



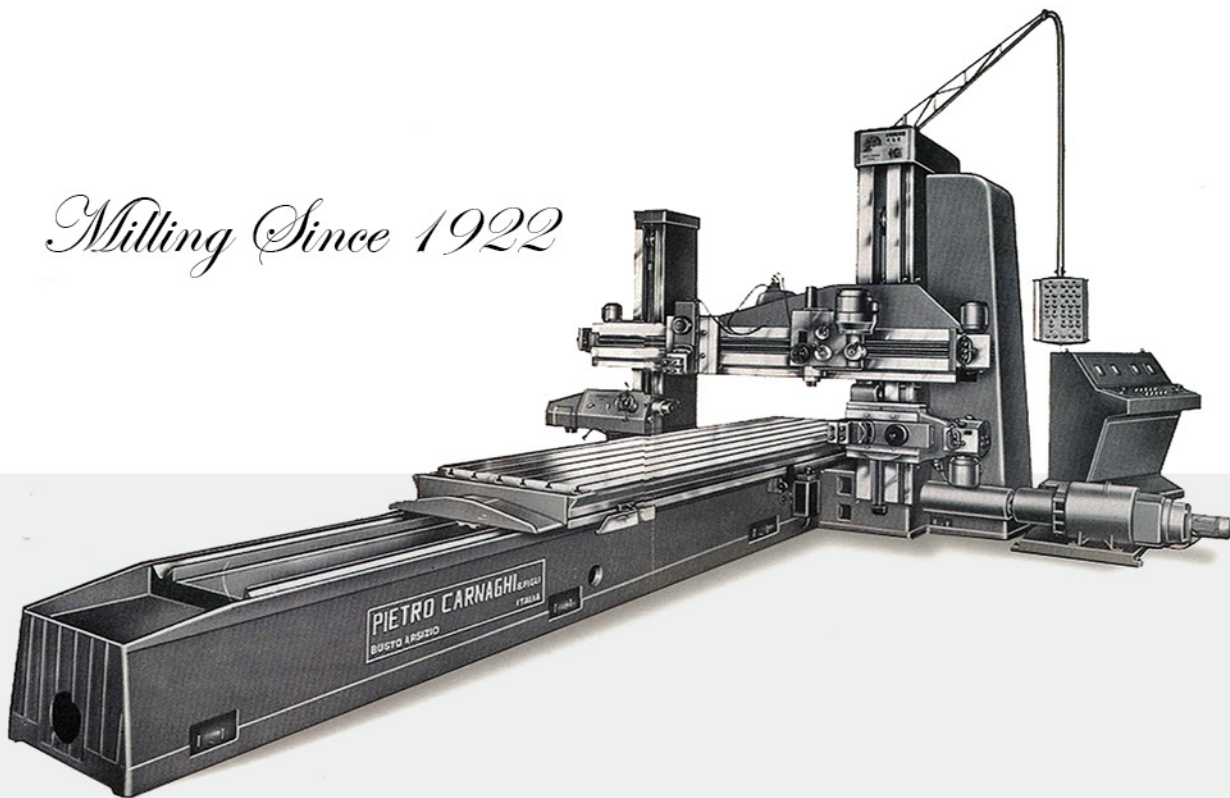
Gantry Milling Machines **UNIMILL**

PIETRO CARNAGHI
Machine Tools



PIETRO CARNAGHI Headquarter in Villa Cortese, MILAN, ITALY

Milling Since 1922



Pietro Carnaghi Founder



SERIES UNIMILL

VERTICAL MOVABLE TABLE MACHINING CENTERS GANTRY

Precisions and robust structures characterize the large and powerful portal machining center UNIMILL, designed based on decades of experience in machining, combined with the most advanced process technology.

Maximum horizontal clearance up to 14000 mm and spindle power up to 100 kW.

The modularity of the UNIMILL foresees an extremely high range of applications.

The gantry design with a fixed or height continuous axis movable crossrail, is available with a full turning integrated rotary table with no compromises for turning applications.





Massive structures to enhance machining on every material

- Full hydrostatic axis unlimited lifetime - zero backlash - dynamic stiffness.
- Robust hydrostatic RAM with octagonal shape and square shape.
- Milling spindle with direct drive technology (minimum torsional vibrations vs the angular elasticity of the mechanical gear box) High torque gearbox main spindle version available up to 10.000 Nm.
- Massive high-quality structures with Mechanical and hydraulic automatic compensation, with in-process bridge compensation.
- All components machined in-house at Pietro Carnaghi plant to maintain the highest precision and quality
- Full automatic tool/accessories change.
- Customized Accessory heads.

A large industrial machine, the UNIMILL 100, is shown in a factory setting. The machine features a prominent blue crossrail and a white vertical column. The floor is painted blue, and the walls are white with green accents. A yellow crane is visible at the top of the frame. The machine is positioned on a circular base with a grid pattern.

UNIMILL 100

HIGH DYNAMICS

W axis Crossrail excellent positioning accuracy

Deflections of the system are compensated by applying hydraulic and mechanical compensation forces to the portal and cross rail.

Forged steel HYDROSTATIC RAM (octagonal shape or square shape)

- RAM equipped with:

- Full Axis CI
 - Direct drive motor or in line gearbox with high torque (up to 10.000 Nm)
- Minimum diameter of passage inside of the work-pieces (octagonal shape = mm 550)
- Multisided machining heads to perform the most complete 5 axis machining
- Hydrostatic RAM double pocket systems, having impressive stiffness and symmetry.
- Enhanced anti-heeling system





UNIMILL 100

MILLING SPINDLE

In line gearbox with high torque (up to 10.000 Nm)

DIRECT DRIVE VERSION

Significant increase of performances and operational availability.

Easy maintenance and service.

Full energy efficiency, life cycle costs minimized.

Minimum torsional vibrations: most of the vibrations are generated by the angular elasticity of mechanical gear box.



UNIMILL 140



O
G
H
I

PIETRO CARNAGHI
UNIMILL

Z

Y

UNIMILL 60

- distance between columns : mm 6.000
- machining height : mm 5000
- Z RAM extension : mm 3000
- W continuous axis
- portal travel : mm 20000



APPLICATIONS

The different milling heads combined with the highly-developed spindle units and the automatic changing system for tools and spindle units guarantee the efficient machining of an extremely wide range of different workpieces: flexible and complete production solution for different fields: energy, oil and gas, construction, heavy engineering, shipbuilding, large diesel engines, aerospace.

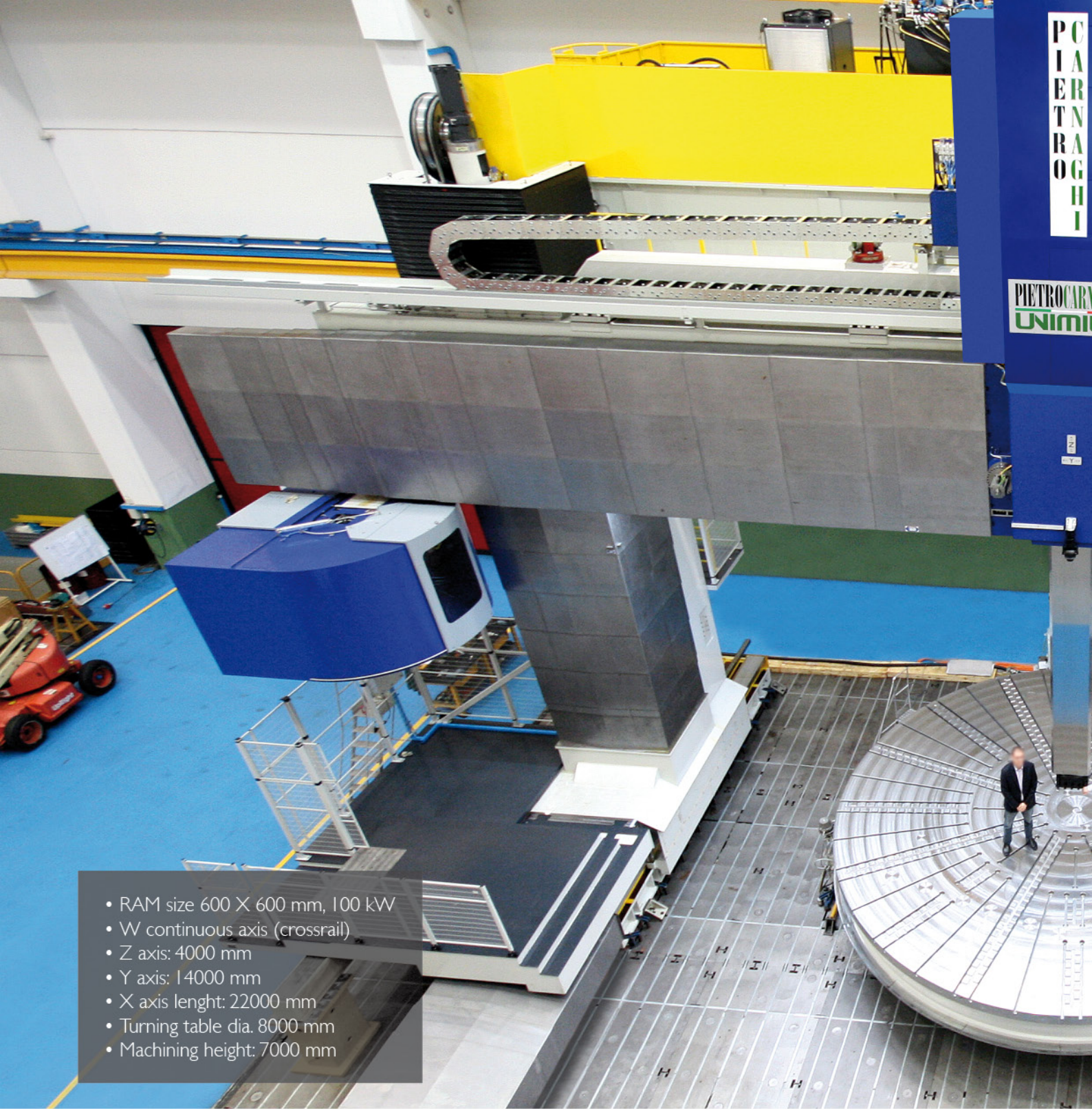




UNIMILL 40



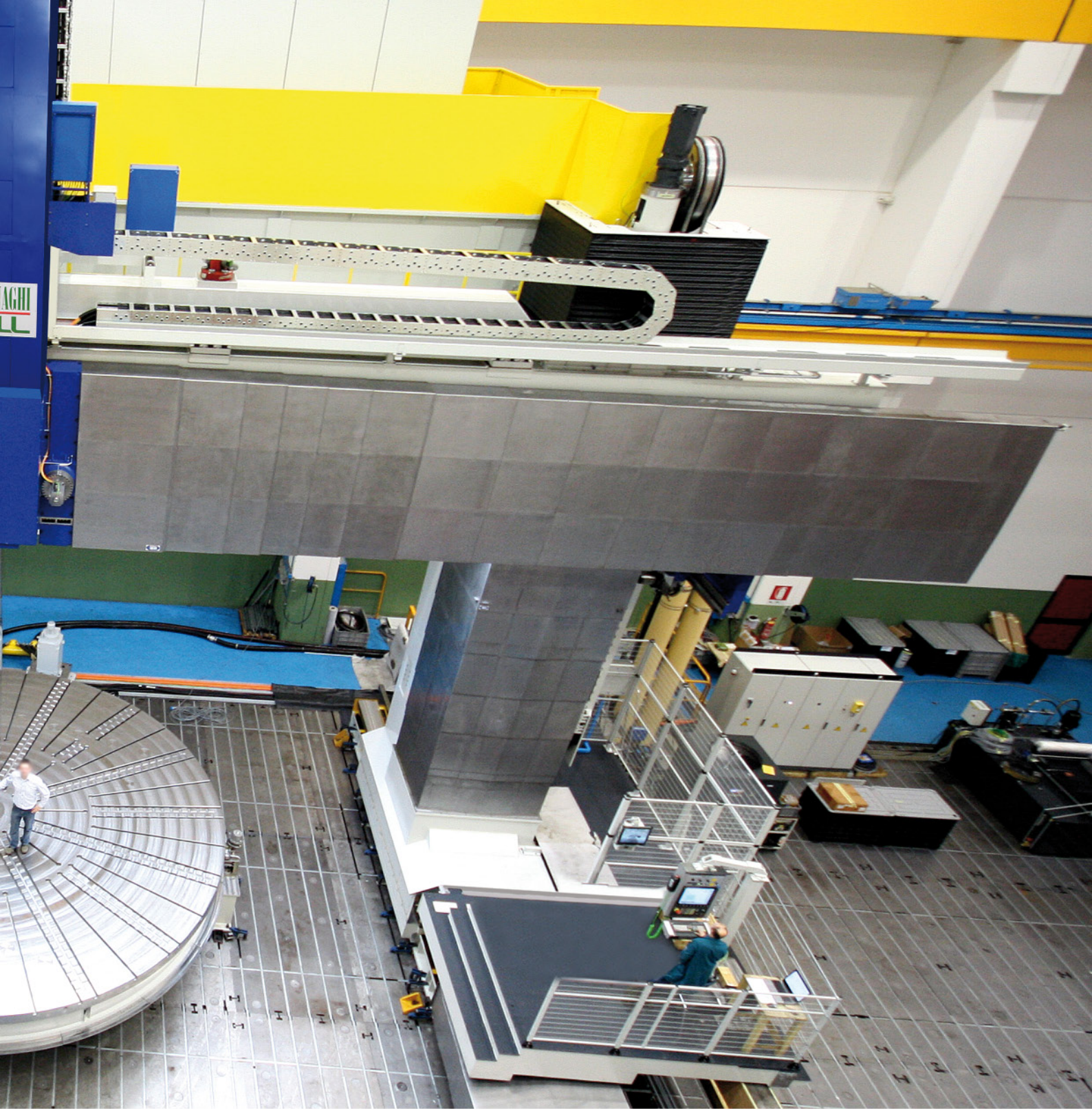
UNIMILL 60



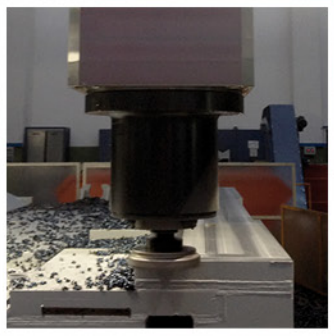
- RAM size 600 X 600 mm, 100 kW
- W continuous axis (crossrail)
- Z axis: 4000 mm
- Y axis: 14000 mm
- X axis length: 22000 mm
- Turning table dia. 8000 mm
- Machining height: 7000 mm

UNIMILL 140

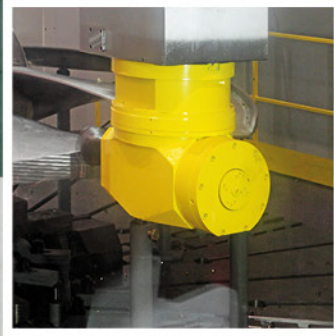




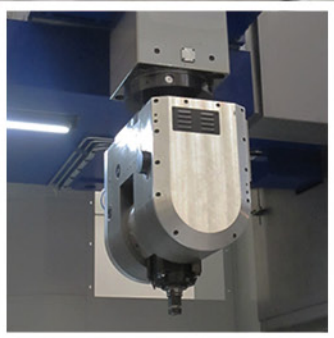
MILLING ACCESSORIES



VERTICAL
MILLING HEAD



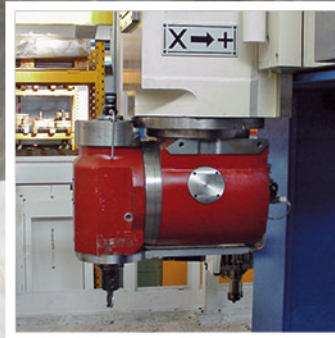
HORIZONTAL
MILLING HEAD



UNIVERSAL
POSITIONING HEAD



VERTICAL
EXTENDED HEAD



BIROTATIVE
INDEXED HEAD



HIGH SPEED
UNIVERSAL HEAD



HIRTH COUPLING
CONNECTION



FACING AND
BORING HEAD



UNIVERSAL HEAD
2 CONTINUOUS AXES

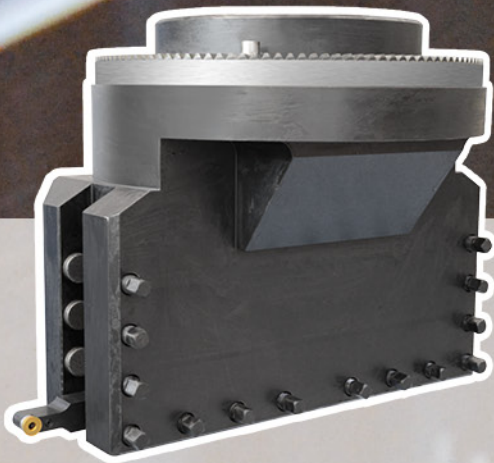


UNIVERSAL HEAD
2 CONTINUOUS AXES

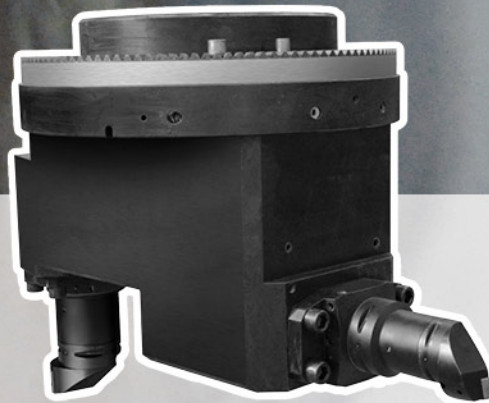
TURNING ACCESSORIES



TAYLOR MADE SPECIAL MILLIG HEAD:
FLAT ANGLE HEAD



STANDARD
TOOLHOLDER



DOUBLE MODULAR
TOOLHOLDER

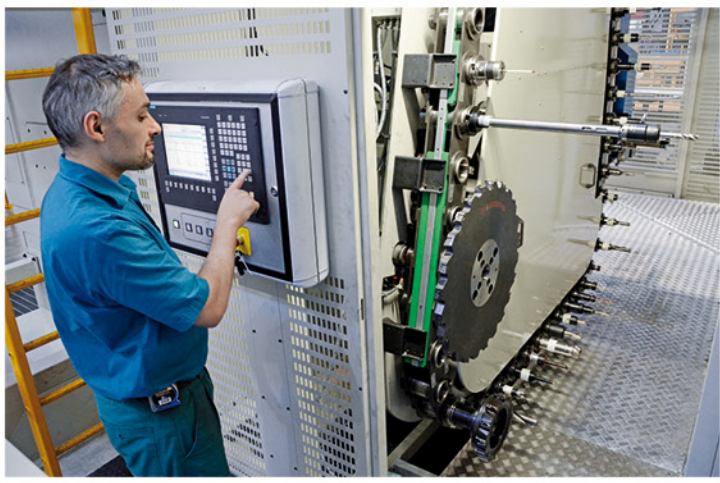


STANDARD
BORING BAR

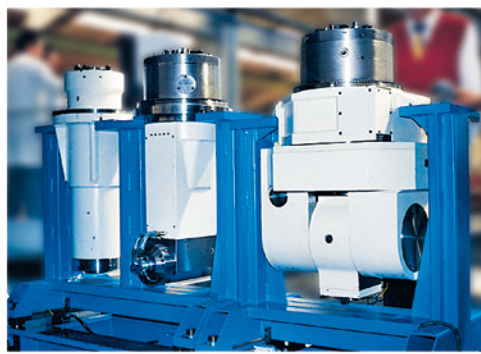
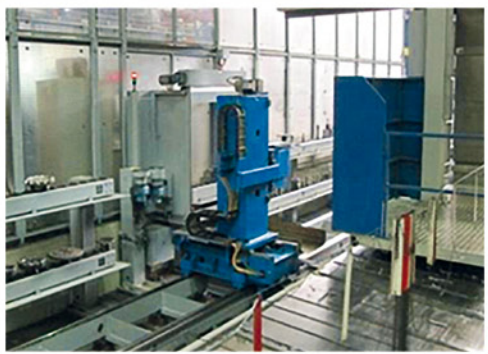
AUTOMATIC CHANGE OF TOOLS

ACCESSORIES CHANGER

The wide range of attachments are automatically exchanged.
The attachments are accessible for inspection and maintenance during machine operation.
Disks and Pick up systems.



ACCESSORIES



AUTOMATIC TROLLEY HEAD CHANGER ALONG X AXIS

PROBES / OTHER ACCESSORIES

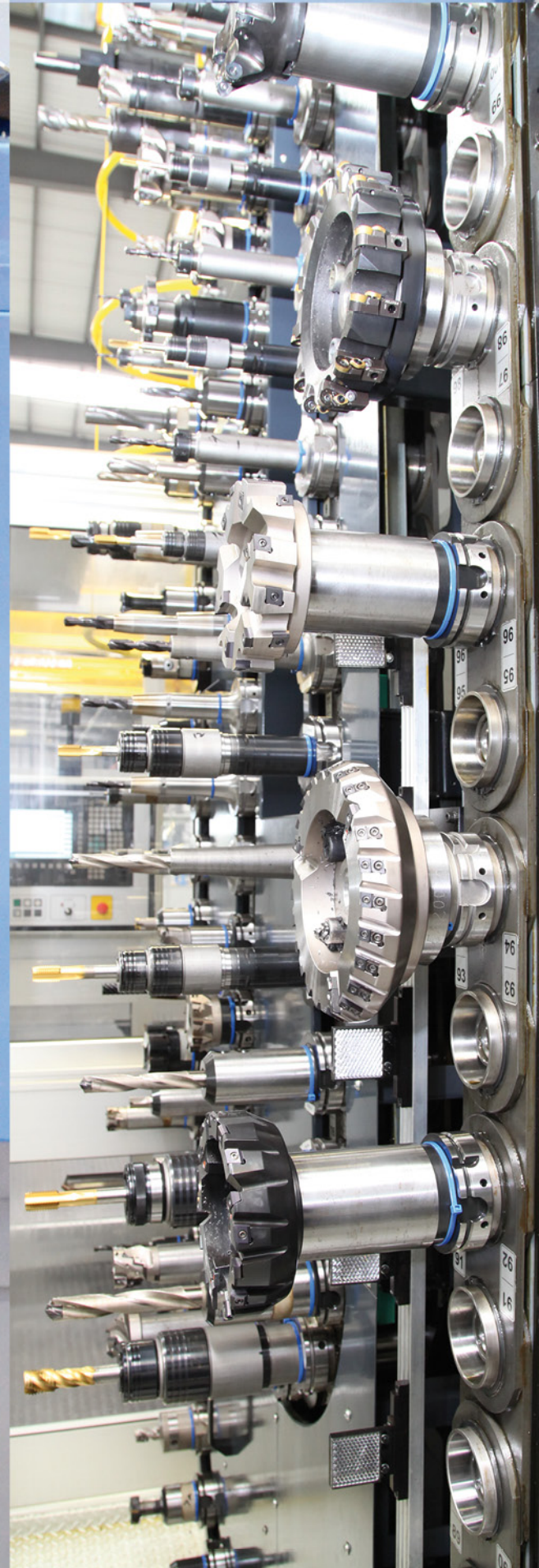
TOOL CHANGERS

Optimal tool changer for every number of required tools from 12 to 600 pockets.

Disks -Rack type-Towers-robot tool changers.

TOOL MANAGEMENT SYSTEM

- Optimized utilization of storage space including collision check.
- Monitoring of storage capacity.
- Tool life time control.
- Additional data interfaces to external devices (e.g. CAM system, toolpresetting, machine control via Ethernet).
- Optional data input devices: barcode scanner or identification chip, serial interface.





UNIMILL

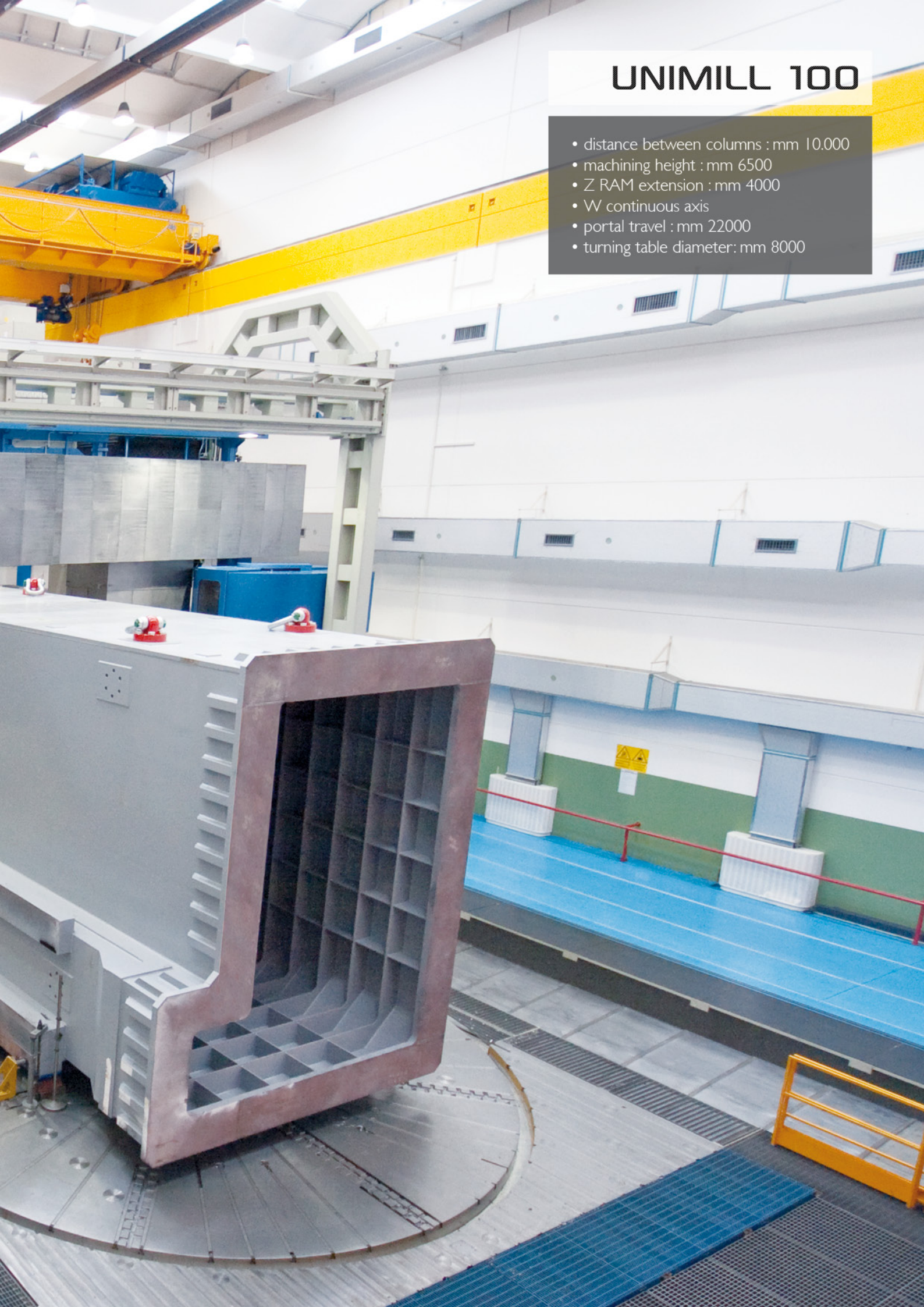
PIETRO CARNAGHI

PIETRO CARNAGHI

PIETRO CARNAGHI
UNIMILL

UNIMILL 100

- distance between columns : mm 10.000
- machining height : mm 6500
- Z RAM extension : mm 4000
- W continuous axis
- portal travel : mm 22000
- turning table diameter: mm 8000



MISSION

“Keep the customer operative extending the machine life cycle”

Focused on customers through a partnership approach, we are aimed by the provision of a quick response to requests with high skilled competence governed by the aim of short production break downs.

VISION

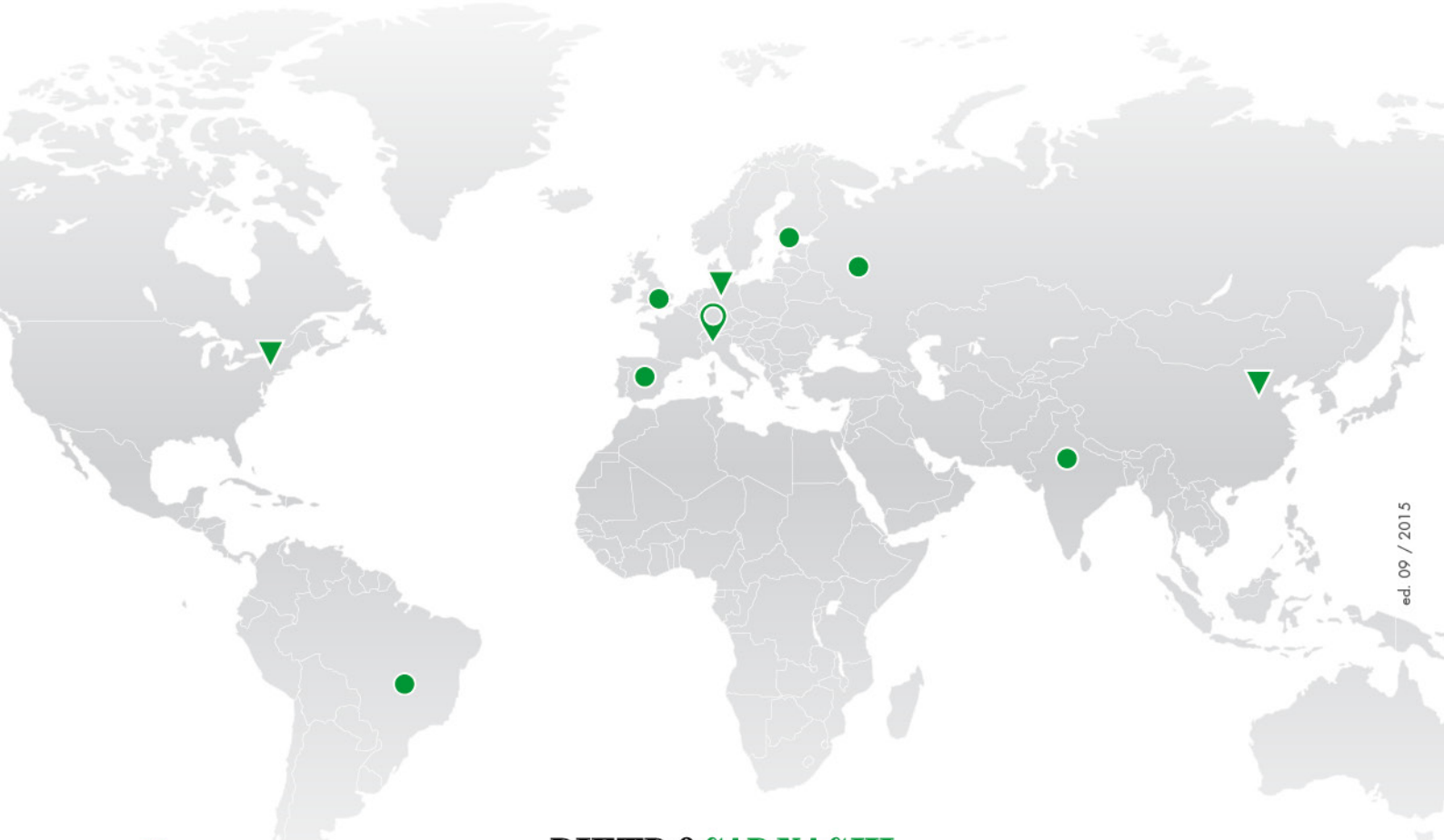
“A global coordination providing a local service”

Provide local services to customers coordinating each branch office by a global strategy to have a qualitative common and unique result wherever Pietro Carnaghi is operating.

- Installation Project Management;
- Interventions and repair services;
- Teleservices through remote connection;

- Spare parts;
- Preventive maintenance programs;
- Inspection & audit;

- Retrofit and modification;
- Machine relocation;
- Training and technological support;



- Headquarters
- Branch
- Service - Sales Dept.

PIETROCARNAGHI
Machine Tools

SINCE 1922



Country Address
Office Mobile Fax Mail

Pietro Carnaghi Spa
IT
Via S. D'Acquisto 7, 20020 Villa Cortese - MI - Italy
+39 0331 434536

+39 0331 434547
service@pietrocamaghi.it

Pietro Carnaghi GMBH
DE
Hauptstr. 171
70771 Leinfelden-Echterdingen
+49 (0)711 220 90 200

+49 (0)711 997 69 294
service_de@pietrocamaghi.de

Pietro Carnaghi Inc.
US
27 Wilson Dr.
Sparta, NJ 07871
+1 973 300 5842
+1 256 565 0005
+1 973 940 0200
service_us@pietrocamaghi.com

Pietro Carnaghi Co. LTD.
CN
Room 1202, Building 2, Yinzuo Center, Jingshi Road, Jinan, 250022
+86 531 87978801 / (802)

+86 531 87978809
service_cn@pietrocamaghi.cn



COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

