

QXD 250

//////// PCD ROTARY TOOLS //

Disk erosion machine for complete machining
of PCD-tipped tools



WHAT DO YOU WANT FROM YOUR TOOLS?

30% INCREASED REMOVAL RATE FOR INCREASED EFFICIENCY, OR A DRAMATICALLY IMPROVED SURFACE QUALITY FOR INCREASED EDGE LIFE?

WHETHER USED FOR WOOD OR METAL TOOL PRODUCTION – THE NEW **QXD 250** WITH 6 CNC-CONTROLLED AXES LEAVES NOTHING TO BE DESIRED.

THANKS TO THE NEW, POWERFUL EROSION TECHNOLOGY **Vpulse** EDM AND A VARIETY OF OPTIONS TO CHOOSE FROM, IT IS ABLE TO RESPOND QUICKLY TO YOUR REQUIREMENTS. AND WITH PRECISION TOO.

**VOLLMER QXD 250:
MAKE MORE FLEXIBLE USE OF PRECISION.**

QXD 250 – WELL EQUIPPED FOR ANY CHALLENGE



//// 1 **v**pulse EDM

The new erosion generator for maximum cost-efficiency when manufacturing PCD tools

//// 3 **F**LEXIBLE TOOL MAGAZINE

Whether eroding, grinding or polishing – thanks to the tool storage for up to six tools with a diameter of ≤ 200 mm, you are equipped for any work piece requirement.

//// 2 **C**ONVENIENT OPERATION

Concise symbols and descriptive graphics ensure optimum user guidance, and help you to easily and efficiently achieve your objectives

//// 4 **V**ARIABLE WORKPIECE STORAGE

The HC 5 provides space for up to 28 workpieces with ≤ 320 mm diameter, ≤ 250 mm length and ≤ 25 kg weight, and thus guarantees consistent flexibility

//// **E**XLEVEL PRO

Expanded range of workpieces for PCD drilling and milling tools for greater flexibility and versatility in service and production.

Simple, intuitive user interface and needs-based installation thanks to modular design.

ExLevel PRO 3D-View:

Even greater safety thanks to 3D collision monitoring



/// THE MACHINE CONCEPT

Can you improve on perfection? The new VOLLMER QXD 250 has the answer to this. With an overall concept that has been further developed in many aspects and with strong innovations:

/// Simultaneous path operation in 6 CNC-controlled axes – including the new A axis

/// Extended travel distances and swivel ranges for tool diameters up to 320 mm and tool lengths up to 250 mm

/// Re-engineered main spindle drive for efficient grinding

/// **Vpulse EDM** – The perfect technology for any machining objective

/// Comprehensive options for flexible adaptation to special requirements in the area of metal or wood tools

/// Complete machining in a single clamping arrangement – from the measurement, erosion and grinding, through to polishing



/// EXTREMELY HIGH LEVEL OF FLEXIBILITY THANKS TO THE 6 CNC-CONTROLLED AXES



/// MEASURING THE CUTTING EDGES



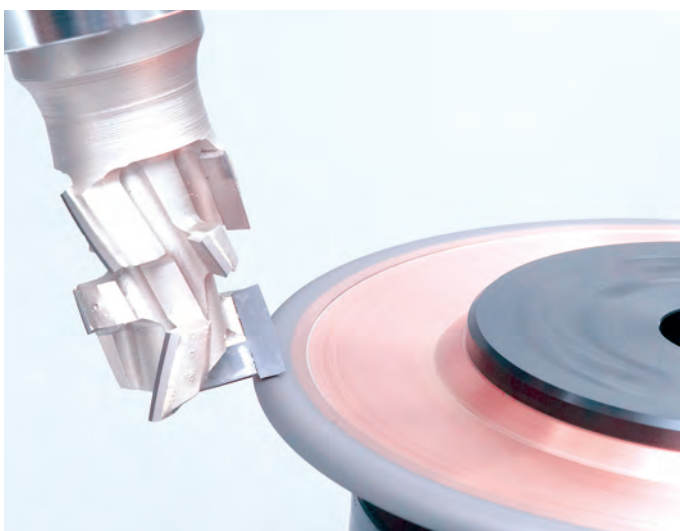
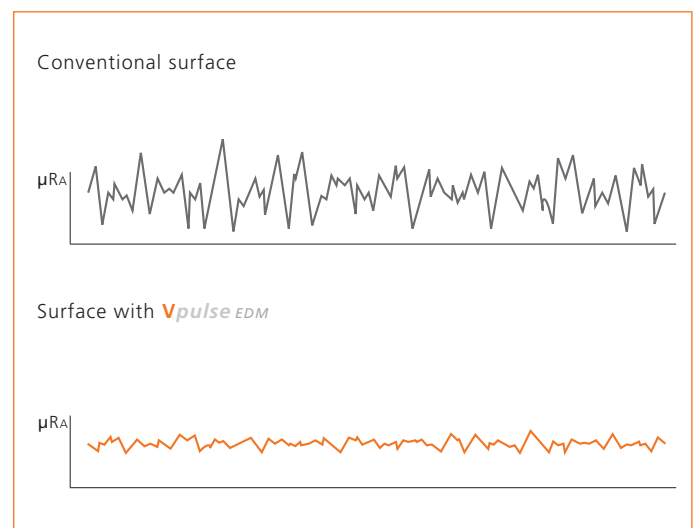
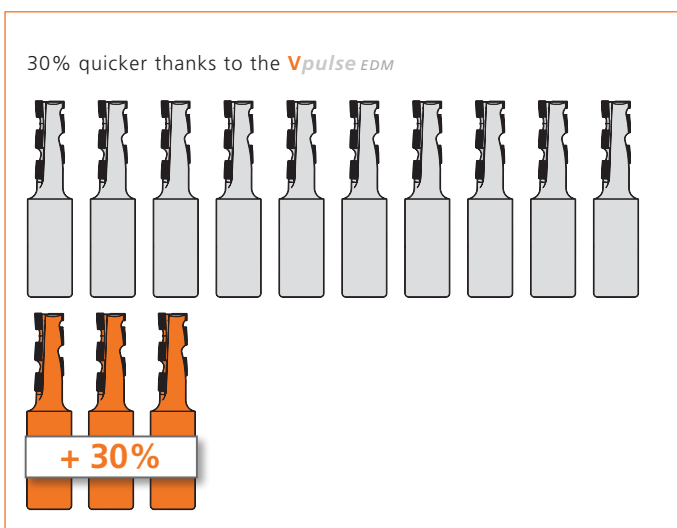
/// ERODING A PROFILED WORKPIECE

/// **Vpulse** EDM EROSION GENERATOR

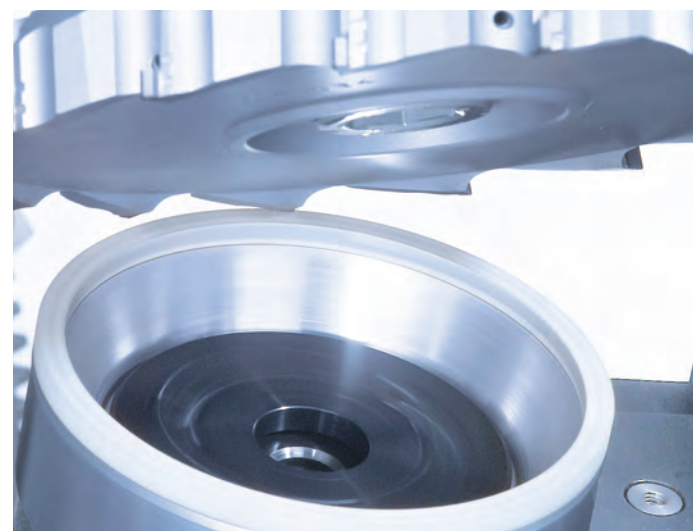
A powerful drive is the foundation for every success. For this reason, we have developed **Vpulse** EDM: A new erosion generator that is specially designed for machining ultra-hard cutting materials. For maximum efficiency or excellent quality – depending on your needs.

Do you place great value on speed and economic efficiency? Then you will be delighted with the increased power availability of **Vpulse** EDM and you will save up to 30% of the eroding time.

Or perhaps you aim for maximum surface quality? No problem: Thanks to the extremely fine, precise erosion pulse **Vpulse** EDM satisfies any requirement and creates surfaces up to a roughness of 0.1 μ Ra. Wherever your priorities lie, thanks to the great bandwidth and variability of **Vpulse** EDM new cutting edge options are opened up to you.



/// RELIEF GRINDING



/// POLISHING FUNCTION

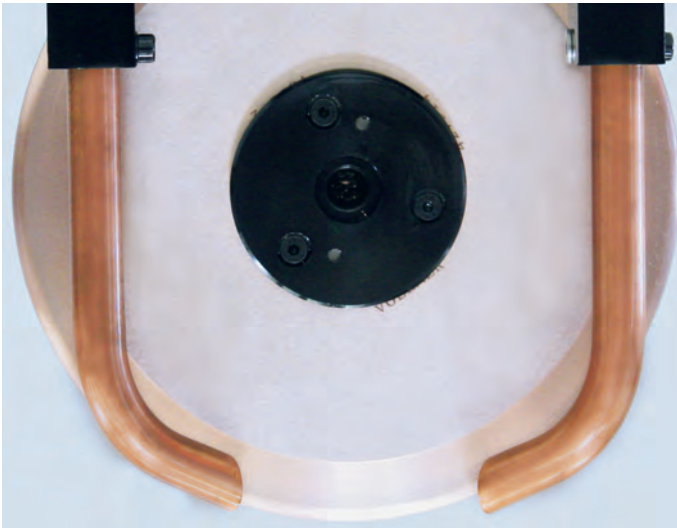


/// THE AUTOMATION

Do you want to machine your PCD rotary tools extremely efficiently and productively? And not make any compromises when it comes to the quality of results? No problem: The QXD 250 is already perfectly prepared for automation. For unmanned shifts throughout the day and night – and thus for maximum economic efficiency. Whether you prefer the fully automated changing of tools or of workpieces. Or both. You have the choice.

/// TOOL CHANGER

The right tool is always guaranteed: The integrated tool changer for up to six different erosion, grinding and polishing wheels means that you can achieve the perfect implementation of numerous workpiece variants.



/// ERODING WHEEL INCLUDING FLUSHING NOZZLES



/// GRINDING WHEEL INCLUDING FLUSHING NOZZLES



/// 6-TOOL STORAGE
for tools up to 200 mm in diameter

/// WORKPIECE STORAGE

With the HC 5 and HC 11, different workpiece storage options are available to you. They provide space for up to 28 or 64 workpieces. They can be loaded and unloaded while machining takes place – without losing any time. That is VOLLMER efficiency.



/// EXTERNAL WORKPIECE STORAGE
HC 5

HC 5

	Maximum
Storage capacity	28 pcs
WORKPIECES	
Diameter	320 mm
Length	250 mm
Weight	25 kg
Maximum load	600 kg

HC 11

	Maximum
Storage capacity	64 pcs
WORKPIECES	
Diameter	320 mm
Length	250 mm
Weight	25 kg
Maximum load	1200 kg



/// APPLICATION

Whether machining wood or metal, whether manufacturing tools or repairing them, VOLLMER recognises the special challenges that you are faced with each day. And this is why they have flexibly adapted the new QXD 250 to your needs.

/// WOOD APPLICATION

Anybody who wants to successfully produce and machine tools for wood machining knows that speed, efficiency and productivity are of the utmost importance. VOLLMER has the right solution for this too: The new QXD 250.

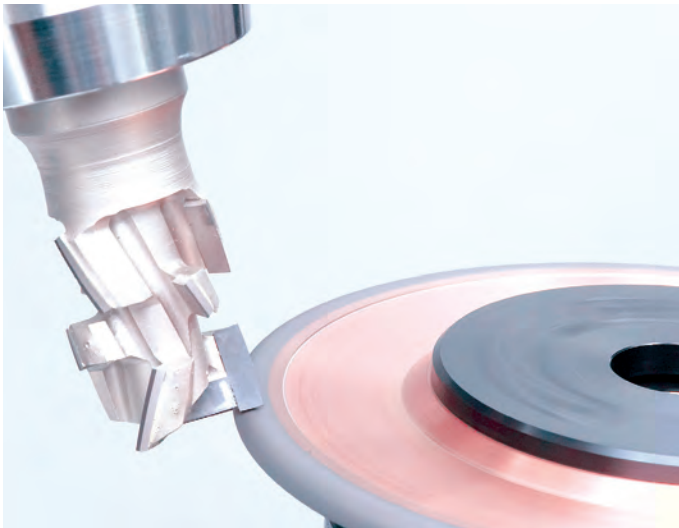
/// **Vpulse EDM** technology for 30% increased removal rate when eroding

/// Workpiece diameter up to 320 mm

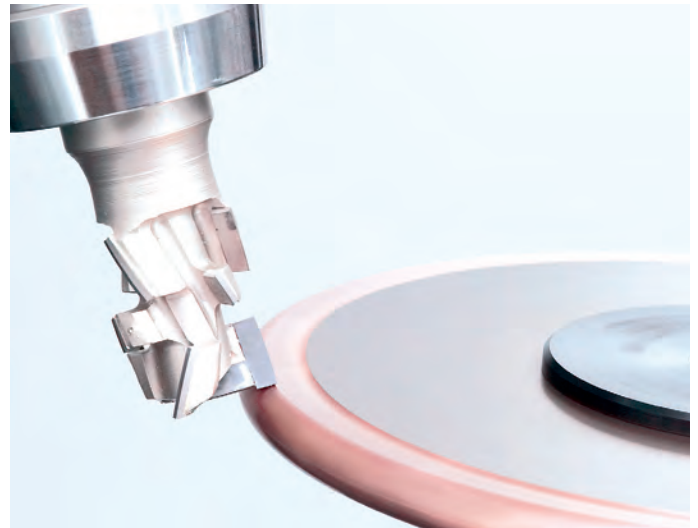
/// Workpiece weight up to 25 kg

/// Extended swivel range of the B axis up to $\pm 20^\circ$ for maximum freedom of movement on the workpiece

/// Re-engineered main spindle drive for optimum grinding operations



/// GRINDING
the second clearance angle on the front tip edge.



/// ERODING
the first clearance angle on the front tip edge.

////// METAL APPLICATION

/// METAL APPLICATION

When manufacturing and repairing demanding and highly complex metal tools, extreme precision and the highest level of flexibility are required. To provide you with the best-possible support, we have therefore developed the new QXD 250 to meet this exacting requirement.

/// **Vpulse** EDM technology for excellent surfaces up to 0.1 μ RA

/// Workpiece lengths up to 250 mm

/// Comprehensive options for extending the functions of the machine, such as polishing or drill machining



/// FLUTE EROSION
of a PCD twist drill

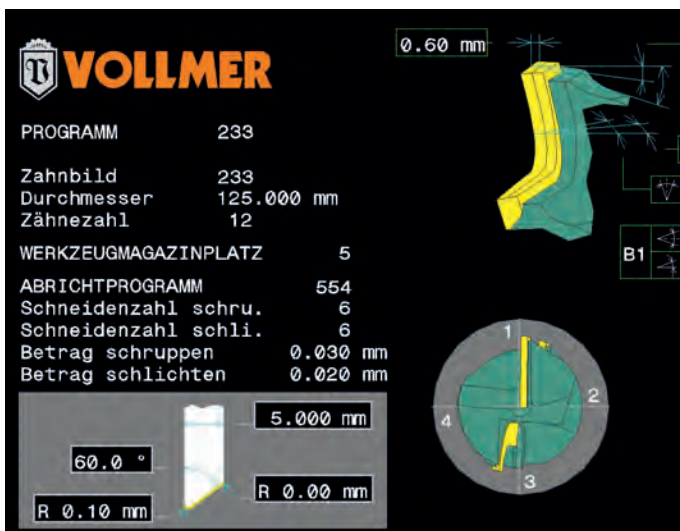


/// FLUTE GRINDING
of a PCD twist drill

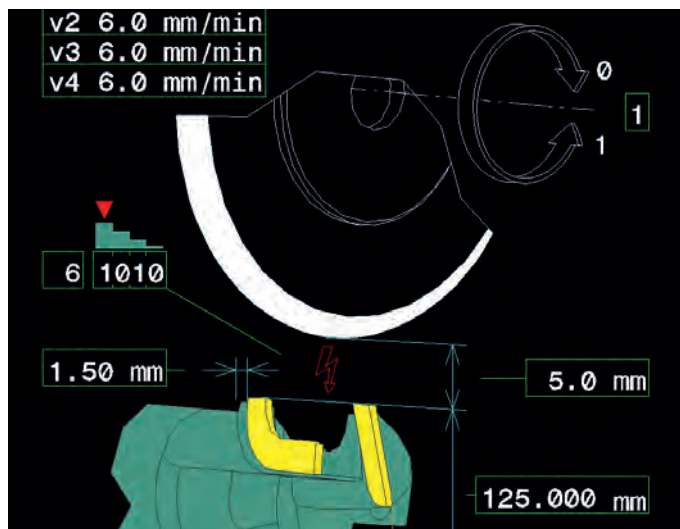


THE OPERATING CONCEPT

VOLLMER experts know that, with the unique VOLLMER operating concept, you can carry out complex machining tasks quickly, safely and reliably after just a short period of training. Thanks to concise VOLLMER symbols, programming is intuitive. Furthermore, the Windows-based interface and easier-to-understand graphic displays virtually eliminate the risk of input errors. This means that the guaranteed level of quality is consistently high.



GRAPHIC SUPPORT
Tool-based programming is still possible



PROGRAMMING
of profile tools

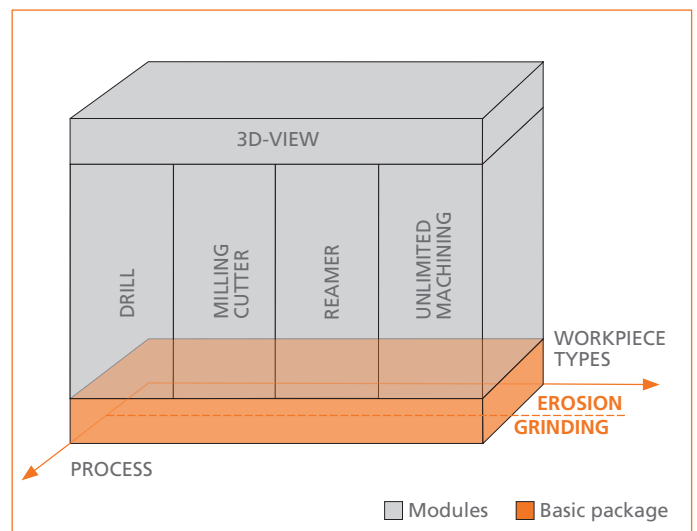
EXLEVEL PRO – GREATER VERSATILITY. MORE FLEXIBILITY. GREATER SAFETY.

ExLevel PRO offers you a wide range of possibilities for manufacturing and servicing PCD drilling and milling tools.

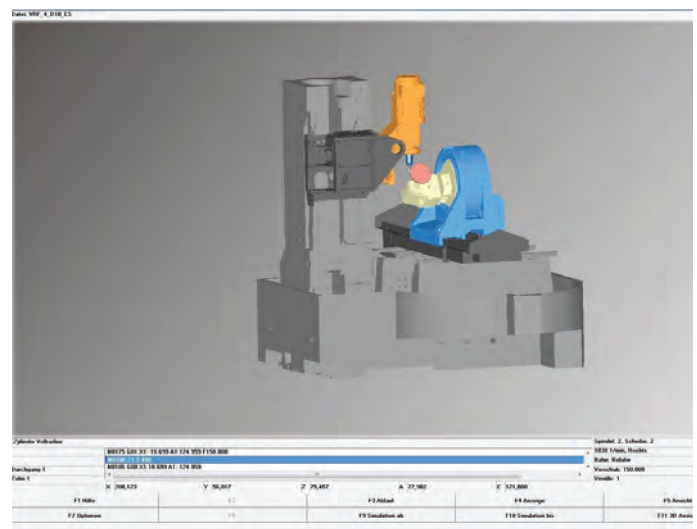
The combined eroding and grinding process (hybrid machining) makes the entire machining process even more versatile.

Innovative kinds of machining that have previously only been available for solid carbide tools can now be adapted to the manufacture of PCD tools.

Modular design: Needs-based installation depending on the range of applications.



MODULAR DESIGN WITH WIDE RANGE OF APPLICATIONS
for simulating, measuring, eroding and grinding with ExLevel PRO



GREATER SAFETY
thanks to collision monitoring ExLevel PRO 3D-View

/// SPECIFICATIONS

Workpiece

Outside diameter	up to 320 mm
Length	up to 250 mm

Tool

Outside diameter	max. 200 mm
Bore diameter	max. 60 mm

Main spindle drive

Speed	4500 rpm
Torque	6 Nm

Traverse ranges

Axis X1	520 mm	100 mm/s
Axis Y1	970 mm	200 mm/s
Axis Z1	420 mm	200 mm/s
Axis A1	360°	250 rpm (1500°/s)
Axis B1	± 20°	10°/s
Axis E1	210°	180°/s

Coolant

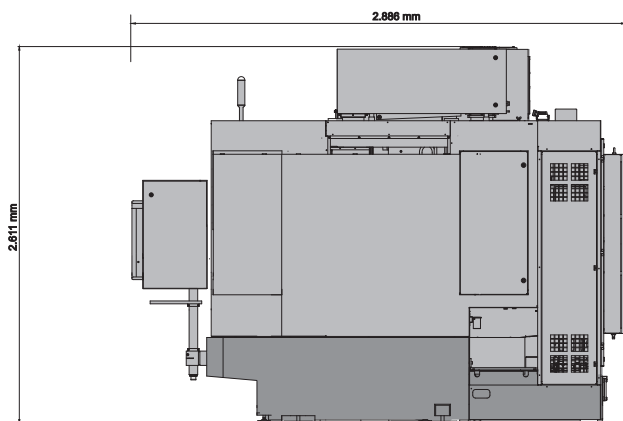
Coolant tank capacity	310 l
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Connected load

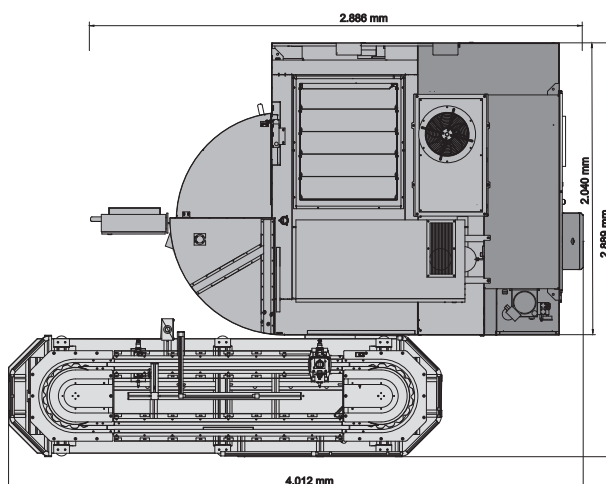
Approx. 8.7 kVA / 6.8 kW

Weight

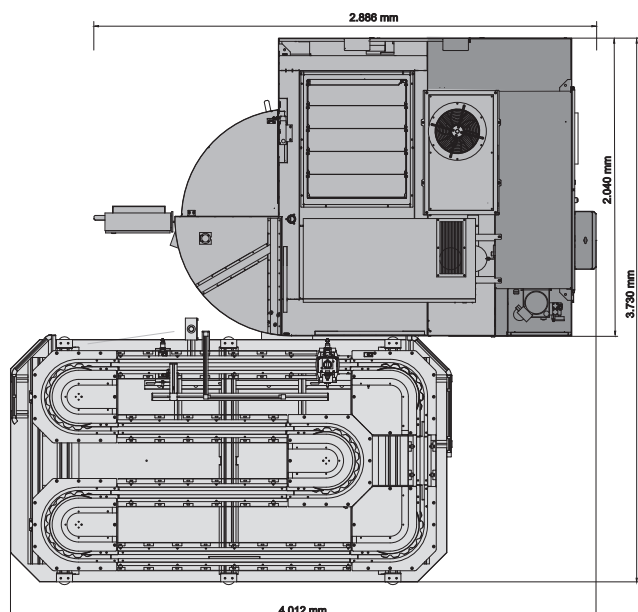
Approx. 7200 kg net



/// MACHINE DIMENSIONS



/// MACHINE DIMENSIONS // QXD 250 with HC 5



/// MACHINE DIMENSIONS // QXD 250 with HC 11

We reserve the right to make design changes in the interest of technical progress. Patent pending.

/// CUSTOMISED SERVICE

With a comprehensive range of helpful and efficient services, VOLLMER is there to provide you with support. From competent advice and the best financing for you, through to an advantageous service contract that allows you to decide now which service costs you will have to pay in the future.

In short: We do everything so that you can concentrate on what's important: Your success.

/// Extensive advice and project planning

/// Financing and insurance

/// Training and start-up

/// Maintenance and service

/// Original spare parts

/// Upgrade and software

/// Purchase and sale of used machines



QXD 250 – ITS MAIN ADVANTAGES AT A GLANCE:

/// INCREASED SPEED

Eroding time reduced by up to 30%.

While the high level of precision and surface quality remain the same.

/// This means you are a few lengths ahead of the competition.

INCREASED SHARPENING

Surfaces up to a roughness of 0.1 μ Ra.

/// This means you can have a sharper profile – right across the world.

INCREASED FLEXIBILITY

For tools up to bis 320 mm in diameter and 250 mm in length.

Satisfies almost any requirement.