

# EWAMATIC LINE

Hightech grinding technology –  
redefined!



Grinding in motion

The EWAMATIC LINE  
gives your products the  
cutting edge they need.  
Day in, day out!



## EWAMATIC LINE

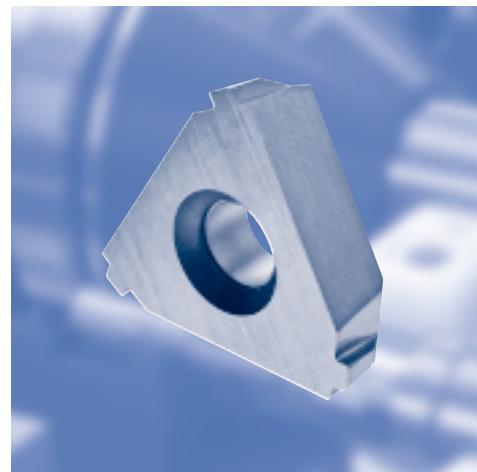
Tailor-made to your own individual requirements

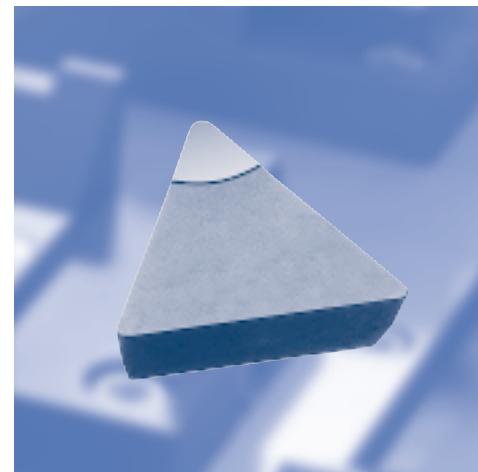
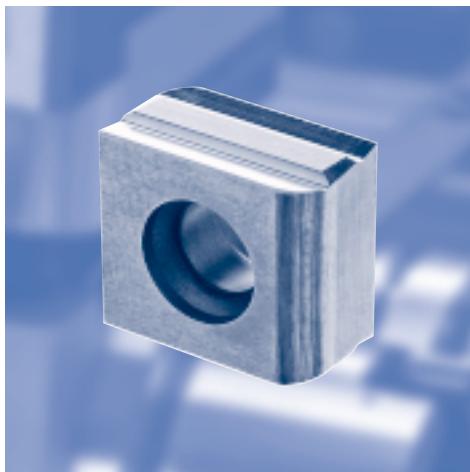
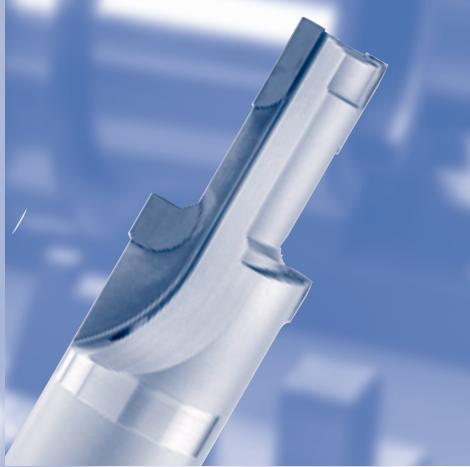
The EWAMATIC LINE is synonymous with the CNC-controlled production grinding center of Ewag AG. Ewag AG has only one aim: That is to offer all our customers throughout the world only the very best when it comes to high-quality grinding technology.

This high-precision grinding center is predestined for producing and re-grinding tools, indexable inserts and rotationally symmetrical tools. Whether carbide, PCD or the super-hard PCBN, the EWAMATIC LINE once again meets the great challenges and exacting demands of these materials. All these criteria meet in full the high expectations that our customers place on the EWAMATIC LINE.

The force that drives us is our desire for higher quality. Whether this is in research, customer-orientated product development or, finally an all-inclusive service.

EWAMATIC LINE – Customized precision grinding!





The EWAMATIC LINE  
is the result of a  
revolutionary grinding  
concept.



**Star-shaped grinding spindle holder**

With up to six independent grinding spindles (up to two grinding wheels per spindle end) it is possible to machine highly-complex tools with an accuracy of 0.002 mm.

# TECHNOLOGY

Traditionally dedicated to the future

The EWAMATIC LINE is the ongoing further development of future-orientated grinding technology. And that demands dedication!

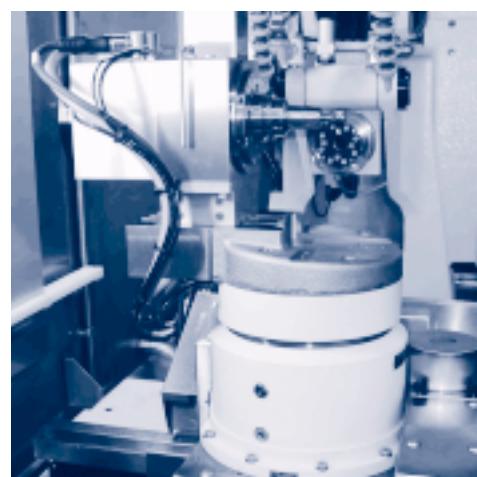
The unique kinematics concept leaves nothing to be desired. This is because many grinding operations can be performed in a single clamping operation with up to six independent grinding spindles. One advantage of the EWAMATIC LINE is the machine's modular design. This allows you to meet your customers' specific needs on a completely individual basis. Your high targets for special grinding tasks are achieved in full with the wide range of EWAMATIC LINE accessories.

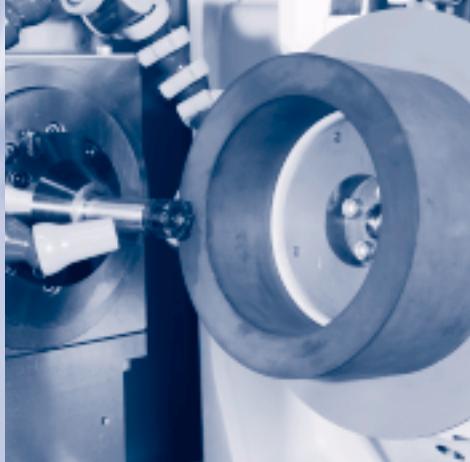
The use of fine components has always been regarded as a guarantee for high-precision grinding technology.

EWAMATIC LINE – Precision for super-hard materials!

**Direct drives**

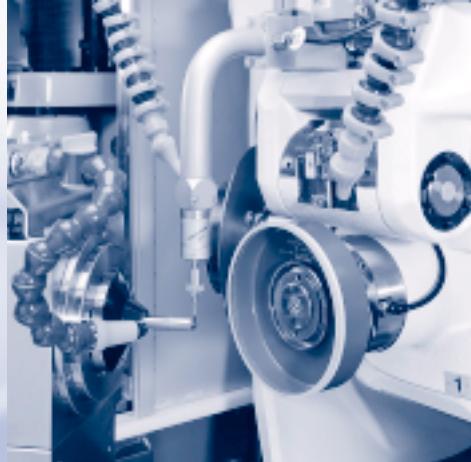
The maintenance-free direct drives in Axes B and C guarantee the highest run-out and true running accuracy.





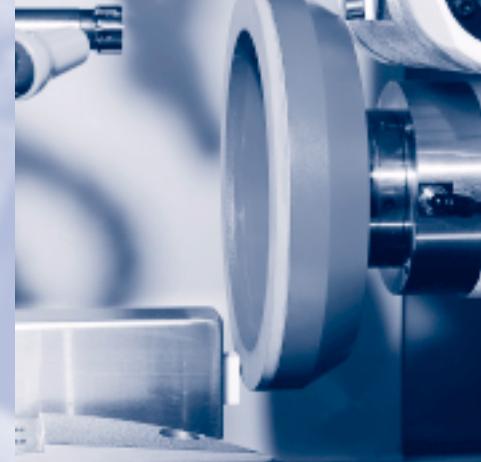
#### Erosion unit

For the combined erosion and grinding of PCD materials down to the exact  $\mu$  in one clamping operation.



#### 3-D measuring station

The proven measuring system is used for measuring and orienting the tools.



#### Dressing and regeneration fixture

The automatic system for dressing, regenerating and crushing the grinding wheels.

#### Linear handling

The linear handling allows the integration of automatic multi-shift operation.



#### Robot system

The 4-axis robot guarantees fully-automatic loading. It can be freely programmed and thereby allows the highest degree of loading flexibility.

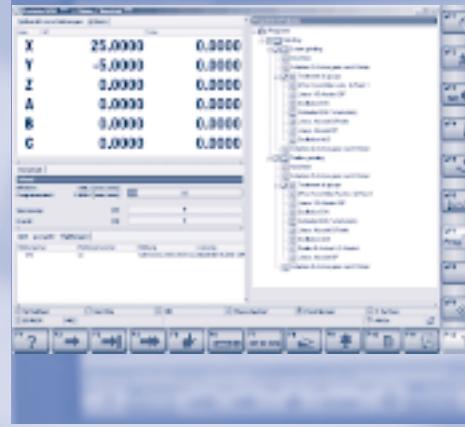


#### Stacker

The workpieces are held via the pallet stacker, which can be fitted with up to 15 pallets.



The new generation  
of software is  
precisely tailored  
to your needs.



#### Human Machine Interface (HMI)

The HMI supports the operator in the setting up of production orders and provides information about all data relevant to production. The setup data is stored on an order-related basis and can be reused later in order to reduce the setup times to a minimum.

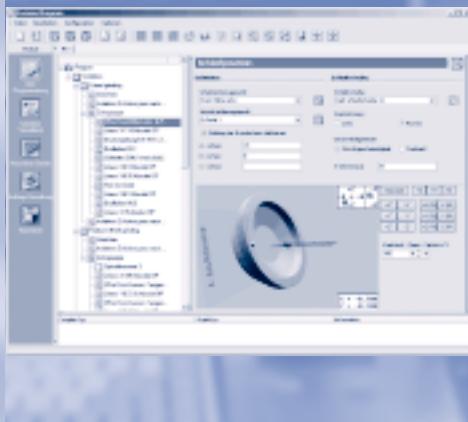
# SOFTWARE

The solution has a name – PRO GRIND™

A hightech grinding center like EWAMATIC LINE requires the latest generation of software.

This means that only the best software is suitable for the most flexible use. Tailored precisely to your needs. The EWAG standard software package meets all your needs for grinding indexable inserts and rotationally symmetrical tools. Thanks to this software, the machining of special tools also knows no limits. The Windows XP operating system, installed on a high-performance IPC system, will also keep you right up-to-date in the future.

EWAMATIC LINE – the ideal combination in hardware and software!



### Programming

An editor allows sub-programs to be recorded easily. The system informs the programmer about missing entries. The variety of clearly structured input masks covers all the user's needs.



### Order management

Well-organized production management is an important pre-requisite for working efficiently. Via the order management, you can maintain an overview of the current or outstanding production orders in your machine pool.



### Pressure and force control

The software developed by Ewag provides you with the perfect solution for controlling the machine feeds via the grinding pressure. Super-hard materials can only be economically machined with active pressure and force control.

## Technical Data

Basic design	Movement range	Resolution	Quick traverse	Measuring system
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#### Linear axes

Transverse axis X	360 mm	0.0001 mm	10 m/min	Glass scale
Height adjustment axis Y	240 mm	0.0001 mm	10 m/min	Glass scale
Infeed axis Z	240 mm	0.0001 mm	10 m/min	Glass scale

#### Rotation axes

Swivel axis B	+/-135°	0.0001°	max. 28 800°/min	Rotational Measuring system
Grinding head SK 2000 with A-axis	-15° ... +25°	0.0001°	1500°/min	High-resolution measuring system DISC NT
Grinding head Mono with A-axis	-10° ... +25°	0.0001°	1500°/min	High-resolution measuring system DISC NT
Dividing axis C				
Dividing mode		0.0001°	90 000°/min	Absolute EnDat measuring system
Cylindrical grinding mode	Unlimited		800 rpm	
Clamping variants:				
HSK 63, W 25, ISO 40				
Hydro-expansion clamping chuck				
Workhead with side clamping C-axis	Unlimited	0.0001°	6000°/min	High-resolution measuring system DISC NT

#### Grinding spindle drive

Grinding spindle power	7.5 kW
Speed adjustable	200 ... 6000 rpm or 1000 ... 12 000 rpm



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