



*Success Story*

**CENAL THERMAL POWER PLANT**





The plant, operated by Cenal Elektrik Üretim A.Ş. (Alarko–Cengiz JV), supplies approximately 3% of Turkey's electricity with an installed capacity of 2×660 MW and annual generation of 9,000,000 MWh.

For the Karabiga Thermal Power Plant Project, our CTP pipes (DN4000–DN300, PN6–10–16, SN5000) were used in both onshore and offshore applications.

CTP pipe applications were carried out for three main lines:

**Pressurized Pumping Line** – 2×DN3200 / PN10 / SN5000

**Return Line (Onshore)** – 2×DN3200 / PN4 / SN5000  
(DN2500–300)

**Discharge & Intake Lines (Offshore)** – 3×DN4000 / PN4 / SN5000 and 1×DN3800 / PN4 / SN5000

**CENAL THERMAL POWER PLANT**





Contractor **Cenal / Akcan İnşaat**  
Application **Onshore / Offshore**  
Installation **Onshore / Offshore**  
Technology **Filament Winding**



Stiffness **5000 N/m<sup>2</sup>**

DN **4000-3800-3200-2500-2400**

**-2000-1600- 1400- 800-300**

Pipe Type **GRP**

Total Project GRP Length **8.120 m**

PN **6-10-16**

Start – Finish Date **2016-2017**



Cooling water is conveyed from the sea through CTP pipelines to the pump house and transferred to the system via pumps. The pumping line consists of two DN3200 pipelines operating at 10 bar, including four custom-made DN3200–2400 pantolon fittings. Heated water is returned to the sea through CTP return lines ranging from DN3200 to DN300. The offshore system comprises deep-sea discharge lines (3×DN4000) and intake lines (3×DN4000 + 1×DN3800 standby), installed using the patented SUPERLIT Marine Lug system.





Following the completion of onshore and offshore installation, the CTP pipelines have been in full-capacity operation with two units since 28 December 2017. Throughout the project, Superlit provided onshore and offshore supervision services to Cenal Elektrik Üretim A.Ş.

**The ultra-supercritical Cenal Karabiga Thermal Power Plant has been operating reliably and continuously generating electricity since 2017.**

