

The company SADE won the contract for building the new dry dock and chose HOBAS as reliable partner for the realization of this challenging performance target. HOBAS France designed 216 meters of custom-tailored GRP pipes DN 1200, PN 6, SN 10000 and one tailor-made tank, which were delivered to Saint-Nazaire. Their high-performance properties and long lifetime of more than 50 years make HOBAS Pipes perfectly suited for such challenging projects: They resist the dangers of corrosion and abrasion caused by sea water and sludge and their light weight and easy handling makes them ideal for the limited space conditions on site.

The installation has been completed within one month only and the tank and pipes have been subject to a final thorough test which they successfully passed. The new dry dock is now operating smoothly to the complete satisfaction of the customer.

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## HOBAS® Drainage Pipes for Coal Power Station Opole, PL

### Installation of perforated HOBAS® Pipes DN 300 for new generating units

Within one month only, a 550 m long perimeter drainage system was installed with HOBAS Pipes around the foundations of two new generating units of Opole Power Station. The conditions on site required maximum material quality and an easy, precise installation – with HOBAS Products neither was a problem.

Opole Power Station is a 1532 MW coal power station in Poland operated by the state-owned energy supplier Polska Grupa Energetyczna (PGE). In 2014, a remarkable 1800 MW expansion of the power station started. With two additional generating units and a planned total performance of 3332 MW, the power plant nearby the city of Opole will be one of the world's most modern coal-fired power generation plants by 2019.

The new units No. 5 and 6 currently under construction will replace old units built in the 1960s and 1970s and will be delivered as turnkey solutions based on an EPC (engineering, procurement and construction) contract. Each unit is equipped with a very efficient exhaust extraction system, a flue gas desulphurisation system, and a device for the reduction of nitrogen oxides. CO<sub>2</sub> emissions will thereby be reduced by 25%.



Year of Construction

**2014**

Construction Time

**1 month**

Total Length of Pipe

**216 m**

Diameter

**DN 1200**

Pressure Class

**PN 6**

Stiffness Class

**SN 10000**

Application

**Sea water discharge /  
pumping system**

Client

**STX France S.A.**

Contractor

**SADE**

Advantages

**Corrosion and abrasion  
resistance, light weight  
and easy handling,  
long lifetime**

Year of Construction

**2014**

Total Length of Pipe

**550 m**

Diameter

**DN 300**

Pressure Class

**PN 1**

Stiffness Class

**SN 20000**

Application

**Perimeter drainage system**

Client

**Polska Grupa Energetyczna**

Advantages

**Long lifetime, no maintenance, low weight, easy installation**

One of the first stages of this extensive project involved the installation of a perimeter drainage system around the foundations of the new generating units. The drain system was designed to run parallel to the foundation plate with a slope towards the drainage shafts. Its objective is to catch the groundwater from the area outside the pipe drain system and support the drain blanket situated exactly underneath the foundation plate. In doing so, the groundwater level should be lowered in the long run, which will provide a backup for rainstorm periods and secure the stability of the new generating units. Any ground movement would negatively affect the performance of the most important components of the power plant.

Stoneware and GRP were initially specified as possible materials for the pipeline construction. Since future maintenance or even a replacement of the perimeter drainage system would be very difficult, it was absolutely crucial to use a high-quality pipe and realize the installation with absolute precision. With these requirements in mind, as well as the pipes' light weight and the smaller number of required joints, GRP pipes were the contractor's choice. HOBAS Poland designed and manufactured the drainage system according to the technical specifications: GRP Pipes DN 300 with 15 mm holes that were drilled into the top half of the pipe at equal intervals. Each pipe was additionally wrapped in geotextile to prevent solids from entering and possibly clogging the pipe.

The special circumstances of the installation posed a challenge to the project planners, since the pipes were to be laid in considerable depths of 10 to 15 m and their route runs close to the foundations. Nevertheless, the open-cut installation was successfully completed within one month only and the perimeter drainage system is ready for use.

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