Durometer Operating Stand 7000A
ASTM Type 2

Made In U.S.A.

Hydraulic Operating Test Stand #7000A

Mass for ASTM Type A, B, O, E and Asker Type C

Stand #7000A

The 7000A and 7000D durometer operating stands were engineered to fit all PTC® durometer styles.
The Classic Style and the Ergo Style mount right on the stand. For the *e*2000™ and Pencil Style Durometers, a small mounting knob is included.

Weight 36 lbs
Height 27 inches

- Hydraulically Controlled Rate of Descent
- Cam Actuated Raise and Lower
- Adjustable Specimen Support Table
- Eliminates User Error
- Increases Accuracy
- NIST Certification Included

After 2 years of extensive research and testing on medical grade silicone, PTC® has developed the first mechanical operating stand that delivers a load sufficient to overcome the spring force of the durometer smoothly and without shock in approximately 1 second from contact. Most other mechanical stands apply an increasing load over time which gives inconsistent and inaccurate readings. Since elastomeric materials creep over time, it is essential that the load be applied promptly.

This precisely engineered durometer stand has a hydraulic damper controlling the rate of descent smoothly, without jump or stutter. The unit is activated with a simple smooth lever control. This stand is designed for serious testing, eliminating operator variability and increased accuracy and repeatability. Whether in the lab or in a production environment you will get accurate and repeatable readings you can trust.

The specimen support table is adjusted to test materials of various thicknesses. An O-ring fixture can also be used when testing O-rings. Custom fixtures are also available, please contact PTC.®

This heavy duty stand features a solid base for stability and a one inch diameter Stainless Steel Precision Ground Support Shaft for accurate alignment. It will accommodate both standard and pencil length durometers. It is made with high precision components throughout. Including ball bearings, sintered bronze bushings and precision machined components.

The stand will accept sample materials up to 6” thick depending on the height of the durometer used. The overall working distance is 10" (25.4cm).

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Doc #2460

Durometer Operating Stand 7000A

Set-up and Operating Instructions

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Set Up Instructions

Carefully open the shipping carton and remove the durometer stand.
Set the stand upright on a solid flat surface.

Remove the 8-32 x 1 1/2” socket set screw and washer with the 9/64” hex key located above the oil chamber on the Horizontal Damper Bar.

Remove the four socket set screws ¼-20 x ¾” from the back of the horizontal damper bar with the 3/16” hex key.

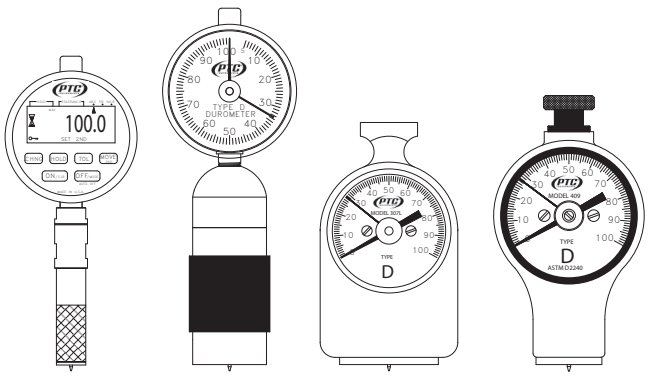
Lift the horizontal damper bar and remove the round gray plastic cylinder from the oil chamber shaft, saving it for the future.

Pull the handle forward lifting the durometer support. Holding the oil chamber shaft firmly with fingers, replace the 8-32 x 1 1/2” socket set screw and washer through the horizontal damper bar and screw back into the top of the oil chamber shaft. Finger tight only. Be sure to tighten enough to avoid any gap between the top of the oil chamber shaft and the bottom side of the horizontal damper bar.
Replace the four socket set screws ¼-20 x ¾” through the vertical back bar and into the rear of the horizontal damper bar.

The ¼-20 x ¾” screws should be snug. Do not overtighten. Save the plastic cylinder for shipping to avoid damage to the oil chamber and shaft assembly.

Included are a 9/64" and a 3/16" hex key and the mounting knob for the Pencil durometers and the 500 series. .

PTC® Durometer Styles



Pencil Digital or Analog | 500 Series Digital or Analog | Classic Style | Ergo Style

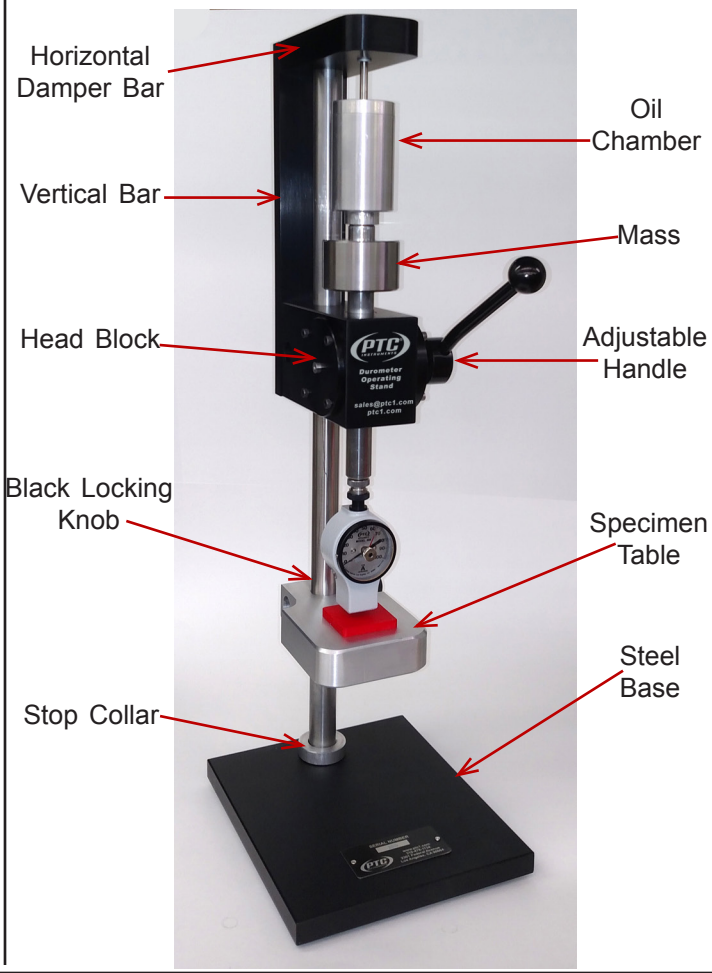
Operating Instructions

Lower the specimen table to the base by releasing the locking knob.

The lever should be in the forward position with the mass at its highest point.

Mount the durometer by gently threading it all the way on to the 8-32 threaded screw. Then turn the durometer counterclockwise until the durometer faces the operator. Gently snug the finger nut against the durometer to hold the durometer in place..

For the PTC® 200 and 500 series Durometers, remove the cap and attach the optional mounting knob to the threads on the top of the durometer if needed. Place the specimen on the table and raise the specimen and table to within 3/8” from the base of the durometer. Push the lever backwards gently and the durometer will descend at the controlled rate.



Durometer Operating Stand 7000A

Instructions for Swivel Head Adapter

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The instrument base should be level. Check with the bubble level provided. Adjust the work bench surface accordingly if it is not. Operating the instrument under adverse conditions will negatively affect the measurements.

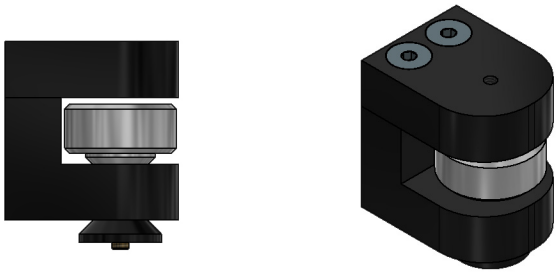
Lower the specimen table down and out of the way to prevent contact between the indenter and the specimen table.

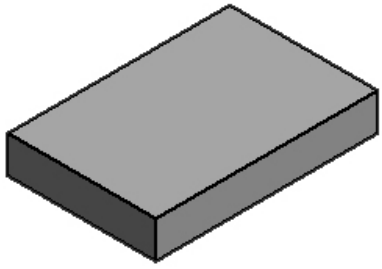
Mount the durometer on the swivel head adapter by gently threading it on the 8-32 treaded screw.

ASTM Type A, B, O or Asker Type C

The durometer presser foot to specimen table parallelism should be verified before testing. This may be accomplished by applying the durometer presser foot to the point of contact with the setting block on the specimen table and making adjustments by way of the swivel head adapter.

Swivel Head Adapter Part # 7000.9





Setting Block 1 1/2" x 1" Part #7000.97

To adjust the swivel head:

Place the setting block on the specimen table.

Position the Durometer within ¼ “of the setting block.

Release the operating handle allowing the durometer to settle on the setting block.

Move the durometer slightly for maximum reading
(99-100 durometer reading)

Lock the swivel head knob in place with the durometer seated on the setting block at the max reading.

Return the operating handle to the starting position.

Replace the setting block with your test specimen or re position the specimen table to accommodate the thickness of your test specimen.

Per ASTM D2240. The test specimen shall be at least 6.0 mm (0.24 in.) in thickness unless it is known that results equivalent to the 6.0-mm (0.24-in.) values are obtained with a thinner specimen.

A specimen may be composed of plied pieces to obtain the necessary thickness, but determinations made on such specimens may not agree with those made on solid specimens, as the surfaces of the plied specimens may not be in complete contact. The lateral dimensions of the specimen shall be sufficient to permit measurements at least 12.0 mm (0.48 in.) from any edge, unless it is known that identical results are obtained when measurements are made at a lesser distance from an edge.