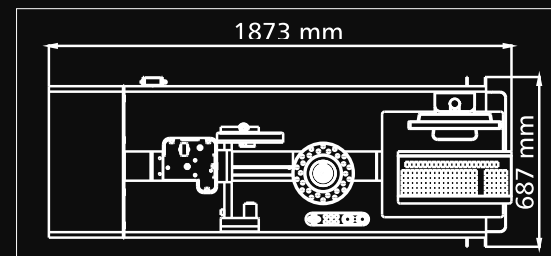
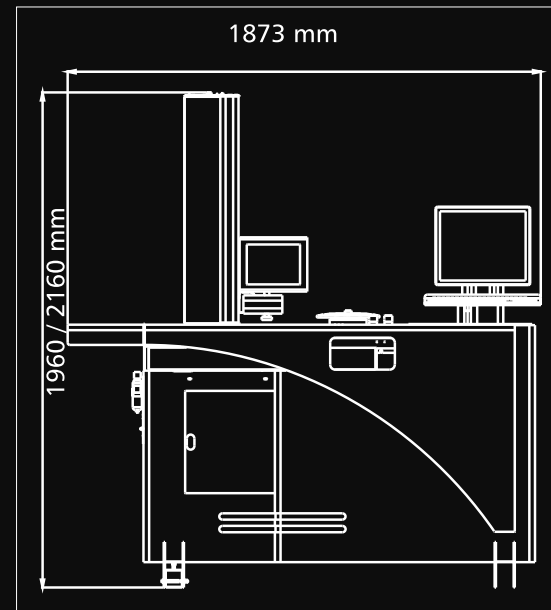


TECHNICAL FEATURES

- Measuring range: diameter max 600 mm (radius 300 mm); height max 600 mm; diameter max 600 mm (radius 300 mm); height max 800 mm.
- Machine structure in stainless steel offering high mechanical and long life, floor mounted with adjustable supports in non-deformable steel.
- Base and column made of natural granite: linearity max error $2 \mu\text{m}/\text{Mt}$ certification with Taylor Hobson res. $1 \mu\text{m}/\text{Mt}$ electronic millesimal level.
- ISO/BT/HSK/VDI/CAPTO etc. Interchangeable rotating spindle-holder (to be specified) max run-out error $< 2 \mu\text{m}$.
- Double vault arc prismatic slideways: n°2 X axis slideways, n°1 Z axis slideway.
- Double re-circulating ball bearing slides, lubricated for life - X axis=3, Z axis=2 - (preloading slides/slideways: P/H class).
- Spindle index in four angular positions: 0° - 90° - 180° - 270° .
- Universal mechanical tool clamping managed via software.
- Pneumatic-mechanical braking of the spindle-holder rotation with radial compensation of the clamping force: no axis angular run error.
- Constant load Archimedean spiral spring (as opposed to a mass counter-balance system).
- Double monitor to display the images and to manage the measurement functions:
 - Tool measurement and cutting-edge inspection:
 - 10.4" colour TFT screen, 35X magnification LVDS (on column support).
 - C-MOS sensor, 1.3 Mega pixels, USB connection, 2 High speed Area, 12.8 x 10 mm framed image (4 times bigger than standard values).
 - Measurement management and machine Operator interface:
 - SXGA TFT 19" colour LCD monitor (on machine base adjustable support).
 - Celeron M® processor on Industrial Main Board architecture.
 - LINUX operating system.
 - Keyboard and mouse.
- Standard software:
 - Tools set and Post Processor universal generator.
 - CNC machine origin management and adapters.
 - Creation of tool lists and/or individual tool, even with multiple cutting-edges.
 - Automatic change of CNC machine origin allocation.
 - Magnetic chip code-holder (Balluff for example, hardware not included).
 - Tool image shooting during the inspection and relevant storage in graphic format.
- Optical Equipment:
 - 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.
- ELBO CONTROLLI Linear Transducers in optical glass type SLIDE 371 certified HP laser:
 - Axes resolution: X = $1 \mu\text{m}$, Z = $1 \mu\text{m}$.
- Anti-dust cover provided for when not in use.
- Overall dimensions: L=1873 mm, H=1960 / 2160 mm, P=687 mm.



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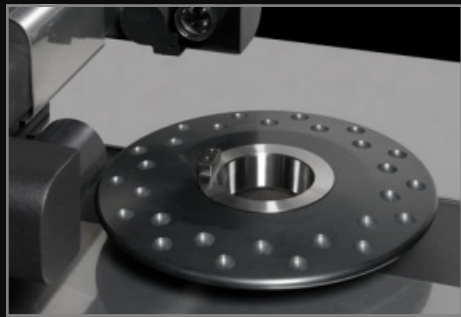
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SPECIFICATIONS SUBJECT CHANGE WITHOUT PRIOR NOTICE

Amon Ra



Tool Presetter



Interchangeable spindle-holder comprising only two parts. The system incorporates pneumatic preloading; this guarantees rotation concentricity accuracy smaller than $1 \mu\text{m}$, the design is patented.



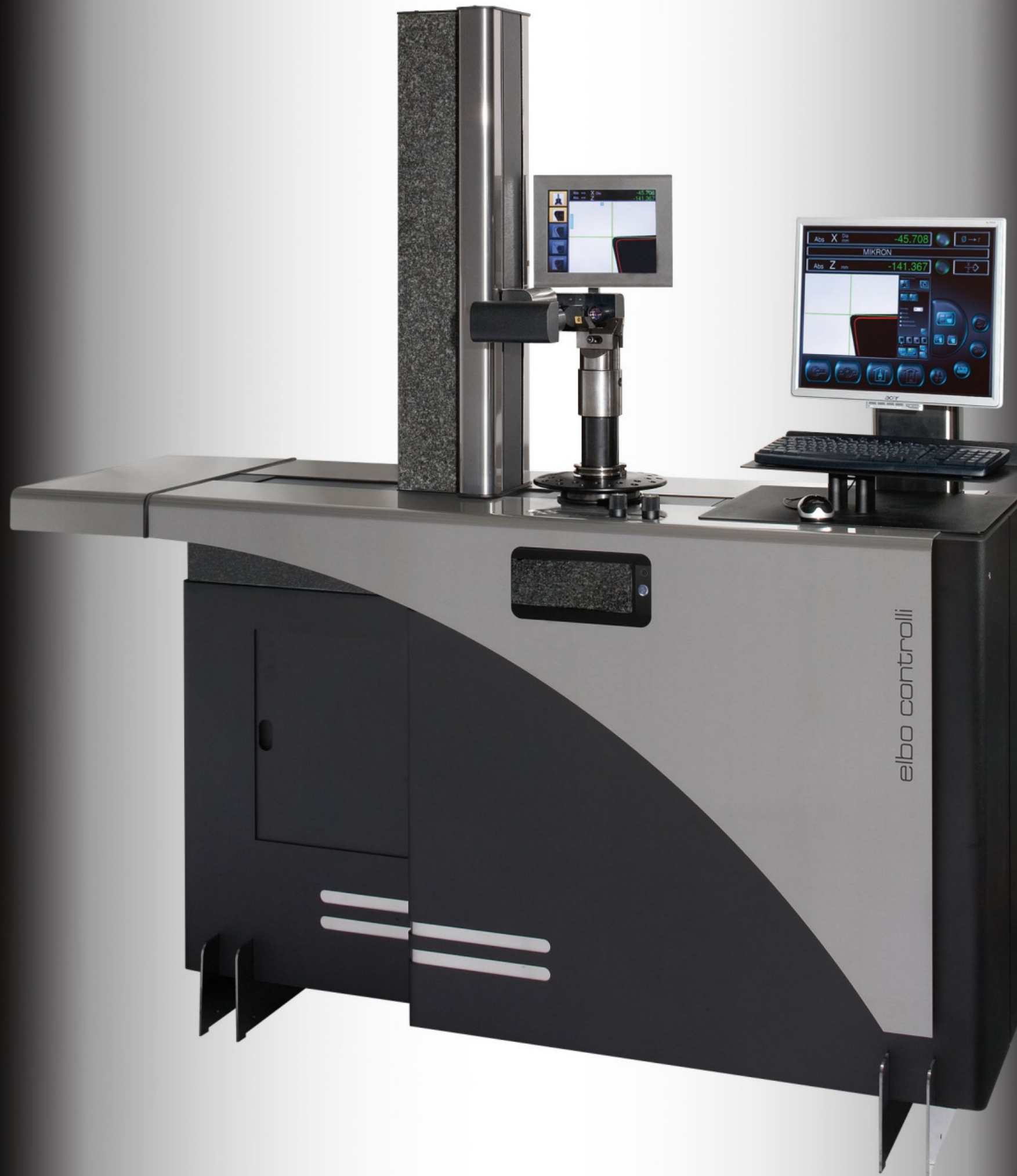
Machine operation panel with soft touch keys, micrometric wheels for precision axes repositioning within $0.8 \mu\text{m}$, and buttons for rapid movements: axes movement speed 2.5 m/min .



Option to take measurement references utilising fixed crosshair system to prevent the errors associated with optical deviations. These errors are typical on auto-collimation vision systems. The wheels assure 100% R&R.



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.



- The software includes 60 post-processors (ex. MAZAK, FANUC, SIEMENS, NUM, ...). Therefore, tool offsets can be exported in a simple, immediate and intuitive way. Thanks to a simple programming syntax, you can customise the format of the existing post-processors and create new ones.
- DXF graphic files can be superimposed in real time on the image of the tool to check its outline. In addition, you can capture the whole profile of the tool, even by adding up several partial images, to export it as DXF format, which is compatible with all CAD systems.
- The system also includes an innovative measurement function for the tools that are assembled in "angular heads": by setting or measuring the inclination angle of the angular head, the software can calculate the radius/diameter of the tool, as well as the coordinates of the axis rotation centre.

MECHANICS
ELECTRONICS
OPTICS
SOFTWARE

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