

elbo controllli 

Amon Ra

TOOL PRESETTER

Advanced Large Capacity, Measure & Inspect
Floor Model



- ▶ Larger capacity to handle bigger and heavier tools
- ▶ Patented spindle system with double-ball, high-precision spindle designed to allow for the lowest rotation inaccuracies with run out errors close to zero
- ▶ Automatic tool clamping
- ▶ Elbo Controlli proprietary high resolution vision system
- ▶ Elbo Controlli designed optical scales and slideways guarantees the highest degree of accuracy
- ▶ Can store unlimited NC machine specifications and tool sets
- ▶ Innovative measurement function for angle head tools
- ▶ Q-Presetter TDM Software for basic tool measurement, inspection, and label printing to high end networking integration, geometric scanning and tool DXF profile acquisition



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PATENTED SPINDLE

Double-ball, high-precision spindle designed to allow for the lowest rotation inaccuracies with run out errors close to zero. Elbo Controlli's state-of-the-art spring system produces a preloading between the two taper seats, resulting in perfect concentricity between the fixed preset machine spindle and the interchangeable tool spindle holder.

The spindle is also equipped with Elbo Controlli's patented universal shank locking system, rotation brake, and optional angular index.



ERGONOMICALLY DESIGNED CONTROL

Ergonomically designed micrometric pneumatic controls for rapid X and Z axes allows for precise and smooth fixed-target and auto adjustments. The operator can move the axis simultaneously or independently.



MANUAL ADJUSTMENTS

Manual, real time crosshair measurement adjustment option to prevent errors associated with auto-adjustment only vision systems.



AMON RA CONSTRUCTION

Floor Model
Natural Granite Base & Column
Stainless Steel Mechanical Elements
Dimensions - Z 600 - 1,873mm L x 687mm D x 1,960mm H
Z 800 - 1,873mm L x 687mm D x 2,160mm H
Weight Z 600 - 300 Kg / 660 lbs / Z 800 - 310 Kg / 682 lbs

AXIS MOVEMENT

X Axis (Radial) = 300mm (11.81in)
Z Axis = 600mm (23.6in) or 800mm (31.50in) Max.
Resolution X & Z Axis - 1 μ m
Double Pneumatic Axis Clamping
Servo Motor Rapid & Fine Adjustment Movement

SPINDLE

Interchangeable ISO40 or 50 for Different Tapers
Optional Interchangeable Holders Available - HSK, VDI, Capto
Pneumatic Mechanical Brakes with Radial Compensation of Clamping Force
Concentricity - 2 μ m
Maximum Tool Weight 50kg / 110 lbs.
Tool Clamping - Automatic Pull-Stud Recognition

OPERATING SYSTEM

19" Color TFT Saga Monitor / Keyboard / Mouse
Celeron M Processor
Connectivity - 1 USB / 10/100 Ethernet Card / Integrated Wireless (WiFi)
Ubuntu LINUX
Printer Support
Capable of Storing Unlimited Machine Origins & Tool Specifications

CAPABILITIES

Optical Autofocus to determine largest and widest X + Z dimensions
Measure radial and axial runout
Measure - Full Screen Auto Targeting
Measure - X&Z Axis Focusing Control Bar
Measure - Automatic Radius & Angle Computing Cycle
Measure - Radius/Diameter, MM/Inches, Absolute/Incremental Modes
Measure - Analog & Digital Visualization
Measure - Tool Profile Photograph - Difference Between Cutting Edges Measured Immediately
Inspection - 4 Color Tool Inspection

VISION SYSTEM

Telecentric Lens for Accurate Dimensional Measurements / 1.3 Mega Pixel / C-MOS Image Sensor with 0.001mm resolution
Cutting Edge Inspection for wear and tear
Episcopic Illuminator to Best Expose Tool Surfaces for Inspection
10.4" Color LCD Display Screen / 35x Magnification / 1280 x 1024 Resolution

TOOLINGUP SOFTWARE

Tool List Management / Tool Sets & Post Processor Universal Generator
CNC Machine Origin Management
RFID Tool Detection Designed for Systems Like Balluff, etc.
Import & Display DXF Drawings / Capture Tool Profile & Export in DXF Format
Free software upgrades



Q-Presetter TDM Software with Elbo Controlli Realized Vision System

Q-Presetter Tool Data Management Software performs basic tool measurement, inspection, and label printing to high end networking integration, geometric scanning and tool DXF profile acquisition.

DXF graphic files can be superimposed in real time to check the tool's outline. In addition, whole tool profiles can be captured, and exported in DXF format compatible with all CAD systems.

The system also includes an innovative measurement function for angle head tools. By simply setting and measuring the inclination angle of the angular head tools, the Q-Presetter Software can calculate the radius / diameter of the tool, as well as coordinate the axis rotation center.

Elbo Controlli's Q-Presetter Tool Data Management Software utilizes a high resolution 1.3 mega pixel C-MOS image sensor, a regulated LED doubling lighting system for episcopal inspection, and telecentric lens for maximum magnification. For utmost stability and flexibility, the complete Elbo Controlli system is operated using Ubuntu LINUX.

**MECHANICS
ELECTRONICS
OPTICS
SOFTWARE**
by

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