

# Precimar PLM-E

## Precision Length Measuring Machine

### DESCRIPTION

- The PLM-E precision length measuring machine is an Abbe compliant comparator mounted on highly homogeneous rigid granite in a horizontal configuration
- Sensitive adjustment in 5 axes, and object table with a loading capacity of 35 kg
- PC-based, multi-axis machine control, including PC workstation and 828 WIN "Free measurement" basic software
- Simple operating procedure by means of measuring force-adjusted and joystick-controlled measuring slides with progressive deflection characteristic and automatic contact detection
- Automatic detection of outside and inside measurements and computer-aided search for reversal points
- The motorized measuring slide allows for high travel speeds
- The CNC-controlled vertical and cross adjustment of the universal measuring table facilitates highly efficient measuring
- State-of-the-art machine control (MarEcon)
- Recording, processing, logging and transfer of measurement data via powerful software and menu-driven controls
- Software compensation of thermal dimensional deviations
- Very easy to set the measuring force using the software
- Aerostatic guides for all slides mounted on the machine bed ensure low measurement uncertainties
- Electronic generation of measuring force and automatic contacting
- Subjective influences largely eliminated and unintended collisions with the test piece avoided.
- Automatic bore and inner thread measurement
- Automatic TY adjustment: What's unique is that a manual TY-adjustment is still possible
- Motorized tilting axis (TB) for alignment. Alignment is carried out via the manual control panel or using the 828 WIN software.
- A factory calibration or DAkkS/ DKD calibration is available for the Precimar PLM-E



### TECHNICAL DATA

Type	PLM-E	PLM-E
Product name	PLM 600-E	PLM 1000-E
Direct measuring range [mm]	200	200
Measuring range for outer measurement [mm]	0 bis 600	0 to 1000
Measuring range for inner measurement [mm]	0.5 to 445	0.5 to 845
Measuring uncertainty $MPE_{E1}$ (L in mm) [μm]	$\leq (0.085 + L/1500)$	$\leq (0.085 + L/1500)$
Repeatability [μm]	$\leq 0.05$	$\leq 0.05$
Measuring forces [N]	0 to 13.9	0 to 13.9
Device length [mm]	1660	2110
Mass [kg]	480	535

\* Proof can be carried out at the Göttingen site if required

### APPLICATIONS

- Calibration of:
- Plain plug gages and gage rings
  - Setting gage rings
  - Snap gages
  - Spherical gage blocks, internal micrometers
  - Gage blocks
  - Thread gages
  - Taper thread gages
  - Gear gages
  - Dial indicators
  - Dial comparators
  - 2-point bore gages
  - Outside micrometers
  - 2-point inside micrometers
  - Precision length measurement
  - Measurement of thin-walled and deformed workpieces

### ACCESSORIES

- Large number of accessory kits and modular components for completing a wide variety of measuring tasks, including the measurement of:
- Thread gages
- Conical thread gages
- Gears
- Thread pitches



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