ZOLLER

expect great measures

The Premium System for Professional
Tool Presetting and Measuring

venturion

Premium is a Promise – and an Attitude

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

Measure complex tools with the highest precision, down to the µm. Benefit from the flexibility of a modular system that adapts ideally to your processes. Networked production, digital tool management, data exchange with external systems - enter the production world of the future. Because we understand the future is a long-term project, a »venturion« is built so robustly that it will accompany you for a very long time.

With »venturion«, you're prepared for the highest demands when measuring and presetting tools.

Elegant and Strong

The best teammate you can have: the premium presetting and measuring machine »venturion«. The robust body consists of a light alloy specially developed for measuring machines. Made from exclusively high quality brand-name components with exceptional craftsmanship, nothing can compare to »venturion«

These precision machines can be used in any configuration and with any of the optional extensions - even the highest workload can be handled with ease. Its robust design makes »venturion« equally suited for a climate-controlled room or in the production hall right next to the CNC machine.

»venturion 800«

»venturion 600«

»venturion 450«

»venturion 600«

Technical Data: »venturion«

	Maximum Tool Length Z	Measuring Range X Axis	Maximum Tool Diameter D	Maximum Snap Gauge Diameter D
»venturion 450«	450 / 620 / 820 mm	210 / 310 mm	420 / 620 mm	100 mm
»venturion 600«	600 / 800 / 1.000 mm	300 / 400 mm	600 / 800 mm	200 / 100 mm
»venturion 800«	600 / 800 / 1,000 / 1,200 / 1,400 / 1,600 mm	500 / 600 mm	1,000 / 1,200 mm	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 automatically 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 attachment holder is changed. For more machine safety.

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 and runs - smoothly.

Statistics provide information on how often and by whom measurements are carried out on your machine. This data can be used to optimise processes, planning and machine utilisation.

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.

Measurably More Profit

With »venturion« you save time, reduce tooling costs and increase process reliability. How does it work? It is simple: With preset tools, you reduce set-up time on the machine and increase productivity. With optimally set tools you achieve longer tool life, and with defined outer contours you avoid machine crashes.

In addition, the digital transmission of the tool data guarantees secure, error-free data input. And thanks to the high quality of the machine and brand-name components, with the ZOLLER »venturion« you get a reliable partner for many years which reduces your maintenance costs to a minimum. In short: with »venturion« you simply increase the efficiency of your production.

Christian Hantke, Technician at ZOLLER

For Quality I Give Everything – Every Day.

Maybe you already know me. Just have a look at the seal of approval of your ZOLLER machine. Because every ZOLLER employee who assembles a machine is listed there with his picture and his name. We do this because we rely on the quality of our work. We know what quality means, how to ensure quality and what quality is all about. For example, using the best components. And about love of detail. And about experience. You can rely on all this at ZOLLER. Because it is important to us.

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 – precisely aligned to the spindle for precise measurement results.

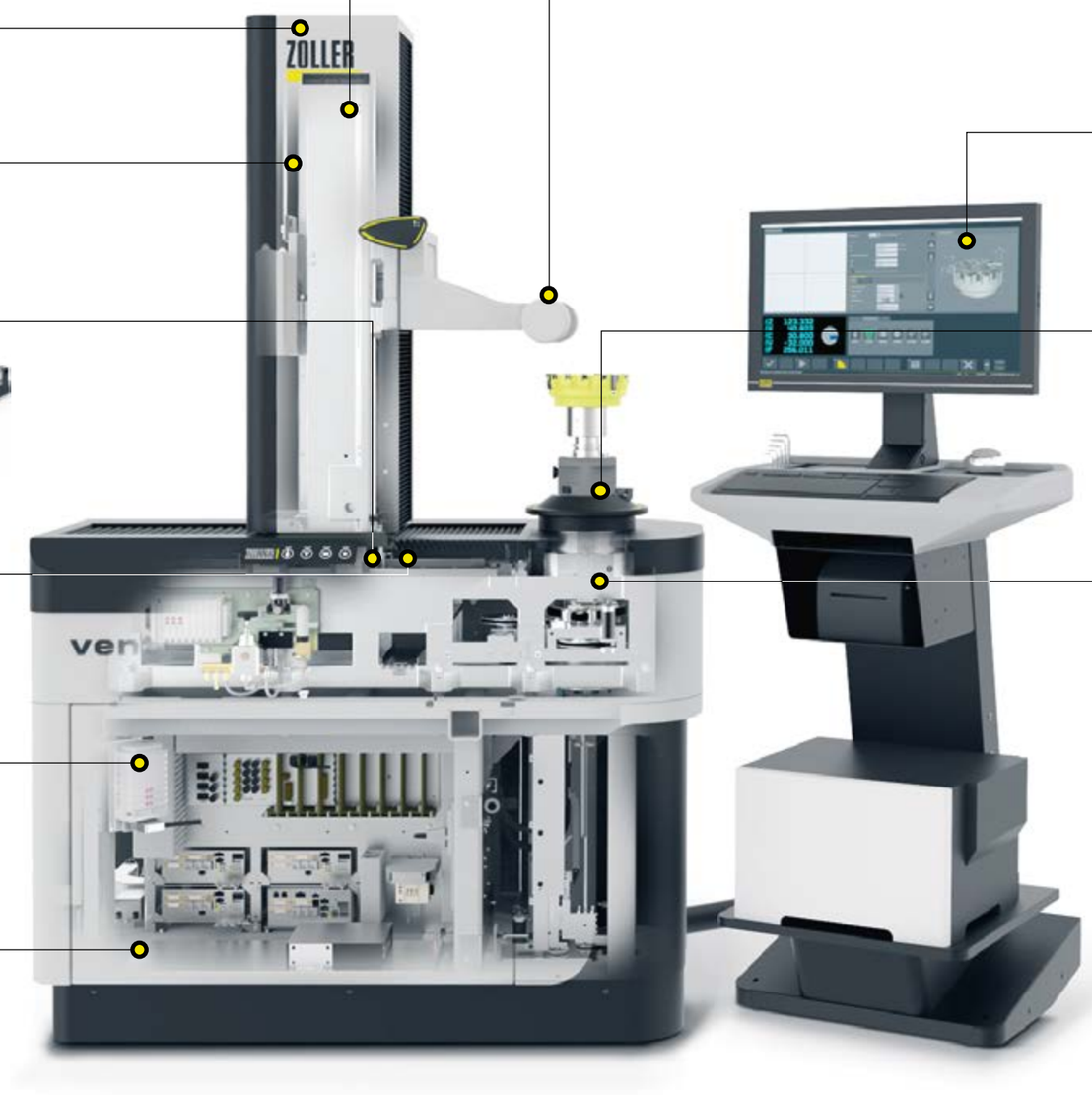
Cable drag chains – for reliable functionality despite continuous load, as cables cannot get caught, ripped free or kinked.

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

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

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

Stable machine bed – the base of the machine: Here computers, pneumatic elements and electronics are housed, everything is clean and with sufficient space laid out for good 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.

IPC 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 machine-spindle-like clamping behaviour, guarantees the µm-accurate holding and clamping of tools. The universal attachment holder changing system allows adaptation to any toolholding system.

Machine base in the Z and X axes – are made of a light metal alloy especially developed for measuring machines, which are designed to absorb the weight and the forces of the tools and to measure them reliably.

TÜV approved

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

Verifiable and certified product safety

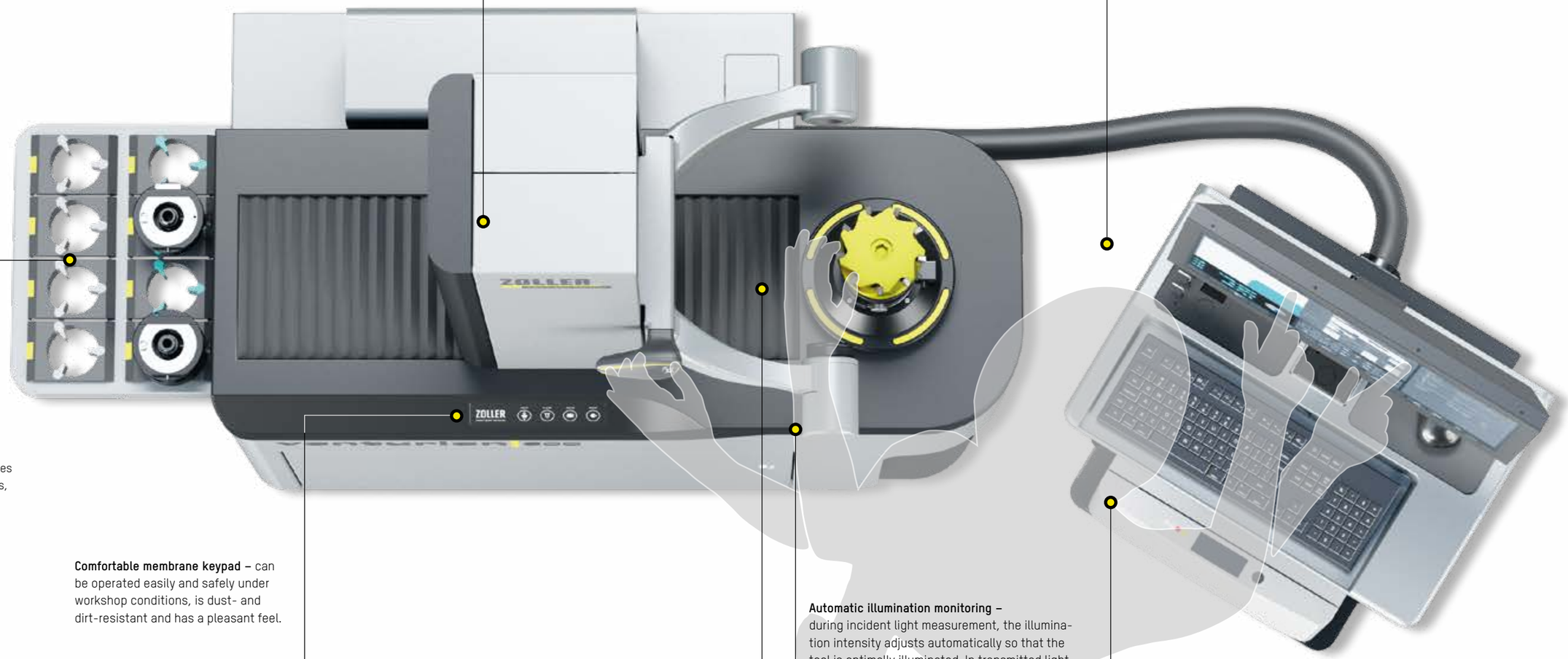
Maximum Ergonomics for Better Working Results

At »venturion«, work facilitation is a top priority: Everything functions simply and safely. Individual adaptations and 180 degree accessibility guarantees a comfortable work environment with everything in close range.

Smooth-running machine tower – easy access to the working location - without effort.

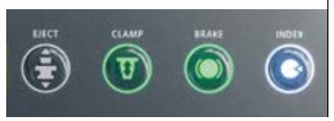
Simple operation – the clearly structured graphical structure in the software interface guides the operator intuitively through the presetting and measuring sequence.

Many things run automatically - the operator only has to press Start. And thanks to the practical help menu and detailed operating instructions in 18 languages, no questions remain 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, is dust- and dirt-resistant and has a pleasant feel.



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.

Practical hand wheel – for easy and safe positioning of the spindle – if the machine is to be operated manually.

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 ball bearing cage in the spindle takes any attachment holder clearance-free and without conversion measures. The corresponding tool holders can be inserted into these and clamped power-operated - analogous to the machine tool.

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

Locking for exact positioning of the attachment holder.

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

- **Power-activated tool clamp –** consistent independent of the individual user.
- **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.
- **Attachment holder with integrated calibration spheres** for simple, fast and exact determination of the spindle zero point.
- **Fast attachment holder changeover** in a maximum of 10 seconds.
- **High changeover accuracy** of attachment holders better than 1 µm.
- **High axial and radial runout accuracy** – better than 2 µm as a result of clamped attachment holders.

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.

SK 25 to SK 60 steep taper

Coromant-Capto from C3 to C10

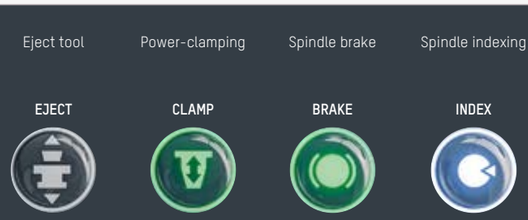
HSK 25 to HSK 160 hollow taper shank

Kennametal KM 32 to KM 100

VDI 16 to VDI 60 cylinder shaft

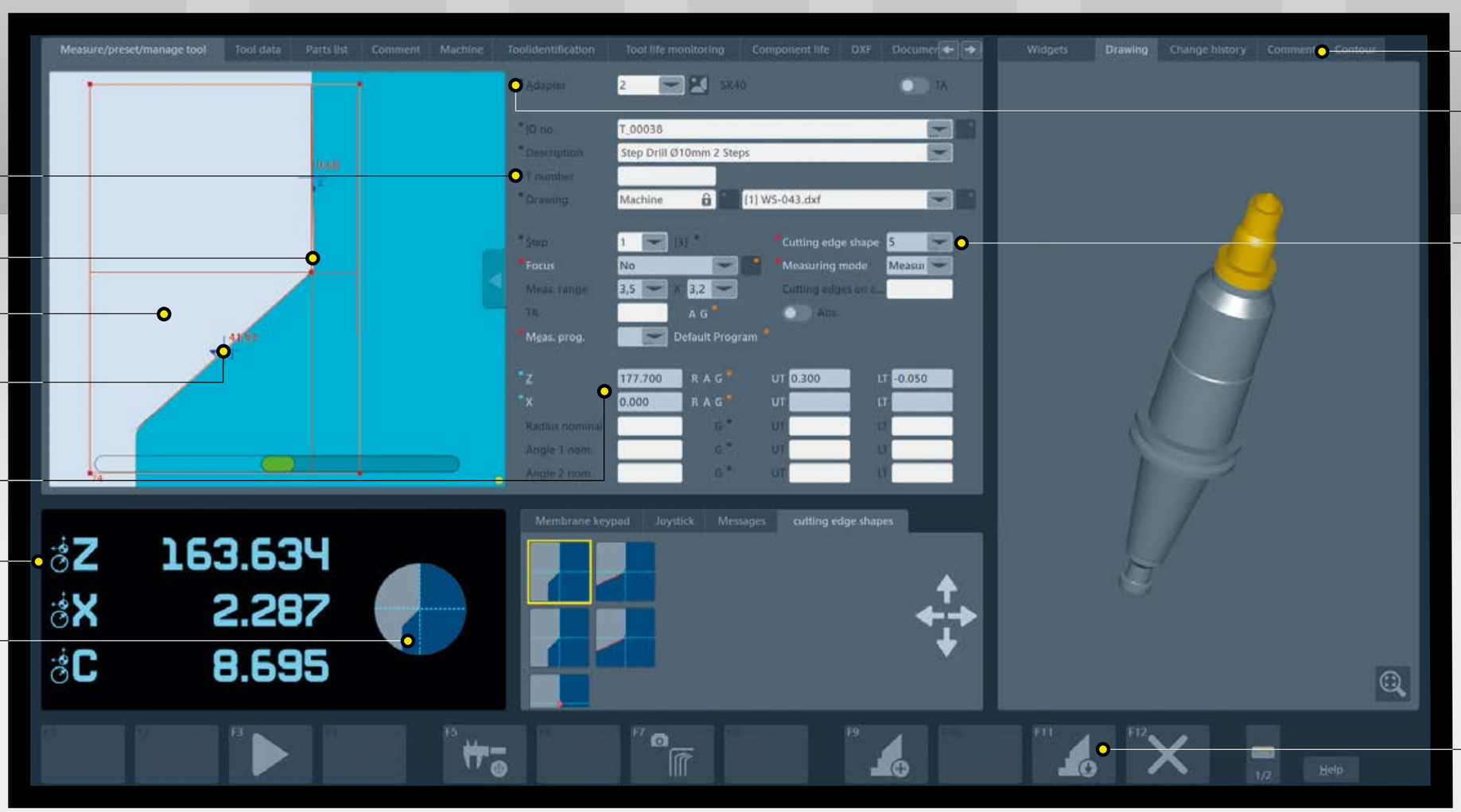
Hydro expansion cylinder shaft with change bushes D3 to D25 mm

Membrane keypad for controlling pneumatic functions



Simply Start, Achieve Everything – »pilot« is Always on Course for Success

»pilot« is the comprehensive software solution for all ZOLLER presetting and measuring machines. The intuitive graphical user guidance guides the user quickly and reliably to the precise measuring 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 is not for nothing that »pilot« is regarded as the benchmark for tool presetting, measuring and inspecting that is unequalled anywhere in the world.



Tool designation for individual identification

Dynamic crosshair

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

Tool-specific information

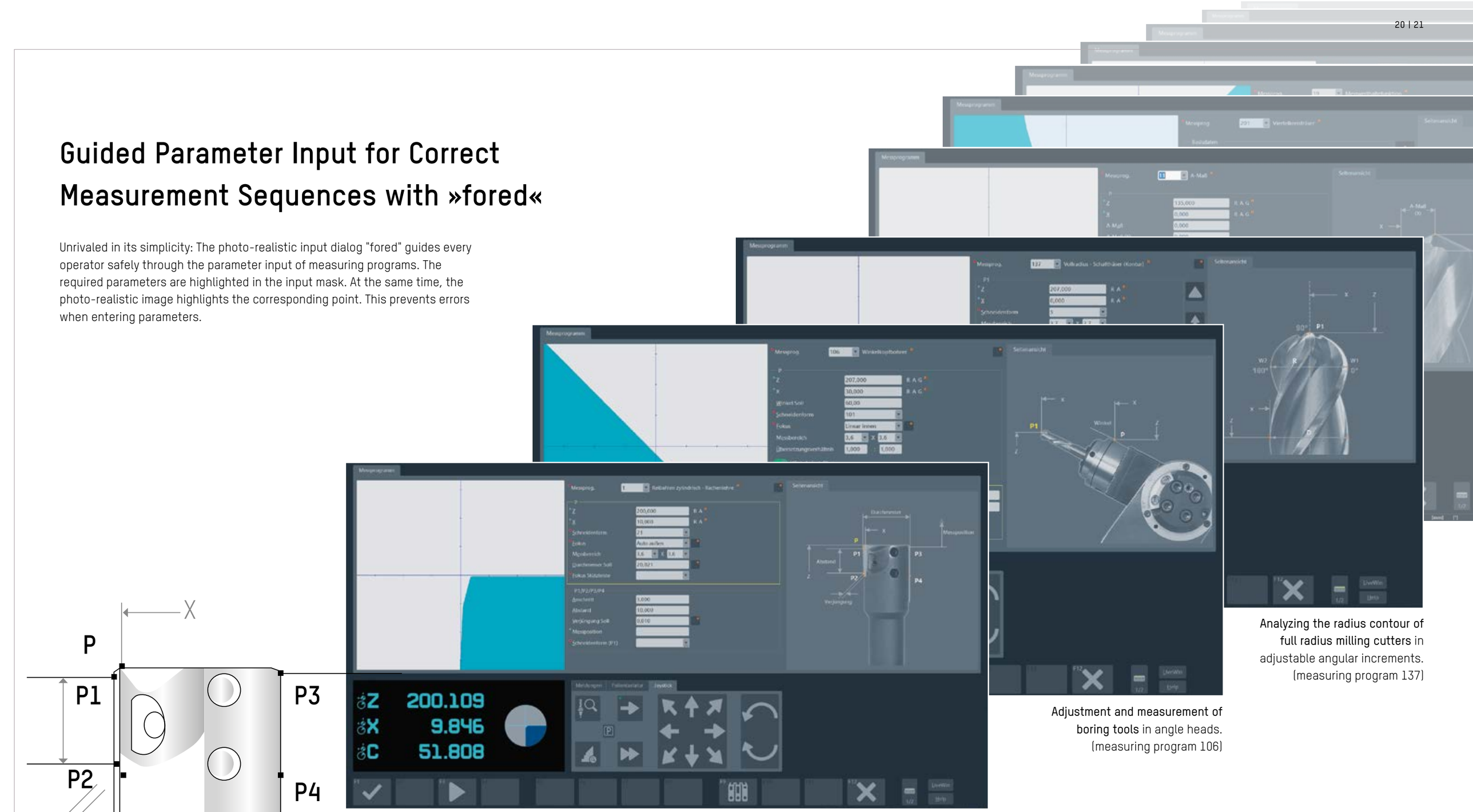
Text and graphically stored adapter management

Different cutting shapes for different tool contours

Function buttons with self-explanatory 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 mask. At the same time, the photo-realistic image highlights the corresponding point. This prevents errors when entering parameters.



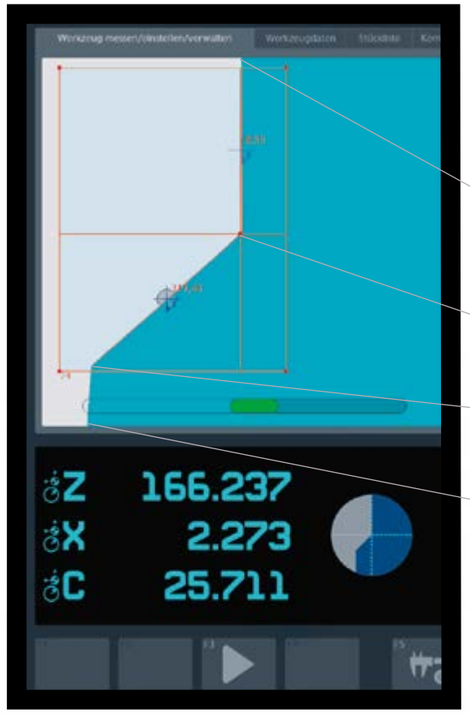
Measurement of single cutting reamers with support bar in the snap gauge principle. (measuring program 1)

Adjustment and measurement of boring tools in angle heads. (measuring program 106)

Analyzing the radius contour of full radius milling cutters in adjustable angular increments. (measuring program 137)

Perfect Measurement without Specifications – the »venturion« Standard

Absolutely simple: You insert the tool and move the camera to the desired measuring position. A »venturion« does not need any more information. For example, it recognizes automatically the cutting edge shape, the measuring range and the steps of each tool.



1, 2, 3, Finished – That's How Intuitive Measuring is with »elephant«

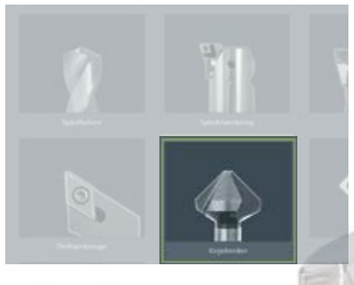
With the software module »elephant« every employee can really measure standard tools – without previous training. All that needs to be done is to select the tool and the measuring task – the measuring takes place fully automatically. It could not be simpler.

01

Insert and clamp the tool, and 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.

[1] MP17	·	Mod.	Wert
Theoretische Spitze	Th.S.		96,511
Neigungswinkel	NW		44,94
Längsmaß	Z	RA	96,511
Quermaß	X	RA	0,000

Manufacture Economically from Your First Production Batch – with Autofocus and CNC

Measuring at the touch of a button: A »venturion« with CNC axes and autofocus can measure any tool fully automatically - reproducibly and independently of the operator.

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 from the outset. Lot size 1 is therefore also economical.

Exact autofocus – the spindle automatically rotates precisely to the focus point of the camera.

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

Tested according to IEC 61010-1.

Verifiable and certified product safety

Shrink in Exact Length with »redomatic«

»redomatic 600« is the high-end solution for automated measuring, adjustment and shrinking. With it you can shrink tools with a precision of better than 10 µm to the exact length. With this device you increase the efficiency in the preparation of single and multi-spindle tools and protect your shrink chucks. In addition, you have all the possibilities offered by a »venturion« for measuring and presetting tools.

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 shrink control system »sls« eliminates process errors as far as possible by guiding through all steps and displaying the required components.

Mounting Polygon Chucks with »tribos«

With »tribos 600« you assemble and measure the length of the SCHUNK TRIBOS type polygonal 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 automatically. Everything precise. Everything perfectly controlled.

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 the "pilot" measuring device software and the control of the TRIBOS clamping unit from Schunk ensures that the tool length can be set µm-accurately.

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

With »reamCheck« you can set complete processing tools such as reamers fully automatically, quickly, with repeat accuracy and independent of the operator. The integrated control measurement offers you the desired safety.

The tailstock can be easily lowered with the aid of the operating handle and holds long, slim tools in exact position with a defined contact force.

Thanks to the outstanding ZOLLER technology, you can carry out all steps with ease and absolute process reliability. Whether you prefer to use a tactile measuring method for the presetting process or the proven ZOLLER image processing technology »pilot« is your choice. One thing is for sure:
It could not be better!

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 cutter heads or CAP cutters.

Measuring Program Selection

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

Tactile Presetting of Tool Cutting Edges

With the aid of an analogue dial gauge, tool cutting edges on reamers as well as on face cutter heads can be adjusted in »pilot« tactile µm-accurate.

Photorealistic Measuring Programs for Reamers

Irrespective of the reamer to be measured and the desired measuring method, the user can select the appropriate measuring program from a 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.

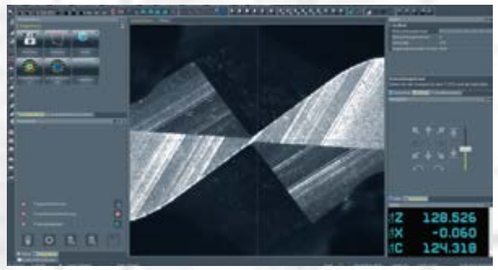
Comprehensive Control in Transmitted and Incident Light with »smartCheck«

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 testing 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 incident light camera, additional tool parameters, geometric data and cutting edge contours can be recorded both radially and axially. The cutting edge is optimally illuminated by the LED ring light with adjustable light intensity, so that the tool 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 the freely on the monitor image placeable radius make the analysis particularly easy. For complete documentation, images can be saved at any time during the cutting edge inspection.

Cutting edge inspection in the »metis« tool analysis software

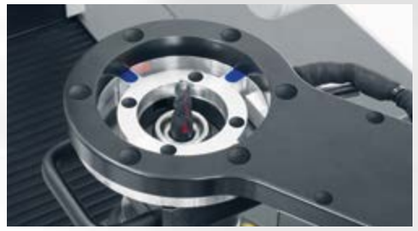
Center Height Measuring Device

For turning tools, the radial position of the tool cutting edge (centre 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 Clamping Without Muscle Power 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!



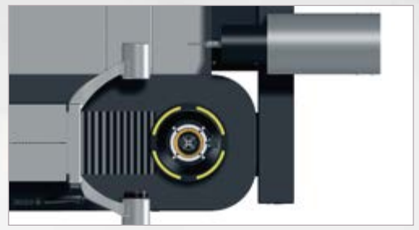
Clamping tools securely
The torquing station moves downwards, the clamping nut is screwed in by rotating the »ace« spindle with dual drive according to the predefined torque and the tool is clamped.

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

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« screwdriving station can move to any horizontal screwdriving position with µm accuracy. A torque-controlled screwdriving axis carries out the screwdriving process precisely. This saves you a lot of time in work preparation and relieves your employees of this task.

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.

Manual Fine Adjustment

Handwheels for additional manual fine adjustment of the Z and X axis especially for the tool inspection module.

Measuring Probe

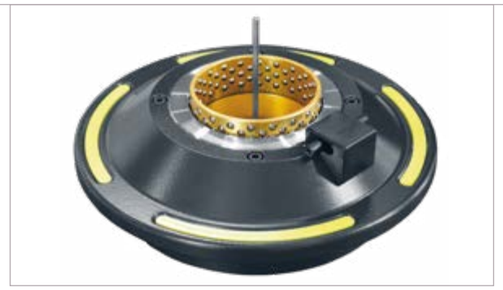
For tactile measurement of tool cutting edges.

CNC Swivel Device*

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

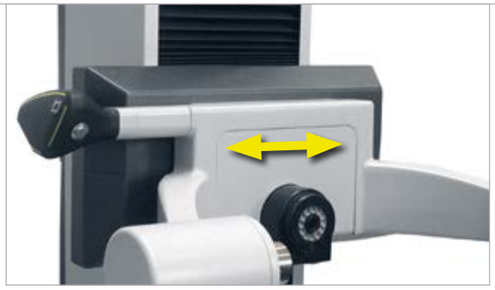
Length Stop System »asza«

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).



Y Axis at the Tower

Thanks to the additional Y axis, the optics carrier can be positioned up to ± 50 mm from the spindle center in Y-direction under CNC control. In combination with the turning center measuring camera, turning tools and multifunction tools can be measured efficiently and with high precision and adjusted to center height.



Tailstock Version »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

If machines receive the wrong tool data or are equipped with the wrong tool, this can have serious consequences. In the worst case, this can lead to an expensive machine crash. Therefore, tools must be clearly identified before use.

ZOLLER has the right solution for all company sizes. Systematic tool management will increase your productivity, protect your machines from crashes and keep an eye on your inventory at all times.

Identification by Code

Barcodes, DataMatrix codes and QR-codes can be generated using the »pilot« measuring software and printed on a label. In addition, DataMatrix codes can be lasered onto the tool holders 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 can be retrieved from the 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.

barcode

QR code

DataMatrix code

Tool Recognition with RFID

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

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

The write and read processes can be fully automatic, manual or with a handheld 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 you 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 the 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 ID labels 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.

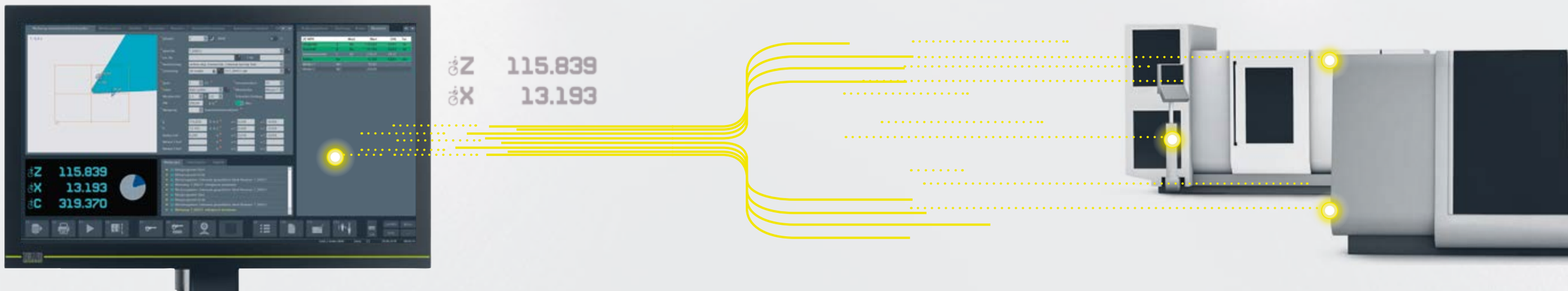
Successful Arrival – Machine Produces

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 thus 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 by RF signals. For absolutely safe data transfer.



Alternatives to Data Transfer

Label Printer

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

»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.

Control-compatible Data Transmission via Postprocessor

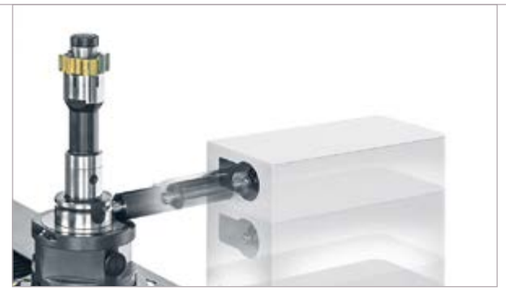
Data transfer from the »venturion« directly to the CNC machine, quickly and easily at the touch of a button.

Hand Scanner

For reading tool data from codes for unique identification.

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.



Manual RFID Read/Write Station »mslz« - Handheld Device

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

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.

»autoIDscan« Automatic 2D Code Camera

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

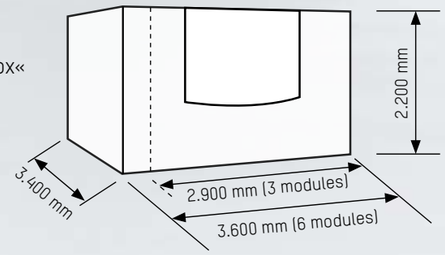
Fully Automatic and 24/7 – the Robot-controlled »roboBox« System

If you have to assemble and disassemble hundreds of tools every day, the »roboBox« will take over this task in future. 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 trolley 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 provision productive.

ZOLLER robot 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 Unbalance
The balancing module is insulated with the highprecision measuring unit and integrated into the »roboBox« vibrationneutral. 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«.

Impressively Versatile

If you decide on a »venturion« from ZOLLER, all possibilities are open to you.
You will find a cosmos of first-class solutions.
We will be happy to advise you on the perfect configuration of your »venturion«.

»venturion 450«	»venturion 600«	»venturion 800«	»redomatic«	»tribos«	»reamCheck«	»smartCheck«	»torquematic«	»screwmatic«	»roboBox«	Technical data	
●	●	●	●	●	●	●	●	●	●	CNC control	**Axes**
●	●	●	●	●	●	●	●	●	–	Manual axes positioning	
⊙	⊙	⊙	–	–	–	⊙	–	⊙	–	Manual fine adjustment	
●	●	●	●	●	●	●	●	●	●	Third axis with rotation encoder	
⊙	–	–	–	–	–	–	–	–	–	Additional Y axis at the tower	
⊙	⊙	⊙	–	–	–	–	–	–	–	»pilot 1« on 24" monitor	**Operating software**
⊙	⊙	⊙	–	–	–	–	–	–	–	»pilot 2 mT«	
●	●	●	●	●	●	●	●	●	●	»pilot«	
⊙	⊙	⊙	●	●	●	⊙	⊙	⊙	–	17" TFT colour display »satellit« as second monitor	
●	●	●	●	●	●	●	●	●	●	Autofocus	**Software functions**
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	–	Automatic attachment holder recognition and zero point monitoring	
●	●	●	●	●	●	●	●	●	●	Tool tension monitoring	
●	●	●	●	●	●	●	●	●	●	Cutting edge inspection	**Measurement methods, application solutions**
●	●	●	●	●	●	●	●	●	●	Measurement in snap gauge principle	
⊙	⊙	⊙	⊙	⊙	⊙	●	⊙	⊙	⊙	Center height measuring device	
–	–	–	–	–	–	●	–	–	–	Swivable tool inspection	
–	–	⊙	–	–	⊙	⊙	–	–	–	Tailstock	
⊙	⊙	⊙	⊙	⊙	●	–	⊙	⊙	⊙	Measuring probe	
–	–	⊙	⊙	⊙	⊙	⊙	⊙	–	–	CNC swivel device	
⊙	⊙	⊙	●	●	⊙	⊙	⊙	⊙	⊙	Automatic length adjustment »asza«	
–	⊙	⊙	⊙	⊙	⊙	⊙	⊙	–	–	Table reinforcement for tools up to 350 kg	
–	⊙	⊙	⊙	⊙	⊙	⊙	⊙	–	–	Reinforced drive for tools with up to 350 kg	
●	●	●	●	●	●	●	●	●	●	»ace« high precision spindle	**Spindle**
⊙	⊙	⊙	⊙	⊙	⊙	⊙	–	⊙	⊙	High precision spindle SK 50/ vacuum clamping	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	–	⊙	⊙	Universal high-precision spindle, quick-change device for attachment holder and tension elements	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	–	⊙	⊙	Front clamping spindle	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	Spindle brake 60 Nm	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	Data transmission via postprocessor	**Data management**
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	–	Tool identification »mslz«	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	–	Write-read station »msle«	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	Automatic tool identification	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	»zidCode« with labels	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	2D code identification automatic camera »autoIDscan«	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	DataMatrix identification hand reader	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	–	Adapter and utensil shelf	**Accessories**
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	Tool cart	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	USB camera	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	List printer	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	Thermal label printer	

● Standard
⊙ possible
– not possible

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

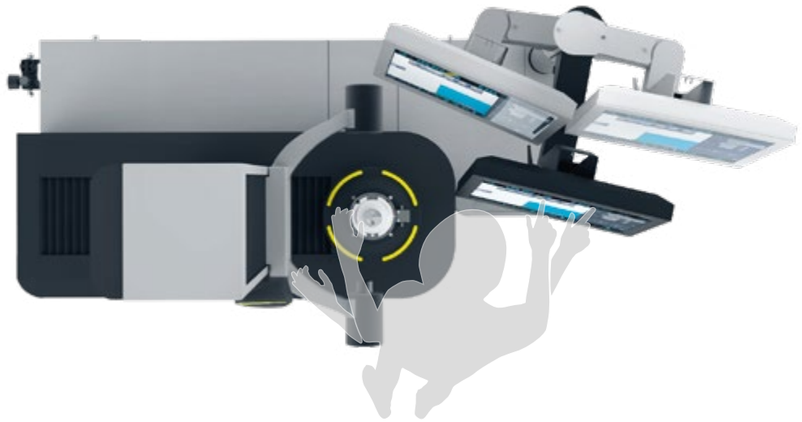
Alexander Zoller | Christoph Zoller

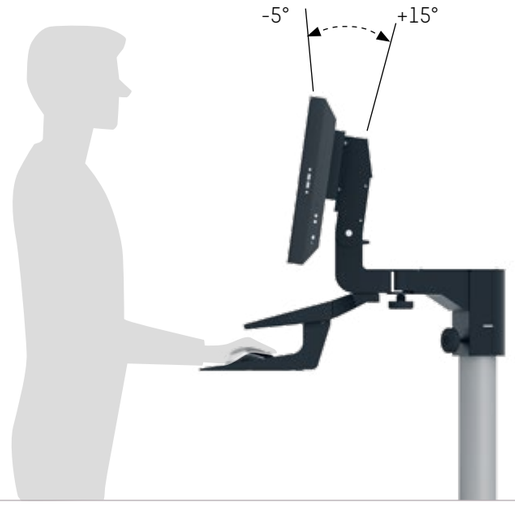
ZOLLER Solutions

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

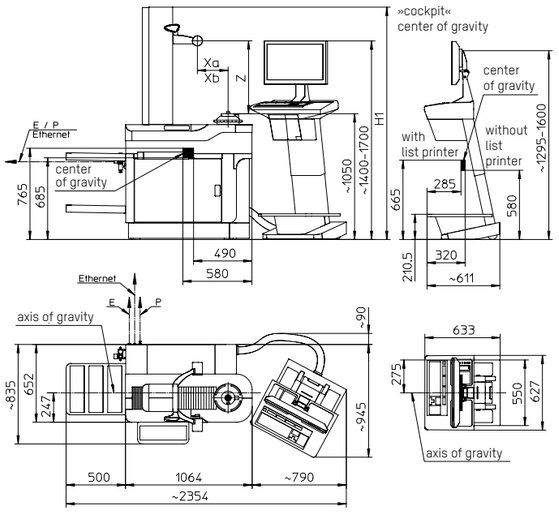
The integrated operating unit can be individually adapted to the needs of the various operators to ensure that work is carried out in a health-friendly and comfortable manner: Height, swivel angle and tilt angle are flexibly adjustable.



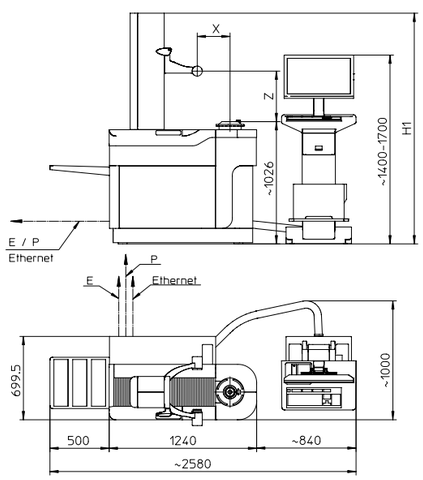


Installation Dimensions

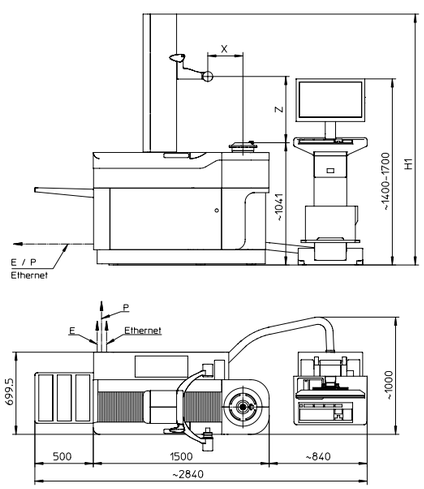
Installation dimensions »venturion 450« with monitor holder or »cockpit«			
Z (mm)	**Xa (mm)**	**Xb (mm)**	**H1 (mm)**
450	210	310	~1,750
620	210	310	~1,950
820	210	310	~2,150



Installation dimensions »venturion 600« with »cockpit«		
Z (mm)	**X (mm)**	**H1 (mm)**
600	300 + 100	~1,936
800	300 + 100	~2,136
1,000	300 + 100	~2,336



Installation dimensions »venturion 800« with »cockpit«		
Z (mm)	**X (mm)**	**H1 (mm)**
600	500 + 100	~1,936
800	500 + 100	~2,136
1,000	500 + 100	~2,336
1,200	500 + 100	~2,536



Note: P air connection E electrical connection

At Home in Germany – around the World for You

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

Our company has its own locations and branches at 85 sites in 62 countries guaranteeing we are close to customers and can provide first-class, personal customer advising in local markets.

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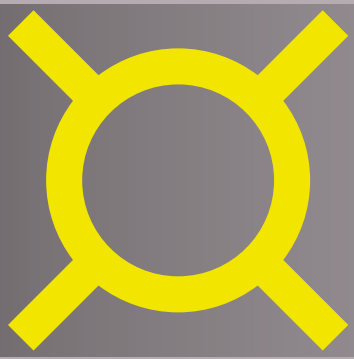

ZOLLER Solutions

More speed, higher quality, reliable processes –
with ZOLLER you get more out of your production process.
We combine hardware, software and service
to create optimum system solutions for presetting,
measuring, inspecting and managing tools.

- Presetting & Measuring
- Tool Management
- Inspection & Measuring
- Automation

Everything from a single source.
Everything for your success.
Everything with ZOLLER Solutions.

ZOLLER
expect great measures

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