

The Premium System for Professional
Tool Presetting and Measuring

ZOLLER
expect great measures



venturion



Premium is a Promise

Choosing the ZOLLER »venturion« means having all the benefits of a premium presetting and measuring machine on your side, every single day.

You can measure complex tools with the utmost precision, down to the micron. You benefit from the flexibility of a modular system that easily adapts to your processes. With networked production, digital tool management and data exchange with external systems, the »venturion« lets you enter the production world of the future. We understand that the future is a long-term project, and the ZOLLER »venturion« is a long term partner in helping you achieve future success.

With the ZOLLER »venturion«, you're prepared for any demands that may arise when presetting and measuring your tools.

»venturion«



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Elegant and Robust

The ZOLLER »venturion« is the best teammate you can have. This premium presetting and measuring machine has a robust body consisting of a light alloy specifically developed for measuring machines. Equipped with exclusively high quality, brand-name components with exceptional craftsmanship, nothing compares to the »venturion«.

This precision machine can be used in a number of configurations with a wide variety of additional options, meaning even the highest workload can be handled with ease. Its robust design makes the ZOLLER »venturion« equally suited for a climate-controlled room as it is for the shop floor, right next to the CNC machine.



»venturion 450«

»venturion 600«

»venturion 800«



»venturion 600«

Technical Data: »venturion«

	Maximum Tool Length Z	Measuring Range X Axis	Maximum Tool Diameter D	Maximum Snap Gauge Diameter D
»venturion 450«	17.72 / 24.41 / 32.28 " (450 / 620 / 820 mm)	8.27 / 12.20 " (210 / 310 mm)	16.54 / 24.41 " (420 / 620 mm)	3.94" (100 mm)
»venturion 600«	23.62 / 31.5 / 39.37 " (600 / 800 / 1,000 mm)	11.81 / 15.75 " (300 / 400 mm)	23.62 / 31.5 " (600 / 800 mm)	7.87 / 3.94 " (200 / 100 mm)
»venturion 800«	23.62 / 31.5 / 39.37 / 47.24 / 55.12 / 62.99 " (600 / 800 / 1,000 / 1,200 / 1,400 / 1,600 mm)	19.69 / 23.62 " (500 / 600 mm)	39.37 / 47.24 " (1,000 / 1,200 mm)	7.87 / 0 " (200 / 0 mm)

Maximum Process Reliability

Processes must be as precise and reliable as the measurements on which they are based. In a »venturion«, electronics, mechanical components and the ZOLLER »pilot« measuring software work closely together to rule out measurement and data transfer errors. This guarantees maximum process reliability.

Automatic Zero Point Monitoring: Prevents Machine Crashes

The software function Automatic Zero Point Monitoring in the »pilot« measuring machine software and the high-precision »ace« spindle work together to ensure that the zero point is automatically selected after the adapter tool post is changed, ensuring safer machines.

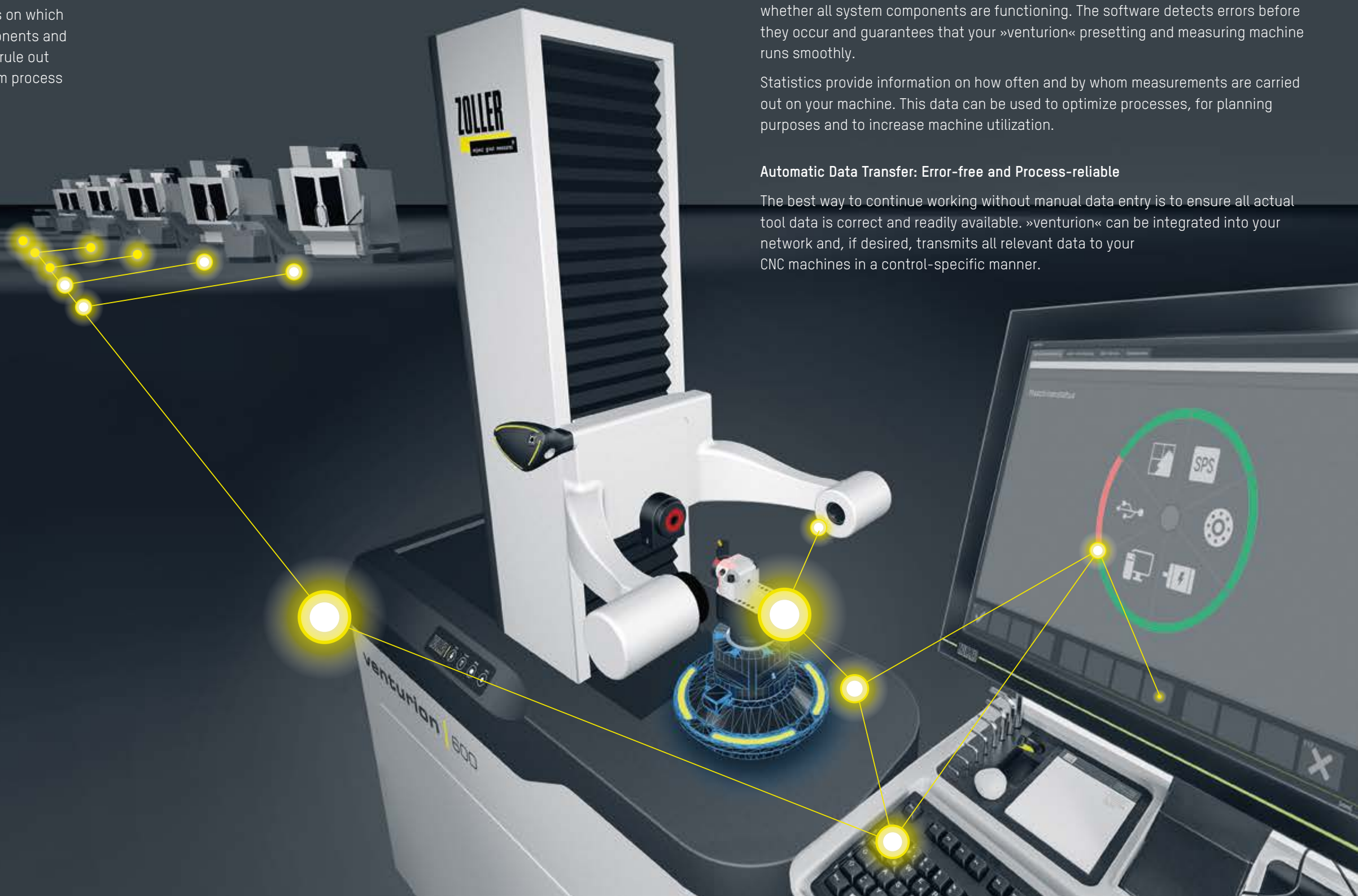
Automatic Production Data Acquisition: Quick System Check

The software module »fingerprint« in »pilot« continuously checks at defined intervals whether all system components are functioning. The software detects errors before they occur and guarantees that your »venturion« presetting and measuring machine runs smoothly.

Statistics provide information on how often and by whom measurements are carried out on your machine. This data can be used to optimize processes, for planning purposes and to increase machine utilization.

Automatic Data Transfer: Error-free and Process-reliable

The best way to continue working without manual data entry is to ensure all actual tool data is correct and readily available. »venturion« can be integrated into your network and, if desired, transmits all relevant data to your CNC machines in a control-specific manner.



Considerably More Profit

It's simple: With preset tools, you reduce set-up times on the machines and therefore increase productivity. With optimally set tools, you achieve longer tool life, and with defined outer contours you avoid machine crashes entirely.

Plus, the digital transmission of your tool data guarantees secure, error-free data input. Thanks to the machine's high quality, brand-name components, with the »venturion«, you get a reliable partner for years to come, which reduces maintenance costs to a minimum. In short: with the »venturion«, you increase the efficiency of your production process.





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Christian Hantke, Assembly Technician at ZOLLER

For Quality I Give Everything – Every Day.

You may have seen me before on the certificate of approval on your ZOLLER machine. Every ZOLLER employee who assembles a ZOLLER machine has their name and picture on the certificate. We do this because we rely on the quality of our work. We know how important quality is, what it means, and how to ensure that a quality product is what you get. At ZOLLER, we use the best components in every machine we build. Combine that with our attention to detail and our decades of experience, and you are left with a product, and a measurement partner, you can rely on.

venturion | 450|6

Highest Quality for Long-lasting Precision

ZOLLER consistently focuses on quality: Thanks to high quality brand-name components and process-reliable assembly. You can rely on a long service life of your ZOLLER machine and the highest long-term precision.

Machine Tower – aligned to the spindle for precise measurement results.

Cable Carriers – for reliable functionality despite continuous load, as cables cannot get caught, ripped free or kinked.

THK Guideways – smooth-running and precisely aligned – the ideal base for machine tower and optics carrier. With THK guideways, the tower and carrier are correctly aligned automatically.

Heidenhain Glass Scales – glass scales in the X, Z and Y axis enable reproducible and reliable position determination with optical means in the μm range.

Bosch/Festo Pneumatics – for the reliable operation of pneumatic functions, such as the power-clamping functions on the spindle.

Stable Machine Base – the base of the machine: pneumatics and electronics are housed here. Everything is laid out with sufficient space for accessibility and optimal ventilation.

Uhing Linear Drives, Clamping Elements – the basis for correct measurements: The tower is both easy to move and to securely and accurately clamp and tension.

Optics with Industrial Camera – the high-quality camera has additional lenses and captures every detail – optionally with higher resolution. The strong incident light optimally illuminates edges and steep flanks. The camera and incident light unit are specially protected.



Machine Control with Industrial TFT Monitor – specially designed to process the amount of data quickly or to call up the extensive programs and measurement sequences immediately. The monitor's razor-sharp display characteristics are a true advantage.

»ace« High Precision Spindle – high precision spindle system with clamping element guarantees the μm accurate holding and clamping of tools. The universal adapter tool post allows adaptation to any tool holding system.



Machine Base in the Z and X Axes – are made of a light metal alloy specifically designed to absorb the weight and the forces of the tools in order to measure them reliably every time.

TÜV approved

Every »venturion« machine is tested according to IEC 61010-1.

Verifiable and certified product safety



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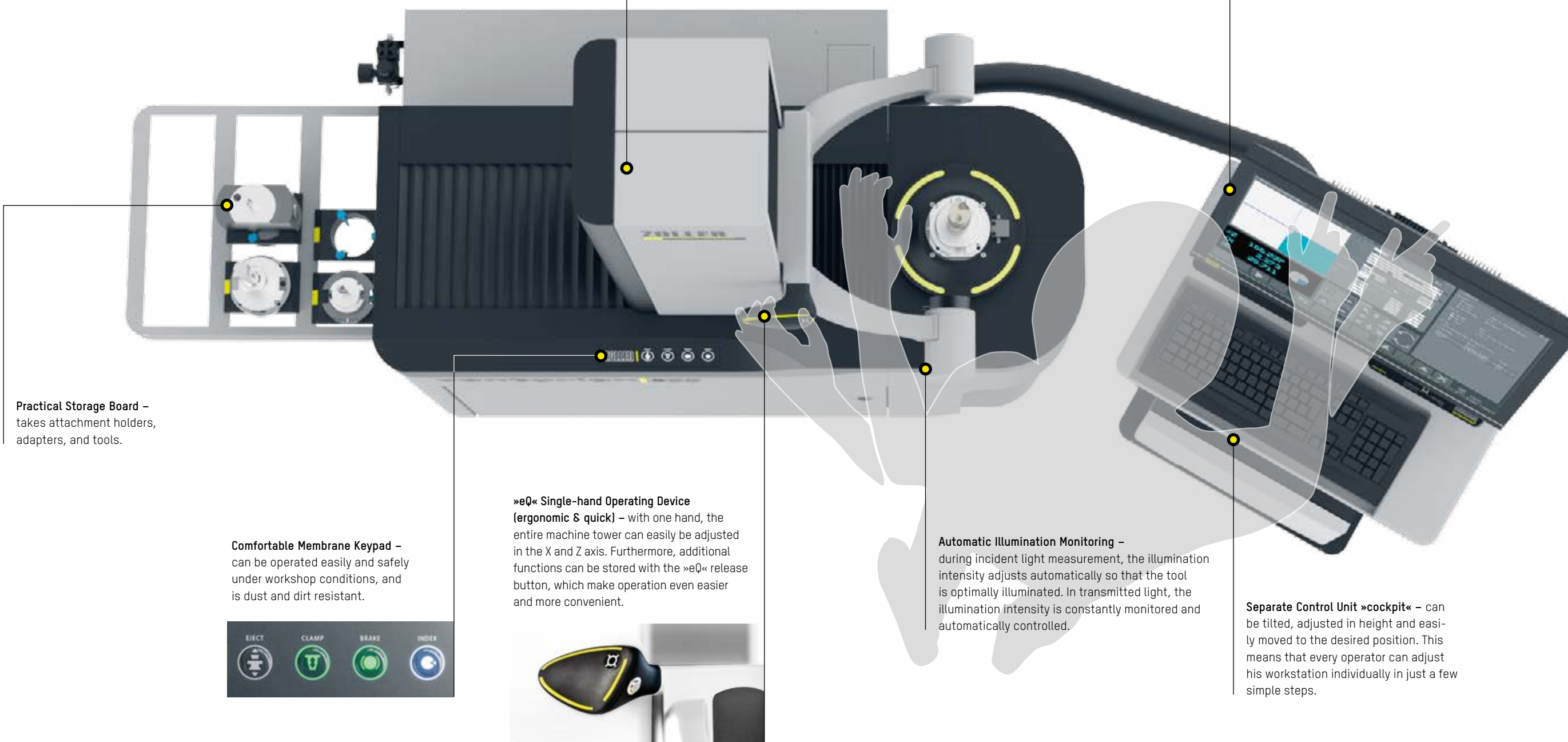
Maximum Ergonomics for Better Working Results

At the »venturion«, work facilitation is a top priority. Everything should function simply and safely. Individual adaptations and 180 degree accessibility guarantees a comfortable work environment with everything in touching distance.

Smooth-running Machine Tower – easy access to the working location.

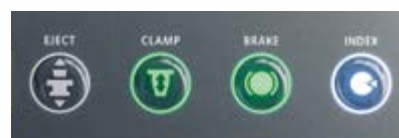
Simple Operation – the clearly structured graphical interface in the »pilot« software guides users intuitively through the presetting and measuring sequence.

Many things run fully automatically – the operator simply has to press start. Thanks to the practical help menu and detailed operating instructions available in 18 languages, no question goes unanswered. Smooth processes are guaranteed.



Practical Storage Board – takes attachment holders, adapters, and tools.

Comfortable Membrane Keypad – can be operated easily and safely under workshop conditions, and is dust and dirt resistant.



»eQ« Single-hand Operating Device (ergonomic & quick) – with one hand, the entire machine tower can easily be adjusted in the X and Z axis. Furthermore, additional functions can be stored with the »eQ« release button, which make operation even easier and more convenient.

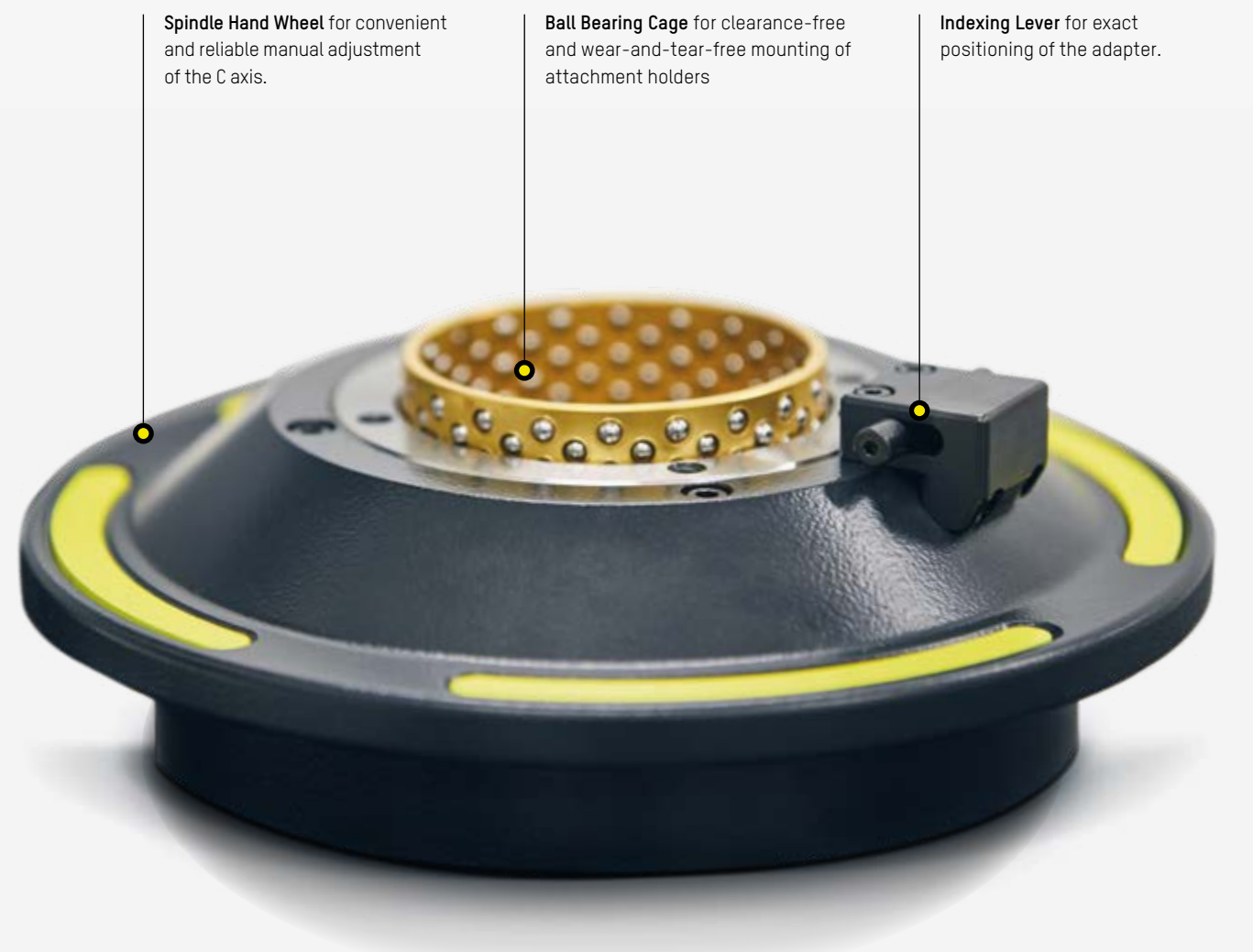


Automatic Illumination Monitoring – during incident light measurement, the illumination intensity adjusts automatically so that the tool is optimally illuminated. In transmitted light, the illumination intensity is constantly monitored and automatically controlled.

Separate Control Unit »cockpit« – can be tilted, adjusted in height and easily moved to the desired position. This means that every operator can adjust his workstation individually in just a few simple steps.

ZOLLER »ace« High-precision Spindle (all-clamping-element)

The ZOLLER »ace« high precision spindle facilitates power-activated tool clamping for almost any tool with a cylindrical shaft, including steep taper SK in accordance with ANSI, CAT, MAS-BT, VDI, hollow taper shank HSK, or the Coromant Capto and KM tool systems.



Spindle Hand Wheel for convenient and reliable manual adjustment of the C axis.

Ball Bearing Cage for clearance-free and wear-and-tear-free mounting of attachment holders

Indexing Lever for exact positioning of the adapter.

Further highlights of the ZOLLER »ace« high-precision spindle:

- **Power-activated Tool Clamp** – consistent, regardless of the operator.
- **Spindle Brake** for pneumatic positioning of the spindle in the desired position over the entire 360°, for example to set the tool.
- **Spindle Indexing** for defined fixing of the tool position in 4 × 90°, for example, for the position-indexed holding of turning tools.
- **Adapters with Integrated Calibration Spheres** for simple, fast and exact determination of the spindle zero point.
- **Fast Adapter Changeover** in a maximum of 10 seconds.
- **High Changeover Accuracy** of adapters better than 1 µm.
- **High Axial and Radial Runout Accuracy** – better than 2 µm as a result of clamped adapters.

Options: Can be extended with autofocus, rotation encoder (ROD) and length adjustment system if required. All »venturion« models are also available with SK 50 spindle. Reinforced spindles for very heavy tools are available as an option.

Always the right attachment holder



SK 25 to SK 60 steep taper



Coromant-Capto from C3 to C10



HSK 25 to HSK 160 hollow taper shank



Kennametal KM 32 to KM 100



VDI 16 to VDI 60 cylinder shaft



Hydro expansion cylinder shaft with change bushes D3 to D25 mm

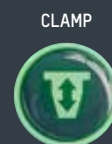
Eject tool

Power-clamping

Spindle brake

Spindle indexing

Membrane keypad for controlling pneumatic functions



»pilot« is Always on Course for Success

ZOLLER »pilot« software is the comprehensive software solution for all ZOLLER presetting and measuring machines. The intuitive graphical user interface guides users quickly and reliably to the most precise measurement result. This makes »pilot« so easy to operate that even complex measuring tasks can be performed right away. At the same time, the software is so comprehensive in its functionality that there is a solution for every requirement. It's no wonder that »pilot« is considered the unrivaled benchmark in the world for tool presetting, measuring and inspection.

Tool designation for individual identification

Dynamic crosshairs

Live image of the tool

Angle specification with selectable reference axis in the coordinate system

Setpoints with tolerance specification

Current position specification of the axes

Automatic cutting edge shape recognition

The screenshot displays the ZOLLER »pilot« software interface. The top menu bar includes options like 'Measure/preset/manage tool', 'Tool data', 'Parts list', 'Comment', 'Machine', 'Tool identification', 'Tool life monitoring', 'Component life', 'DXF', and 'Document'. The main workspace is divided into several sections:

- Left Panel:** A 3D model of a tool with dynamic crosshairs and measurement points. A red line indicates a measurement point with a value of 0.00. A green line indicates another measurement point with a value of 13.91.
- Right Panel:** A list of tool parameters and settings, including:
 - Adapter: 2 (SK40)
 - ID no: T_00038
 - Description: Step Drill Ø10mm 2 Steps
 - T number: [empty]
 - Drawing: Machine [1] WS-043.dxf
 - Step: 1 [3]
 - Cutting edge shape: 5
 - Focus: No
 - Measuring mode: Measu
 - Meas. range: 3,5 X 3,2
 - Cutting edges on: [empty]
 - Meas. prog.: Default Program
 - Z: 177.700 R A G UT 0.300 LT -0.050
 - X: 0.000 R A G UT [empty] LT [empty]
 - Radius nominal: [empty] G* UT [empty] LT [empty]
 - Angle 1 nom: [empty] G* UT [empty] LT [empty]
 - Angle 2 nom: [empty] G* UT [empty] LT [empty]
- Bottom Left:** A large digital display showing current axis positions: Z: 163.634, X: 2.287, C: 8.695. A circular indicator shows the current cutting edge shape.
- Bottom Center:** A membrane keypad with various function buttons and a joystick.
- Bottom Right:** A 3D model of a tool with a yellow cutting edge, showing different cutting shapes for different tool contours.

Tool drawing

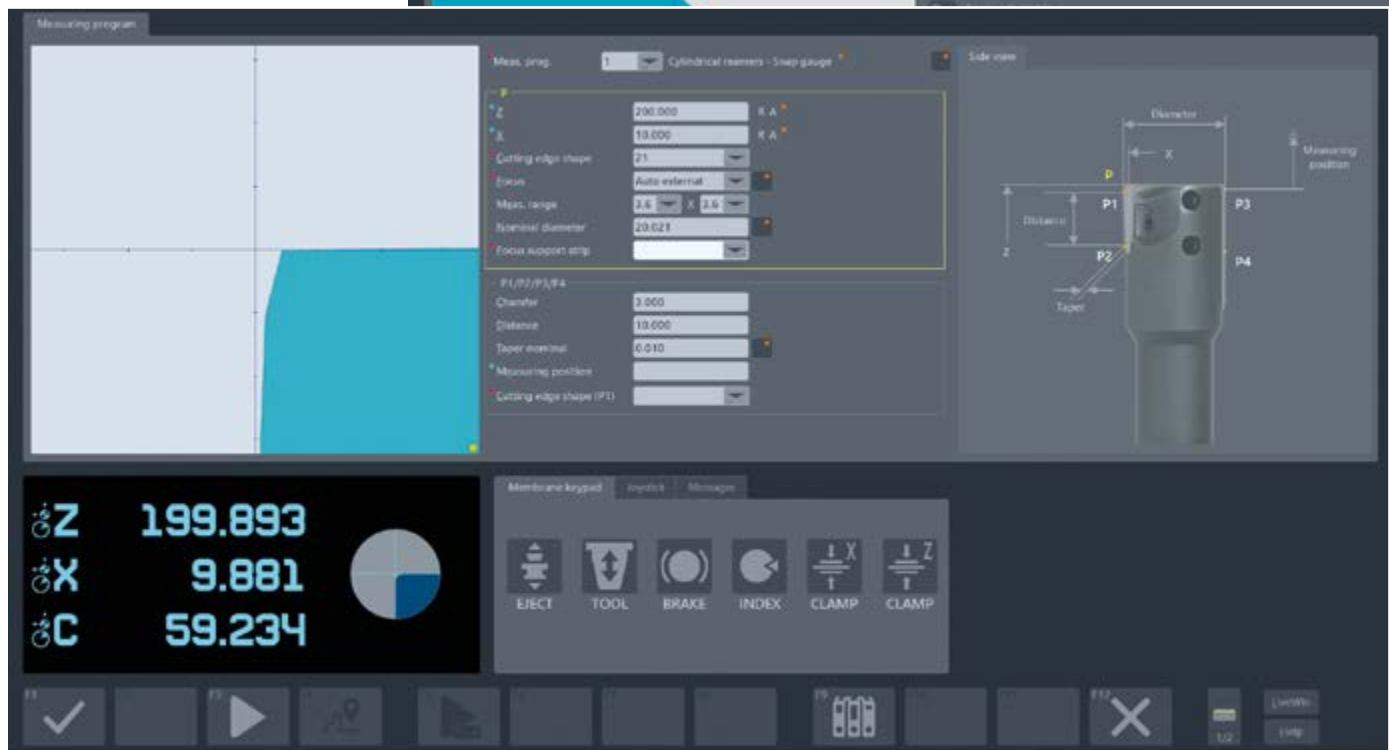
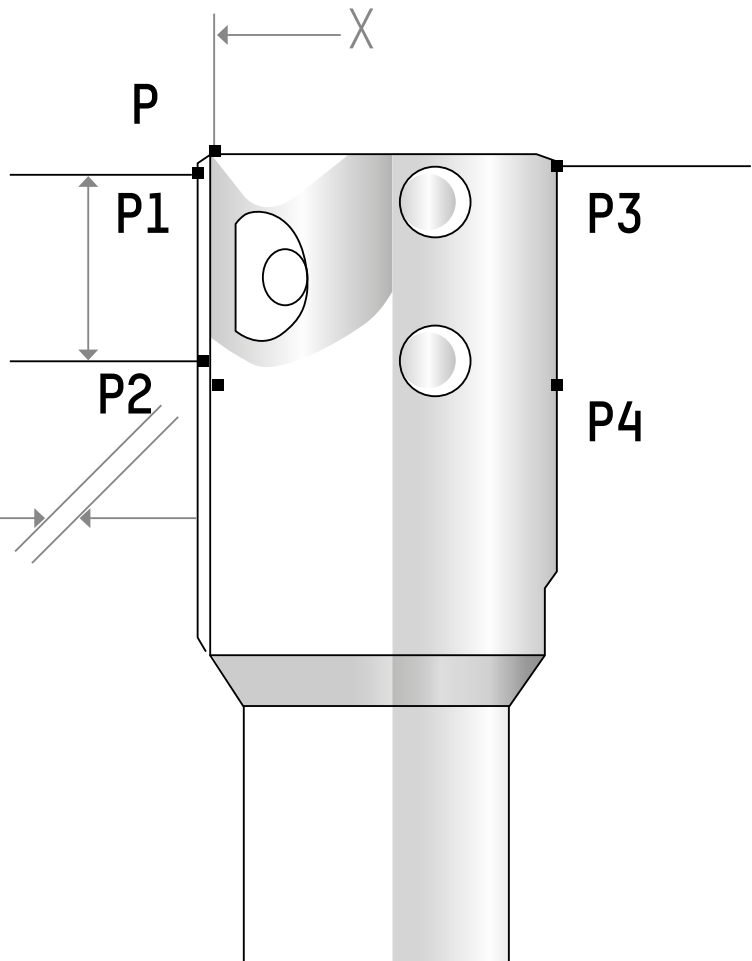
Text and graphically stored adapter management

Different cutting shapes for different tool contours

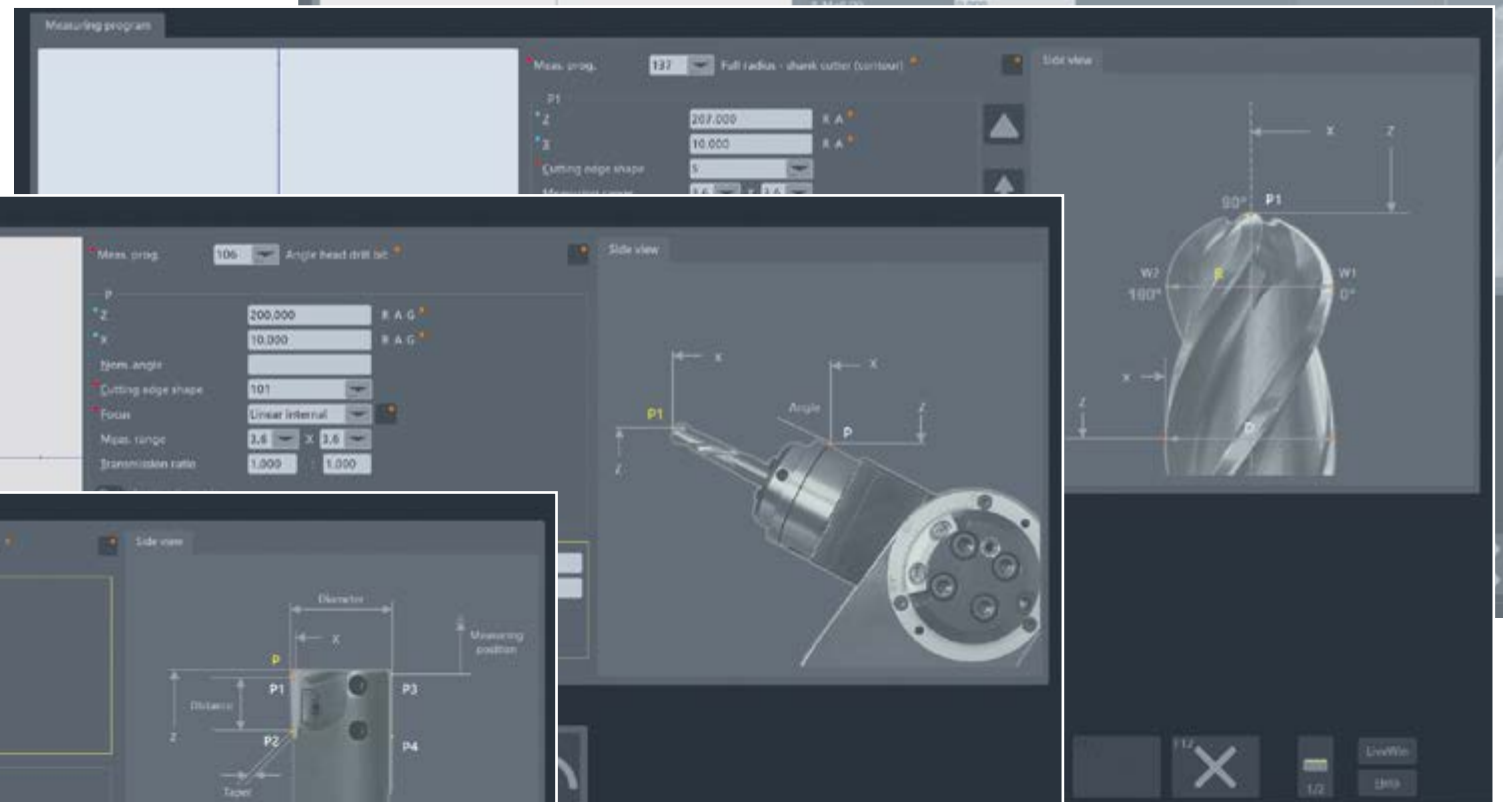
Function buttons with intuitive icons

Guided Parameter Input for Correct Measurement Sequences with »fored«

Unrivaled in its simplicity: The photo-realistic input dialog »fored« guides every operator safely through the parameter input of measuring programs. The required parameters are highlighted in the input dialogue. At the same time, the photo-realistic image highlights the corresponding point. This prevents errors when entering parameters.



Measuring program for the measurement of cylindrical reamers with support bar in the snap gauge principle

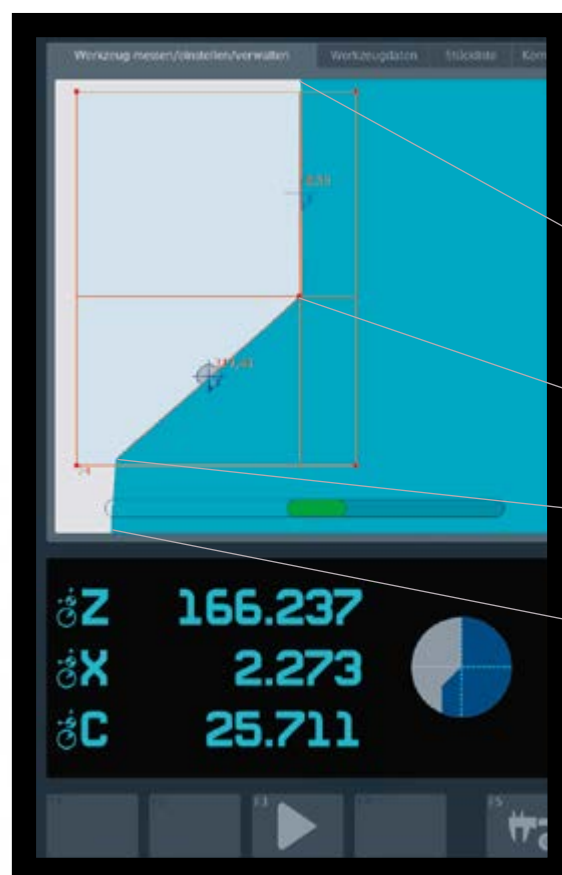


Measuring program for adjustment and measurement of angle heads

Measuring program for analyzing the radius contour of full radius milling cutters in adjustable angular increments

No Input Necessary - The »venturion« Standard

It's simple: Just insert the tool and move the camera to the desired measuring position. The »venturion« doesn't need anything else. It will automatically recognize the cutting edge shape, the measuring angle and the steps of each tool.

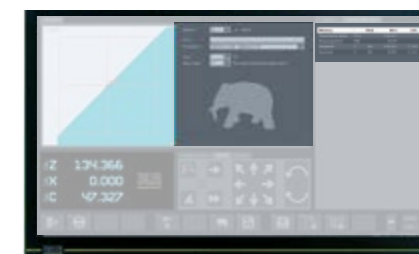


Easy as 1,2,3 - Measuring is Intuitive with »elephant«

With the software module »elephant« any employee can measure standard tools without any prior training. Simple select the tool and the measuring task, and the measuring takes place fully automatically. It couldn't be any simpler.

01

Insert and clamp the tool, then start »elephant« via the main menu or the lower menu bar.



02

Select tool category based on the graphical representation.



03

Select measurement task and measurement mode based on the determining parameters. The measurement starts without any programming effort.



Measurement results are displayed and archived on the screen. The output follows on the label, as control-specific data output or in the editable »apus« test protocol.

Measurement	Mod.	Value
Theoretical tip	Th.t.	134.366
Inclination	NW	44.96
Lengthways dimensi...	Z RA	134.366
Crossways dimension	X RA	0.000



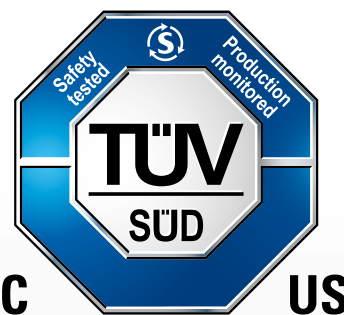
Economical Manufacturing From a Lot Size of 1 With an Autofocusing Spindle Drive and CNC

Measure with the touch of a button. A »venturion« with CNC axes and an autofocusing spindle drive can reliably measure any tool fully automatically, regardless of who operates the presetter.

After inserting the tool, the operator starts the measuring process at the touch of a button. The exact measured values are available after a minimum measuring period, and your tools produce good parts in the machine tool right away.

CNC control of the Z, X and C axes for automatic movement of the axes and exact position determination.

Spindle Drive Autofocus – the spindle automatically rotates precisely to the highest point of the tool.



Tested according to IEC 61010-1.
Verifiable and certified product safety

Preset, Measure and Heat-Shrink with »redomatic«

The »redomatic« is the high-end solution for automated presetting, measuring and heat-shrinking your tools. With it, you can shrink tools with a repeatability better than 10 µm to the exact length. With this machine, you increase the efficiency of preparation of single and multi-spindle tools and protect your shrink chucks. Plus, you'll get all the benefits of a »venturion« for measuring and presetting tools.



Mounting Polygonal Power Shrink Chucks with »tribos«

With the »tribos«, you assemble and measure the length of the SCHUNK TRIBOS type polygonal power shrink chucks µm accurately. The machine positions the TRIBOS clamping unit, controls the TRIBOS pressure control and the search run for aligning the SCHUNK clamping surfaces. Everything is done precisely, in a controlled manner, fully automatically.



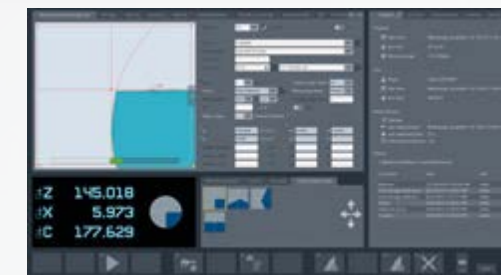
Flue gas extraction for high work safety
The side-mounted flue gas extraction system reliably removes flue gases from the working area.



Best operator guidance with »sls«
The heat-shrink guidance system »sls« eliminates process errors as much as possible by guiding users through every step and displaying the required accessories.



Fully automated with »tribos«
The SCHUNK TRIBOS clamping unit is automatically positioned to the clamping position and returned to the starting position at the end of the clamping/unclamping process.



Securely supported by »pilot«
The optimum interaction between »pilot« measuring software and the control of the TRIBOS clamping unit from SCHUNK ensures that the tool length is set µm accurately.

Presetting and Measuring Long Reamers and Fine Boring Tools with »reamCheck«

With the »reamCheck«, you can set multi-step tools such as reamers fully automatically, quickly and with repeatable accuracy, regardless of the operator. The integrated control measurement offers you a safe working environment.

The tail stock can be easily lowered with the operating handle and clamps long, slim tools in the precise position with defined contact force. Thanks to outstanding ZOLLER technology, you can carry out all measurement steps with ease and with absolute process reliability. Whether you prefer to use tactile measurement for the presetting process, or the proven ZOLLER image processing technology »pilot« is up to you. But one thing's for certain, there is no better way than the ZOLLER »reamCheck«.



Measuring Program Selection

Extensive measuring program selection in »pilot« with photorealistic input dialog for simple operation and reliable selection of nominal parameters.



Tactile Presetting of Tool Cutting Edges

With the aid of an analogue dial gauge, tool cutting edges on reamers as well as on face milling cutters can be adjusted in »pilot«.



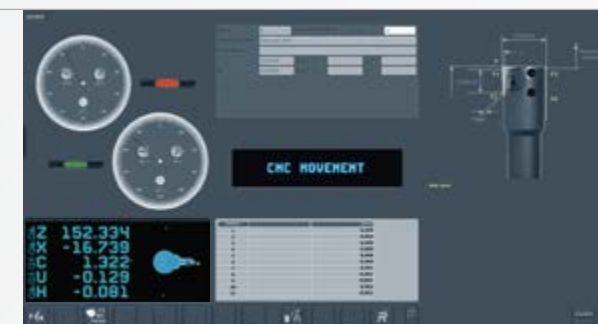
Photorealistic Measuring Programs for Reamers

Regardless of the reamer being measuring or the desired measuring method, the user can select the appropriate measuring program from the library.



Tactile CNC-Controlled Measurement

With the aid of a double probe, two measuring points on the tool cutting edge can be approached simultaneously and both cutting point and taper can be set.



Electronic measuring probe "duo"

For simultaneous presetting and measuring of diameters and tapers of e.g. reamers in oversize principle. The probes are magnetic and can be mounted as required.



Automatic with CNC control

Fast and CNC-controlled axial run-out or radial run-out measurement on face milling cutters or CAP cutters.

Comprehensive Control in Cutting Tool Inspection with »smartCheck«

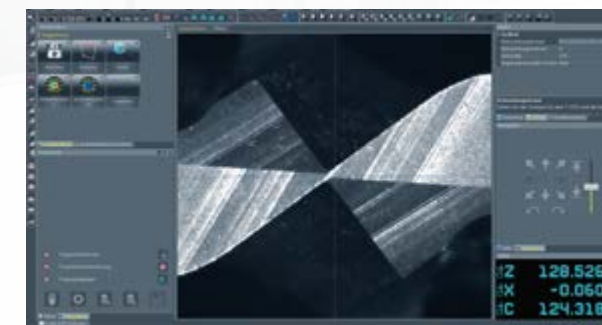
In addition to the geometric data of the tools, which are purely relevant for production, the quality of the cutting edge is also important. The »smartCheck« presetting, measuring and inspection machine can visualize the surface quality of the cutting edge on the forehead and circumference. With the help of the tool analysis software »metis« the generated images can be evaluated and analyzed.



Presetting, Measuring, and Inspection Machine »smartCheck«

Presetting, Measuring, and Inspection Machine »smartCheck«

With the help of the swivelling inspection camera, additional tool parameters, geometries and cutting edge condition can be measured both radially and axially. The cutting edge is optimally illuminated by the LED ring light with adjustable light intensity, so that the tool cutting edge contours are displayed brilliantly.



The face of the tool is displayed and measured in the »metis« tool analysis software.

Cutting Edge Inspection

Each presetting and measuring machine has the cutting edge inspection function. This allows a tool cutting edge to be inspected and evaluated qualitatively. The movable crosshairs, the dimmable incident light and projector mode make analysis particularly easy. For complete documentation, images can be saved at any time during cutting edge inspection.



Cutting edge inspection in the »metis« tool analysis software

Center Height Measuring Camera

For turning tools, the radial position of the tool cutting edge (center height) is the essential parameter for exact turned part production. This center height can be determined on a vertical measuring machine with the aid of the horizontally aligned turning center measuring camera.



Center height measuring camera on optics carrier with LED ring light

Fully Automatic Torquing with »torquematic«

The »torquematic« presetting and measuring machine from ZOLLER allows tools with collet chucks to be set fully automatically to length, clamped to a predefined torque and measured. The automatic torquing station clamps tools without any effort. Your employees will be thrilled!



Tool Assembly Made Easy with »screwmatic«

Many tool holders for cylindrical shank tools with Weldon surface or hydraulic chucks have a horizontally arranged clamping screw. Using three CNC-controlled linear axes, the »screwmatic« screw driving station can move to any horizontal screwdriving position with μm accuracy. A torque-controlled screw driving axis carries out the screwdriving process precisely. This saves you a lot of time in work preparation and relieves your employees of this task.



Clamping tools securely

The torquing station moves downwards, the clamping nut is screwed in by rotating the »ace« spindle with dual drive according to the predefined torque and the tool is clamped.



Quick change system »adaptYourHolder«

Using the »adaptYourHolder« quick-change system »torquematic« adapts to the shapes of the union nuts of your clamping systems.



Cleverly screwed in

For tools with horizontally arranged set screws, the screws are screwed in and out automatically. At the same time, the defined torque of the tool systems is set and monitored.



All fully automatic

The complete tool is inserted into the presetting and measuring machine and the screw-in position is approached automatically. The screw is tightened or loosened under torque control.

Options

With additional functionalities, you are prepared for a wide variety of applications and can expand your range of applications.

Measuring Probe

For tactile measurement of tool cutting edges.



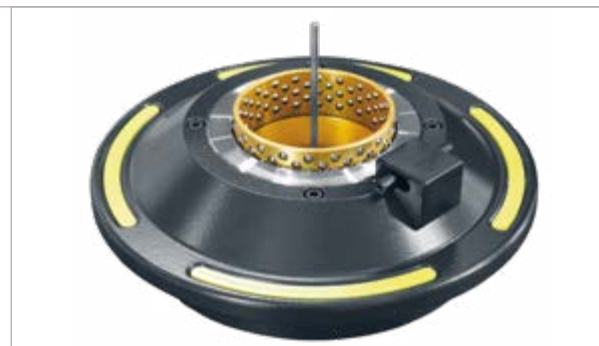
CNC Swivel Device*

For distortion-free measurement of inclined tools such as threading tools and hobs.



Length Stop System »asza«

CNC-controlled adjustment device for presetting tools to length via stop pin or via rotation of the adjustment screw when using tools with minimum quantity lubrication (MQL).



Integrated Optic Carrier in Tower / Built in Y-Axis

Thanks to the additional Y axis, the optics carrier can be positioned up to ± 1.9 inch from the spindle center in Y-direction under CNC control. In combination with the turning center measuring camera, turning tools and multi-function tools can be measured efficiently and with high precision and adjusted to center height.



»phoenix 600«

The tailstock can be easily lowered and holds long, slim tools in exact position with a defined contact force. In addition to tools, components can also be measured between centers.



* only »venturion 450«

Uniquely Identify Tools

When a machine receives the wrong tool, or is utilizing incorrect data, this can have serious consequences. In the worst-case scenario, you can experience an expensive machine crash. That's why it's critical that tools are clearly identified, before they go into the machine tool.

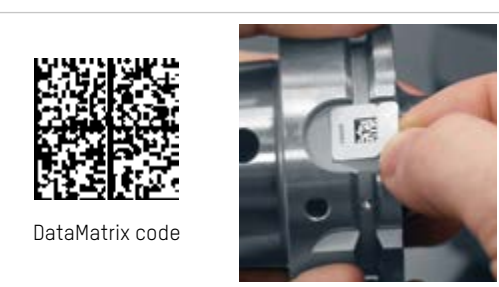
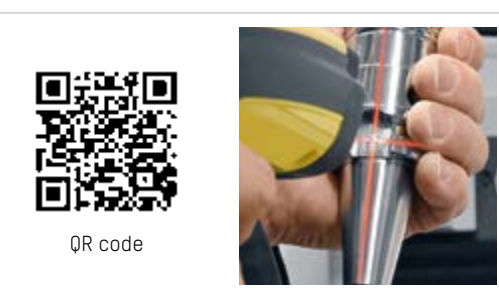
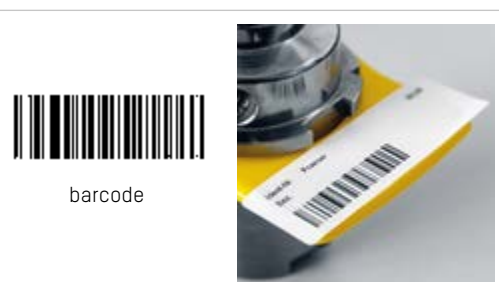
ZOLLER has the right solution for companies of all sizes. With systematic tool management, you will increase your productivity, protect your machines from costly crashes and maintain a clear overview of your inventory at all times.

Identification by Code

Barcodes, DataMatrix codes and QR-Codes can be generated using ZOLLER's »pilot« measuring software and printed on a label. In addition, DataMatrix codes can be laser etched onto the tool holder, or fixed securely onto the resin-coated »idLabel« on the tool holder. As soon as the tool is recognized at the CNC machine, the data is retrieved from the ZOLLER z.One database via the communication platform »zidCode«, or transferred to the machine control system via the host computer system.

Scan Codes Automatically

The camera »autoIDscan« scans all codes automatically, directly on the ZOLLER presetting and measuring machine.



Tool Recognition with RFID

Radio-based RFID technology is ideal for absolutely secure data transfer.

Each tool holder is equipped with an RFID chip to which all actual data and other control data is transmitted via radio signal to the presetting and measuring machine. At the CNC machine these are read out again.

The read/write processes can be fully automatic, manual or with a hand held reader. With RFID you can use a fast, secure and efficient technology.



Data Transmission – Reliable, Easy, Fast

Tool data can only effectively support production if it can be transferred at different points in the manufacturing process. ZOLLER offers several options for this, depending on how large your production is, how comprehensively you want to use your tool data and how you want to organize data transfer.

Actual Tool Data – Ready for Take-Off

Plain text on a label

The most cost-effective option is to print tool data in plain text on a label and attach the label to the tool. The data is then entered manually on the CNC machine. There are 10 layout variants available for designing the label.

Transfer data with the ZOLLER communication platform »zidCode«

With the ZOLLER communication platform »zidCode« you can play it safe. You print your tool ID number as an encrypted DataMatrix code on an ID label and attach the label to the tool holder.

Postprocessing data

With the aid of postprocessors, you can prepare tool data for control and ensure transfer to the machine. This means that you have fulfilled all requirements for direct control of the machine.

Data transfer via RFID chip

A special identification unit on the presetting and measuring machine transmits the tool data and other control-relevant information by radio to an RFID chip. This is done either automatically, manually or via a hand held reader.

Successful Arrival – Machine Produces

Typing on the machine

The operator reads the tool data from the label and types it in manually on the machine. To make it easy for the operator to identify the tools, additional tool images are displayed on the set up sheet.

Scan in and go

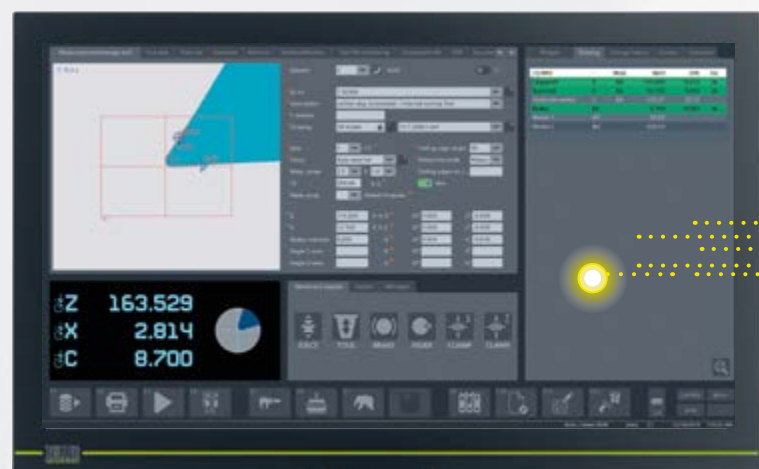
The tool is identified by scanning the »idLabels« on the machine. The associated tool data is either requested from the z.One database or transferred to the »zidCode« control via Bluetooth. There they are processed and then read in by the machine control. Input errors are a thing of the past.

Transferred directly to the machine

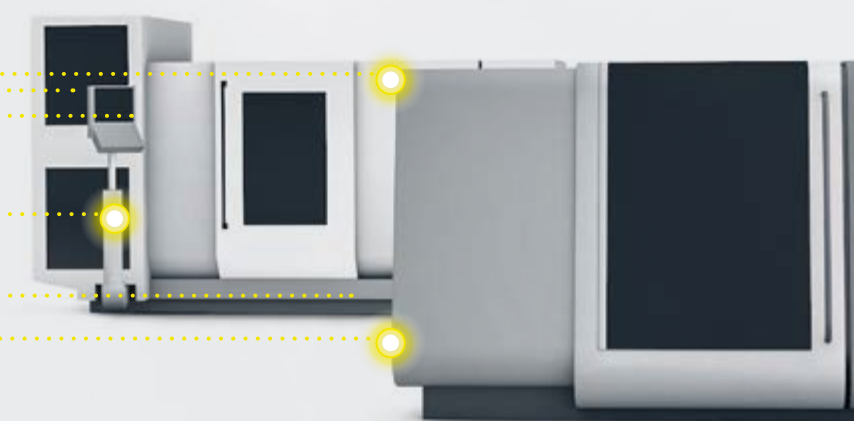
The data prepared by postprocessor can be transferred directly to the machine via the network, USB stick or RS232 interface.

Tool sends data

At the machine, the data on the chip are automatically read by RFID signals to ensure secure data transfer.



$\varnothing Z$ 115.839
 $\varnothing X$ 13.193



Data Transfer Solutions

Label Printer

For printing the measurement results or DataMatrix codes on adhesive paper or thermal labels.



Automatic RFID Read/Write Station

For automatic writing of measurement and presetting data as well as additional information prepared for control purposes on an RFID chip and for reading out these data records.



»zidCode«

With the communication platform »zidCode« you benefit from correct and complete tool data, which can be transferred to your machines quickly, paperlessly and therefore guaranteed without typing errors.



Manual RFID Read/Write Station

»mslz« - Hand Held Device

For manual reading/writing of the code carrier on the tool via a hand held reader.



Control-Specific Data Transmission via Postprocessor

Data transfer from the »venturion« directly to the CNC machine, quickly and easily at the touch of a button.



Manual RFID Read/Write Station »msle«

For manual reading and writing of the RFID chip in the head bolt or on the driving groove. For free mounting on the »venturion« or separately on a workbench.



Hand Scanner

For reading tool data from codes for unique identification.



»autoIDscan« Automatic 2D Code Camera

Special camera system used to read even large DataMatrix codes with an edge length greater than 5 mm.



Fully Automatic and 24/7 – the Robot-controlled »roboBox« System

If you have to assemble and disassemble hundreds of tools every day, the »roboBox« can take over this task. It screws, presses and shrinks all common tool systems to complete tools and then measures them.

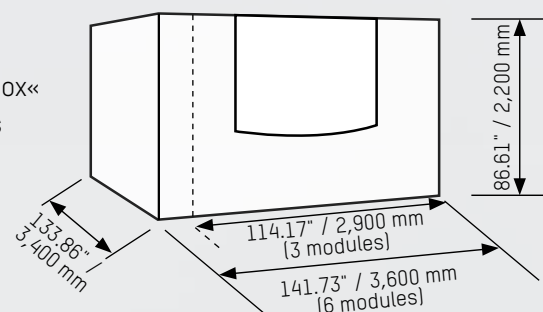
The tools and tool holders are fed to the »roboBox« either manually or automatically via a tool cart or transport system. They are then ready for use in the machine tools, fully assembled and with electronically stored tool measurement data.

With »roboBox«, you have a modular system that works autonomously around the clock and makes your tool allocation productive.

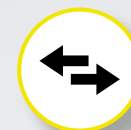


ZOLLER
robotic system
»roboBox«

Installation area of the »roboBox«
with 6 modules and 3 modules

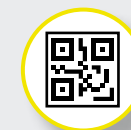


»roboBox« – Interfaces



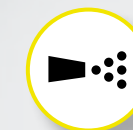
Input and Output

No matter how you feed and handle removal transportation for your tools, the gate system can always be adapted to your logistics process: whether manually, via a tool cart, or a transport system.



Identification

Tools can be identified via DataMatrix code or using another tool identification system via RFID Chip.



Cleaning

Taper and cutting edge cleaning are both required for perfect measuring results. Automatic taper cleaning removes dirt, oil and grease from tool holders. Cutting edges are cleaned with highly pressurized air. This prevents lint or dirt from affecting measuring results.

»roboBox« – Assembly Processes



Collet Chuck

With the right adapters, clamping nuts can be automatically set to a defined torque with collet chucks. The operator can also switch between clamping adapters automatically. Adapters for nuts in cylindrical, hexagonal or clamping slot designs are available.



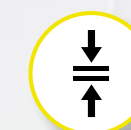
Weldon and Hydraulic Holder

Screws are clamped automatically for horizontally arranged set screws, such as those used in straight shank tools with Weldon areas or hydraulic tool collet chucks.



Heat Shrinking

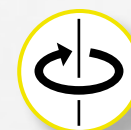
The induction coil automatically lowers onto the tool holder and heats it. The shank tool is inserted in the correct position and then quickly cooled with the aid of cooling bodies. This accelerates the cycle time.



powRgrip® Pressing

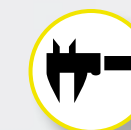
The tool with suitable collet holder and REGOFIX powRgrip® collet chuck is fed and automatically pressed.

»roboBox« – Measurement Processes



Tool Balancing

The balancing module is insulated with the high precision measuring unit and integrated into the »roboBox« vibration neutral. After the measuring process, the balancing quality can be transferred to the CNC machine control as a measuring parameter.



Tool Geometry

After the automatic assembly process, tool geometries such as diameter, length, cutting edge radius, cutting edge angle as well as radial and axial runout can be measured in automated measuring sequences. In addition to the automatic mode, manual measurements can also be carried out in the module, whereby the automatic mode is not interrupted within the »roboBox«.

ZOLLER Service

Your goal is maximum efficiency for your production. Our goal is to support you with well-designed system solutions. We also offer comprehensive service.

Whether through personal consultation on site or by developing perfectly tailored solutions for individual requirements – if you choose ZOLLER, you will not only receive excellent products, but also unique production know-how on your side.

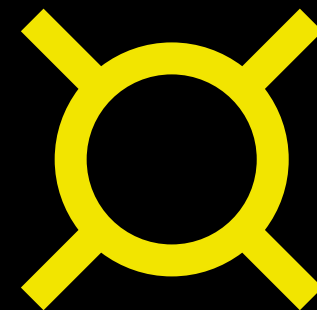
And of course, competent contact partners to answer questions at any time – over the entire life cycle of your ZOLLER products.

Make use of the ZOLLER know-how to optimize your production processes.



Alexander Zoller | Christoph Zoller

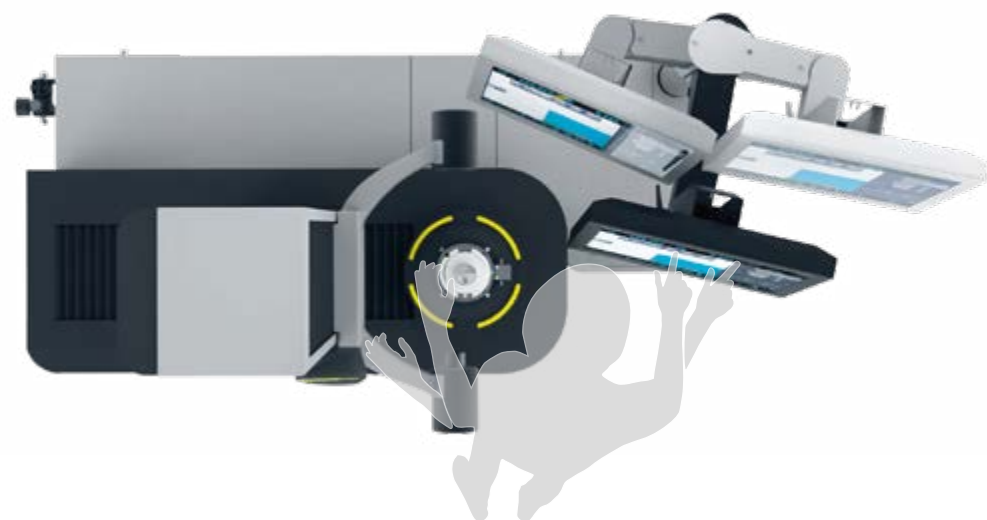
ZOLLER Solutions



With us, you get more than excellent products. You get individual system solutions connected with your tools. We combine hardware, software and services for you. Everything from a single source. Everything for your success. We call it: ZOLLER Solutions.

Comfort for Everyone - the Integrated Control Unit

The integrated operating unit can be individually adapted to the needs of the various operators to ensure that work is carried out in a health-friendly and comfortable manner: Height, swivel angle and tilt angle are flexibly adjustable.

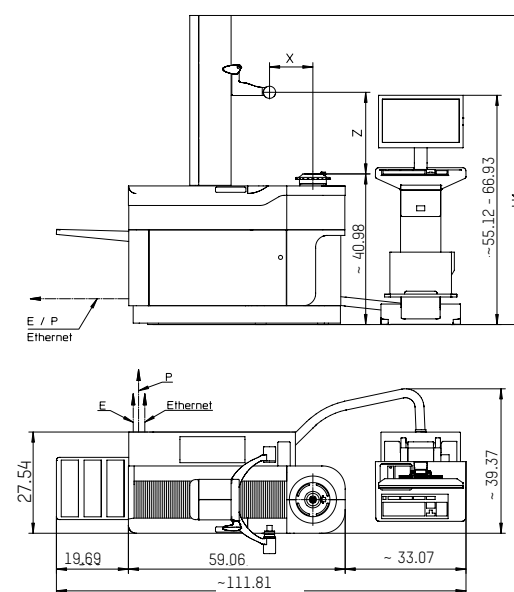
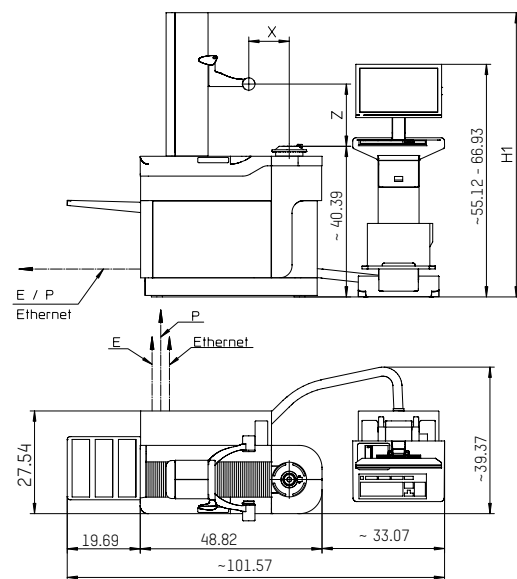
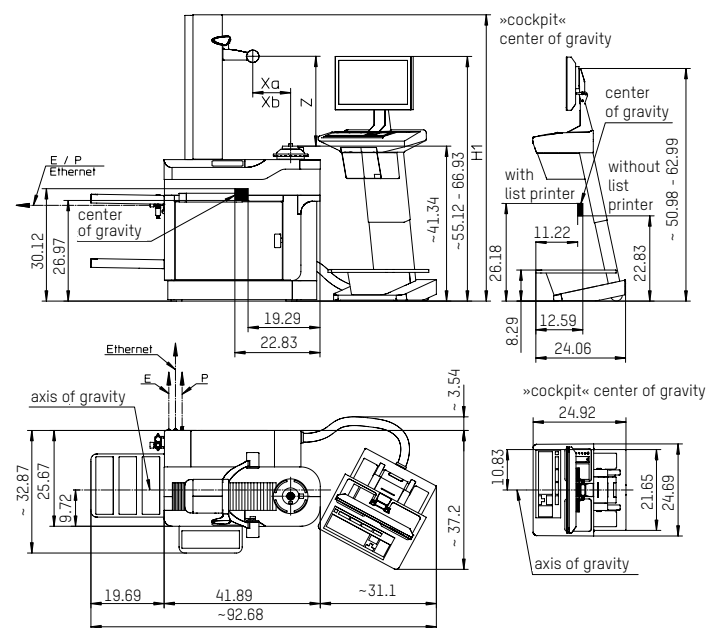


Installation Dimensions

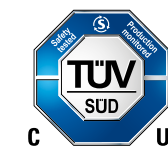
Installation dimensions »venturion 450« with »cockpit«			
Z [inch (mm)]	Xa [inch (mm)]	Xb [inch (mm)]	H1 [inch (mm)]
17.72 (450)	8.27 (210)	12.20 (310)	- 68.89 (-1,750)
24.41 (620)	8.27 (210)	12.20 (310)	- 76.77 (-1,950)
32.28 (820)	8.27 (210)	12.20 (310)	- 84.65 (-2,150)

Installation dimensions »venturion 600« with »cockpit«		
Z [inch (mm)]	X [inch (mm)]	H1 [inch (mm)]
23.62 (600)	11.81 + 3.94 (300 + 100)	- 76.22 (-1,936)
31.5 (800)	11.81 + 3.94 (300 + 100)	- 84.09 (-2,136)
39.37 (1,000)	11.81 + 3.94 (300 + 100)	- 91.97 (-2,336)

Installation dimensions »venturion 800« with »cockpit«		
Z [inch (mm)]	X [inch (mm)]	H1 [inch (mm)]
23.62 (600)	19.69 + 3.94 (500 + 100)	- 76.22 (-1,936)
31.5 (800)	19.69 + 3.94 (500 + 100)	- 84.09 (-2,136)
39.37 (1,000)	19.69 + 3.94 (500 + 100)	- 91.97 (-2,336)
(1,200)	19.69 + 3.94 (500 + 100)	- 99.84 (-2,536)



Note: P air connection E electrical connection



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Always Close By

ZOLLER quality is "Made in Germany" – and there for you, anywhere in the world.

Our company has a global presence with 85 site locations of our own branches and representatives network. This guarantees you first-class, personalized customer service in every corner of the world.

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Inspection & Measuring

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expect great measures

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