



HM-2560A.3F

**Pneumatic Direct/Residual Shear Apparatus,  
 110/220 VAC 50/60Hz— HM-2560A.3F**

The Humboldt HM-2560A Direct/Residual Shear Apparatus utilizes the pneumatic loading concept for applying the vertical load to the sample. In doing so, this self-contained model eliminates the need for cumbersome loading weights used in dead weight-type systems.

The microprocessor-based system features a stepper motor drive system, large display, touch-sensitive keypad and forward/reverse travel limit switches. Through the use of a built-in 4-channel data acquisition system, the operator can preset the logging condition for the test.

Built to last in the harshest laboratory environments, the vertical/horizontal loading mechanism and shear box assembly are mounted on a 1.25" (30mm) thick solid aluminum base and heavy-gage enamel painted steel cabinet. The strain rods are manufactured from stainless steel and the shearbox carriage (water chamber) is constructed of anodized cast aluminum for corrosion resistance and long service life. The shearbox is constructed of anodized aluminum for light weight.

The HM-2560A is supplied complete with a 2,000 lbf (10kN) capacity load cell, 1" (25.4mm) horizontal strain transducer, 0.4" (10.2mm) vertical strain transducer and a built-in 4-channel

analog data acquisition system. Shearbox assemblies and related accessories are not included and must be ordered separately. Complies with ASTM D3080, AASHTO T236 and BS1377 standards.

**Features include:**

- Four channels with real-time data acquisition
- Backlit LCD display
- RS232 interface for computer or printer.
- Nonvolatile test data storage and instrument calibration
- Battery-backed real-time clock
- Auto conversation of instrument calibration between English or Imperial units and SI or metric units
- Test setup and selection via keypad
- Automatic triggering of test logging data
- View logged test data via the LCD display
- Logging rate as fast as 0.1 second/reading
- Humboldt HMTS, Basic, User-Defined Level software included for data acquisition