

 **KOMMA**



**E46LA**

elbo controlli 





## KOMA PRECISION

For over thirty years Koma Precision has been the foremost source for the finest the world has to offer in machine tool Productivity Innovation.

With over 30,000 rotary table installations, Koma is the largest distributor of Tsudakoma NC rotary tables and indexers in the world. With over 12,000 angle heads and live tools installed, Koma is the world's largest supplier for Alberti - the originator and the foremost innovator of productivity tooling.



# E46LA

ADVANCED LARGE CAPACITY. TWIN CAMERAS. FLOOR MODEL.

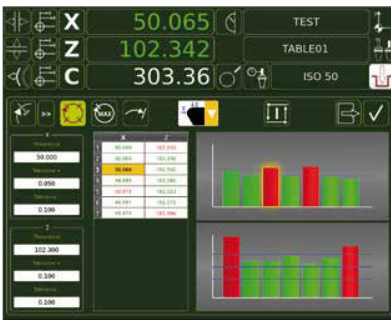




## *Autofocus*



Autofocus function: automatic search and measurement for single edged tools. Possibility to acquire X, Z or both values with recognition of whether the measured values are out of tolerance. Absolute maximum searching with complete revolution of the spindle.



Multi edged cutter acquisition cycle: automatic recognition and measurement of each single cutting edge detected during a complete revolution of the spindle. Results are quickly visualized in a graphical format for a quick consultation or print. Possibility to select single measurement for direct positioning on the selected cutter.



DXF profile creation function: automatic rotation of the tool to memorize the geometry developed and built up during full spindle rotation to automatically generate a DXF drawing. Index function, 4 fixed position at 90°, with automatic positioning.

## FEATURES

### E46LA CONSTRUCTION

Integrated Stand with Natural Granite Base & Column  
Stainless Steel Mechanical Elements  
Dimensions 1,282mm L x 672mm D x 1,874mm H  
Weight 270Kg

### AXIS MOVEMENT

X Axis (Radial) = 200mm / 7.87in  
X Axis (Diameter) = 400mm / 15.75in  
Z Axis = 600mm / 23.62in  
Axis Resolution X = 1  $\mu$ m, Z = 1  $\mu$ m

### SPINDLE

Spindle-holder identification system  
Interchangeable rotating spindle-holder (to be selected) max run-out error < 2 $\mu$ m  
C Axis display spindle body and spindle-holder  
Spindle index in four angular positions: 0° -90° -180° -270°

### OPERATING SYSTEM

Full HD LCD 22" colour Touch Screen monitor  
Intel I3 Quad Core Processor  
UBUNTU 14.04 LTS LINUX operating system  
X and Z axes lock management for a translation speed lower than 2 mm/sec  
Data storage on solid state disk SSD  
1 Network LAN port

### CAPABILITIES

Measuring range: diameter max 400 mm (radius 200 mm); height max 600 mm  
AutoFocus function: automatic search & measurement for single edged tools.  
Powerful PC running Ubuntu 14,04 LTS for the integrated management and control of all the functions of measurement/tool inspection  
Universal electro-mechanical tool clamping  
Multi edged cutter acquisition cycle  
Multi measurement directly on the screen  
Fully customizable tool tables to handle all measurements and tool features

### VISION SYSTEM

C-MOS sensor - Framed image area 10 x 10mm.  
Bi-telecentric lens  
26X Magnification  
Optical doublets at low F/Number to eliminate error

### PRESETTER SOFTWARE

Tool List Management / Tool Sets & Post / Tool Graphics Processor Universal Generator  
Printable tool set report  
Theoretical measurements and tolerances management.  
Automatic change of CNC machine origin allocation  
Spindle Identification System



### PRECISION SPINDLE SYSTEM

Fully interchangeable precision spindle system with cartridges available for all types of machine tapers: CAT, ISO, BT, HSK, CAPTO, VDI One-piece cartridge eliminates the need for adapters and the errors associated with their use. Elbo Controlli's patented Spindle-holder identification system (SP-ID) with NFC technology automatically identifies the spindle holder in the presetting machine.

### NATURAL GRANITE

All Elbo Controlli tool presetters utilize natural granite for the column and base to insure the best thermal stability. Larger granite base for increased accuracy and rigidity.

### ERGONOMICALLY DESIGNED CONTROLS

Ergonomically designed micrometric hand wheels. Micrometric Adjustments - 2 fine adjustment hand wheels for the X and 1 fine adjustment hand wheel for the Z axis. Precise and smooth fixed-target and auto adjustment measurements. The axis can be moved simultaneously or independently.

### SOFTWARE

Also included is DNC Connection software that allows the transfer of the tool offset data directly into the tool table of the numerical control (depending on CNC controller capabilities)

### USER FRIENDLY INTERFACE

Ergonomic design combined with a 22" HD Color LCD Touch Screen. This system provides full operator control and selection of options and functions with simplicity that is second to none. Unit comes standard with 2 graphical icon layouts. ISO 7000 or Elbo Controlli's Graphical Interface.

### SLIDEWAYS / OPTICAL SCALES

Elbo Controlli designed optical scales incorporated with a double rail system for the X axis movement with 3 double recirculating ball bearing sliding block grant the highest degree of accuracy. Both X & Z axes have a resolution of 1  $\mu$ m.

### PROPRIETARY VISION SYSTEM

High resolution camera system utilizing Elbo Controlli's realized technology. The double lit, variable LED arrangement in combination with a C-MOS sensor and telecentric lens produces the most accurate lighting system available. The new E46LTW is equipped with 3 cameras for the front view and side view of the tool. The system allows tool manufacturers and tool regrinders to measure all the geometrical features of the tool.





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