



ROLL GRINDERS AND AUTOMATIC ROLL SHOPS

A complete range of advanced Roll Shop Solutions for
Steel, Aluminium and other non-ferrous industries



Ternova is a worldwide partner for sustainable, innovative and reliable solutions in the metals and mining industries.

Building upon decades of experience, Ternova develop solutions that help mining and metals companies reduce costs, save energy, limit environmental impact and improve working conditions for their employees.

Ternova believes in on-the-job passion, and actively seek out professionals who truly love what they do. Their contributions to the business have helped make Ternova the industry-leading company it is today, and their passion is the driver behind the company business approach.

This approach can be summed up in four key pillars: Innovation, Reliability, Sustainability and Safety.

Through the Pomini brand, Tenova is worldwide leader in the design and supply of Roll Grinders for flat product rolling mills and Roll Texturing Machines (PDTTM- Pomini Digital Texturing TM), as well as of special machines for grinding of heavy components. The product range of Pomini Tenova embraces heavy, medium and light duty, fully automatic CNC roll grinders, CNC laser digital texturing machines for work rolls, fully automatic CNC roll loaders, chocking and de-chocking machines for all roll types, roll lathes, able to speed up grinding, handling and maintenance operations on rolls, and to guarantee the level of precision required by the most sophisticated rolling mills.

Pomini Tenova also supplies other equipment ancillaries such as washing machines, tilters for chocks, roll cooling systems, storage racks and other devices used in daily roll shop operations. In addition, it boasts extensive expertise in reconditioning, upgrading and fully automatic revamping of used roll grinders of any brands.

The constant pursuit of innovation in automation and machine integration for the rolling mill process combined with the precision, reliability and safety features that have always distinguished Pomini Tenova, provide our Customers with products that represent the highest level in texturing roll grinding worldwide.



Pomini Tenova range of products include:

Heavy, Medium and Light Duty Fully Automatic CNC Roll Grinders, for superb performance in terms of tolerances and surface finishing, high reliability and internationally patented measuring and control devices. The activity extends to the **modernization** of existing grinding machines, including those of competitors, to make them achieve Pomini Tenova's high performance standards, at the same level of new machines.

Fiber Laser CNC Texturing machines known under the brand PDTM (Pomini Digital Texturing™) a disruptive referenced technology for cold rolling mill applications, allowing control of work rolls surface characteristics unobtainable with previous technologies.

Roll Defect Detection and Vibration Analysis, known under the brand Inspektor³™, a complete state of the art system in technology for non-destructive rolls inspection, together with Vibration Analysis features, integrated on roll grinding machines or standalone.

Roll Shop Management System (RSMS), the complete web-based hardware and software solution developed by Pomini Tenova for full control and analysis of roll shop operations. RSMS enables analysis from actual grinding, texturing and maintenance process monitoring to collection and processing of production, consumption and requirement data, with minimum outlay of resources.

Fully Automatic CNC Roll Loaders, with either two or three controlled axes, combining high handling speeds

with outstanding positioning accuracy, for faster roll handling and enhanced grinder productivity.

Shear Blade Grinders, CNC-controlled range of machines specifically designed by Pomini to grind with the highest levels of finish and precision knives and blades used in the roll shop, expanding the range of maintenance capabilities.

Chocking and Dechocking Machines for all roll types, to speed up maintenance operations and guarantee the level of precision required by the most sophisticated roll supporting systems.

Other Machines and Ancillaries such as Roll Lathes, Transfer Cars, Washing Machines, Tilters for chocks, Roll Cooling Systems and other devices used in daily roll shop operations.

Roll Storage Racks and Pads, to optimize use of the Roll Shop floor in relation to crane and grinder availability, leveraging Pomini Tenova know-how in handling all roll types.

Machine Condition Monitoring and Full Digital Package including spare parts electronic catalogue, developed by Tenova Digital Team, fully dedicated to Industry 4.0 technologies in close cooperation with Pomini automation, implementing a secure cloud platform, deploying artificial intelligence (AI) and machine learning applications, augmented reality for remote assistance and commissioning, data exchange in customer plants, with constant focus on Cybersecurity.

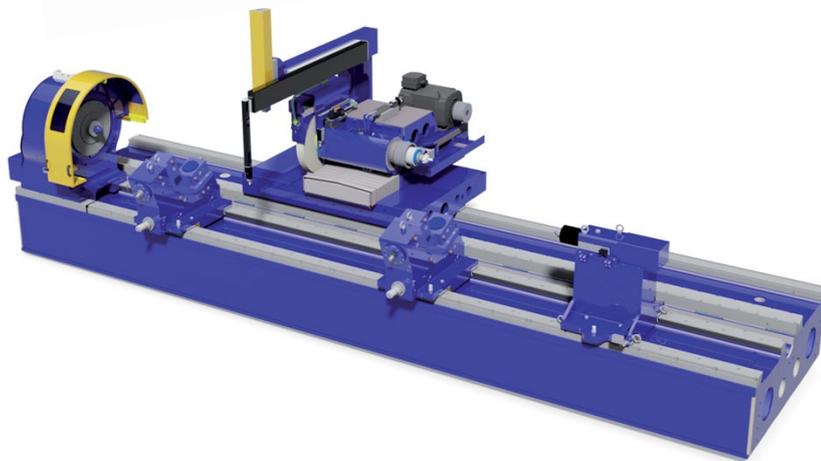
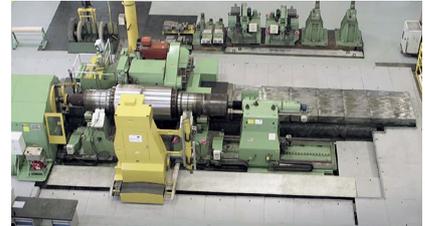


CNC ROLL GRINDERS

Grinding of different profiles: Cylindrical, Concave and Convex Shapes, CVC (since 1985) and CVC Plus, Smart Crown, Polynomial, Sinusoidal, Empirical and all possible combinations



CNC Roll Grinders with traditional foundation block



CNC Roll Grinders foundation free / foundationless



STEEL, ALUMINIUM, COPPER, SPECIAL ALLOYS

Cluster, Foil, Cold Mills: Work rolls, intermediate rolls, back-up rings



Cold, Hot and Plate Mill: work, intermediate and back up rolls, with and without chocks



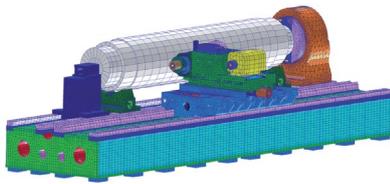
Paper Mill, Roll Makers, Other Special Applications: all roll and mill sizes

AUTOMATIC ROLL SHOPS



FULL AUTOMATION

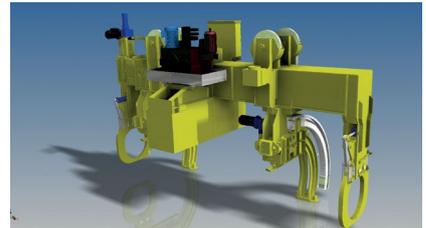
Roll Grinders



Pomini Digital Texturing™ (PDT™)



Roll Shop Ancillaries



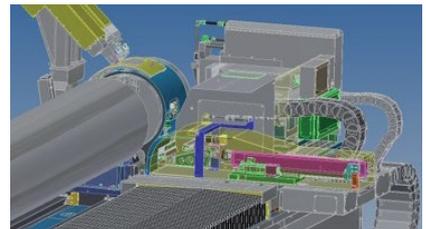
Inspektor³™: Roll Defect Detection



Roll Shop Management System (RSMS)



Pomini Digital Surface Analysis (PDSA)



DIGITAL ROLL SHOP

Diagnostic Center

Oversee and control service operations globally.



Plant Monitoring

Monitor and preserve customer's plant health remotely.



Equipment Monitoring

Real-time access equipment telemetry and performance.



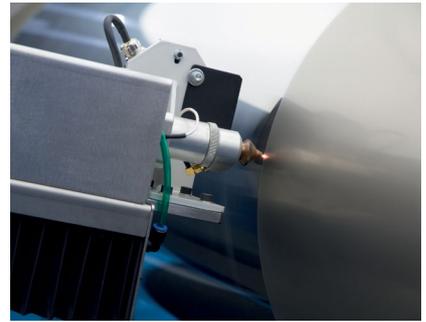
Electronic Spare Parts Catalogue

Level-structured, with immediate visibility of customized information.



Roll Texturing

- Texturing machine
PDT™ (Pomini Digital Texturing)
Machine



Automatic Roll Loader

- 2-axes loaders
- 3-axes loaders
- Interface with EOT cranes
- Automatic scheduling



Shear Blade

- Shear blade grinding machines



Dechocker

- WR Dechocker
- BUR Dechocker
- Combi Dechocker



Chock Tilter

To make chock maintenance easy



Automatic / Manual Roll Lifting Beams

- Work rolls
- Back-up rolls



Roll Moving Equipment

- Transfer Cars for WR's and/or BUR's
- Roll buggy for WR's



Roll Cooling / Roll Racks

- Hot mill work rolls
- Work rolls
- Back-up rolls



Cleaning Devices

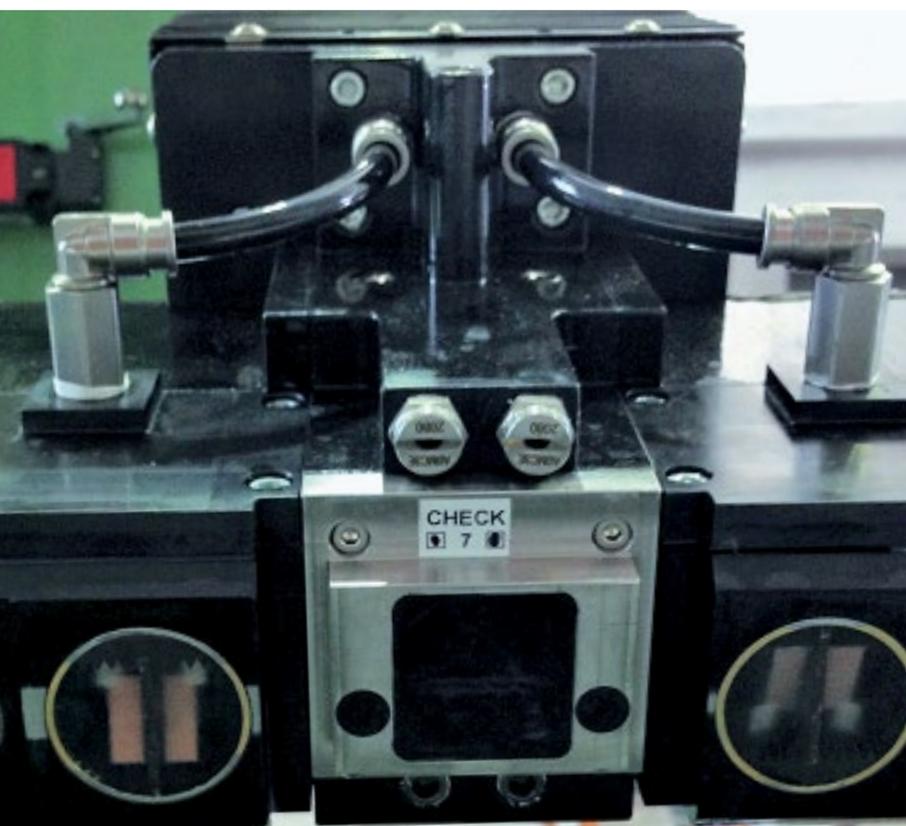
- For rolls with chocks
- For chocks with bearings
- For bearings



Others

- Turning lathes
- Special Dechocker





Sustainable solutions for a green transition of metals

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