Bombardi Rettifiche: Precision, Innovation, and Reliability in the Grinding Sector

MICRO-GRINDINGS AND MECHANICAL GRINDINGS SINCE 1964 ON YOUR SIDE





Our History:

Founded in 1964, Bombardi Rettifiche is a metalworking company in Cadelbosco Sopra (Reggio Emilia), Italy, that has specialized in precision grinding for over 60 years. We serve a wide range of industries, including automotive, hydraulics, and earthmoving equipment. Our commitment to cutting-edge technology and customer satisfaction has made us a trusted partner for businesses worldwide. See the Video





Bombardi Rettifiche offers a comprehensive range of grinding services for mechanical components, with the goal of providing our customers with finished parts that are washed and ready for use in their production lines. Our expertise and experience allow us to offer

our customers high-quality, precision products, quickly and at competitive prices. We can work with a wide variety of materials, including steel, cast iron, bronze, aluminum, and plastic materials.

Our Services Include:

- Grinding of Hydraulic Components: Internal and external grinding of cylinders, pistons, shafts, and flanges.
- Gear Grinding:

- External gear grinding
- Surface grinding
- <u>Lapping</u> and polishing

Large Plate Machining:

 Components for Hydroguides, Earthmoving Machines, and the Automotive Sector

Wheels with a Flat Surface:

- Wheels without a Flat Surface (Small Dimensions):
 - Grinding of the outer diameter
 - Internal bore grinding

Cutting-Edge Grinding Technology:

With our extensive experience and unwavering commitment to innovation, we offer advanced solutions to meet the most complex needs of our customers.



Our Technologies Include:

- Latest generation CNC machines: for flat grinding and precision machining with tight tolerances and impeccable finishes.
- **Industry 4.0 compliant micro-grinding:** on small components with extreme precision and cutting-edge finishes.
- <u>Precision parallel lapping</u>: for smooth and uniform surfaces essential for high-precision applications.
- Industrial washing systems: for precise and effective cleaning of components, even plastic ones.
- Automated in-line system for the automotive sector: compliant with Industry 4.0 standards, for uncompromising efficiency and precision.
 - See the video to discover how technological innovation ensures the highest quality in the machining of automotive components.
- Internal and external grinding: on a wide range of component geometries and sizes.



Our Strengths:

- Cutting-edge technology: We use the latest generation CNC machines and specialized systems compliant with Industry 4.0 standards for maximum precision and flexibility.
- Innovation: We constantly invest in research and development to implement the most advanced technologies and offer

increasingly performing solutions to meet the needs of our customers.

- Many years of experience: Our team of experts boasts proven experience in the grinding sector, guaranteeing unique know-how and customized solutions for every need.
- Flexibility and Customer Focus: We put customer satisfaction at the center,
 offering an attentive and timely service.
- Reliability: We are committed to respecting the agreed deadlines and providing a
 punctual and precise service, building lasting relationships based on mutual trust.
- Certified Quality: Our production processes are certified according to the most stringent international standards, ISO 9001:2015, to guarantee the highest quality products and services.
- Sustainable Company: Next Certified Company, we operate responsibly towards
 the environment and the community, adopting <u>eco-sustainable practices</u> and
 processes that reduce environmental impact and promote long-term sustainability.

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV ISO 9001



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2024
IMPRESA
SOSTENIBILE
CERTIFICATA



Mission and Vision:

Vision: To be the benchmark in the flat grinding sector, meeting the needs of our customers with the utmost professionalism and competence.

Mission: To offer cutting-edge technological solutions to meet the most complex needs of customers, guaranteeing a targeted and

personalized service. To pursue constant innovation while respecting the environment and sustainability, promoting the well-being of workers and the people involved.



Our Values:

- **Respect:** Respect is our fundamental value. We value our people, our customers, the environment, and the community in which we operate.
- Ethics: We conduct our business with integrity and transparency, always operating in compliance with laws and principles of fairness.
- **Legality Rating:** As a testament to our commitment, Bombardi Rettifiche has obtained a ++ star from the Italian Antitrust Authority, a recognition that attests to adherence to rigorous criteria of legality, transparency, and social responsibility.
- Social Responsibility: We are actively committed to environmental sustainability and the well-being of the territory, contributing to sustainable and shared development.

Our Team of Experienced Professionals is at Your Complete Disposal:

Alfredo Tronci - Sales Manager alfredo.tronci@bombardi.it



With his experience and expertise in the field, he provides personalized solutions to meet the specific needs of our customers, ensuring optimal results in terms of precision.

Fabio Tosini - Product and Process Quality Control Manager fabio.tosini@bombardi.it



With his knowledge and expertise in the field, he ensures that every machined part meets not only the highest quality standards and compliance with current regulations but also the expectations of our customers.

Choosing Bombardi Grinding means choosing a reliable partner, not only for the quality of service but also for a tangible commitment to a more sustainable and responsible future.

Bombardi Grinding: your ideal partner for top-quality grinding solutions.

Address: Via Augera 13, 42023 - Cadelbosco di Sopra (Re) 📍 <u>Location</u>

☑ Email: commerciale@bombardi.it

Phone: +039 0522 917867

Opening Hours: Monday – Friday: 08:00 - 12:30 | 13:30 - 17:00

Website: www.bombardi.it

Follow Us on Social Media

YouTube Visit our YouTube channel Bombardi Grinding here



We would be pleased if you could take a look at our technical brochure find attached below







OUR PRODUCTION PROCESS



Planning and control of production processes adopted by Bombardi Rettifiche Srl guarantee correct work execution as regards Customer's needs.

Analysis

Definition of the technical - financial bid and timing

Pre-production

Work cycle processing

Customer requirements

It's possible to handle extra control documentation given the standard provided by the company.

We are able to carry out:

- ISIR
- Psw
- PPAP
- · Flow Chart of the Product Process
- Process FMAE
- XR card

Production

Choosing the most suitable machine in relation to processing Product traceability

Check

In-Process control of the Product and quantity during the production process

Stock

Storage of the finished lot and shipment within the agreed time



MICRO-GRINDINGS: MACHINES, TOOLS

AND WORKABLE DIMENSIONS

The production unit, specialised in micro-grindings, of Bombardi Rettifiche is unique in its kind.

Machines and tools allow you to work simultaneously on two special surfaces made of cast iron, iron, steel, aluminium and bronze with:

- Ø 292 mm
- · flatness and parallelism tolerances less than 0.002 mm
- · roughness less than 0.4 RA

	MACHINE	DESCRIPTION	WORKABLE DIMENSIONS	TOOL	
	Micro-grindings ELC 800	Melchiorre Piani Paralleli (Parallel Planes) 120 RPM Power 30 Kw	Workable Ψ 227 mm	Millesimal Comparators, Roundness Meter, Roughness Meter, Blocks for Ceramic and Steel Parallel Planes	
			Toll. <0.003 mm Roughness <0.4 RA		
	Micro-grindings ELC 800	Melchiorre Piani Paralleli (Parallel Planes) 120 RPM Power: 22 Kw	Workable Ψ 227 mm	Millesimal Comparators, Roundness Meter,	
			Toll. <0.003 mm Roughness <0.4 RA	Roughness Meter, Blocks for Ceramic and Steel Parallel Planes	
	Micro-grindings ELC 800	Melchiorre Piani Paralleli (Parallel Planes) 200 RPM Power 37 kW	Workable Ψ 227 mm	Millesimal Comparators, Roundness Meter, Roughness Meter, Blocks for Ceramic and Steel Parallel Planes	
			Toll. <0.003 mm Roughness <0.4 RA		
	Micro-grindings ELC 800	Melchiorre Piani Paralleli (Parallel Planes) 200 RPM Power 37 kW	Workable Ψ 227 mm	Millesimal Comparators, Roundness Meter, Roughness Meter, Blocks for Ceramic and Steel Parallel Planes	
			Toll. <0.003 mm Roughness <0.4 RA		
	Micro-grindings AC700 - F	Peter Wolters Parallel Planes 120 rpm Power: 15 kW	Workable Ψ 227 mm	Tesa Tronic TT80, with two probes, connected to Pc Panel to check error of Drift, Roundness Meter, Roughness Meter, Blocks for Ceramic Parallel Planes	
			Toll. <0.002 mm Roughness <0.4 RA		
	Micro-grindings AC700 -F	Peter Wolters Parallel Planes 300 rpm Power 46 kW	Workable Ψ 227 mm	Tesa Tronic TT80, with two probes, connected to Pc Panel to check error of Drift, Roundness Meter, Roughness Meter, Blocks for Ceramic Parallel Planes	
			Toll. <0.002 mm Roughness <0.4 RA		
	Micro-grindings AC1000 -F	Peter Wolters Parallel Planes 150 rpm Power 48 Kw	Workable Ψ 292 mm	Tesa Tronic TT80, with two probes, connected to Pc Panel to check error of Drift, Roundness Meter, Roughness Meter, Blocks for Ceramic Parallel Planes	
			Toll. <0.002 mm Roughness <0.4 RA		

FLAT MACHINING: MACHINES, TOOLS AND WORKABLE SIZES



MACHINE	DESCRIPTION	WORKABLE DIMENSIONS	TOOL
Lapidelli C.N	Camut Power 130 Hp	3100 x 700 x 650	Centesimal Micrometer, Comparator, Depth Gauge, Roughness Meter
	Rosa Silver	2200 x 850 x 650	Roundness Meter, Altimeter, Roughness Meter, Millesimal Micrometers, Comparators
CNC topopolish	Rosa Steel	1400 x 500 x 500	Roundness Meter, Altimeter, Roughness Meter, Millesimal Micrometers, Comparators
C.N.C. tangentials	Favretto Rotary Table	Ψ 800	Roundness Meter, Altimeter, Roughness Meter, Millesimal Micrometers, Comparators
	Camut Mini 415	1500 x 400 x 300	Roundness Meter, Altimeter, Roughness Meter, Millesimal Micrometers, Comparators

LAPPINGS: MACHINES, TOOLS AND WORKABLE DIMENSIONS

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2	MACHINE	DESCRIPTION	DIMENSIONS	TOOL
•	Lapping	Lui Parallel Planes	ψ 1200	Roundness meter, Roughness Meter, Blocks for Ceramic and Steel Parallel Planes, Millesimal Micrometer, Vision Swift Digital Profile Projector of 150x100 mm
		Lui Mono - Table	ψ 800	Roundness meter, Roughness Meter, Blocks for Ceramic and Steel Parallel Planes, Millesimal Micrometer, Vision Swift Digital Profile Projector of 150x100 mm

WASHING SYSTEM

SYSTEMS	DESCRIPTION	
Washing System IFP	Modified Alcohol Washing System KP.100 HMA	
Washing System Meg	Meg F-SG Solvent Robotic Washing System	
Ultrasonic Cleaning Station Meg	Ultrasonic Cleaning Station	

ACCESSORIES AVAILABLE FOR MACHINES AND PROCESSES

MACHINE DESCRIPTION

Brushing CNC BD 300L Peter Wolters Ψ 270

Internal and External Grinding Machines: Workpiece

MACHINE	DESCRIPTION	WORKABLE DIMENSIONS
External Grinding Tacchella Gring External Grinding Lizzini Mito	With maximum length up to 900/1000 mm and maximum size of Ø380	Maximum weight: 220 KG
External Grinding Tacchella Grind External Grinding Lizzini Mito Internal Grinding Nova Internal Grinding Mecc-Nova	Work on outside and hole	Minimum hole: Ø36/38 mm, Maximum length: 500/600 mm
Internal Grinding Nova Internal Grinding Mecc-Nova	Precise work	Minimum hole: Ø75, Maximum hole: 280 mm
Internal Grinding Nova Internal Grinding Mecc-Nova	Work on small size wheels	Minimum hole: Ø20, Maximum grip: about 170 mm

QUALITY CONTROL: MEASURMENT TOOL

INSTRUMENT	CHARACTERISTICS	DESCRIPTION
Polytec, TMS-500 TopMap Pro.Surf	Area of interest in mm: 44.9 x 33.8 Lateral pixel resolution in μm: 28.2 x 28.2	The Polytec TopMap Pro.Surf is a non-contact surface measurement and metrology system.
Mitutoyo Profilometer, CV- 3200	Resolution: X= 0.05 μm Z= 0.04 μm	It is a high accuracy and high resolution 2D profile measurement instrument
Mitutoyo Roundness Meter, Roundtest RA. 2000	Measuring range: Ø 300 mm Resolution: 0.00002 mm Maximum Detected Error: 0.0002 mm	Versatile instrument used for assessing various geometric properties of an object



MANAGEMENT SYSTEM CERTIFICATE

Certificate no.: CERT-05748-2000-AQ-BOL-SINCERT Initial certification date: 17 February 2000 Valid: 16 February 2024 – 15 February 2027

This is to certify that the management system of

BOMBARDI RETTIFICHE S.r.I.

Via Augera, 13 - 42023 Cadelbosco Sopra (RE) - Italy

has been found to conform to the Quality Management System standard:

ISO 9001:2015

This certificate is valid for the following scope:

Working on customer's drawing for mechanical, automotive, hydraulics and earth-moving components, on sub-contractor and complete supply, including flat grinding, fine-grinding, lapping, brushing and washing (IAF 17)

Place and date: Vimercate (MB), 07 February 2024



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SOC, SOA, PRO, PRS, ISR OHO, LAB & LAT, O PLA to per pil schemi di notraditamenta SOO, SOA, SSI, PSI e PRO e di PRA ILAC per pil schemi di popredicamenti LAB, MED, LAT e ISP. For the issuing office: DNV - Business Assurance Via Energy Park, 14, - 20871 Vimercate (MB) -

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Claudia Baroncini Management Representative

