

# INNOVATIONS & PORTFOLIO



Grinding



Eroding



Laser



Measuring



Automation



Software



Customer Care



# CREATING TOOL PERFORMANCE

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Walter Maschinenbau GmbH with headquarter in Tübingen produces CNC machines for grinding and eroding as well as laser processing metal, wood and PCD tools as well as rotationally symmetrical production parts.

The production program is complemented by optical CNC measuring machines for non-contact complete measurement of complex precision tools and rotationally symmetrical parts with logged accuracy in one clamping.

Our know-how is incorporated in the development of our own software. Comprehensive service offers round off our range of products.

Together with EWAG, we are a system and solution provider for tool machining and form a joint technology group within UNITED MACHINING SOLUTIONS.



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## NETWORKED AUTOMATION SOLUTION **AUTOMATED TOOL PRODUCTION (ATP)**

With Automated Tool Production (ATP), WALTER offers a forward-looking automation solution for maximum efficiency. ATP seamlessly connects grinding, eroding, and measuring machines as well as upstream and downstream systems, enabling automatic process compensation

and continuous quality control. The scalable solution can be integrated into existing production environments without requiring additional space – an important step toward the “dark factory”.

The following WALTER machines  
can be integrated into  
Automated Tool Production (ATP):

Grinding/Erosion machines

- HELITRONIC VISION 400 L, HELITRONIC VISION DIAMOND 400 L
- HELITRONIC POWER 400, HELITRONIC POWER DIAMOND 400
- HELITRONIC RAPTOR, HELITRONIC RAPTOR DIAMOND
- HELITRONIC MINI PLUS
- HELITRONIC DIAMOND EVOLUTION

Measuring machines

- HELICHECK NANO
- HELICHECK PRO
- HELICHECK PLUS



# FOR SUPER-HARD TOOLS

## VISION LASER

The VISION LASER sets new standards in the processing of super-hard materials such as PCD, CVD-D and MCD. The reliable and highly efficient laser system produces breakout-free cutting edges on complex geometries with maximum precision and quality.

Particularly impressive: the environmentally friendly technology operates without consumables, while offering low operating costs and fast processing times.



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# THE NEW ENTRY-LEVEL MACHINE

## HELITRONIC RAPID

The HELITRONIC RAPID is the economical entry-level solution for professional tool grinding. The 5-axis CNC tool grinding machine offers precision in both production ( $\varnothing$  1–16 mm) and regrinding ( $\varnothing$  3–100 mm) of milling cutters, drills, and special tools. Optionally expandable with top loader, glass scales, and torque motor for the A-axis.



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# MEASURING PRECISION IN THE MICRO RANGE

## HELICHECK NANO

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HELICHECK NANO – The new standard for measuring tools in the micro and nano range. This fully automatic CNC measuring machine delivers operator-independent, high-precision measurement results for tools with diameters from 0.1 mm to 16 mm. Measurement is performed with an 8:1 lens and approx. 400x magnification for transmitted light parameters. In addition, the machine features a newly developed microscope turret and innovative incident light image processing for determining the cutting geometry. This guarantees comprehensive quality documentation.



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# THE PRECISE MEASURING SYSTEM

## **LASER CONTOUR CHECK**

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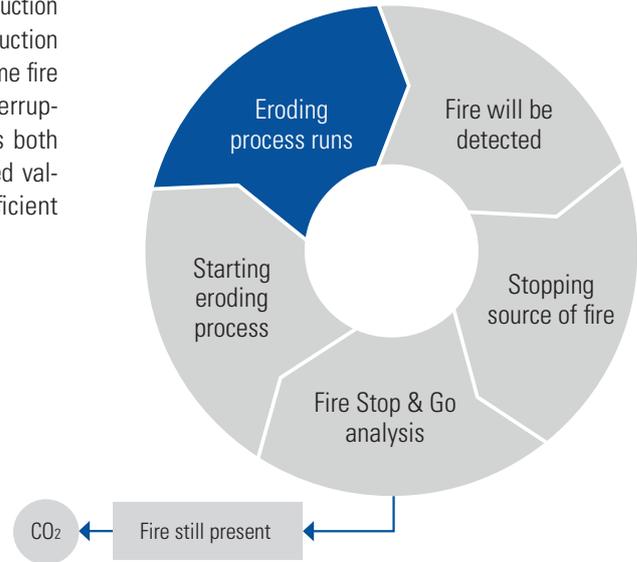
With the advanced Laser Contour Check option, WALTER offers an intelligent measuring system that is integrated directly into the tool grinding and EDM machine. The non-contact technology enables highly accurate measurements of various tool parameters during the production process. This in-process measurement improves accuracy and reduces downtime – a decisive advantage for consistent quality assurance in your production.



# INCREASED PRODUCTIVITY AND RESOURCE SAVINGS

## **FIRE STOP & GO**

The Fire Stop & Go system for eroding machines from WALTER minimizes production interruptions and prevents costly production downtime. The combination of real-time fire detection and targeted process interruption with minimal fire risk increases both productivity and safety – a real added value for resource-saving and cost-efficient manufacturing.



# TAILOR-MADE PACKAGES

## WE CARE

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Our customized maintenance program WE Care offers tailor-made solutions for every WALTER grinding and EDM machine with FANUC control. Select the ideal package for your needs from the WE CARE maintenance program:

- **WE CARE Check**, particularly suitable for customers who only want information about the condition of their machine.
- **WE CARE Innovate**, particularly suitable as a customised solution for customers who want to integrate their own maintenance department into the maintenance process.
- **WE CARE Complete**, for customers who prefer regular inspection and maintenance work by the machine manufacturer.

The digital fingerprint and free remote services are already included in WE CARE Innovate. A standard travel allowance can be added to almost all European countries. Various additional packages can be added to the above packages to suit your individual needs.



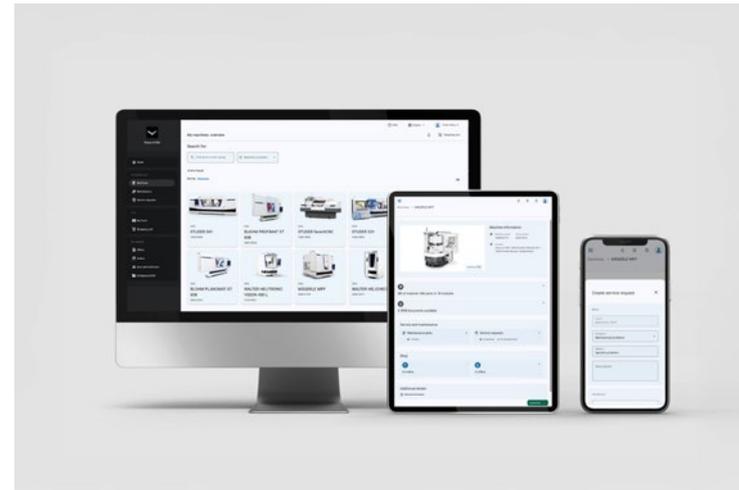
# MANUFACTURER-NEUTRAL PLATFORM TRANSACTION NETWORK

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The Transaction Network establishes an industry-leading, manufacturer-neutral platform for optimized service and maintenance processes in the machine industry.

This digital solution includes 360° asset management, digitized service processes and a modern online shop. The digital machine file contains all essential documents and data in one central location. You can also access your machine history.

As an open, networked ecosystem with intelligent data integration, it forms a customer-oriented portal for a company's entire machine fleet – all manufacturers on a single platform with a uniform user experience.





# MACHINE PORTFOLIO



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# CREATING TOOL PERFORMANCE



## GRINDING

Grinding of rotation-symmetrical tools and workpieces, as well as indexable inserts



## EROSION

Eroding and grinding of rotation-symmetrical tools



## LASER

Production of tools with laser

Machines	Use   Materials	Tool dimensions <sup>1)</sup> max. length <sup>2)</sup> / diameter
HELITRONIC G 200	P R HSS TC C/C	235 mm / Ø1 – 125 mm
HELITRONIC RAPID	P R HSS TC C/C CBN	255 mm / Ø1 – 100 mm
HELITRONIC MINI PLUS	P R HSS TC C/C CBN	255 mm / Ø1 – 100 mm
HELITRONIC RAPTOR	P R HSS TC C/C CBN	280 mm / Ø3 – 320 mm
HELITRONIC POWER 400	P R HSS TC C/C CBN	520 mm / Ø3 – 315 mm
HELITRONIC VISION 400 L	P R HSS TC C/C CBN	420 mm / Ø3 – 315 mm
HELITRONIC MICRO	P HSS TC C/C CBN R HSS TC C/C CBN	220 mm / Ø0.1 – 12.7 mm 220 mm / Ø3 – 12.7 mm
HELITRONIC DIAMOND EVOLUTION	P R HSS TC C/C CBN PCD	185/255 mm / Ø1 – 165 mm
HELITRONIC RAPTOR DIAMOND	P R HSS TC C/C CBN PCD	270 mm / Ø3 – 400 mm
HELITRONIC POWER DIAMOND 400	P R HSS TC C/C CBN PCD	520 mm / Ø3 – 380 mm
HELITRONIC VISION DIAMOND 400 L	P R HSS TC C/C CBN PCD	420 mm / Ø3 – 315 mm
VISION LASER	P R TC CVD-D MCD PCD	400 mm / Ø3 – 250 (300) mm



## MEASURING

Contact-free measurement of tools, workpieces and grinding wheels



## SOFTWARE

The intelligence of tool machining and measuring for production and regrinding



## CUSTOMER CARE

Comprehensive range of services

Machines	Use	$E_{UX,MPPE}$ -value	Tool dimensions <sup>1)</sup> max. length <sup>2)</sup> / diameter
HELICHECK PRO	<b>M</b>	$(1.2 + L/300) \mu\text{m}$	300 mm / $\emptyset 1 - 200$ mm
HELICHECK PRO LONG	<b>M</b>	$(1.2 + L/300) \mu\text{m}$	730 mm / $\emptyset 1 - 200$ mm
HELICHECK PLUS	<b>M</b>	$(1.2 + L/300) \mu\text{m}$	300 mm / $\emptyset 0.1 - 200$ mm
HELICHECK PLUS LONG	<b>M</b>	$(1.2 + L/300) \mu\text{m}$	730 mm / $\emptyset 0.1 - 200$ mm
HELICHECK NANO	<b>M</b>	$(1.2 + L/300) \mu\text{m}$	120 mm / $\emptyset 0.1 - 16$ mm



## AUTOMATION

Solutions for complete tool production: From loading systems that are integrated into the machine's working area to robot loaders and Automated Tool Production (ATP), our innovative solution for networking grinding, eroding and measuring machines from WALTER.

<sup>1)</sup> The maximum tool dimensions depend on the type of tool and its geometry, as well as the type of machining.

<sup>2)</sup> From theoretical taper diameter of the workpiece holder.

**Use:** **P** Production **R** Regrinding **M** Measuring

**Materials:** **HSS** High speed steel **TC** Tungsten carbide **C/C** Cermet/ceramics

**CBN** Cubic boron nitride **PCD** Polycrystalline diamond **CVD-D** Chemical vapour deposition

**MCD** Monocrystalline diamond

# UNITED MACHINING SOLUTIONS

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UNITED MACHINING SOLUTIONS is one of the largest machine tool manufacturers in the world. With around 5,000 employees at over 50 global production, service and sales locations, UNITED MACHINING SOLUTIONS is close to its customers and highly efficient. The group is organized into two divisions: UNITED GRINDING and UNITED MACHINING.

UNITED GRINDING includes the brands MÄGERLE, BLOHM, JUNG, STUDER, SCHAUDT, MIKROSA, WALTER, EWAG and IRPD. Its technologies include surface and profile grinding machines, cylindrical grinding machines, machines for tool machining and machine tools for additive manufacturing.

The UNITED MACHINING division includes the brands AGIE CHARMILLES, CHARMILLES, MIKRON MILL, LIECHTI, STEP TEC and SYSTEM 3R. It includes machines for EDM (Electrical Discharge Machining), high-speed milling and laser technology as well as spindle production and automation solutions.

“We want to make our customers even more successful”