

# E460N

Tool Presetter



**NIKKEN**

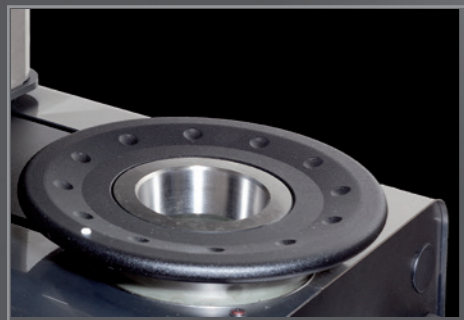




Manual axes movement. Axis unclamping by means of a single pneumatic control system. X and Z axes block management with control maximum speed of translation 2mm/sec.



Micrometric registration of X and Z axes by means of two wheels which are essential for the collimation of the measure both with a fixed target function and in self-collimation.



Interchangeable revolving spindle with mechanical rotation brake. Two preloaded ball cages allow a concentricity accuracy within 4 µm.



Base and column made of ground granite. The thermal inertia of this material allows the machine to be placed directly in the shop. Mechanical elements manufactured from stainless steel.

**NEW**

The latest design of the granite column has an increased section length of 600 mm.

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Camera system for measuring and inspection procedures. C-MOS sensor, punctiform and toroidal red light double illuminator. Telecentric optic system with low F/Number.



**NEW**

Large 15" touch screen for the best visualization of the tools and simple management functions to operate the measuring machine.



**NEW**

New electronic control: a powerful fanless PC with Linux operating system for the integrated management of the functions of measurement / inspection tools, machine origins and toolsets. Ease of use thanks to the integrated touch screen.

MECHANICS  
ELECTRONICS  
OPTICS  
SOFTWARE

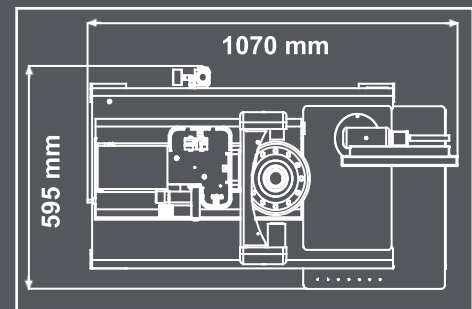
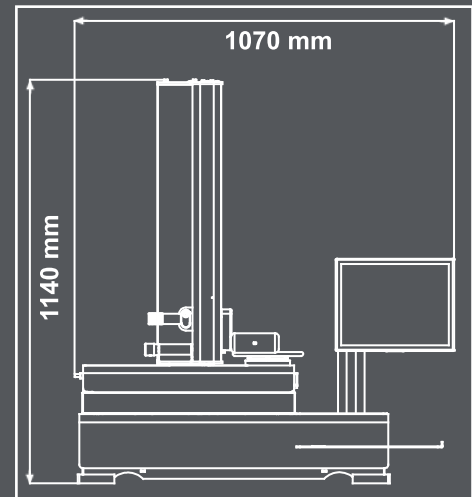
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## TECHNICAL FEATURES

- o Measuring range: diameter max 400 mm (radius 200 mm); height max 600 mm.
- o Machine structure in stainless-steel offering high mechanical resistance and long life.
- o Base and column made of natural granite: linearity max error 4  $\mu\text{m}/\text{Mt}$  certification with Taylor Hobson res.1  $\mu\text{m}/\text{Mt}$  electronic millesimal level.
- o ISO/BT/HSK/VDI ..... etc. Interchangeable rotating spindle-holder (to be specified) max run-out error < 4  $\mu\text{m}$ .
- o Double vault arc prismatic slideways: n°2 X axis slideways, n°1 Z axis slideway.
- o Double re-circulating ball bearing slides, lubricated for life (3) (preloading slides/slideways: P/H class).
- o Manual mechanical braking of the interchangeable spindle-holder rotation.
- o Constant load Archimedean spiral spring (as opposed a mass counter-balance system).
- o Vision-system for tool measuring and cutting inspection including:
  - C-MOS sensor - Framed image area 6,4 x 6,4 mm.
  - Magnifications about 30X.
  - Telecentric lens.
  - Doublet lenses at low F/Number in order to eliminate the error of the clearness circle.
  - Episcopic illuminator with ring lens and red leds; diasopic illuminator with red, puntiform light led.
- o Machine operator interface through:
  - TFT 15" colour Touch Screen.
  - Intel Atom D.C. fanless motherboard.
  - UBUNTU LINUX operating system.
  - Data storage on solid state disk SSD.
  - X and Z axes block management with control maximum speed of translation 2mm/sec.
- o Standard software:
  - CNC machine origin management and adapters.
  - Tool list creation and/or single tool.
  - TOOLINGUP to manage:
    - tools set and Post Processor universal generator;
    - magnetic chip code-holders (Balluff for example, hardware not included);
    - multi-cutting tools.
- o ELBO CONTROLLI Linear Transducers in optical glass type SLIDE 371 certified HP laser:
  - Axes resolution: X =1  $\mu\text{m}$ , Z= 1  $\mu\text{m}$ .
- o Anti-dust cover provided for when not in use.
- o Overall dimensions: Length = 1070mm, Height = 1140mm, Depth = 595 mm



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