elbo controlli

Tool Presetters

Sethy SIX
Measure & Inspect

Enhanced Measure & Inspect

Balluff / RFID Ready
Large 15” touch screen
Optical Autofocus
Advanced Tool Geometry Inspection
Network Compatible

www.komaprecision.com | info@komaprecision.com | 1.800.249.5662
Table of Contents

3  Larth - Basic Measure, Bench Model
5  E346 - Measure & Inspect, Bench Model
7  Sethy SIX - Measure & Inspect, Bench Model
9  Hathor SIX - Enhanced Measure & Inspect, Floor Model Model
11 68 B - Enhanced Measure & Inspect, Floor Model Model
13 NEW E46L - Advanced Measure & Inspect, Floor Model
15 NEW E46L TW - Advanced Measure & Inspect, Twin Cameras, Floor Model
17 Amon Ra - Advanced Large Capacity, Measure & Inspect, Floor Model
19 NEW TID System - Easy, Affordable Solution for Tool Data Management
Easy to use

Quickly measure length, diameter, radius & angles

Elbo Controlli proprietary high resolution vision system

Integrated LCD touchscreen / vision screen for quick and easy operation

Full screen auto targeting

Can store up to 9 different NC machine specifications and 9 Tool Sets (99 tools per set)

Label printer (optional)
## LARTH CONSTRUCTION

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bench Model</td>
<td>Stainless Steel Mechanical Elements</td>
</tr>
<tr>
<td>Natural Granite Base &amp; Column</td>
<td>Dimensions 512mm L x 406mm D x 827mm H</td>
</tr>
<tr>
<td>Stainless Steel Mechanical Elements</td>
<td>Weight 45 Kg / 99 lbs</td>
</tr>
</tbody>
</table>

### AXIS MOVEMENT

- **X Axis (Radial)**: 130mm / 5.125in
- **Z Axis**: 360mm / 14.17in
- Resolution X & Z Axis: 1 µm
- Manual Rapid & Fine Adjustment Movement (Zero Backlash)

### SPINDLE

- Fixed or Interchangeable Rotating Spindles
- ISO / HSK / CAPTO / VDI / Interchangeable Rotating Spindles Available
- ISO 40, 50 Fixed Rotating Spindle Holder & Adapters Available
- Manual Mechanical Brake
- Concentricity: 2 µm
- Maximum Tool Weight: 30kg / 66 lbs.

### OPERATING SYSTEM

- 5.7" Color LCD Touchscreen Display / Operator Interface / 640 x 480 Resolution
- Connectivity - USB / RS-232
- Printer Support (optional)
- Capable of Storing 9 Different Machine Specifications
- Capable of Storing 9 Different Tool Sets (99 tools per set)

### CAPABILITIES

- 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 radial and axial runout

### VISION SYSTEM

- Telecentric Lens / C-MOS Image Sensor with 0.001mm resolution / 20x Magnification

### DPP SOFTWARE (Optional)

- Tool List Management / Tool Sets & Post Processor Universal Generator
- CNC Machine Origin Management
- Free software upgrades

---

**ERGONOMICALLY DESIGNED CONTROLS**

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

**SPINDLE HOLDER OPTIONS**

Fixed or interchangeable rotating spindle holder available.

**VERSIONS**

- ISO / BT 40, 50 / HSK / CAPTO / VDI Interchangeable Rotating Spindle
- ISO 40, 50 Fixed Rotating Spindle Holder & Adapters Available.

---

**NATURAL GRANITE**

All Elbo Controlli tool presetters utilize natural granite for the column and base to insure the best thermal stability. This solid base construction, together with Elbo Controlli's excellence in manufacturing, all but eliminates the need for re-alignments and guarantees proper functioning over the life of the unit.

---

**PROPRIETARY VISION SYSTEM**

High resolution camera system utilizing Elbo Controlli's realized technology. The telecentric lens with C-MOS sensor produce the most accurate lighting system available.

---

**LARTH CONSTRUCTION**

**ERGONOMICALLY DESIGNED CONTROLS**

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

**SPINDLE HOLDER OPTIONS**

Fixed or interchangeable rotating spindle holder available.

**VERSIONS**

- ISO / BT 40, 50 / HSK / CAPTO / VDI Interchangeable Rotating Spindle
- ISO 40, 50 Fixed Rotating Spindle Holder & Adapters Available.

---

**NATURAL GRANITE**

All Elbo Controlli tool presetters utilize natural granite for the column and base to insure the best thermal stability. This solid base construction, together with Elbo Controlli’s excellence in manufacturing, all but eliminates the need for re-alignments and guarantees proper functioning over the life of the unit.

---

**PROPRIETARY VISION SYSTEM**

High resolution camera system utilizing Elbo Controlli’s realized technology. The telecentric lens with C-MOS sensor produce the most accurate lighting system available.

---

**MECHANICS ELECTRONICS OPTICS SOFTWARE**

**SOFTWARE**

by **elbo controlli**
Easy to use

Quickly measure length, diameter, radius & angles

Elbo Controlli proprietary high resolution vision system

Integrated 9” touchscreen / vision screen for quick and easy operation

Full screen auto targeting

Can store up to 9 different NC machine specifications and 9 tool sets

Cutting Edge Inspection for wear and tear

Td346 post processing software available as a standard
PROPRIETARY VISION SYSTEM
High resolution camera system utilizing Elbo Controlli's realized technology. The telecentric lens with C-MOS sensor produce the most accurate lighting system available.

ERGONOMICALLY DESIGNED CONTROLS
Ergonomically designed micrometric hand wheels for X and Z axes allows for precise and smooth fixed-target and auto adjustments. The operator can move the axis simultaneously or independently.

SPINDLE HOLDER OPTIONS
Interchangeable revolving spindle with mechanical rotation brake. Two preloaded ball cages allow a concentricity accuracy within 2 µm.

VERSIONS
-ISO / BT 40, 50 / HSK / CAPTO / VDI Interchangeable Rotating Spindle
-ISO 40, 50 Fixed Rotating Spindle Holder & Adapters Available.

SPINDLE ROTATION BRAKE
Mechanical spindle rotation brake: acting clockwise on the spindle-brake knob, it will be a clutch of the spindle-holder.

TOOL DATA 346 SOFTWARE
Td346 allows to generate the corrector files, in more than 50 CNC machine-specific post-processors by the universal post-processor creator. User friendly backup and restore management of machine origins and tool-lists.

E346 CONSTRUCTION
Bench Model
Natural Granite Base & Column
Stainless Steel Mechanical Elements
Dimensions 598mm L x 408mm D x 901mm H
Weight 70 Kg / 155 lbs

AXIS MOVEMENT
X Axis (Radial) = 180mm / 7.09in
X Axis (Diameter) = 360mm / 14.2in
Z Axis = 460mm / 18.11in
Resolution X & Z Axis - 1 µm
Manual Rapid & Fine Adjustment Movement (Zero Backlash)

SPINDLE
Fixed or Interchangeable Rotating Spindles
ISO / HSK / CAPTO / VDI / Interchangeable Rotating Spindles Available
ISO 40, 50 Fixed Rotating Spindle Holder & Adapters Available
Manual Mechanical Brake
Concentricity - 2 µm
Maximum Tool Weight 30kg / 66 lbs.

OPERATING SYSTEM
9" Color TFT Touchscreen Display / Operator Interface / 640 x 480 Resolution
Connectivity - USB / RS-232
Printer Support
Capable of Storing 9 Different Machine Specifications
Capable of Storing 9 Different Tool Sets (99 tools per set)

CAPABILITIES
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 radial and axial runout

VISION SYSTEM
Telecentric Lens / C-MOS Image Sensor with 0.001mm resolution / 25x Magnification
Cutting Edge Inspection for wear and tear
Diascopic Illuminator for Greater Contrast and Enhanced Clarity for Geometrical Profiling when Measuring
Episcopic Illuminator to Best Expose Tool Surfaces for Inspection

TD346 SOFTWARE (Standard)
Tool List Management / Tool Sets & Post Processor Universal Generator
50 CNC machine-specific postprocessors
User friendly backup
Free Software Upgrades

NATURAL GRANITE
All Elbo Controlli tool presetters utilize natural granite for the column and base to insure the best thermal stability. This solid base construction, together with Elbo Controlli’s excellence in manufacturing, all but eliminates the need for re-alignments and guarantees proper functioning over the life of the unit.

INSPECTION MODE
E346 shown with optional stand and printer.
Increased measuring range

New 15” TFT touch screen

Improved operating system

Elbo Controlli designed optical scales | slideways and revolutionary vision system guarantees the highest degree of accuracy

Can store up to 9,999 different NC machine specifications and 1 million tool sets

TD SIX Software
Tool Data Management Software for precision measuring, tool inspection, tool data management and networked communication
SETHY SIX CONSTRUCTION

Bench Model
Natural Granite Base & Column
Stainless Steel Mechanical Elements
Dimensions 1070 mm L x 595mm D x 1140 mm H
Weight 110 Kg / 242 lbs

AXIS MOVEMENT
X Axis (Radial) = 200mm / 7.874 in
NEW Increased Measuring Range Z Axis = 600mm / 23.62 in
Resolution X & Z Axis - 1 µm
Double Pneumatic Axis Clamping
Manual Rapid & Fine Adjustment Movement

SPINDLE
Interchangeable ISO40 or 50 for Different Tapers
Optional Interchangeable Holders Available - HSK, VDI, Capto
Manual Mechanical Brakes
Concentricity - 4µm
Maximum Tool Weight 40kg / 88 lbs.

NEW OPERATING SYSTEM
NEW 15” TFT Touch Screen
INTEL® SSD Data Storage
Connectivity - (2) RS-232 Printer / PC
LINUX Printer Support
Capable of Storing 9,999 Different Machine Specifications
Capable of Storing 1M Different Tool Specifications

CAPABILITIES
Measure - Full Screen Auto Targeting
Optical Autofocus to determine largest and widest
X + Z dimensions
Measure radial and axial runout
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
Inspection - 4 Color Tool Inspection

VISION SYSTEM
Telecentric Lens for Accurate Dimensional Measurements / C-MOS Image Sensor with 0.001mm resolution
Diastropic Illuminator for Greater Contrast and Enhanced Clarity for Geometrical Profiling when Measuring
Episcopic Illuminator to Best Expose Tool Surfaces for Inspection
Cutting Edge Inspection for wear and tear
30x Magnification | 15” TFT LCD Touch Screen

TD SIX SOFTWARE
Tool List Management / Tool Sets & Post Processor Universal Generator
CNC Machine Origin Management
RFID Tool Detection Designed for Systems Like Balluff, etc.
Free software upgrades

MANUAL AXES MOVEMENT
Axis un-clamping by means of a single pneumatic control system.

ERGONOMICALLY DESIGNED CONTROLS
Ergonomically designed micrometric hand wheels for X and Z axes allows for precise and smooth fixed-target and auto adjustments. The operator can move the axis simultaneously or independently.

PRECISION SPINDLE SYSTEM
All Elbo Controlli precision spindle systems are fully interchangeable. The one-piece cartridge eliminates the need for adapters and the errors associated with their use.

NATURAL GRANITE
All Elbo Controlli tool presetters utilize natural granite for the column and base to insure the best thermal stability. This solid base construction, together with Elbo Controlli’s excellence in manufacturing, all but eliminates the need for re-alignments and guarantees proper functioning over the life of the unit.

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 µm.

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.

NEW USER FRIENDLY INTERFACE
ergonomic design combined with a 15” TFT LCD Touch Screen. This system provides full operator control and selection of options and functions via an intuitive icon system allowing operational and functional simplicity that is second to none.

POWERFUL COMPUTING SYSTEM
Tool Data Management
This powerful new operating system utilizing a Linux OS, features state-of-the-art tool measuring, inspection and data management solutions. Elbo Controlli’s presetters increase efficiency, reduce down time and are supported by extensive applications, technical support, and a global service network.
ELBO CONTROLLI HATHOR SIX

Increased measuring range
New 15” TFT touch screen
Improved operating system

Precision spindle system is fully interchangeable
Elbo Controlli designed optical scales | slideways and revolutionary vision system guarantees the highest degree of accuracy

Can store up to 9,999 different NC machine specifications and 1 million tool sets

TD SIX Software
Tool data management software for precision measuring, tool inspection, tool data management and communication
HATHOR SIX CONSTRUCTION

Floor Model
Natural Granite Base & Column
Stainless Steel Mechanical Elements
Dimensions 1,240 mm L x 558mm D x 1,840mm H
Weight 135 Kg / 297 lbs

AXIS MOVEMENT
X Axis (Radial) = 200mm / 7.874 in
NEW Increased Measuring Range Z Axis = 600mm / 23.62 in
Resolution X & Z Axis - 1 µm
Double Pneumatic Axis Clamping
Manual 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 - 2µm
Maximum Tool Weight 40kg / 88 lbs.
Tool Clamping - Automatic Pull-Stud Recognition

NEW OPERATING SYSTEM
NEW 15” TFT Touch Screen
INTEL®
SSD Data Storage
Connectivity - (2) RS-232 Printer / PC
LINUX
Printer Support
Capable of Storing 9,999 Different Machine Specifications
Capable of Storing 1M Different Tool Specifications

CAPABILITIES
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
Optical Autofocus to determine largest and widest X + Z dimensions
Measure radial and axial runout
Inspection - 4 Color Tool Inspection

VISION SYSTEM
Telescopic Lens for Accurate Dimensional Measurements / C-MOS Image Sensor with 0.001mm resolution
Dioptric Illuminator for Greater Contrast and Enhanced Clarity for Geometrical Profiling when Measuring
Episcopic Illuminator to Best Expose Tool Surfaces for Inspection
Cutting Edge Inspection for wear and tear
10.4” Color LCD Display Screen
30x Magnification | 15” TFT LCD Touch Screen

TD SIX SOFTWARE
Tool List Management / Tool Sets & Post Processor Universal Generator
CNC Machine Origin Management
RFID Tool Detection Designed for Systems Like Balluff, etc.
Free software upgrades

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 µm.

ERGONOMICALLY DESIGNED CONTROLS
Ergonomically designed micrometric hand wheels for X and Z axes allows for precise and smooth fixed-target and auto adjustments. The operator can move the axis simultaneously or independently.

MANUAL AXES MOVEMENT
Axis un-clamping by means of a single pneumatic control system.

PRECISION SPINDLE SYSTEM
All Elbo Controlli precision spindle systems are fully interchangeable. The one-piece cartridge eliminates the need for adapters and the errors associated with their use.

NATURAL GRANITE
All Elbo Controlli tool presetters utilize natural granite for the column and base to insure the best thermal stability. This solid base construction, together with Elbo Controlli’s excellence in manufacturing, all but eliminates the need for re-alignments and guarantees proper functioning over the life of the unit.

NEW OPERATING 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.

NEW
USER FRIENDLY INTERFACE
ergonomic design combined with a 15” TFT LCD Touch Screen. This system provides full operator control and selection of options and functions via an intuitive icon system allowing operational and functional simplicity that is second to none.

NEW
POWERFUL COMPUTING SYSTEM
Tool Data Management
This powerful new operating system utilizing a Linux OS, features state-of-the-art tool measuring, inspection and data management solutions. Elbo Controlli’s presetters increase efficiency, reduce down time and are supported by extensive applications, technical support, and a global service network.
Advanced Large Capacity, Enhanced Measure & Inspect

**Floor Model**

*Increased measuring range*

*New 15” TFT touch screen*

*Improved operating system*

Larger capacity to handle bigger and heavier tools

Precision spindle system is fully interchangeable

Elbo Controlli designed optical scales | slideways and revolutionary vision system guarantees the highest degree of accuracy

Can store up to 9,999 different NC machine specifications and 1 million tool sets

**TD SIX Software**

Tool data management software for precision measuring, tool inspection, tool data management and communication
**68B CONSTRUCTION**

- Floor Model
- Natural Granite Base & Column
- Stainless Steel Mechanical Elements
- Dimensions - 1,865mm L x 687mm D x 1,957mm 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 µm
- 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 - 2µm
- Maximum Tool Weight 50kg / 110 lbs.
- Tool Clamping - Automatic Pull-Stud Recognition

**OPERATING SYSTEM**

- 15" 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
- 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
- Diascopic Illuminator for Greater Contrast and Enhanced Clarity for Geometrical Profiling when Measuring
- Episcopic Illuminator to Best Expose Tool Surfaces for Inspection
- Cutting Edge Inspection for wear and tear
- 30x Magnification

**TD SIX SOFTWARE**

- Tool List Management / Tool Sets & Post Processor Universal Generator
- CNC Machine Origin Management
- RFID Tool Detection Designed for Systems Like Balluff, etc.
- Free Software Upgrades

---

**ERGONOMICALLY DESIGNED CONTROL**

Step-by-step motors servo control the axes movements and provide two operation modes: rapid (2.5 m/min) and fine micrometric mode (positioning accuracy 0.8 µm).

**MICROMETRIC MOVEMENTS**

Micrometric movements (electronic handwheels) are used to collimate the tool profile and to acquire the measurement. The automatic clearance recovery system is patented.

**PATENTED SPINDLE**


**NATURAL GRANITE**

Base and column made of natural granite. The low thermal inertia of the material assures non-deformability in time and the possibility to directly install the machine in the workshop.

**NEW ELECTRONIC CONTROL**

A powerful PC with Linux operating system for the integrated management of the functions of measurement / inspection tools, machine origins and toolsets. Ease of use thanks to the integrated touch screen.

**NEW**

**LARGE 15” TOUCH SCREEN**

Large 15” touch screen for the best visualization of the tools and simple management functions to operate the measuring machine.
Advanced measurements & inspections

Precision spindle system
fully interchangeable, one piece cartridge eliminates the need for adapters and the errors associated with their use

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

Advanced Tool Data Management Software for basic tool measurement, inspection, and label printing to high end networking integration, geometric scanning and tool DXF profile acquisition
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.

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).

E46L CONSTRUCTION
- Integrated Stand
- Natural Granite Base & Column
- Stainless Steel Mechanical Elements
- Dimensions 1,282mm L x 672mm D x 1,874mm H
- Weight 295Kg / 650 lbs.

AXIS MOVEMENT
- X Axis (Radial) = 200mm / 7.87in
- X Axis (Diameter) = 400mm / 15.75in
- Z Axis = 600mm / 23.62in
- Resolution X & Z Axis - 1 µm
- Manual Rapid & Fine Adjustment Movement (Zero Backlash)

SPINDLE
- Interchangeable Rotating Spindles
- Pneumatic Mechanical Brake with Radial Compensation of Clamping Force
- Tool Clamping - Automatic Pull-Stud Recognition
- Spindle-holder identification system (SP-ID)
- Concentricity - 2 µm
- Maximum Tool Weight 40kg / 88 lbs.

OPERATING SYSTEM
- Full HD LCD 22” Color Touchscreen Monitor
- Intel I3 Quad Core Processor
- UBUNTU 14.04 LTS LINUX operating system
- SSD Data Storage
- 4 USB ports (keyboard, mouse, printer and one spare)
- 1 Network LAN port

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
- Inspection - 4 Color Tool Inspection

VISION SYSTEM
- C-MOS sensor - Framed image area 10 x 10mm.
- 32X Magnification
- Cutting Edge Inspection for wear and tear
- Diascopic Illuminator for Greater Contrast and Enhanced Clarity for Geometrical Profiling when Measuring
- Episcopic Illuminator to Best Expose Tool Surfaces for Inspection

PRESETTER SOFTWARE
- Tool List Management / Tool Sets & Post / Tool Graphics Processor Universal Generator
- Printable tool set report
- Theoretical measurements and tolerances management.
- Free software upgrades

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.

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 µm.

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.

MECHANICS ELECTRONICS OPTICS SOFTWARE by elbo controlli
E46L TW

Advanced Measure & Inspect, Twin Cameras, Floor Model

Twin Cameras - Innovative 90° rotating support for a second camera allows for cutters to be viewed from top and also from the side

Full HD LCD 22” Touchscreen Monitor

Motorized tool holder clamping system that simulates the working conditions of the CNC spindles

Precision spindle system fully interchangeable, one piece cartridge eliminates the need for adapters and the errors associated with their use

Elbo Controlli designed optical scales and slideways guarantees the highest degree of accuracy

Can store unlimited NC machine specifications and tool sets

Advanced Tool Data Management Software for basic tool measurement, inspection, and label printing to high end networking integration, geometric scanning and tool DXF profile acquisition
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.

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.

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).

E46LTW CONSTRUCTION
Integrated Stand
Natural Granite Base & Column
Stainless Steel Mechanical Elements
Dimensions 1,282mm L x 672mm D x 1,874mm H
Weight 295Kg / 650 lbs.

AXIS MOVEMENT
X Axis (Radial) = 200mm / 7.87in
X Axis (Diameter) = 400mm / 15.75in
Z Axis = 600mm / 23.62in
Resolution X & Z Axis - 1 µm
Manual Rapid & Fine Adjustment Movement (Zero Backlash)

SPINDLE
Interchangeable Rotating Spindles
Pneumatic Mechanical Brake with Radial Compensation of Clamping Force
Tool Clamping - Automatic Pull-Stud Recognition
Spindle-holder identification system (SP-ID)
Concentricity - 2 µm
Maximum Tool Weight 40kg / 88 lbs.

OPERATING SYSTEM
Full HD LCD 22” Color Touchscreen Monitor
Intel I3 Quad Core Processor
UBUNTU 14.04 LTS LINUX operating system
SSD Data Storage
4 USB ports (keyboard, mouse, printer and one spare)
1 Network LAN port

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 - Radius/Diameter, MM/Inches,
Absolute/Incremental Modes
Measure - Analog & Digital Visualization
Measure - Tool Profile Photograph - Difference Between Cutting Edges

VISION SYSTEM (Main Camera)
C-MOS sensor - Framed image area 10 x 10mm.
32X Magnification
Cutting Edge Inspection for wear and tear
Diascopic Illuminator for Greater Contrast and Enhanced Clarity for Geometrical Profiling when Measuring
Episcopic Illuminator to Best Expose Tool Surfaces for Inspection

VISION SYSTEM (Second Camera)
C-MOS sensor - Framed image area 4 x 4mm.
60X Magnification 2x and 4x digital zoom
90 degree, rotating camera support
Cutting Edge Inspection for wear and tear

PRESETTER SOFTWARE
Tool List Management / Tool Sets & Post / Tool Graphics
Processor Universal Generator
Printable tool set report
Theoretical measurements and tolerances management.
Free software upgrades

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.

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 µm.

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.

MECHANICS
ELECTRONICS
OPTICS
SOFTWARE
by
elbo controlli
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
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 µm
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 - 2µm
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
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

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.

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 episcopical inspection, and telecentric lens for maximum magnification. For utmost stability and flexibility, the complete Elbo Controlli system is operated using Ubuntu LINUX.
NEW TOOL IDENTIFICATION SYSTEM

- Eliminates Errors during Data Transfers
- Full Customization
- Sends Tool Data Directly to Machine Control

2D Datamatrix Reader

Barcode Datamatrix Code

- Adjust Tool Wear & Tool Life
- Integrates with All NC Controls
- Prevents Additional Costs
The TID System is an innovative tool identification system from Elbo Controlli that empowers workshops with an easy, affordable solution for tool data management. The TID system is a tool identification system that establishes an interface between the Elbo Controlli tool presetter and the machine tool NC controller. The TID system features an intuitive graphical user interface that enables operators to eliminate errors during data transfer.

**Step 1**) Measure tool with presetter. Scan datamatrix code with 2D reader to save and update tool data onto the datamatrix code.

**Step 2**) Remove tool from presetter and bring to the CNC machine. Select the machine model you are loading tool into on your laptop or tablet.

**Step 3**) Once tool data is scanned into the tool database, select tool number you wish to save to in machine tool list.

**Step 4**) Select OK to load data. Tool data will now appear on the NC control of the selected machine model.
FOR MORE INFORMATION, CONTACT YOUR REGIONAL SALES MANAGER

**National**
Dave Meo  
312-898-8079  
dmeo@komaprecision.com

**Product Manager**
Tim Murray  
860-707-9344  
tmurray@komaprecision.com

**Northeast**
Andrew Esposito  
860-490-2496  
aesposito@komaprecision.com

**South Central**
Dan O’Connor  
972-824-0566  
doconnor@komaprecision.com

**Southeast | E. Canada**
Ken Irish  
704-604-2046  
kirish@komaprecision.com

**Central**
Jurgen Bettray  
414-882-9949  
jbettray@komaprecision.com

**West | W. Canada**
Gary Agosti  
602-363-9308  
gagosti@komaprecision.com

**Mexico**
Arturo Vazquez  
(+52 1) 722 394 8432  
avazquez@komaprecision.com

**Corporate Headquarters**

20 Thompson Road  
East Windsor, Connecticut, 06088  
Phone: 1-800-249-5662