GANZ

Ganz Transformers and Electric Rotating Machines Ltd.

ganzelectric.com

GANZ TRANSFORMERS SINCE 1878

GANZ ROTATING MACHINES SINCE 1878

GANZ SERVICE SINCE 1878

TRADITION
FOR
INNOVATION

Dear customers,

Ganz is one of the greatest names in T&D business worldwide. The history of our company dates back more than 140 years.
We are proud of the fact that the equipment manufactured in our plants can be found in almost every country of the world.

Ganz is a specialist, providing high quality products and unique solutions for our customers. We produce our unique products with today's modern design and technological solutions.

Ganz manufactures unique high-voltage electrical equipment – transformers, motors and generators – as well as providing related services.

Customer focus and flexibility towards our customers during the execution of the projects is how we differentiate ourselves compared to other manufacturers.

The aim of the company is to grow further in the coming years and be one of the key suppliers for the European market.

Tradition for innovation is our company motto and Ganz is ready to support our clients with the nowadays challenges.

JAN PRINS
Chief Executive Officer of Ganz

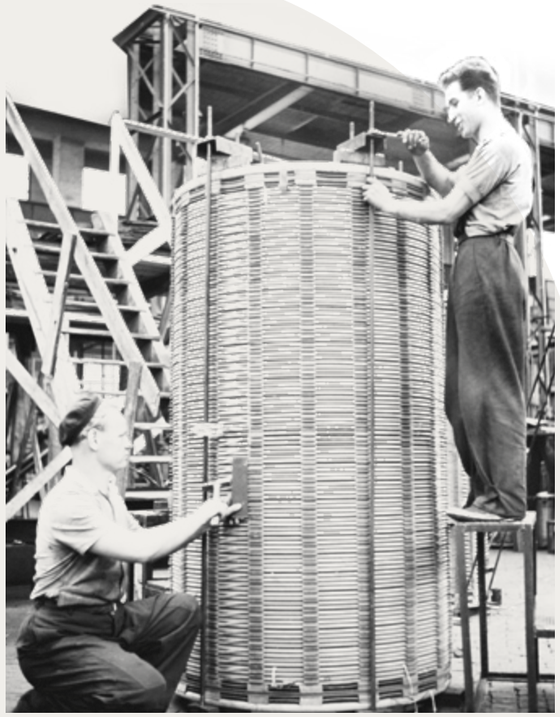
HISTORY

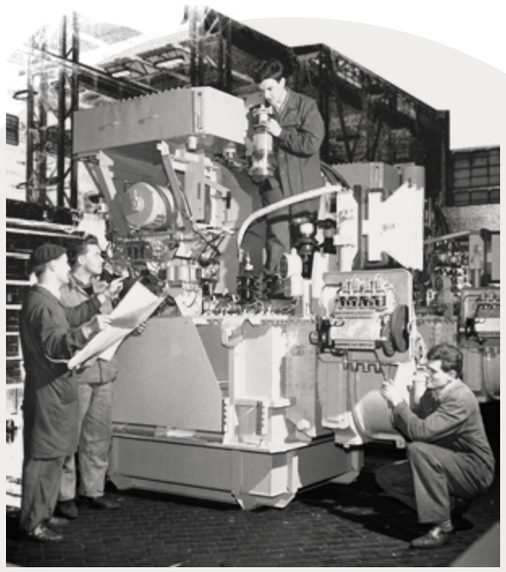
Abraham Ganz (iron manufacturer, machine and technical engineer) was born into a Swiss alvinist family in Unter-Embrach in 1814. In 1843, while he was working in the foundry, the cast splashed out. He became blind in one of his eyes. According to some sources he said then: "One eye is lost, but the casting was successful."

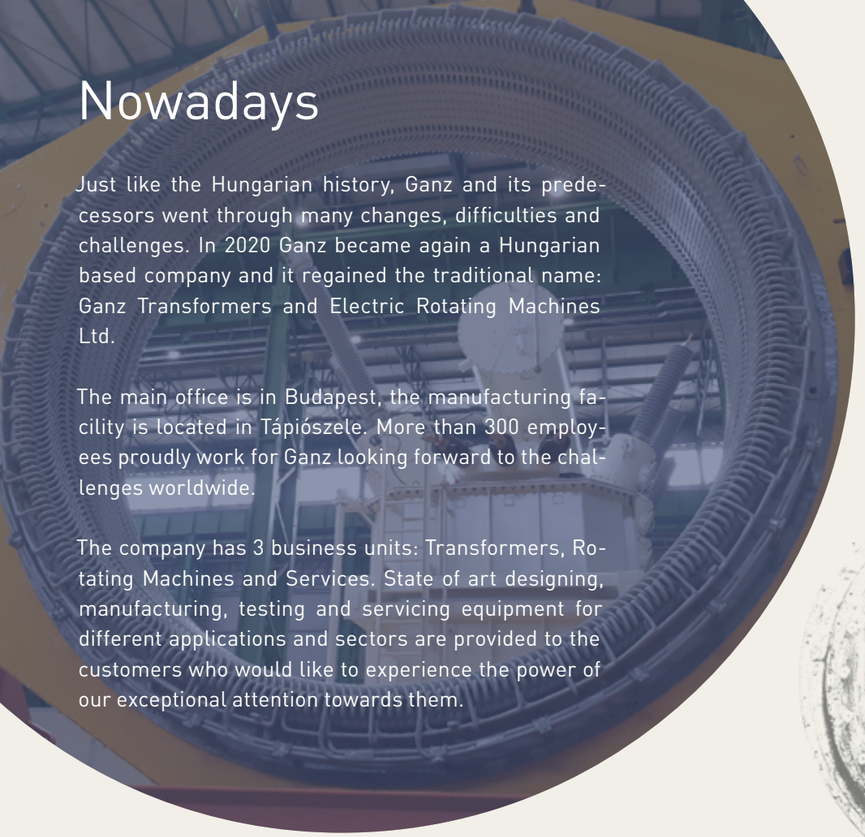
Abraham Ganz founded his own company in 1844 in Buda, which very soon became a world-renowned Hungarian centre of high-power industrial products. Despite his early death in 1867 the company remained one of the strongest manufacturing enterprise in Austria-Hungary. Many famous engineers worked at Ganz Works inter alia Károly Zipernowsky, Ottó Bláthy, Miksa Déri, András Mechwart, Kálmán Kandó, Donát Bánki.

The first transformer in the world was exhibited in 1885 in Budapest, thanks to which the economical, efficient transmission and distribution of electricity over long distances has been solved. The success of the patent is shown by the fact that Edison's company was initially supplied with transformers by Ganz. The first devices were used for lighting hotels in Lucerne, theatre in Milan, and the first large power plant using this system was ordered from Ganz by the city of Rome.

Kálmán Kandó was asked by Ganz to carry out introducing domestic production of induction motors. Utilizing his previous experience, he achieved the production of three-phase induction motors in a few months. In 1894, according to Kandó's plans, the first 2,2 kW three-phase experimental motor was manufactured.







Nowadays

Just like the Hungarian history, Ganz and its predecessors went through many changes, difficulties and challenges. In 2020 Ganz became again a Hungarian based company and it regained the traditional name: Ganz Transformers and Electric Rotating Machines Ltd.

The main office is in Budapest, the manufacturing facility is located in Tápiószele. More than 300 employees proudly work for Ganz looking forward to the challenges worldwide.

The company has 3 business units: Transformers, Rotating Machines and Services. State of art designing, manufacturing, testing and servicing equipment for different applications and sectors are provided to the customers who would like to experience the power of our exceptional attention towards them.

2020 — GANZ Transformers and Electric Rotating Machines Ltd. established

2006 — Ganz as part of CG Group

2000 — Transelektro group acquired Ganz Ansaldo

1991 — Ganz Ansaldo was formed

1903 — Production of turbo-generators in GANZ by Ottó Bláthy

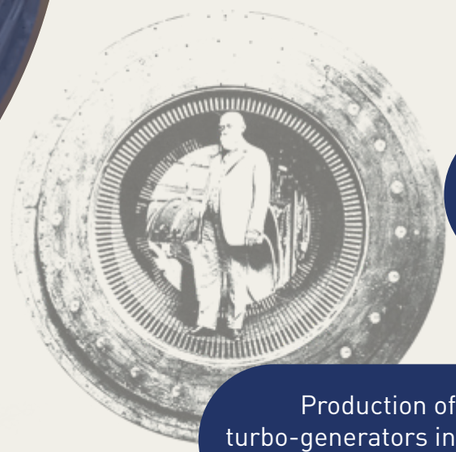
1896 — Production of 3ph induction motor (3HP)

1892 — Electric public transport by Kálmán Kandó

1885 — Creation of the 1st transformer in the world

1878 — Electrical Department was established

1844 — Abraham Ganz established GANZ factory



TRADITION FOR INNOVATION

SERVICES

Service Division

Ganz Service Division maintains, refurbishes and repairs transformers, motor, generators, air- and gas-insulated switchgear (AIS and GIS) and substations worldwide. As a total solution provider, we also deliver lifetime extension programs supported by condition-based monitoring systems, as well as numerous accessories and spare parts for all equipment.

Furthermore, we know that every customer has different, specific requirements, so we offer flexible, customized service solutions. Through our extensive global network, our services will help you get the most out of your assets, to increase reliability and optimize productivity.

From advice on the right equipment you need, through installation, testing and commissioning, to standard or customized repair, maintenance and refurbishment, ending with spare parts delivery, Ganz Service Division works alongside you as your full service specialist.

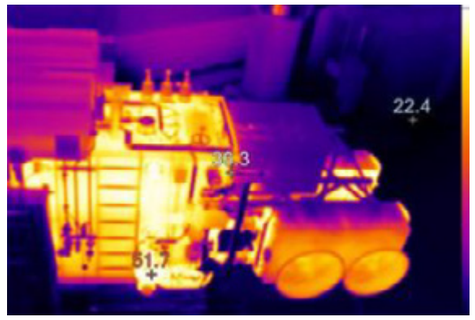
Portfolio of services

- Testing and advice
- Installation and commissioning
- Maintenance
- Repair
- Refurbishment
- Spare parts availability
- Condition monitoring
- On-site oil-treatment and oil refills

On-site diagnostics and evaluations for transformers

- Voltage ratio and vector group
- Winding and insulation resistance measurement
- Capacitance and tgδ measurement
- Vibration and Insulation diagnostic (RVM, FDS)
- SFRA
- OLTC and bushing diagnostic
- Impedance and noise measurement
- Check of auxiliaries
- Check of insulation liquid acc. to IEC 60422
- Oil sampling, Dissolved Gas Analysis (DGA)
- Current- and voltage transformers inspection
- Recording of a thermovision heat map
- Development of a proposal for regular inspections, maintenance, renovation and repair of the transformer for long-term safe operation

On-site diagnostics and evaluations for Rotating Machines



- Vibration diagnostic
- On-line balancing
- Insulation resistance measurement of stator
- Measurement of ohmic resistance and impedance of stator and rotor
- Alignment checking and setting of the machine group with measuring instrument
- „Soft foot" measurement
- Excentricity measurement of slip-rings and commutator with measuring instrument
- Capacitance, tangent delta and PD measurement
- High voltage test measurements

On-site diagnostics and evaluations AIS and GIS

- Insulation resistance and PD measurement
- Current- and voltage transformers inspection
- SF6 charge, recovery, moisture content, SO2 content measurement, SF6 leak detection
- Circuit breaker displacement-time diagram
- Measuring the switching current and time of disconnectors and earthers
- Recording a thermal imaging heat map from LCC cabinets
- Inspection of locking circuit
- Drive maintenance
- Installation of retrofit moisture filters
- Touch protection inspection on auxiliary equipment
- High voltage test measurements

Spare parts for transformers and rotating machines

- Purchase and replacement of accessories
- Replacement of discontinued models

Transportation

Transformers can be transported completely filled with or without oil in the main tank, depending on the size.

Delivery both on road and rail is possible, because the factory in Tápiószele has direct railway connection.
Depending on transportation considerations Ganz transformers may be shipped either with or without bushings, radiators, fans and conservators.

In case of transportation without oil, in order to avoid the moisture absorption by the active part, the tank is filled with dry air at a positive pressure maintained by a proper equipment.

For lifting of the transformers completely assembled they are provided with four lifting hooks welded onto the lifting ribs on the tank wall. For lower lifting there are four jacking pads at the sides of the transformer tank. In order to control the transport stresses of the transformers, depending on their size and way of transportation, transformers are equipped with three-dimension impact recorder.