



ABOUT US



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.



NEW AUTOFOCUS FUNCTION



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

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 = 600 mm / 23.62 in

Axis Resolution $X = 1 \mu m$, $Z = 1 \mu m$

SPINDLE

Spindle-holder identification system

Interchangeable rotating spindle-holder (to be selected) max runout 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

 \boldsymbol{X} and \boldsymbol{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 $10\,\mathrm{x}\ 10\mathrm{mm}$.

Bi-telecentric lens

26X Magnification

Optical doublets at low F/Number to eliminate error

PRESETTER SOFTWARE

 ${\it Tool List Management/Tool Sets \& Post/Tool Graphics Processor Universal Generator}$

Printable tool set report

Theoretical measurements and tolerances management.

Automatic change of CNC machine origin allocation

Spindle Identification System

FEATURES











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. Our Spindle-holder identification system (SP-ID) with NFC technology automatically identifies the spindle holder in the presetting machine.

NATURAL GRANITE

Our 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 our Graphical Interface.

SLIDEWAYS / OPTICAL SCALES

Custom 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 μm .

PROPRIETARY VISION SYSTEM

High resolution camera system utilizing our 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

The new E46LIW 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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