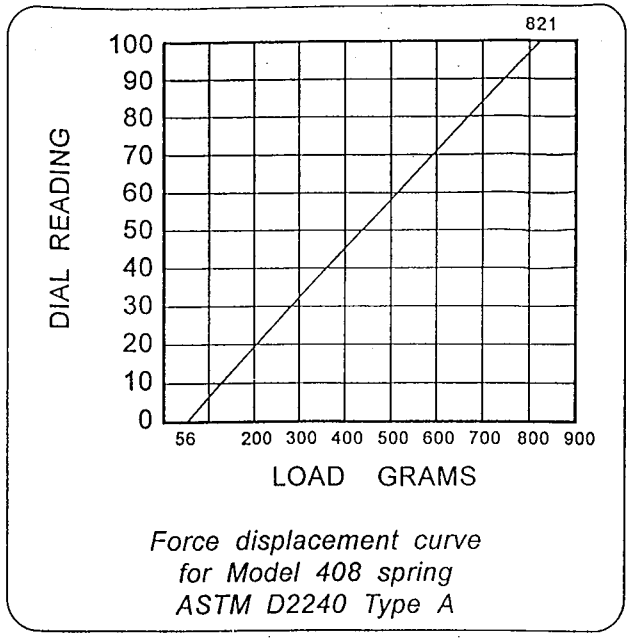
The surface of the sample to be tested shall be clean and smooth. The sample should be at least 1/4" (6 mm) in thickness unless it is known that identical results are obtained with a thinner specimen. Thinner materials can be stacked to obtain the minimum thickness (DO NOT GLUE). Such results may not agree exactly with those of a solid specimen. The sample should be large enough so that the indenter is at least 1/2" (12 mm) from any edge unless it is known that identical results are obtained when measurements are made closer to the edge. The surface of the specimen shall be flat over a sufficient area to permit the presser foot to contact the specimen over an area having a radius of at least 1/4" (6 mm) from the indenter point. The temperature of the specimen should be 73.4°F ±3.6°F (23°C ±2°C). The specimen should be allowed to rest at this temperature for at least 1 hour prior to testing, as the properties of most materials change with temperature.

Place the specimen on a hard, horizontal surface. Set the ancillary hand of the durometer below 5 points on the dial. Hold the durometer vertically with the point of the indenter at least 1/2" (12 mm) from any edge. Apply the presser foot to the specimen as rapidly as possible, without shock, keeping the foot parallel to the surface of the specimen. Apply just sufficient force to obtain firm contact between the presser foot and the specimen. Hold for 1 or 2 seconds, the maximum reading can be obtained from the ancillary hand. If other than a maximum reading is needed, hold the durometer in place without motion and obtain the reading after the required time interval. Make 5 tests at least 1/4" (6 mm) apart and use the average value.

GUARANTEE & CALIBRATION SERVICE

Pacific Transducer Corp. guarantees the workmanship and materials of these instruments for one year from date of purchase.

PTC® offers a free calibration check service on these instruments. This offer covers only a calibration check and should not be construed as replacement of parts or repairs. Return postage required.



Force displacement curve for Model 408 spring ASTM D2240 Type A

CALIBRATION CHECK

For a complete calibration check of mainspring and visual and mechanical check of indenter, the instrument should be returned to PTC® (see Guarantee & Calibration Service) or refer to ASTM D2240 Specifications. For a quick field check, follow the guidelines below. Under no circumstance should the check block be used as a standard to calibrate a durometer.

1. The pointer should read zero when no force is applied to the durometer of indenter.

2. Hand hold the 408 and insert the indenter into the hole of the calibrated check block. Apply enough force to make firm contact between the top surface of the check block and the presser foot. The dial reading should agree with the value stamped on the check block (±1 point).

3. The indenter must protrude 0.098 to 0.100 inches below the presser foot.

4. When the indenter is fully displaced the durometer should read 100 points.

CUSTOM DUROMETERS

For unusual materials or working conditions, custom durometers are often needed. PTC® can fill these needs with custom-designed and built instruments specially suited to the customer's needs. Custom force curves and special indenters are most often used to fill such requirements.

PTC®
INSTRUMENTS