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UNITED FOAM TESTER FEATURES AND SPECIFICATIONS

Data Acquisition & Control:

The Foam Tester incorporates a PC-compatible computer for data acquisition and machine control functions. As a minimum, the machine computer system features:

- Industrial-grade CPU for maximum performance in all operating environments
- Fast Intel® processor
- Large capacity, high-speed memory
- · High-capacity hard disk drive
- CD-RW (or Zip®) and floppy disk drives
- Large TFT flat-panel LCD monitor and video card
- Microsoft® Windows
- Mouse and keyboard
- USB, serial, and parallel ports
- Two SPC device ports (for use with United measurement tools)
- Two analog-to-digital converter channels (force and strain)

Additional Features Include:

- Standard foam test table, 24 inch x 24 inch, with 0.250-inch holes that are 0.750-inch apart.
- An 8-inch compression foot.
- Preload, Test, Stop, and Return operations initiated with one keystroke.
- Preload Force, Test Speed and Return Speed may be preset.
- JOG controls allow fast and accurate crosshead setup.
- Automatic Stop or Return following sample break.
- Graphic display in real time Load or Stress vs. Extension.
- Load measurement accuracy: ±0.5% of reading from 1% to 100% of rated capacity.
- Extension from crosshead: resolution = 0.12 micron/jaw separation. Accuracy = ±83 microns/meter of travel.
- Extension from extensometers: resolution = 1/262144 of full range. Accuracy per extensometer specifications.
- Standard system supports one load and one extensometer input channel. Additional channels are optional. Resolution: 20 bits binary. DSP filter standard. Conversion rate: 4096 Hz (standard), 8192 Hz (optional).
- Operator-selectable measurement units: English, Metric, SI or mixed.
- Operator may set any test speed within the capacity of the machine by keyboard entry.
- Twenty speeds may be preset by the operator for instant selection.
- Speeds may be selected "on the fly" with instant crosshead response.
- Limits programmable-position, load or strain.
- Cycle functions programmable-position, load or strain control.
- Area compensation can be turned on or off.
- Digital servo control system optical encoder, digital signal processor, solid-state amplifier.

Force Measurement System:

Accuracy: \pm the larger of 0.5% of reading or 0.005% of capacity.

Repeatability: ± the larger of 0.25% of reading or 0.005% of capacity.

Loadframe & Drive System Specifications:

Lateral Motion: ±0.25mm (0.01 inches) maximum over full

crosshead travel.

Speed Accuracy: ± 0.1 percent of set speed for all forces

within the capacity of the machine when averaged over the larger of 15 seconds or

50mm (2 inches).

Position Resolution: 0.192 µm (8 micro inches)

Position Accuracy: The greater of 0.025mm (0.001 inch) or

0.025% of movement.

Position Repeatability: ±0.005mm (0.0002 inch). Drive Resolution: Same as Position resolution.

Frame Stiffness: 15,000 lbs. (6786 Kg.)/inch deflection.

Speed Range: 0.001" to 40" (1,016mm)/min.

Maximum Capacity: 4.0kN (1000 lbs.)

Crosshead Travel (excluding load cell & fixtures): 30" (762mm)

Depth to Column: 18" (457.5mm)

Loadframe Dimensions:

Height: 62" (1,576mm) Width: 25" (635mm) Depth: 41" (1,042mm)

Weights:

Loadframe: 476 lbs. (216 Kg.) Computer System: 85 lbs. (38 Kg.)

Optional upgraded, customized, or "specific-brand" computer systems can also be provided to meet special application requirements or customer preference.