internationally-recognized for the quality of its machining, mechanical engineering, and construction.
CHALLENGES

The Group primarily serves the steel, energy, astronomy, power transmission, and general engineering industries.
FIVE DIVISIONS

The wide-ranging know-how acquired over decades of working side-by-side with major industrial groups combined with significant investments in equipment and technology have led the Group to establish five divisions:
## OUR HISTORY

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960s</td>
<td>Luigi Galbiati founded the family company in 1962 in a 500 sq. m building with 5 employees.</td>
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<tr>
<td>1990s</td>
<td>Over the next 30 years, constant investment in human resources and equipment led the company to provide machining and assembly of large components, and to work in conjunction with major international corporations.</td>
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<tr>
<td>2000-2005</td>
<td>Continuous investments in Research &amp; Development led to the expansion of the company’s facilities and a three-dimensional measuring machine was installed.</td>
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<tr>
<td>2014</td>
<td>Today the Galbiati Group is internationally-renowned and successfully represented by its 5 divisions. Production capacity has been further expanded thanks to the purchase of new machines (lathe and boring machine) and to the construction of a new machine shop for machining large-dimensioned components.</td>
</tr>
</tbody>
</table>
GALBIATI GROUP TODAY

Annual turnover
INVESTMENTS

Galbiati Group constantly invests in its people and in cutting-edge machines to meet market demands which requires large-dimensioned equipment and machines, as well as excellent technical skills and high quality.
2013

New 1,360 sq. m machine shop building
Height: 8 m, Maximum load capacity: 40 ton

2015 – 2016

New 3,000 sq. m machine shop building

New vertical turning lathe: swing over bed: 6,200 x 5,000 mm
Centre height over bed: 5,000 mm / vertical travel: 2,500 mm

New gantry machine: distance between columns: 10.000 mm,
longitudinal stroke: 36,000 mm / vertical stroke: 4,000 mm /
Max. Spindle speed: 2500 U / min
In addition to its machines and technology, Galbiati Group also invests in its infrastructure: a new machine shop building, equipped with large machine tools to meet the demands of the energy market and other specialized markets such as antennas.

**New 1,360 sq. m machine shop building**
- Maximum load capacity: 40 ton
- Height: 40 m

**New 6,000 sq. m machine shop building**
- Maximum load capacity: 250 ton
- Height: 18 m
GALBIATI GROUP TODAY
EMPLOYEES: 130

ANNUAL PRODUCTION CAPACITY: 180,000 hours

FLOOR SPACE: 11,000 sqm.

Key:
- Existing buildings
- Buildings under construction
ENGINEERING DEPARTMENT

A highly-flexible team of engineers, specialized technicians, and skilled designers is ready to work with our customers to satisfy all their needs, using the most modern design tools.

The Galbiati team does not simply implement customers’ projects. We design and co-design components using finite element analysis in order to assess the degree of deformation and optimize geometries, as well as re-engineering customers’ machines.

The skills developed throughout years of applied engineering allow us to reach the targets we set with the best technical solution.
Quality is the result of our highly-optimized production process. Thanks to the high level of accuracy of the machining performed and the advanced technology applied, Galbiati Group has obtained UNI EN ISO 9001:2008 certification.
QUALITY
Dimensional Control:
Certified Quality and Precision

Thanks to its ZEISS MMZ-G 30 60 25 and ZEISS ACCURA three dimensional measuring machines housed in a controlled climate room, the Galbiati Group is among the few Italian companies capable of performing inspections on small, medium and large components for applications requiring tolerances within hundredths of a millimeter.

Non-destructive Testing:
Material Quality and Product Quality

- Magnetic test MT
- Dye penetrant test PT
- Ultrasonic test UT
- Visual test VT

MACHINING CAPACITY
Three dimensional Boring/Milling

Up to 18,000 mm for max. height of 4000 mm, capacity up to 120 t.

Turning

(with horizontal lathe) diameter 900x8000 mm
(with vertical lathe) diameter 3,300x2,950mm
Capacity up to 38 t

Three dimensional Measuring Machines

ZEISS MMZ-G 30 60 25
X travel 3,000 mm
Y travel 6,000 mm
Z travel 2,500 mm

ZEISS ACCURA
X travel 1,200 mm
Y travel 1,200 mm
Z travel 1,000 mm
SOLUTIONS FOR METALLURGY INDUSTRY

Gear Reducers

Engineering and Construction of Mechanical Machines
Gear Reducers
Gear Reducers for metallurgy industry

Gear reducers and increasers, mechanical power transmissions for mid- and large-sized industrial applications.
Galbiati Group has extensive experience in the design, manufacturing and revamping of mechanical transmissions for the steel industry (hot and cold rolling mill), large Edger drives.
Gear Reducers
Gear Reducers for metallurgy industry

Gear reducer / pinion stand for aluminum cold mill

Pinion stand for cold mill 5,200 kw –466 rpm. Center distance 450 mm
Twin drive for cold rolling mill

Twin drive for cold plate mill.
5.000 kW -466 rpm.
Center distance 470 mm.
Main drive for hot mill

Integrated pinion stand mill drive for special alloys.
Twin Drive for hot mill

Hot roughing mill.
Twin drive.
2 x 3.600 kW –30 rpm.
1.300 mm center distance
Gear Reducers
Gear Reducers for metallurgy industry

Twin drive for reversible hot mill

Reversible hot mill Twin drive.
4.000 kW –80 rpm
960 mm center distance
Gear Reducers
Gear Reducers for metallurgy industry

Hot strip mill drive

3.000 kW power at 0/9.1-15.2 rpm during full speed / no load test (oil flow rate, pressure, bearing temperature, vibrations and noise level).
**Gear Reducers**

**Gear Reducers for metallurgy industry**

**F1 hot rolling mill pinion stand**

4,300 mm sheet width.
10,000 kW Power – 33 rpm
BOF Tilting Converter Drive

350 ton BOF Converter
four motor driven, 2,500,000 Nm (peak torque) max.
NiCrMotoothed rim, electrowelded under controlled pre-heating and cooling procedure on fabricated carbon steel frame
Converter drive

Four motor tilting converter drive unit with during assembly and intermediate geometrical inspection. Contact patterns between primary gearbox pinion teeth and bull gear teeth is checked to be within 80% as well as central positioned along involute and face width.
Pay-off drive

Pay-off gear unit sliding on bronze guides, including mandrel and hold down roll. Motor power 650 kW. Output shaft 75 rpm, 17 tons total weight. 2.200 mm maximum coil width, 1.500 mm max diameter, 30.000 kg max coil weight.
Coiler

Coiler unit including mandrel and coil ejector plate.
Motor power 1.600 kW
Output shaft 95 rpm,
18.5 tons total weight.
2.200 mm max.
Diameter 1.500 mm,
30.000 kg coil weight.
Edger drive

Vertical twin motor self-supported solution. Two twin mirror-image transmission units, separate and independent with high-stiffness flange bolted connection. N. 2 x 1.500 kW at 0 – 31 – 108 rpm.
Gear Reducers
Gear Reducers for metallurgy industry

Edger drive
Vertical twin drive solution. Two independent twin drive units, in a single housing made from electrowelded steel with two communicating sections. Gears made with Ni/Cr/Mo ring gears, on electrowelded frames and then carburized using a special process and ISO-DIN 6 ground, two x 1.200 kW at 0 – 41 – 147 rpm. Total weight more than 150,000 kg. Dimensions: length 14 m, width 4.5 m.
Screw Down drives

Worm screw gear set for screw down drive; 970 mm center distance, ratio 29.5. 87 tons total assembly weight, including support frame, auxiliary equipment, breaks, auxiliary gear motors, etc.
Crop Shear Drive

1.600 kW at 27 rpm crop shear drive, max 6.000 kNm torque. Total unit weight exceeds 160 ton. NiCrMoOutput gear wheel, double helical ISO-DIN quality 6 finish, 600 + 600 mm width, m 32, more than 3 m outer diameter, total weight 40.000 kg approx.
Pinion Shafts for Edger drive

Pinion Shafts for Edger drives hot mill.
Technical Data: NiCrMoalloy steel; single helical carburized (58–62 HRc) and ISO-DIN 6 quality ground finished.
Gear Reducers
Gear Reducers for metallurgy industry

Miscellaneous applications

Steel wires drawer drive including chain driving pinion, 220 kw –2 rpm – 150 ton thrust (weight 63,000 kg).
Gear Reducers
Gear Reducers for metallurgy industry

Gearbox
Reconditioning

Before

After
Galbiati Group manufactures high-precision, large metal working machines. The machines are custom built according to customer designs and projects or are fully designed at Galbiati based on the customer's specifications. Objective: Identify the best technical solution to fulfill a need, meet a demand, or win a challenge.
Engineering and Construction
of Mechanical Machines
for metallurgy industry
Mill Stands
Fully assembled “Skin-Pass” stand including piping and wiring; total weight 200 ton.
Engineering and Construction
of Mechanical Machines
for metallurgy industry
Aluminium Hot Mill Stand

Complete manufacturing and preassembly of a max. 4300 mm wide aluminum hot strip mill. Total weight of the fully assembled mill stand: more than 250 ton.
Rolling Mill Stands

Pre-assembly, Piping, and Inspection

Pre-assembly – Mill stand assembly area equipped with overhead travelling 160 ton, 14 m hook crane. Precise, detailed management of all contracted and outsourced items and accessories (more than 700 items).
Engineering and Construction of Mechanical Machines for metallurgy industry
Rolling Mill Stands

Piping
Most grease lubrication piping is manufactured with stainless steel pipes, diameters ranging from less than 10 mm to more than 5 inches, high pressure welded and provided with relevant fittings. Pipe lines are fastened to housings in full accordance with customer’s detailed drawings.
Engineering and Construction of Mechanical Machines for metallurgy industry
Machining of Rolling Mill Components

We manufacture units or complete machines, such as: machining of mill housings up to 120 ton, chokes, large screws and nut screws, accessory units such as bending blocks, and other requests based on customer needs and specifications.
Engineering and Construction of Mechanical Machines for metallurgy industry
Steel Sheet Shears

The blades are actuated by the coordinated rotation of two eccentric shafts, driven by two independent gear trains, each one powered by 900 kW electric motors at 1000 rpm.