



DP Manufacturing and Services - Poland

DP Manufacturing and Site Services

Introduction

DP's purpose built manufacturing facility is located in Jędrzejów, Poland. With 2,500m³ of manufacturing floorspace and 550m² of office space, the factory employs just under 100 workers on the factory floor and ~10 managerial staff. The site was designed to support DP's Manufacturing Supervision and Site Services capabilities, but is also an independent supplier to the industry. The facility works with DP's global supply chain and has strategic partnerships to help provide reliable one-stop manufacturing and services for clients.



Manufacturing and Site Services

Manufacturing and installation - DP CleanTech manufactures boiler and grate components, and installs boiler islands. Boiler islands comprise all parts of a power plant other than the turbine, and includes the boiler itself (including the pressure parts), the fuel handling system, the feeding systems and the combustion waste handling systems.

Site services - DP CleanTech is an expert in boiler system maintenance, covering everything from simple repairs to extensive maintenance planning, system modernization, and installation of new components and control systems.

DP CleanTech Manufacturing Facilities

Key technology components for DP projects and external customers are manufactured in Poland, which is a centre of excellence for core welding process technology, R&D, and is also a test facility for combustion systems and pressure part design solutions.

There are 2 workshops with different specialisations.



Workshop #1 is 2500m² and specialises in

- ✓ Drilling
- ✓ Bending
- ✓ Water wall welding by SAW method
- ✓ ECO, SH, APH manufacturing
- ✓ Block assembling
- ✓ Piping



Workshop #2 is 300m² and focuses on

- ✓ Block assembling of ECO
- ✓ Manufacturing of steel structures
- ✓ Manual welding of coils
- ✓ The storage area for stainless steel, fittings, elbows etc. is in this area.

DP also offers the following services with a trusted independent NDT laboratory:

- Visual Testing (VT)
- Ultrasonic Testing (UT)
- Radiographic testing of weld (RT)
- Magnetic Testing (MT)
- Penetrant Testing (PT)
- Ultrasonic Thickness Testing (UTT)
- Hardness Testing (HL, HS, HB, HRB, HRC, HV)

Accreditations

Our manufacturing facilities have been awarded 16 accreditations in total, including

- ISO 9001 Quality standards
- ISO14001 Environmental standards
- ISO 3834-2 Quality system in welding
- ISO 45001:2018
- UTD Manufacturing, Modernization and Repairs standards
- AD 2000-Merkblatt HP 0 Technical Rules for Pressure Vessels
- PED-97/23/WE Manufacturing of pressure equipment
- PN-EN 1090 - 1 (EXC-3)
- ASME "S", "U", "PP" Manufacturing and design

Manufacturing Goals

DP CleanTech has specific manufacturing goals and targets which cover the following areas:

- Overall customer satisfaction level.
- Ongoing and continuous improvement in the areas of manufacturing cost reduction, reduction of change order cycle times, reduction of scrap and rework.
- Multiple skills development and productivity gains.
- Promote a fair and motivating work environment that respects and rewards performance and initiative.

Manufacturing Product Scope and Capabilities

DP's range of products and capabilities are customised for each project. The flexibility of the shop floor and the multiskilled workforce ensure that our products and services are of the highest quality.

Membrane walls

The workshop in Poland has a membrane wall machine (SAW) with four torches to deliver a maximum welding speed of 1.1m/min.

Membrane walls are manufactured with pipes up to $\varnothing 88.0\text{mm}$, and are suitable for industrial boilers as well as ultra-critical boilers with high pressure and temperature. We offer membrane manufacturing for all normal material types, as well as P235GH; P265GH; 16Mo3 and 13CrMo45. Bending and welding machines are suitable for maximum widths of 1600mm and are particularly suitable for bending of spiral walls. Our specialty is connecting flanges, spiral walls and funnels.



Tube bending

Our hydraulic bending machine has a bending range from $\varnothing 26.9$ to $\varnothing 60.3$ mm, and the capability to bend with $R/d \Rightarrow 1$, and accommodates the most stringent requirements for ovality and wall thickness.

Headers

Our equipment includes two radial drilling machines and a CNC plasma cutting machine with 2 x 6m table to meet high pressure and high temperature requirements.



Inconel cladding

Inconel cladding is particularly utilized in biomass and waste-burning boiler plants because of its resistance to corrosive gases which reduce the lifetime of the boiler. Cladding with Inconel on the exposed zones requires great expertise in the welding technological area, and successful cladding can considerably extend boiler life. DP has built up a high degree of expertise in cladding of pipes and membrane walls, and can offer Inconel cladding as an added benefit.

Heat treatment

DP CleanTech has the thermal treatment equipment and the know how to be able to carry out even the most complex tasks. Full documentation of thermal treatment is always available, and further documentation can also be arranged. The largest oven can heat-treat up to 800°C and has dimensions of 1700 x 800 x 6000 mm. Other ovens can heat treat up to 850°C.

Acid cleaning

In cooperation with our partners we provide acid cleaning of parts in our workshop. Products are therefore easily built into the pressure systems without the added cost of acid cleaning of the entire installation.

Reconditioning / Modification

DP CleanTech specializes in boiler system maintenance and service. Our expertise ranges from simple repairs to extensive maintenance planning; system modernization and installation of new components and control systems. Our inspections and recommendations can be conducted independently or together with plant engineers and technicians.

Manufacturing and Services References

DP has over 60 references in Europe, and a further 20 worldwide, supplying a broad range of customers and scope of supply.

Manufacturing Production Capacity

Manufacturing capacity/year has increased year on year in the last 3 years:

Year	2016	2017	2018	2019
Capacity	109,152 hrs	118,507 hrs	114,400 hrs	148,500 hrs



Site Services Scope and Capabilities

DP CleanTech services include but are not limited to the following:

- Boiler island installation
- Inspection and documentation of the condition of the boiler.
- Wall thickness and hardness measurements, NDT, etc.
- Replacement and repair of pressure system parts such as membrane walls, headers, OH, steam conduits, HT pre-heaters, etc.
- Rotating air and gas pre-heater repairs and replacements
- Heat treatment
- Inconel cladding
- Valve and pump reconditioning
- 24 hour service
- Maintenance contracts

For further information on DP Manufacturing and Services, please contact info@dpcleantech.com

Please visit our website: www.dpcleantech.com