



ENITEC





ENITEC Sp. z o.o. is a recognized manufacturer of power boilers that delivers products to both domestic and foreign markets. The strong position of our company is based on its own production, which builds on many years of experience gained in the Energoinstal S.A. Group.

Enitec applies operating procedures aimed at maintaining the highest standards of product and service quality. The company owes its position to the continuous modernization of production technology that meets the requirements of global standards and regulations.

Enitec specializes in the production of boilers for the power generation industry, fired with solid, liquid, and gaseous fuels. In this respect, Enitec meets the requirements of the Pressure Equipment Directive 97/23/EC, the German regulations AD 2000 - Merkblatt + HPO, UDT standards and the American ASME regulations.

ENITEC is the only company in the world that uses laser technology for the production of both membrane walls panels and finned tubes.

The company has an established position in the European Union market. As a result of long-term cooperation with many European partners, Enitec has gained comprehensive experience in the implementation of large projects in the power generation industry.

The company's potential is based on qualified and experienced employees, a constantly growing number of engineers and continuous cooperation with experts from various institutions and scientific centers.

Highly developed technologies and competent, professional staff enabled Enitec to obtain numerous individual certifications for its employees. Our personnel have prestigious European and International Welding Engineer certificates, non-destructive testing certificates and work safety certificates. They also systematically improve their skills and knowledge.



Services for the
power generation
and industry sectors

Production of top class boilers for industrial and commercial power generation industry:

RECOVERY BOILERS
FOR INDUSTRY

COAL-FIRED BOILERS

RECOVERY BOILERS FOR COMBINED
CYCLE GAS AND STEAM PLANTS

FLUIDIZED-BED BOILERS

BIOMASS-FIRED BOILERS

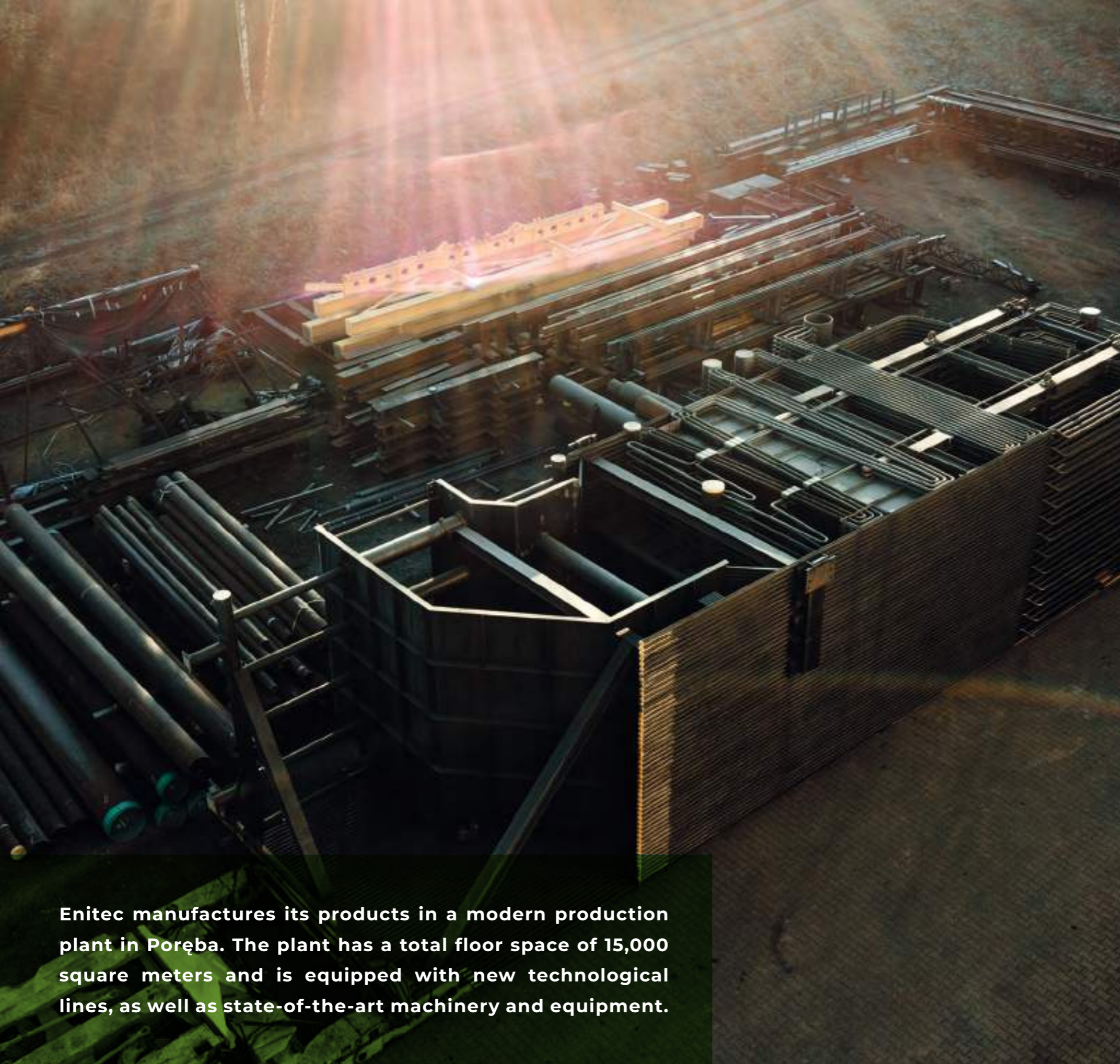
BOILERS FOR THERMAL TREATMENT
OF MUNICIPAL WASTE

GAS AND OIL-FIRED BOILERS

STEAM AND WATER BOILERS
FOR VARIOUS INDUSTRIES

Other products

- Oil and gas burners – with power output from 1 to 60 MW and full control, adjusted to variable boiler loads
- Laser-welded continuous and slotted finned tubes
- Membrane walls – hybrid-welded (laser + MAG) or submerged arc-welded
- Systems and components:
 - pipelines for steam, oil and water
 - ventilation and dust extraction ducts
 - air and flue gas ducts with flaps
 - pressure tanks
 - steel structures



Enitec manufactures its products in a modern production plant in Poręba. The plant has a total floor space of 15,000 square meters and is equipped with new technological lines, as well as state-of-the-art machinery and equipment.

Technical capabilities

Welding and assembly production – 25,000 man-hours/month

Machine production – 7,000 man-hours/month

Maximum load capacity of cranes – 160 tons
– test assemblies of complete boiler plants

Production area – 15,000 square meters
(over 161,000 square feet)

Automated orbital welding in the diameter range
from \varnothing 31.8 mm to \varnothing 63 mm

Production of membrane walls panels with pipe
diameters from \varnothing 26.9 mm to \varnothing 114.3 mm

Bending of membrane walls panels

Production of continuous and slotted finned tubes
with diameters from \varnothing 21.3 mm to \varnothing 63.5 mm

Boiler drums drilling

Machining – diameters of up to 600 mm

Automatic shot blasting of sheet metal with a maximum
width of 2,500 mm

Thermal cutting of sheet metal – table dimensions:
3,000 × 12,000 mm, max. thickness of 160 mm

- cutting materials – max. diameter of 450 mm
- sheet metal bending – max. sheet metal thickness of 10 mm

Sheet metal rolling – max. sheet metal thickness of 15 mm

Pressure tests – max. pressure of 60 MPa

Hybrid-welded membrane walls panels



CITL Center for Innovative Laser Technologies

The Center launched by the company presents non-standard solutions for industry based on state-of-the-art laser technologies.

It is the only facility of this type in Europe. The value of this investment amounts to nearly PLN 32 million, of which over PLN 10 million was obtained from EU funds under the operational program "Innovative Economy".

Production carried out at CITL is based on its own technology, crowning over 3 years of research and development work.

The Center for Innovative Laser Technologies was the first facility in the world to launch the production of hybrid-welded (using the MAG method in combination with a laser) membrane walls panels. Membrane walls panels are used, among others, in modern water-tube boilers, ensuring the tightness of the boiler on the flue gas side and increasing its overall efficiency.

The laser technology used meets high international standards while also increasing process efficiency and reducing the carbon footprint.

A significant reduction in the use of welding consumables is also an important aspect of the production process.

Laser-welded finned tubes



The products offered by the Centre for Innovative Laser Technologies include laser-welded finned tubes, and the implementation of this technology at our plant is a world-first. Tubes are manufactured at two automatic stations integrated with the line for packaging tubes after welding.

Finned tubes made by laser technology are characterized by a continuous weld with full penetration, even face and correct shape. The implemented laser welding technology enables us to obtain high quality products while increasing production efficiency.

Laser welded finned tubes offered by Enitec meet the pressure requirements of PN EN 12952 and the German TRD 201. The developed technology is qualified in accordance with the requirements of PN EN ISO 15614-11

Robotic laser cutting station



The Center for Innovative Laser Technologies also has a robotic multi-functional workstation. The station is equipped with a laser cutting head and a conventional MAG welding head. It also has a hybrid welding head with a camera used for locating the welding groove.

Material testing laboratory

Enitec conducts tests on its own products. A modern laboratory supports the manufactured products and also enables us to provide services for external entities.

The expanded range of tests ensures quick access to test results and thus comprehensive customer support.

The laboratory has its own machining workshop, thanks to which our company can obtain samples for testing from components supplied by the customer.

Non-destructive testing:

Magnetic-particle test (MT)

Penetrant test (PT)

Testing for leaks using fluorescent or color-contrast penetrant

Radiographic test (RT)

Gamma test (Selenium)

Ultrasonic test (UT)

Measuring wall and varnish coating thickness

Chemical composition testing using X-ray fluorescence (PMI)

Metal Magnetic Memory Method (MMM)

Hardness testing with portable hardness testers (HV 10)

Destructive testing:

Charpy impact test (300 J) in the range from -70 °C to +180 °C

Strength test (30 t machine, 50 mm extensometer):

- tension tests
- bending tests
- pinch tests

Metallographic tests with digital image analysis:

- microscopic (zoom range: from 50x to 500x)
- macroscopic (zoom range: from 4x to 28x)

Hardness distribution test with a stationary hardness tester (from HV1 to HV30)

History

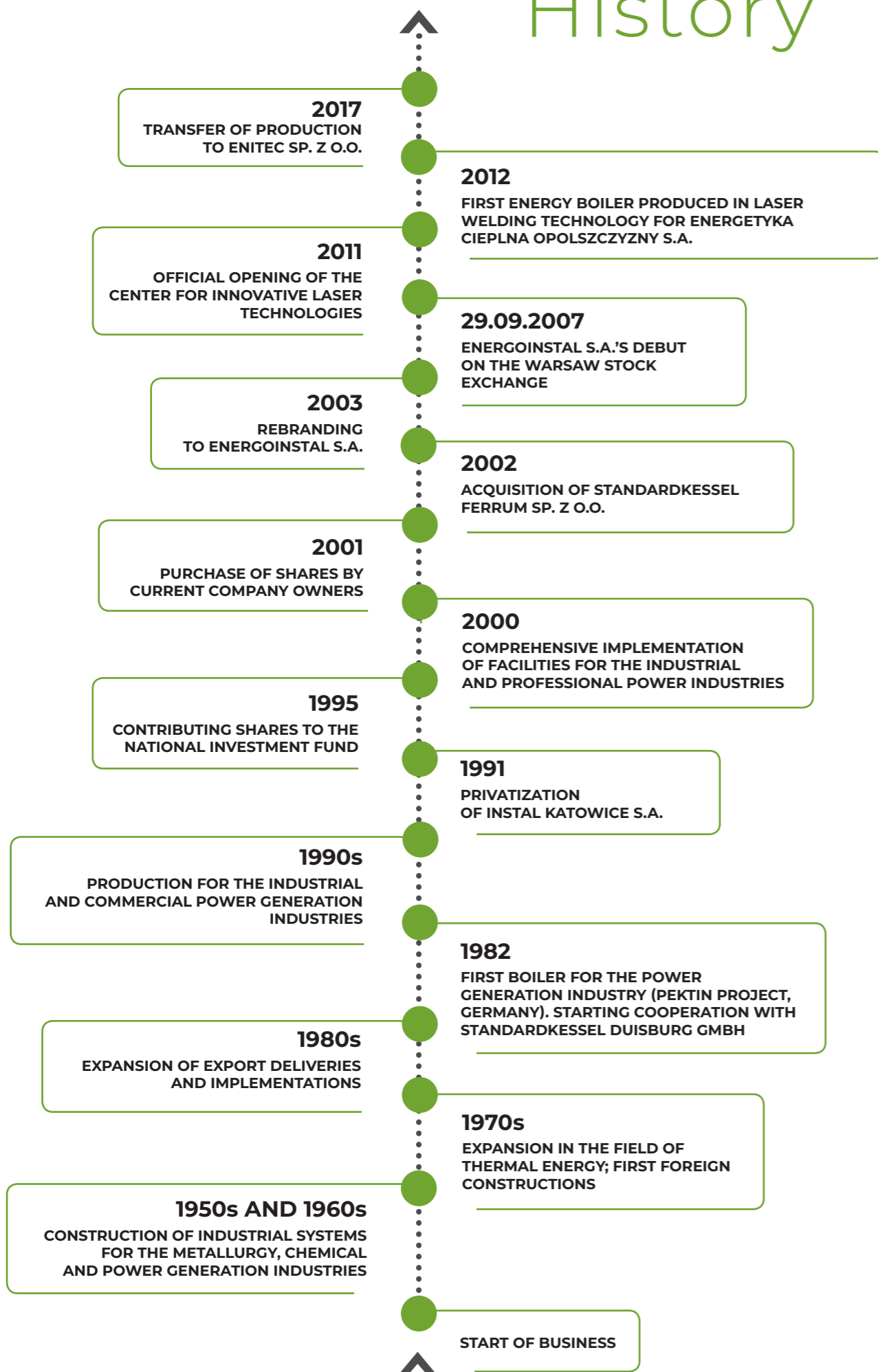
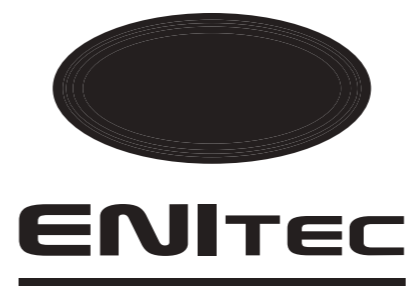


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