



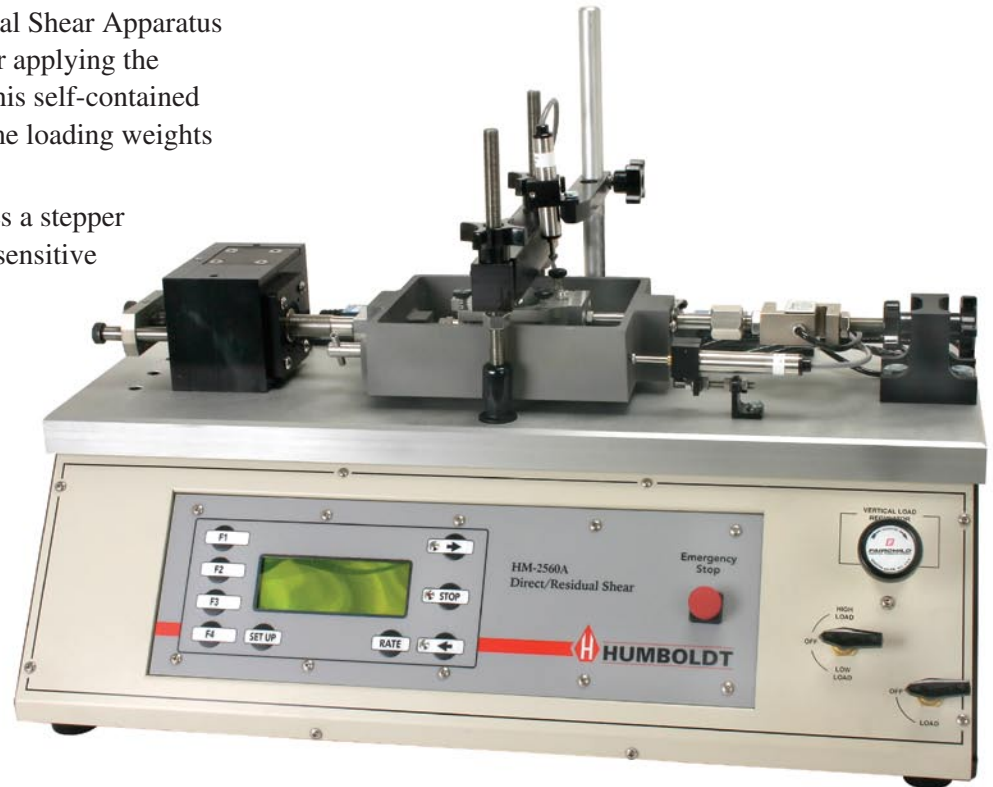
Pneumatic Direct/Residual Shear HM-2560A.3F

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 lb. (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. Meets ASTM D3080, AASHTO T236 and BS1377 standards.



Features include:

- Four channels with real-time data acquisition
- Backlit LCD display
- RS-232 interface for computer or printer.
- Nonvolatile test data storage and instrument calibration
- Battery-backed real-time clock
- Auto conversion 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
- Windows-based software included for viewing and exporting test data into an Excel-format file with plug and play features.



HUMBOLDT



Pneumatic Direct/Residual Shear

HM-2560.3F

Applicable Standards

ASTM: D3080
AASHTO: T236
BS 1377

Specifications

Mechanical:

Dimensions (l x w x h)..... 30 x 15.5 x 22 inch
(760 x 368 x 558mm)
Net Weight..... 140 lbs. (64Kg)
Shipping Weight..... 168 lbs. (760Kg)
Speed Range..... 0.000001 - 0.400000 inch/min
(0.000001 - 10.000000 mm/min)
Horizontal Movement 2 inch (50.4mm)
Vertical Load..... 2000 lbs. (10 KN)
Horizontal Shear Force..... 2000 lbs. (10 KN)

Electrical /Electronics

Voltage 110/220 VAC 50/60HZ
Current 8.5 Amps
Analogue to digital converter 16 Bit
Data storage..... 4000 Reading
Data collection rate..... 100 ms
Computer port RS232

Ordering Information

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

Includes:
HM-2560A—Users Manual;
HM-2300.020—Load Cell;
HM-2310.10—Horizontal Displacement;
HM-2310.04—Vertical Displacement;
HM-4170—Pressure Transducer for Applied Normal Force;
HM-2310BR—Bracket.

Optional:

HM-2700SW—Windows-based direct/residual shear PC program for data analysis

Shearbox Sizes and Accessories

Square

Sample Size	Shearbox	Cutter	Dolly/Tamper	Porous Plate
50mm	HM-2551.50S	HM-2702.50S	HM-2703.50S	HM-2704.50S
60mm	HM-2551.60S	HM-2702.60S	HM-2703.60S	HM-2704.60S
2.5"	HM-2551.25S	HM-2702.25S	HM-2703.25S	HM-2704.25S
4.0"	HM-2551.40S	HM-2702.40S	HM-2703.40S	HM-2704.40S

Round

Sample Size	Shearbox	Cutter	Dolly/Tamper	Porous Plate
50mm	HM-2551.50D	HM-2702.50D	HM-2703.50D	HM-2704.50D
60mm	HM-2551.60D	HM-2702.60D	HM-2703.60D	HM-2704.60D
2.0"	HM-2551.20D	HM-2702.20D	HM-2703.20D	HM-2704.20D
2.42"	HM-2551.24D	HM-2702.24D	HM-2703.24D	HM-2704.24D
2.5"	HM-2551.25D	HM-2702.20D	HM-2703.20D	HM-2704.20D
2.875"	HM-2551.2875D	HM-2702.2875D	HM-2703.2875D	HM-2704.2875D
4.0"	HM-2551.40D	HM-2702.40D	HM-2703.40D	HM-2704.40D

