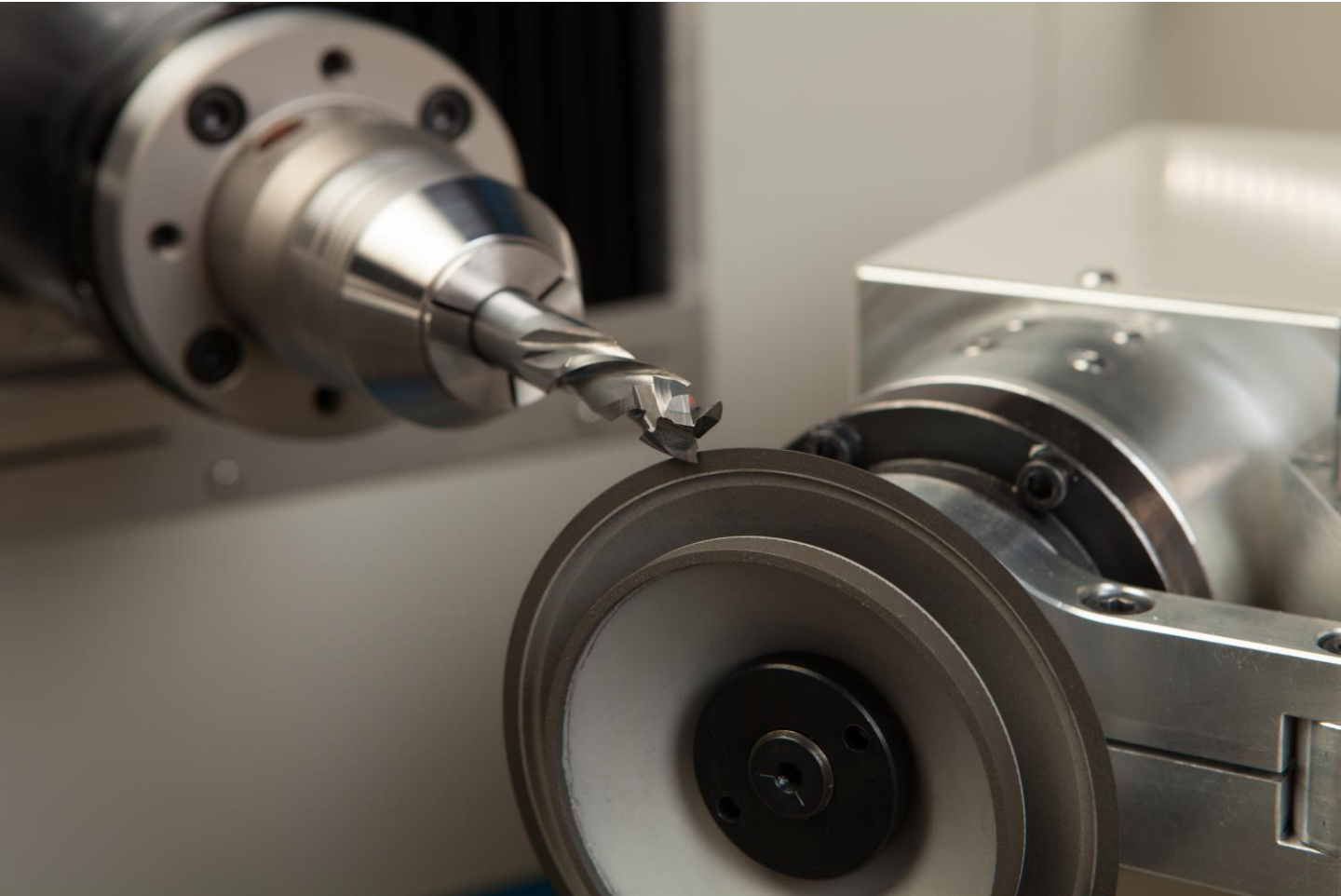




NORDOUTENSILI

Tools & Sharpening Machines



The Worlds First Automatic Compact Tool Sharpener





NORDUTENSILI
Tools & Sharpening Machines

Since 1983 **Nordutensili** Italy has designed and manufactured precision cutting tool equipment for the aerospace, automotive, medical, production-technology and general engineering industries.

With more than **150 CNC sharpening machines installed**, and UK & Ireland customers using their impressive product, Nordutensili and DELO are delighted to present a range of high-performance yet cost-effective precision grinding machines.



DELO represent **world leading CNC technologies** and support the UK & Ireland manufacturing sectors with professional sales and service solutions.



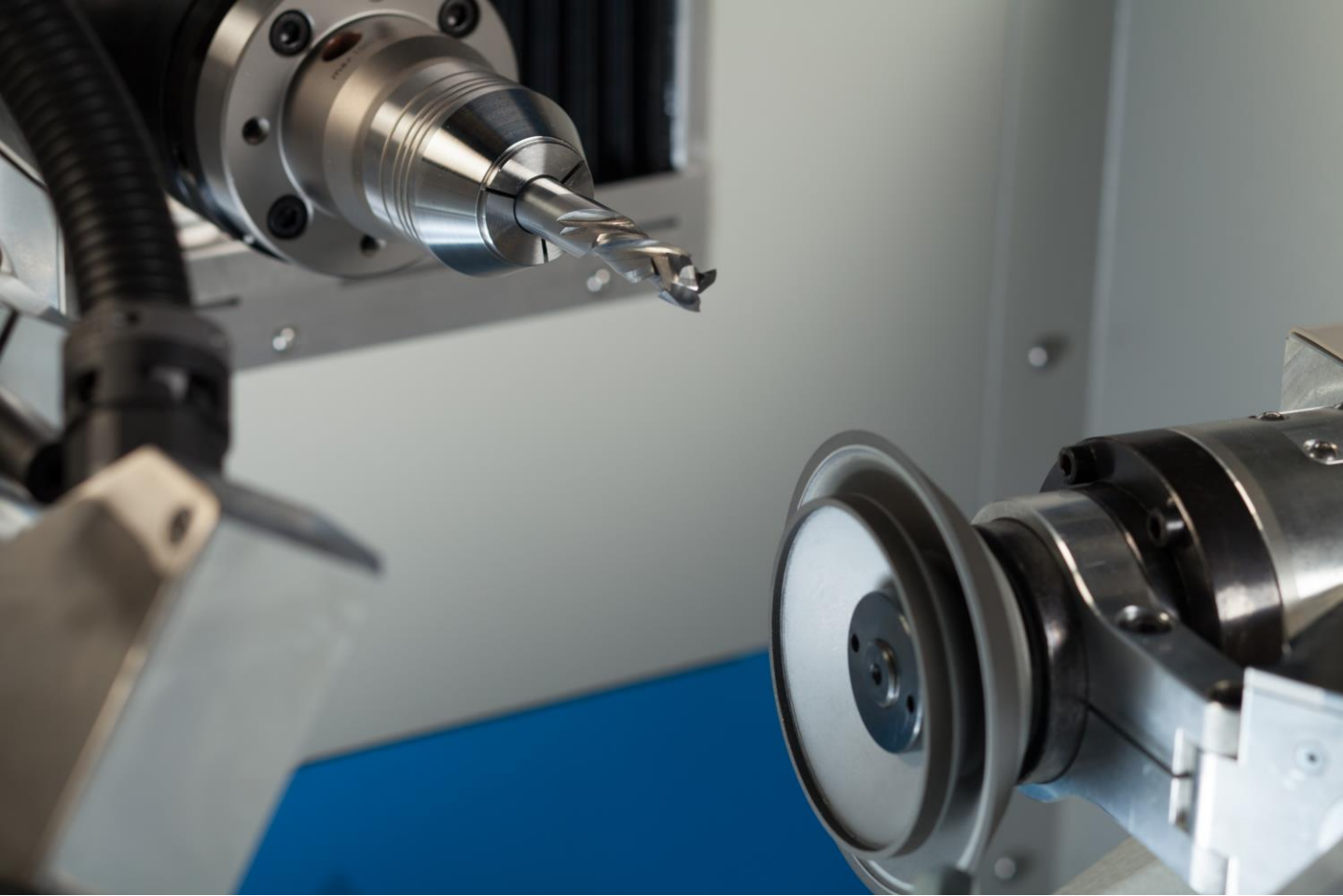
Life Cycle Services The Start

- Understanding Your Need
- Consultative Sales
- Presenting Solutions
- Mitigating Risks & Concerns
- Transparent Sales Order Process



Life Cycle Services Going Forward

- Project Management
- Feasibility & Factory Acceptance Tests
- Delivery & Installation Services
- Commissioning & Site Acceptance Tests
- Periodic Maintenance & Service Agreements
- Breakdown & Repair Services
- Remote Vendor Access
- OEM & Extended Warranties
- Obsolescence & System Health Checks
- Upgrade & Modernization Services



“the ability to simply load a cutter, analyse without entering any-values, grind bodies and ends better than new, then print diameter labels means we have reduced our costs per part, increased part quality and performance and continue to satisfy our customers”

Model

NU5A

Nordutensili Model Nu5A

- **COMPACT 5 AXIS CNC CUTTER GRINDER**
- **EXTREME ACCURACY (ANG. 0.03° / RAD $0.6\mu\text{m}$)**
- **INTUITIVE OPERATION**
- **LOW ENERGY CONSUMPTION**
- **LOW MAINTENANCE REQUIREMENTS**
- **HIGHEST GRIND QUALITY**
- **REMOTE VENDOR SUPPORT**
- **UK & IRELAND SALES & SERVICE**



NU5A Application

Analysis Functions

Automatic Analysis Of The Milling Cutter Geometry:

- Helix Angle
- Cutting Edge Angle
- Rake Angle
- End Angles
- Analysis Of Grinding Wheel Geometry & Consumption

Machining

Sharpening Of Cutting Edge

Sharpening Of Radial Rake

End Sharpening

Milling Cutters Supported

Diameters 3mm to 25mm or 1"

	Bodies	Flutes				Note
		1	2	3	4	
Up Cut / Down Cut / Square & O End	✓	✓	NA	NA	NA	
Up Cut / Down Cut / Square & Wood End	✓	✓	✓	✓		
Compression Square & Wood End	✓	✓	✓	✓	①	Wood End ①
Roughing	✓	✓	✓	✓	✓	
Rough (2) – Finish (2)	✓	NA	✓	NA	✓	
Carbide Tipped 0°	✓	✓	✓			
Spiral Router	✓					
Ball Nose Up Cut	✓	NA	✓	NA	✓	
5 & 6 Flute Up Cut	✓	NA	NA	NA	NA	End Grind ①
Conical	✗	✗	✗	✗	✗	
Smaller Shank Diameter	✓	✓	✓	✓	✓	

✓ Refers to current functionality
① Under development



NU5A Basic Specifications

Axes Controller

Proprietary MIPS32® M4K® Core Processor • 5 Axes Simultaneous

Operator Interface

8.4" Touch Screen

Sharpening Head

BLDC Spindle Motor (>6500 RPM) • 630W • 2x Grinding Wheels (100mmø and 75mmø)

Motorised Axes

X - Milling Cutter Axial Transfer • Resolution 0.001mm • Max Speed: 3M/Min

Y - Milling Cutter Lateral Transfer • Resolution 0.001mm • Max Speed: 3M/Min

Z - Grinding Wheel Height • Resolution 0.001mm • Max Speed: 3M/Min

A - Milling Cutter Rotation • Resolution 0.0007°

C - Grinding Wheel Angle Rotation • Resolution 0.001°

B1 - Laser Positioning • Resolution 0.0007°

Analysis System

Class II Laser Sensor

Intel®Core™ i5 Industrial PC

Angular Precision 0.03°

Radial Precision 0.6µm

Interface

Ethernet TCP/IP (Wi-Fi Optional)

Dimensions

1200 x 700 x 950mm

Weight

660kg (750Kg Gross)

Lubrication

Minimum Quantity Lubrication

Flow: 0.5 – 3 mL/Min

Reservoir 2 Litre

Motorized Nozzle

Extraction

Centrifugal Extractor With Filter • 300M³/Hr

Specifications liable to change without prior notice .

“simplicity, accuracy and efficiency... the NU5A summed up in 3 words”

“effortless loading, fully automated laser analysis and faultless grinding, producing finished edges better than new... each and every time”

“complete with automatic measuring of the tool and printed labels ready to ship out”

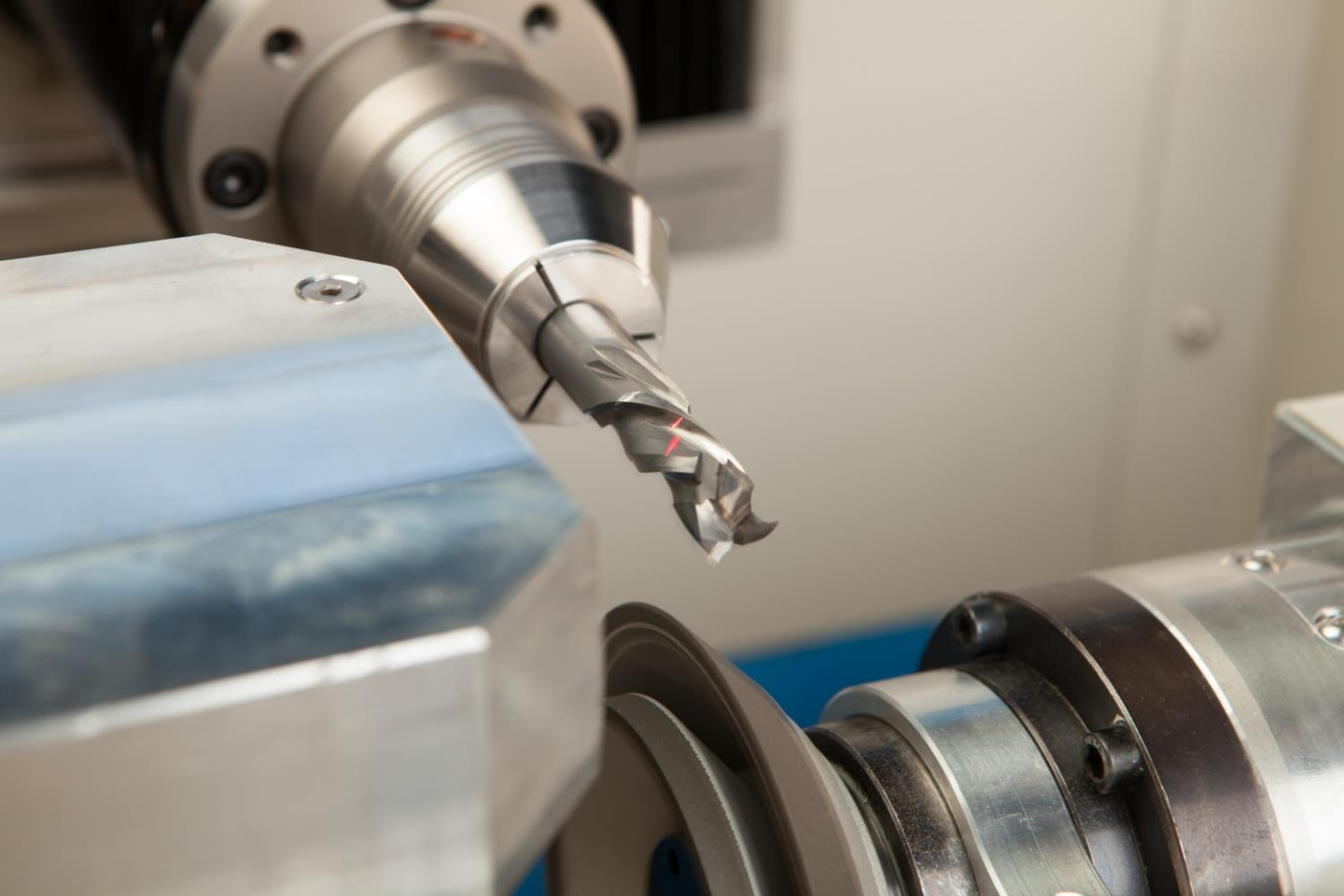
“it really is the next generation of grinding”

Alex Wilkinson, NS Tooling





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