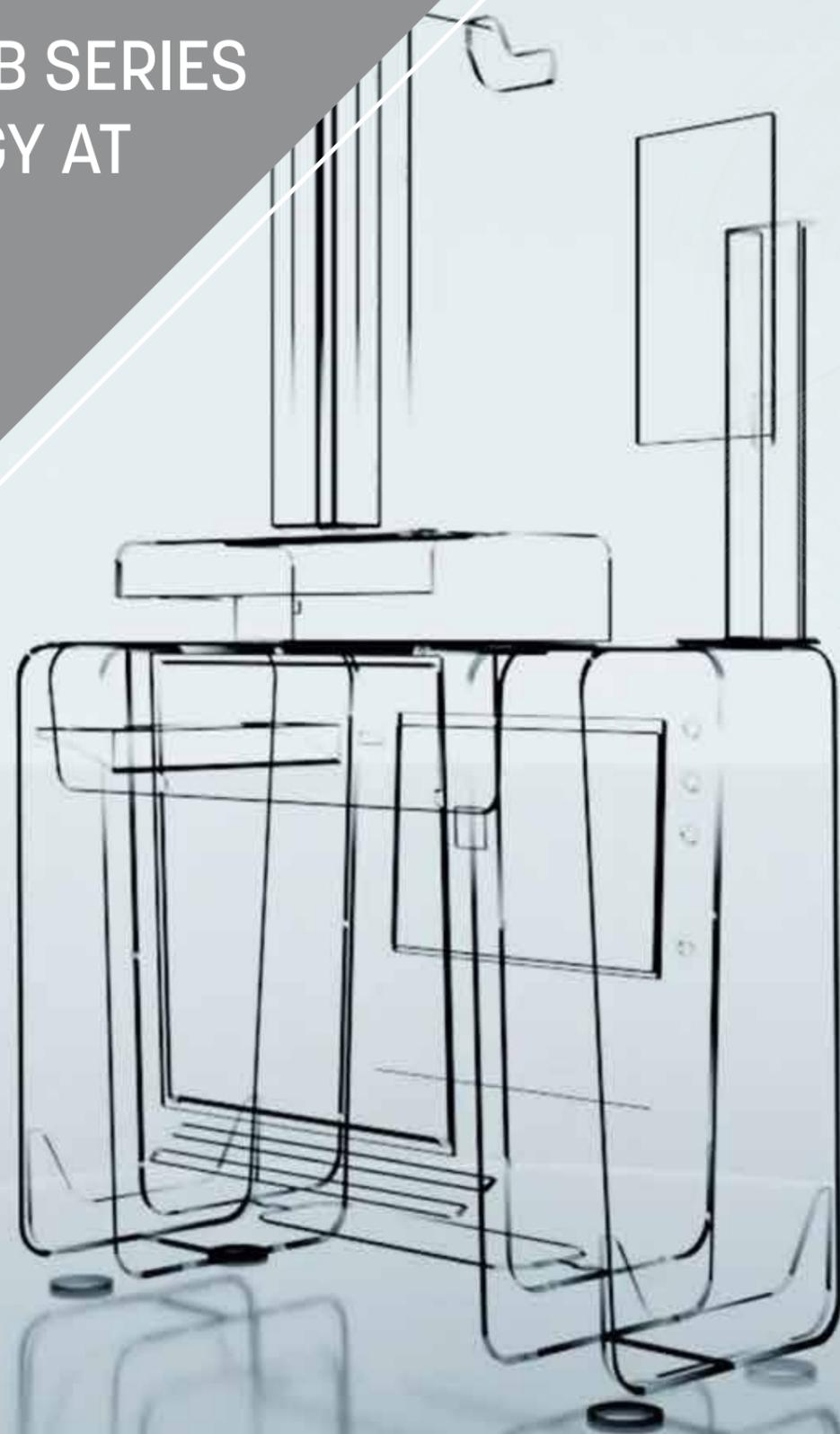


NEW E46B SERIES TECHNOLOGY AT YOUR SERVICE

The new E46B presetter series allow you to optimize the machine tools setup, reducing downtime in your workshop.

Thanks to continuous research and development of new technical solutions, we are able to offer a unique and cutting-edge product: mechanics, electronics, optics and software are completely developed by our team of technicians, to make the presetting experience simple and intuitive.

The new presetter generation is waiting for you!
Elbo Controlli NIKKEN: presetting experience for over 40 years!



The tool pre-registration, measurement and inspection machine is an indispensable and necessary tool for any type of workshop and for any type of application, from automotive to aerospace, oil & gas, etc.

Why use a presetting machine in a mechanical workshop?

The big advantage of using an Elbo Controlli NIKKEN presetter external to the machines lies in the fact that, during the machining of a piece, all the tools for subsequent machining are previously measured, with a significant saving of time during machine downtime. Furthermore, it reduces the possibility of human error with serious consequences during the processing of the pieces.

But the advantages don't end there. The objectivity of the measurement is essential when working in a shared environment, where the presetting operation is carried out by multiple people.

**Objectivity is important, as is the precision of the measurement.
Trust the presetting experts!**

THE IMPORTANCE OF OBJECTIVITY IN MEASUREMENT



THE BEATING HEART OF THE PRESETTER IS ITS MECHANICS

The E46B presetter series have been designed and built with superior quality components, dedicated to this specific application: presetting, measuring and inspecting a tool.

The new AS371 optical scales model allow for high and precise performance. The development of this essential component is given by forty years of experience in the field of measurement in the mechanical sector.



We have dedicated a lot of attention to the development of the spindle holders, a fundamental element for a successful measurement.

All our spindle holders are interchangeable, avoiding the use of adapters so as not to introduce coupling errors.

NATURAL GRANITE IS OUR TRADEMARK

Natural granite is one of the natural materials with the lowest coefficient of thermal expansion in the world, a very important peculiarity when it comes to measurement.

For over 30 years we have been using granite for the base and the column: in fact, it allows our presetters to have a high degree of dimensional stability, guaranteeing precision and repeatability of measurements.

When granite makes the difference!

VERTICAL MONITOR IMPROVES THE WAY YOU VIEW DATA



The lives of all of us have completely changed thanks to technology. New technologies have advanced at an ever-increasing pace and have begun to be part of our daily lives.

E46B is equipped with a 15.6" vertical capacitive touchscreen monitor, positioned vertically for better viewing of both data and measurement functions.



RESEARCH AND ATTENTION TO DETAIL OFFER UNIQUE PRODUCTS

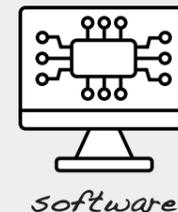
Measuring a tool is a simple and fast operation thanks to a high-performance vision system. The E46B presetter series are equipped with bi-telecentric optics with 18X magnification and up to 4X digital zoom to give you the ultimate viewing experience.

The latest electronics generation have allowed the performance of the presetter to be significantly increased. The quality of the measurement is essential for us.

The importance of choosing the right monitor goes beyond its intended use: a good monitor must be able to meet the needs of every type of user.

Prioritizing comfort and practicality, **our monitor balances ergonomics and performance**, guaranteeing a unique presetting experience..

The images of the tool profiles are visible on the upper half, while all the tool data and software functions are positioned on the lower half.

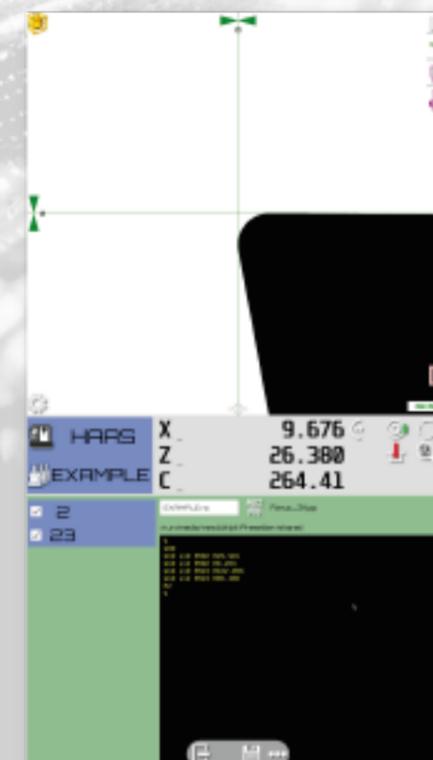
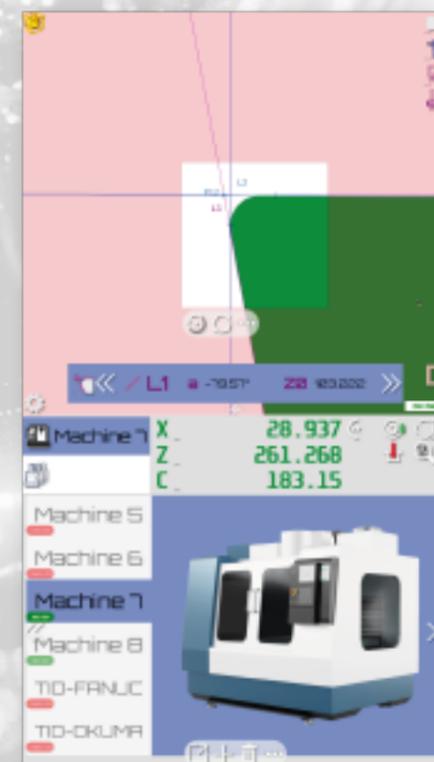
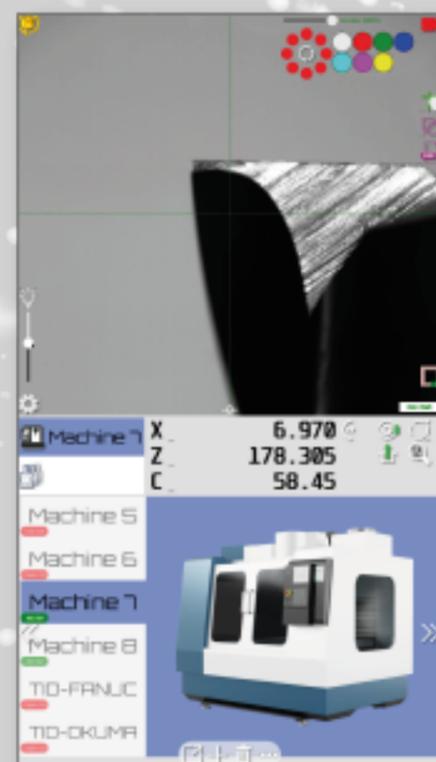
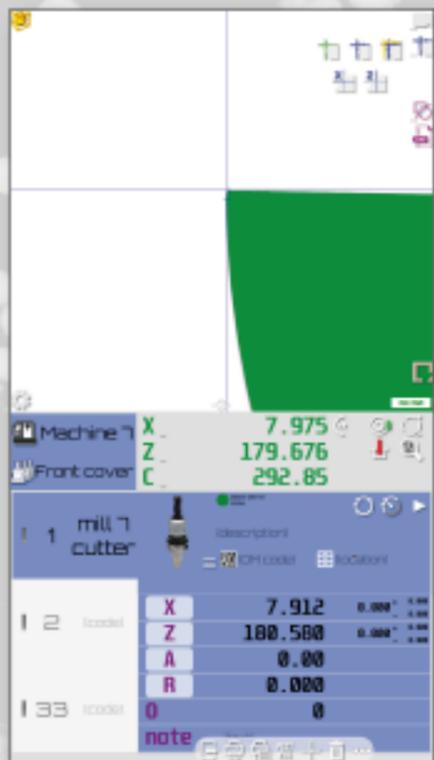


THE EVOLUTION OF THE PRESETTER IS ITS SOFTWARE

The new machine software guarantees high performance: it is the heart of innovation in our world, especially that which looks to evolution.

The evolution of our software increases the connections between operators, tools and machines in the smart factory. All this translates into a real increase in terms of quality and performance.

But what can you do with the new software? All the "traditional" functions are present, such as measurement via fixed reticule, autotargeting or autotargeting function with dimension freeze, tool inspection, creation of post-processors and much more.



What is the most important feature of this new software? The new graphic interface is in line with the company philosophy: making the use of the presetting as simple as possible. Smartphone-type usability has allowed us to develop easy and intuitive software: scroll the pages from left to right and vice versa with a simple movement of your fingers on the screen, hold down an icon to open the submenu, manage and customize the monitor spaces according to your needs. **Limits are made to be overcome!** Discover all the power of this incredible software!

We at Elbo Controlli NIKKEN believe in ease of use: the interface is designed to be immediately understandable for every user, even the less experienced one.

Usability is one of the quality factors of our software and it can be said that, together with functionality, it can be considered one of the two pillars on which the other quality factors are based.

EASE OF USE IS THE WINNING WEAPON

Thanks to the experience gained over the years, we have identified what the characteristics must be to make a software easy and intuitive.

Design is user-centered: by this we mean the inclusion of the future user in the entire development process.

Why complicate your life with complex software?

The new user interface derives from smartphone technology, making the software more "familiar". **Seeing is believing.**



AUTOFOCUS FUNCTION: NO MEASUREMENT ERRORS

IE46B

In an industry where automation becomes a constant request a presetter with that provided an autofocus capability becomes a necessity.

This mode is recommended for those who need to carry measurements on multi-edged tools which would be very long if carried out manually and, above all, which reduces the risk of human error to a minimum.

It is very important for us to patent the innovative technological solutions that we study and develop for our products. Through patents we are able to enhance our products which reflect Elbo Controlli NIKKEN's cutting-edge level of technology and proposed solutions.

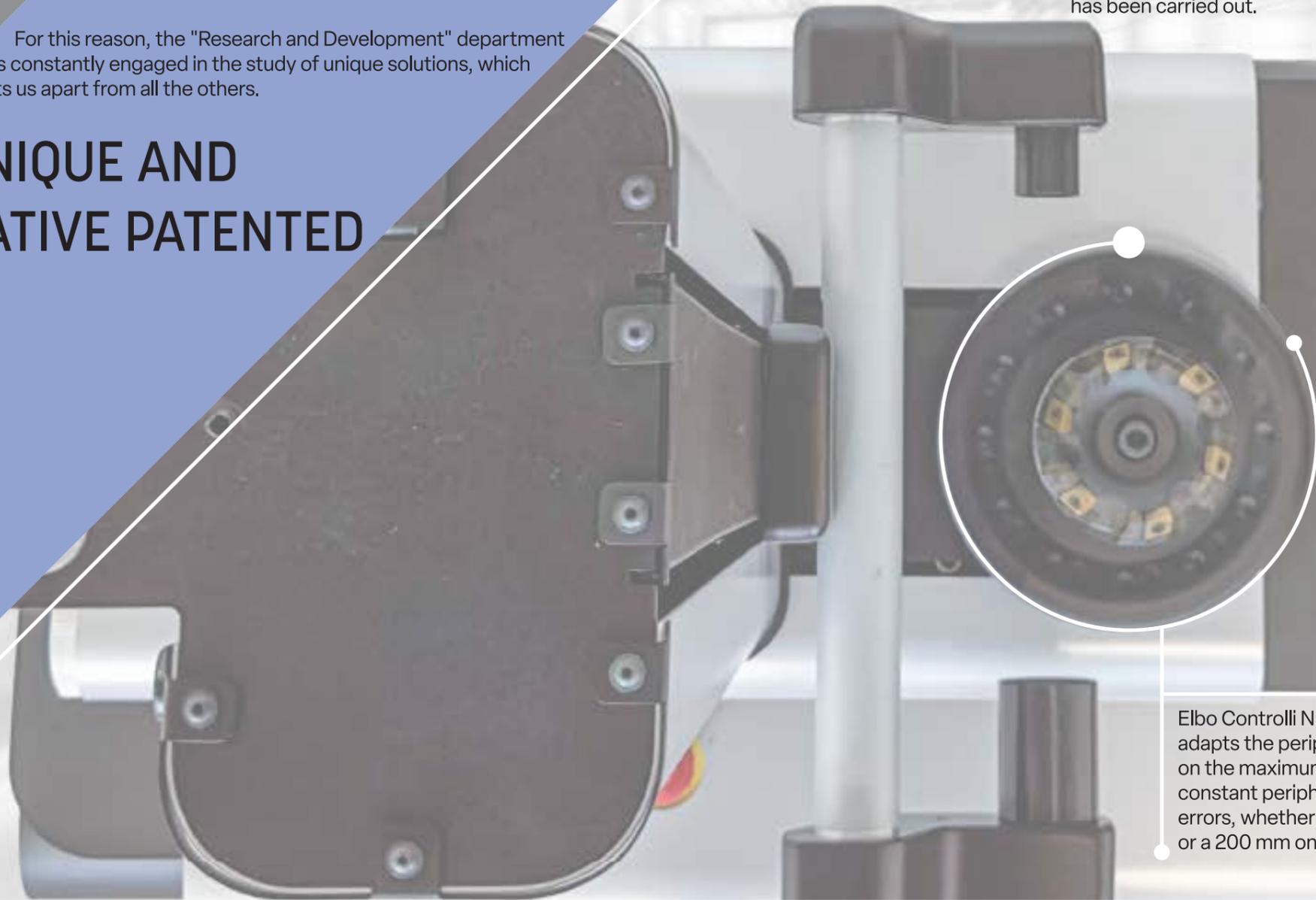
For this reason, the "Research and Development" department is constantly engaged in the study of unique solutions, which sets us apart from all the others.

A UNIQUE AND INNOVATIVE PATENTED SYSTEM

The **AUTOFOCUS** function allows tools to be measured automatically, without the operator intervening manually.

Once the tool has been clamped, the operator will simply have to choose what type of measurement he wants to carry out (single cutting edge or multi-cutting edge) and what to measure (X, Z or both axes) and start the measurement cycle.

Without having to enter the number of cutting edges to measure or any theoretical value, the software will automatically start the cycle and end it once the 360° rotation has been carried out.



Elbo Controlli NIKKEN has developed a system that adapts the peripheral rotation speed of the tool based on the maximum diameter to be measured: the constant peripheral speed avoids the introduction of errors, whether you are measuring a 2 mm diameter tool or a 200 mm one.

How does the new automatic axis positioning system work?

The operation is very simple and intuitive: once the tool has been identified, the theoretical diameter and height values and the tolerances have been entered, the presetter is able to position itself and automatically carry out the measurement operation of the maximum values of X and Z, with a 360° rotation of the spindle.

The measurement can be repeated as many times as desired by simply "recalling" the tool to be measured. The user will only have to wait for the machine to complete the operation.

The objectivity of the measurement is essential when working in a shared environment, where the presetting operation is carried out by multiple people. For this reason, it is necessary to have an efficient and high-performance tool.

AXES AND CAMERA AUTOMATIC POSITIONING

For us at Elbo Controlli NIKKEN, attention to every detail is a priority to offer solutions that drastically reduce the possibility of the operator making mistakes, constantly guiding them in their work, through the automations that our systems offers.

The solutions that we design and create are aimed at companies that want to allow their operators to work better, with quality and reducing downtime.

E46BP was born from the need to have a tool presetter capable of semi-autonomously carrying out the positioning and measurement operations of the cutting edges, in order to further reduce the risk of errors and automate the presetting operation.

A NEW PRODUCT WITH HUGE POTENTIAL

E46BP



TECHNICAL FEATURES AND CONFIGURATION

LEGEND: ● available ○ optional – not available

	E46B	E46BA	E46BP
GENERAL FEATURES			
Measuring range (diameter and height in mm)	400 x 600	400 x 600	400 x 600
Natural granite base and column	●	●	●
Steel base (3+1 adjustable feet)	●	●	●
Linear guideways (2 X axis, 1 Z axis) with double recirculating ball bearings slides	●	●	●
Pneumatic axis movement unlock	●	●	●
Motorized axis movement	–	–	●
Manual gross movement	●	●	●
Manual fine adjustment	●	●	–
Motorized fine adjustment	–	–	●
ECN AS371 certified optical scales (resolution 1µm)	●	●	●
Vertical Touch Screen Monitor	TFT 15,6" Full HD	TFT 15,6" Full HD	TFT 15,6" Full HD
Keyboard and mouse	○	○	●
Label printer	○	○	○
Label printer side support	○	○	○
Spindles side support (1 for 2 spindles)	○	○	○
Additional spindles side support	○	○	○
Overall dimensions (mm)	L1136xH1935xP568		L1179xH1935xP568
Weight (kg)	230		

SPINDLE FEATURES

Interchangeable spindle (ISO,BT,CAT, HSK, Polygonal taper, etc.)	○	○	○
Spindle identification system (SP-ID)	–	●	●
Spindle mechanical index (0°-90°-180°-270°)	●	–	–
C axis visualization	○	●	●
Automatic spindle rotation and electronic index	–	●	●
Pneumatic spindle brake	●	●	●
Motorized mechanical tool holder clamping (standard pull stud DIN69872, ISO7388, MAS403)	●	●	●
Motorized mechanical tool holder clamping (HSK, Polygonal taper)	●	●	●

CAMERA SYSTEM FEATURES

Bi-telecentric optical lenses	●	●	●
Elbo Controlli NIKKEN camera system measuring range (mm)	10 x 10	10 x 10	10 x 10
Monochromatic C-MOS sensor USB 3.0 Super speed connection	●	●	●
Elbo Controlli NIKKEN camera system resolution	1µm	1µm	1µm
Elbo Controlli NIKKEN camera system magnification	18 x	18 x	18 x
Analogic and digital camera view	●	●	●
Digital zoom (4x)	●	●	●
Tool inspection function	●	●	●
Resizable camera area	●	●	●

E46B E46BA E46BP

SOFTWARE AND MEASURING FUNCTIONS

Embedded Elbo Controlli NIKKEN operating system Linux based	●	●	●
Elbo Controlli NIKKEN machine software B version (blue screen)	●	●	●
Elbo Controlli NIKKEN machine software C version (yellow screen)	–	–	–
Number of machine origins / number of tool sets	∞ / ∞	∞ / ∞	∞ / ∞
Multi-origin function for multitasking machines	●	●	●
Manual measure function with fixed reticle	●	●	●
Autotargeting measure function	●	●	●
Autotargeting measure function with dimension freeze	●	●	●
Collimation indicators for fixed reticle measure	●	●	●
On-screen automatic measure of tool corner radius & theoretical centre point	●	●	●
On-screen automatic measure of tool corner angle & theoretical intersection	●	●	●
Chamfer measuring function	●	●	●
Adjustable Area of Interest (AOI)	●	●	●
Automatic spindle rotation and measurement of tool edges	–	●	●
Presetter automation software for tool presetting (1 step)	–	–	●
Presetter automation software for tool presetting (Unlimited step)	–	–	–
Software for manual tool presetting and geometry check	●	●	●
Presetter automation software for tool presetting and geometry check (full CN)	–	–	–

GRAPHIC FUNCTIONS

Adjustable reticles (axis and circles)	●	●	●
Profile image capture function	●	●	●
Automatic geometry (1 geometric entity)	●	●	●
Automatic geometry (multiple geometric entity)	–	–	–
Geometry by points	●	●	●
Camera image capture	●	●	●
DXF files import of the tool profile	●	●	●
Manual DXF acquisition of the revolution profile	–	–	–
Automatic DXF acquisition of the revolution profile	–	–	–

CONNECTION AND INTEGRATION FUNCTIONS

USB ports (4)	●	●	●
LAN connection	●	●	●
Wi-Fi connection	–	–	–
Standard post processor	●	●	●
Customized post processor	○	○	○
TID (Tool identification system)	○	○	○
TTS (Tool Tracking System)	○	○	○
RF-ID tool identification	○	○	○
TP32 software ready (double monitor and dedicated PC)	○	○	○

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