

ITALIAN MACHINE TOOLS, ROBOTICS & AUTOMATION INDUSTRY ~ NEWS

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PIATTAFORMA INDIA PROJECT

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SIEMENS



GHIRINGHELLI AND SIEMENS, A LONG COOPERATION

Rettificatrici Ghiringhelli S.p.A started in 1921 under the name of “Ghiringhelli & Pisoni Sdf”, and the main aim was to perform turning operations.

The work was soon steered towards the production of small metallic parts and textile spindles, being that geographic area rich of Textile industries. At the beginning of the 30's, the company decided to improve its technology with accurate grinding operations to support the turning ones.

So, thanks to the “spark” of **Mr. Giuseppe Ghiringhelli**, the design of the first CENTRELESS GRINDING was born.

In a few years the company workshop was tooled up with 15 Centreless Grinders and, having overcome also the after-war slump, the company added the engineering, production, and sales of other machines, such as shoes machines and 4-heads sharpeners for lathe tools.

In the following years, the production was implemented with the manufacturing of automatic loaders and their accessories. After the first record of the Company, where 170 machines were delivered (120 of which abroad), **Ghiringhelli** engineers did see a further technological relaunch of the

Centreless Grinders since 1978 with the beginning of Electronics.

The use of the Numerical Control has by and by prevailed over the traditional centreless grinders and nowadays are approx. 350 the machines equipped with CNC units delivered in the 5 continents. In this new project, **Rettificatrici Ghiringhelli S.p.A** has always been able to count on the cooperation of one of the leading automation and CNC supplier in machine tool field, **SIEMENS**.

SIEMENS is a leader company in all technology areas, first developing Software and Hardware and then testing in its own production sites, with a special and precise focus on sustainability.

Rettificatrici Ghiringhelli S.p.A with its high quality and high technology products, features being essential for exporting, could acquire and strengthen its leader position in this field all over the world. The machines are produced in a range of 20 models, having a grinding capacity from 0,1



up to 250 mm. in O.D. and from few mm. up to 1,5 m in length. The Company can therefore think about the coming years calmly, aware of the big human and technological resources being available, and of the reliability of its own product.

Rettificatrici Ghiringhelli S.p.A has been designing accurate centreless grinding solutions of highest quality which find applications in various fields of manufacturing i.e. automotive, bearings, electric motors, tooling, aerospace, household appliances, hydraulics, tools, medical, textile, etc. Ghiringhelli centreless grinding machines are CNC controlled and are capable of being utilized as standalone units or linked into automatic lines. Depending on the model the machines can be equipped with grinding wheels 200-450-508-610-660 mm O.D., width from 80 mm to 660 mm. and motor power from 4 to 74 kW. All Ghiringhelli centreless solutions are equipped with specific tooling according to customer's requirements and are suitable for plunge grinding multi diameter components or through feed grinding of plain cylindrical components. The range of centreless solutions with the models A80, M100, APG-S, APG-M, CF400, CF600 is the result of the high skill of its engineers who can satisfy the specific customer requirements thus accomplishing new performing solutions.

The company is mainly devoted to exportation, with nearly 90% of its output sold abroad: more than 3,000 centreless grinding machines are delivered and successfully installed in 30 countries worldwide. Represented in five continents with a well-established sales network, the **Rettificatrici Ghiringhelli S.p.A.** devotes special attention to the after sales service and the customer support.

During its long history the company has in fact always tried to meet the customer's requirements and satisfy all their specific needs. Every single solution is conceived in accordance with the most modern principles of ergonomics, eco-compatibility, and low/reduced energy consumption, in line with the requirements of Industry 4.0.

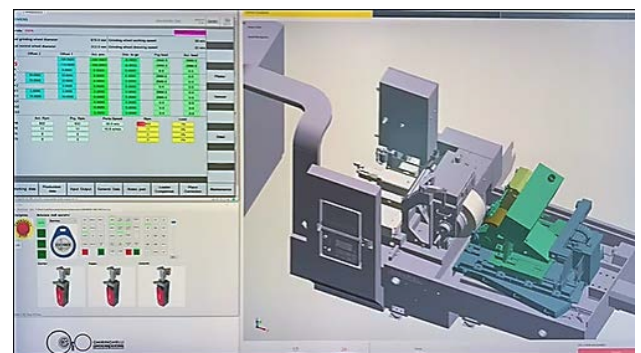
In the wide range of the Ghiringhelli solutions, the **APG** models is the winning solution for high-productivity applications where high precision, flexibility, reliability, and high reduction of the energy consumption are perfectly combined. Considering the size of the pieces to be ground, the machine is capable of grinding one or up to 3 / 4 pieces per cycle. The mineral casting frame gives rigidity and excellent material absorption, high thermal stability and perfect complete ecological balance.



The machine is equipped with CNC **Siemens Sinumerik-ONE** that integrates the innovative communication protocol Siemens IO-Link and the exclusive software platform which belongs to Ghiringhelli characterized by diagnostics, wheels-profiles libraries, cycle programming, statistical calculations for the value correction in cycle and predictive maintenance.

The **APG** model stands out for being the first centreless grinding machine born with its digital twin Siemens, being totally managed by the new **Sinumerik-ONE** native digital CNC.

The digitisation concept that characterises the industry 4.0 paradigm with considerable advantages; the digital twin realised by the manufacturer is a digital replica updated in real time of a product, process or system, which can be used for testing, diagnostics and analysis even before physically creating the represented object. Interestingly, the virtual model of an object is dynamic, updating whenever its physical twin undergoes changes.



In addition to **Sinumerik-ONE**, **SIEMENS** has a wide range of applications that allow OEMs or End-users to increase productivity and to be sustainable.

MACHINUM is the digital portfolio that combines modern IT (information technology) with modern OT (operations technology). **MACHINUM** is an integral part of Siemens Xcelerator, the open digital business platform that includes a portfolio of software and IoT-enabled hardware, an ecosystem of partners and a marketplace.

With **MACHINUM**, companies in the machine tool industry can make a digital transformation easier, faster, and scalable in both manufacturing and design. Combined with **SINUMERIK ONE**, the transformation towards the Digital Enterprise will be a success.

SIEMENS has a complete and modular range capable to meet all requirements of the machine tool market:

<https://www.siemens.com/>

For further information: <https://www.ghiringhelli.it/> e-mail: info@ghiringhelli.it

The project Piattaforma India has been promoted by UCIMU – Association of Italian Machine Tools Manufacturers and AMAPLAST – Italian Plastics and Rubber Processing Machinery and Moulds Manufacturers Association. The two associations agreed on the idea that promoting a network of associations and entrepreneurs who have developed knowledge and experience on the Indian market, can be useful in favoring of new paths of development for business. The Indian companies who are interested to form JV, cooperation, technical tie up, purchase machinery etc from/with Italian companies can contact below mentioned address for any assistance:

Contact information of Piattaforma India desk:

Mr. Nilesh Joshi
Manager - Italian Machinery Desk in India



C/o The Indo Italian Chamber of Commerce and Industry
11th Floor, Tower - A, Urmi Estate 95, Ganpatrao Kadam Marg,
Lower Parel (W), Mumbai 400013, Maharashtra
P: +91 22 67728186
Mob : +91 7666795385
Fax. : +91 22 67728191
Email : italianmachinery@indiaitaly.com