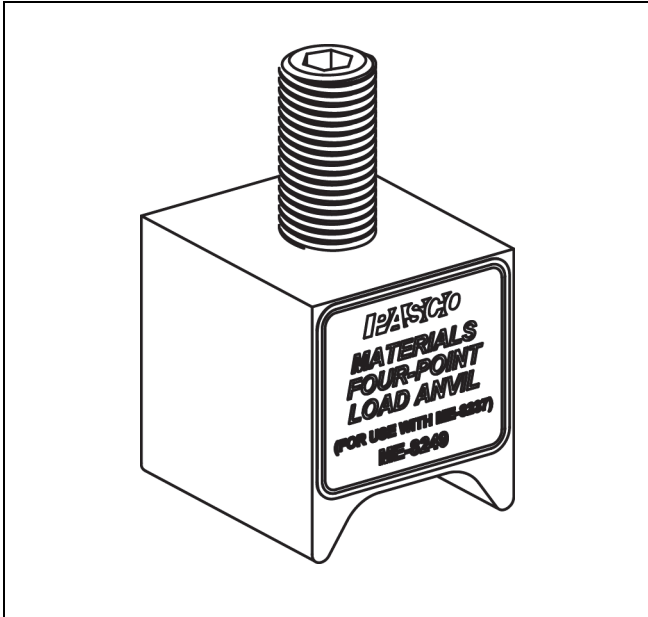


Materials Four-point Load Anvil

ME-8249

For Use with the Materials Bending Accessory (ME-8237)



Included Items

Materials Four-point Load Anvil

Required Item*

Materials Bending Accessory (ME-8237)

Recommended Items*

Materials Testing Machine (ME-8236)

Materials Shear Samples, set of 9 (ME-8240)

Cast Beam Spares (ME-6983)

Thin I-beam Members (ME-7012)

PASCO Data Collection System

*See the PASCO catalog or web site at
WWW.PASCO.COM

Introduction

The Materials Four-point Load Anvil is designed to work with the PASCO Materials Bending Accessory (ME-8237)

mounted on a Materials Testing Machine (ME-8236). All are part of the Comprehensive Materials Testing System (ME-8244). The Materials Testing Machine is a device for measuring force and displacement for various materials as the materials are stretched, compressed, sheared, or bent. The Materials Testing Machine has a built-in load cell (strain gauge transducer) capable of measuring up to 7100 newtons (N) of force (1600 pounds), and an optical encoder module that measures displacement of the load bar. Force data from the load cell and displacement data from the encoder module can be recorded, displayed, and analyzed with a PASCO Data Collection System.

Materials Four-point Load Anvil (ME-8249)

The Materials Four-point Load Anvil extends the capabilities of the Materials Bending Accessory. When used with the Bending Accessory and the Materials Testing Machine, data to find the flexural plastic modulus and the modulus of rupture of tested samples can be measured, recorded, and analyzed.

Operation

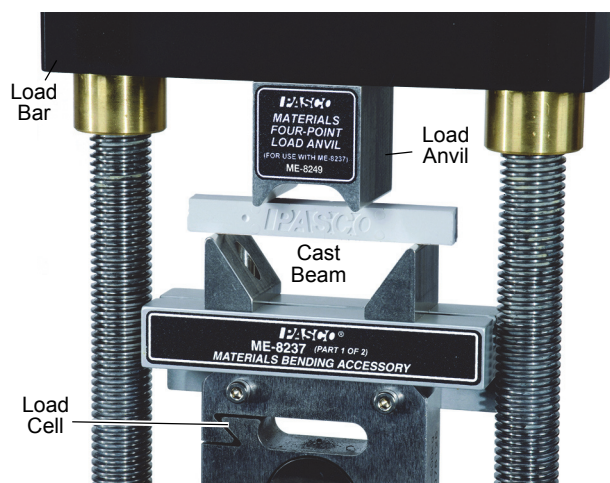
Basic operation involves mounting the item to be tested onto the Materials Testing Machine, connecting the Materials Testing Machine to an interface for data recording, and then turning the crank.

To mount the Four-point Load Anvil on the Load Bar of the Materials Testing Machine, insert the threaded rod of the Anvil upward through the hole in the Load Bar. Screw the Load Bar Sample Nut onto the threaded rod until the top flat surface of the Anvil is against the lower surface of the Load Bar.

For the Bending Accessory, use the included screws and wrench to mount the Support Anvils on the top of the Load Cell.

Turn the crank to raise the Load Bar and Four-point Anvil so that the sample to be tested can be placed on the two Support Anvils attached to the Load Cell.

Caution: Be sure to wear adequate eye protection when using the Materials Testing Machine or its accessories. Operate the System from behind a protective shield.



The illustration shows the Four-point Anvil in use with the Materials Bending Accessory and the Materials Testing Machine. The sample being tested is a model of a pre-stressed cast beam (from the Cast Beam Spares kit).

Attach the Safety Shields

Attach the safety shields that come with the Material Testing Machine. Match the Velcro® hook material on the two safety shields to the Velcro® loop material on the front and back of the Load Bar. Adjust the position of the shields so that they will block any fragments that may come from the sample.

Prepare to Record Data

Connect the sensor cable plug of the Materials Testing Machine into a PASPORT input port on a PASCO interface such as the USB Link.

Start the PASCO software and arrange a graph display of force versus position. Use the software to zero the two sensors of the Material Testing Machine.

Record Data

Start data recording in the software. Turn the crank in a counter-clockwise direction to apply a compression force on the sample being tested. Observe the graph display of force and position.

Experiment Guide

NOTE: An Experiment Guide in electronic format for the Materials Testing System is available to download from www.pasco.com.

Enter “Materials Testing System” in the Search window and look for the down-loadable file(s) under “User Resources”.

Other Equipment

Other accessories are available separately for the Material Testing Machine. Please see the PASCO web site at www.pasco.com for more information.

Technical Support

For assistance with any PASCO product, contact PASCO at:

Address: PASCO scientific
10101 Foothills Blvd.
Roseville, CA 95747-7100

Phone: +1 916-462-8384 (worldwide)
800-373-0300 (U.S.)

E-mail: support@pasco.com

Web www.pasco.com

For the latest information about the Materials Coupon Adapter, the Materials Testing System, or the replacement items and accessories, go to the PASCO web site at www.pasco.com and enter the model number or the model name in the search window.

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