



**Mechanical Machining
and Construction**

by Galbiati Group



MECHANICAL MACHINING AND CONSTRUCTION

The **Mechanical Machining and Construction Division** at Galbiati Group is the ideal partner qualified for custom construction of mid- and large-sized components that require high quality standards.

Experience, teamed with our continuously updated production technology, has led to long-term relationships with leading companies in the steel, energy, and general engineering industries. Our goal goes beyond simply performing the high-quality machining requested. Our know-how gives the company leverage to improve products or to offer alternative solutions, to optimize or to innovate.

Our high-tech machine tools allows us to perform many types of machining, including NC boring, drilling, milling, and turning.

Our ZEISS three dimensional measuring machine is fundamental for testing, dimensional inspection and certification.

Galbiati Group can provide simple to complex mechanical assembly services as well as reconditioning.

- ▣ HIGH-PRECISION MACHINING WITH HUNDRETHS TOLERANCE (BORING, MILLING AND TURNING)
- ▣ MECHANICAL CONSTRUCTIONS, TURNKEY MACHINES AND EQUIPMENT
- ▣ DIMENSIONAL INSPECTIONS AND NON-DESTRUCTIVE TESTING
- ▣ RECONDITIONING OF MACHINES AND EQUIPMENT

TECHNICAL CAPACITIES

Boring/milling

Up to 18,000 mm for a maximum height of 3,700 mm, capacity up to 120 ton

Turning

(parallel) 900 x 8,000 mm diameter; (vertical) 3,300 x 2,950 mm diameter. Capacity up to 38 ton

Assembly shop with pit

10 x 15 x 4 m deep for assembly of large machines (for up to 15 m in height)

Hoisting systems

For loads up to 120 ton

Painting booth

Large Painting booth: 11 x 6 x 5

CERTIFICATION AND INSPECTION

Certified Quality: Extreme accuracy without tolerances

Thanks to its ZEISS MMZ-G 30 60 25 three dimensional measuring machine, the Galbiati Group is among few Italian companies capable of performing inspections on large-sized components for applications requiring extremely close tolerances, as well as issuing the dimensional certification.

In addition to dimensional inspection, the following non-destructive inspections are performed on materials:

- MAGNETIC TEST MT
- DYE PENETRANT TEST PT
- ULTRASONIC TEST US



□ STEAM/GAS POWER PLANTS

Machining of components for the steam, gas, and nuclear energy industry

Turbine housing machining



□ WIND GENERATORS

Machining of components for wind generation systems

Frame during painting



Wind mill rotor machining



□ COMPONENTS FOR MACHINE TOOLS

Machining components for machine tools

Milling and drilling of a rotating table for a machining center



Table slide machining on a boring machine



□ METAL FORMING PRESSES

Machining press components for metal forming

Boring, drilling, and milling of large-size machine bed for a drawing press



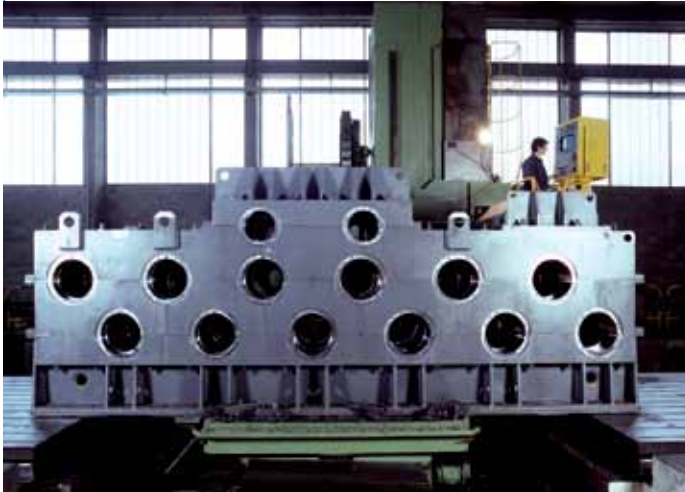
Boring, drilling, and milling of head for high-speed press (detail view of crankshaft main bearing bushings)



□ GEAR REDUCER HOUSINGS

Boring and Milling of Medium and Large-sized Gear Reducer Housings

Boring of parallel axis drive for straightening machine



Boring of drive housing for tilting converter



Machining Marine Gear Reducers

Machining of marine gearbox housing



Shipping of gearbox housing for CODOG marine propulsion



□ EQUIPMENT FOR MOTORS, ALTERNATORS, AND TRANSFORMERS

Equipment for Electric Motors

Supply of the electrowelded frame and vertical turning and boring of MCF rotor spider



□ TUNNEL BORING MACHINES

TBM Equipment Machining

Example of the main bearings for a tunnel boring machine



Main bearings for TBM (tunnel boring machine)



□ ROLLING MILLS

Machining of Rolling Mill Components

Boring of drive housing



Example of milling for a mill housing performed on a boring machine. Cast steel, weight 117 ton



□ PUMP STATIONS

Machining of Pump Housings

Boring, drilling, and milling of axial pump station for pumping water



Boring, drilling, and milling of axial pump station for pumping oil



□ DEFENSE INDUSTRY

Machining of Defense Industry

Antenna frame segments



Machining of an electrowelded frame for a radar antenna



□ MACHINES AND EQUIPMENTS

Dimensional inspection

ZEISS MMZ-G 30 60 25

Technical characteristics	6.000 x 3.000 x 2.500 mm
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CAM2 LASER TRACKER XI

Technical characteristics	Precision 10 nm/m Measuring range 0-35 m
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N.D. TESTS

U.T - M.T - P.T - V.T. tests - by qualified staff

Boring

PAMA SPEEDRAM 1000

Technical characteristics	8.000 x 3.500 x 1.700 mm
Table travel	3.000 mm
Max. load	100 t

PAMA SPEEDRAM 1000

Technical characteristics	13.000 x 4.000 x 1.700 mm
Table travel	2.500 mm
Max. load	65 t

PAMA SPEEDRAM 2

Technical characteristics	13.000 x 4.000 x 1.700 mm
Table travel	2.500 mm
Max. load	65 t

PAMA SPEEDMAT 4

Technical characteristics	
Longitudinal travel	5.000 x 2.500 x 2.700 mm
Rotary table	2.500 x 3.000 mm
Max. load	40 t

PAMA AT 150

Technical characteristics	4.500 x 3.000 x 2.500 mm
Rotary table	2.000 x 2.500 mm
Max. load	25 t

PAMA SPEEDMAT 110

Technical characteristics	2.000 x 1.600 x 1.600 mm
Max. load	6 t

FPT RED AT

Technical characteristics	3.100 x 2.000 x 2.000 mm
Max. load	15 t

CASTEL RED AT

Technical characteristics	3.500 x 2.000 x 2.000 mm
Max. load	10 t

Milling

PAMA SPEEDRAM 1000 F

Technical characteristics	12.000 x 3.000 x 1.500 mm
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MECOF MILLER M1

Technical characteristics	12.300 x 2.500 x 1.250 mm
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One rotary table T8	2.000 x 2.500 mm
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Max. load	28 t
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FPT SIRIO 4000

Technical characteristics	4.000 x 2.000 x 1.200 mm
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Machining centre

MANDELLI M 14 U

Technical characteristics	4.000 x 2.500 x 2.200 mm
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Two pallet tables	1.600 x 2.000 mm
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Turning (vertical)

MORANDO VHN 30 VERTICAL TURNING MACHINE

Max. swing over bed	3.260 mm
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Max. height of centres over bed	2.700 mm
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Capacity	38 t
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MORANDO SC-22 VERTICAL TURNING MACHINE WITH MILLING SPINDLE

Max. swing over bed	2.200 mm
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Max. height of centres over bed	1.500 mm
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Max. swing over bed	3.260 mm
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Capacity	12 t
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MORANDO VERTICAL TURNING MACHINE

Max. swing over bed	1.500 mm
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Max. height of centres over bed	700 mm
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Capacity	5 t
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Machining shop

20 CRANES

Technical characteristics	Load from 5 t - up to 65 t
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GIARDINA PAINTING AND DRYING BOOTH

Technical characteristics	
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Depth	11 x 6 x 5 m
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□ NOTES



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