



## Elbo Controlli NIKKEN E346V+ Tool Presetting Machine

Our range of standard and advanced tool presetting machines are designed, developed and manufactured by our sister company Elbo Controlli NIKKEN.

All Elbo Controlli NIKKEN tool presetters are designed and manufactured 'in-house' at our two sites in Meda near Milan, Italy. Every single construction material and component is carefully controlled and developed specifically with the function and requirement of measuring tools in mind (from the optics and electronics right through to the glass scales, spindles and structural assemblies).



### MAIN FRAME & CONSTRUCTION

Designed to be bench mounted with a machine structure in electro-welded and de-tensioned steel. Solid granite column and base to guarantee and maintain maximum accuracy (also available to enhance the E346V+ is our new standard presetter stand O6TA346+ which incorporates storage for up to three spindle cartridges). This construction ensures durability and offers high levels of thermal stability making the E346V+ highly suitable for machine shop conditions with no issue of concern in respect of accuracy, repeatability and reproducibility.

### SPINDLE SYSTEM

A wide variety of tools can be pre-set utilizing interchangeable spindle cartridges rather than adaptors. This reduces the number of interface connections delivering accuracy across all spindle types. The machine allows for push button vacuum tool clamping of ISO/BT adaptors in conjunction with an innovative taper contact confirmation system to verify proper tool location.

### FUNCTIONALITY

The E346V+ features a new and innovative automatic measuring routine allowing the operator to simply rotate the tool through 360 degrees after which the software captures and locks the maximum measured radius/diameter and length values of all the cutting edges. The software is displayed and interacted with via a 15" TFT touch screen mounted vertically for easy viewing and operation. The screen layout and design is split into two distinct sections. The upper half of the display shows visible images of the current tool and profile whilst the lower section allows access to all the current functions. Simple icon and graphically driven menus enable the operator to quickly and intuitively manage all tool measurement and inspection modes, in addition a range of auxiliary capabilities are available such as creating CNC Machine origins and tool sets.

### SERVICE & SUPPORT

NIKKEN have a UK based service and Engineering team offering unrivalled levels of customer support, we are able to offer a comprehensive range of services including:

- Installation, training, technical support, service and calibration. Our team is 'manufacturer' trained and we stock a wide range of spares to facilitate quick response times and a highly efficient service.



## TECHNICAL DATA

**Measuring range:** Diameter max 360 mm (radius 180 mm); height max 460 mm.

**Vacuum clamping of BT/ISO 7/24 tool holders.**

### **Standard mechanical/electronic and optical equipment:**

Base and column made of natural granite to guarantee the maximum accuracy.

ELBO CONTROLLI NIKKEN Linear Transducers in optical glass type AS 371.

Axes resolution: X= 1  $\mu$ m, Z= 1  $\mu$ m.

Machine structure in electro-welded and de-tensioned steel.

ISO / BT / HSK / VDI...etc. Interchangeable rotating spindle-holder (to be specified) max run-out error < 2  $\mu$ m.

Linear slideways: 2 for X axis slideways and 1 for Z axis slideway.

Double re-circulating ball bearing slides (three in total), lubricated for life.

Vacuum tool clamping (ISO/BT only).

Manual braking of the spindle-holder rotation.

Constant load Archimedean spiral spring (as opposed to a mass counter-balance system).

### **Machine operator interface through:**

TFT 15" colour 16:9 vertical Touch Screen monitor.

Intel Celeron N Series Quad core.

UBUNTU LINUX operating system.

Data storage on solid state disk SSD.

### **Standard software:**

Operator-machine interface simple and intuitive by single screen function.

Ease of use thanks to the integrated touchscreen.

CNC machine origin and spindle adaptor management.

Tool list creation and/or single tool.

Automatic change of CNC machine origin allocation.

Tool set and Post Processor universal generator.

Printable tool set report.

Theoretical measurements and tolerances management.

Anti-dust cover provided for when not in use.

Overall dimensions: Length = 950 mm, Height = 972 mm, Depth = 430 mm. Net weight: 90 Kg.



Interchangeable spindle options available:

Part Description	Part Numbers	
	Interchangeable Spindle	Resetting Gauge
ISO/BT/CAT Spindle-holder with integrated vacuum clamping. 7/24 taper versions for 50, 40 & 30 are available.	04PMI50N	04B125
	04PMI40N	04B123
	04PMI30N	04B122
HSK Spindle-holder. Equipped with an integrated manual mechanical clamping system. HSK100, HSK80, HSK63, HSK50, HSK40 FORM A,C,E versions are available.	04PMH100R	04B128
	04PMH80R	04B131
	04PMH63R	04B127
	04PMH50R	04B130
	04PMH40R	04B133
VDI Spindle-holder. VDI50,40 & 30 versions are available.	04PMH32R	04B132
	04PMV50R	N/A
	04PMV40R	
04PMV30R		
Polygonal taper Spindle-holder. Equipped with an integrated manual mechanical clamping system. C8, C6, C5 & C4 versions are available.	04PMC8RV	N/A
	04PMC6RV	
	04PMC5RV	
	04PMC4RV	

Other spindle holders and accessories available by request.