

DUAL-LOOP WASTE HEAT RECOVERY PROJECT WITH ORC TECHNOLOGY BEEN AWARDED TO CTP ITALY

*After the first successful WHR project in Turkey, CTP Team brings energy saving to
Sonmez Cement plant*

CTP Team Italy signed a turnkey EPC contract for Waste Heat Recovery with Sonmez Cimento Yapi ve Madencilik, in March 2019. The project consists in a WHR system with dual-loop configuration, the heat will be recovered from two sources available in Sonmez Cement plant: the kiln pre-heater and the clinker cooler. Two different Heat Exchangers fed with thermal oil and designed accordingly the specific temperature and inlet gas flow to break down the temperature of the exhaust gas coming from the clinker production process.

In the WHR module, a highly efficient turbine of 7,8 MW at 3.000 rpm is coupled with a Turbo Generator of 9,2 MVA to produce electricity to support the internal consumptions of cement plant. Thanks to its proven record of availability, the new ORC will provide an expected net power generation of 51 million of kWh per year, covering approximately 30% of the current plant's electricity needs.

From an environment point of view, the new system will drastically reduce CO2 emissions of cement plant by a total of 23.500 (ton per year). In addition, the system provided by CTP is totally water free, without any need to treat residual waters from the process.

CTP will design a fully automatic system to reduce drastically the presence of operators during the daily operation. Thanks to this specific advantage of organic cycles and to the total absence of water treatments in the process, the OPEX are so reduced by 75% respect to an equivalent WHR based on traditional Steam Rankine cycle.

CTP Team deep knowledge of process conditions allows to fully integrate WHR in the existing plant guaranteeing a smart Tie-In, without affecting production parameters. Furthermore, CTP Team directly designs and manufactures Heat Recovery Boilers for WHR ensuring to our customers the respect of the highest standard quality.

The WHR plant is scheduled to start operating within the first six months of 2020 (the next 13 months). The WHR solution designed for Sonmez Cement plant maximize the electric power production and avoid the water consumption for mutual benefit of a lower environmental impact, and lower reliance from the grid.

About CTP Team Italy

CTP is a leading engineering and manufacturing Company with 50 years of experience in components to Cement Plants for their EP & EPC projects, in the field of Dust Collectors, Filtration & their equipments, Chemical Treatments, Heat Exchangers and Waste Heat Recovery (WHR).



CTP is able to design different type of customized installations to meet Customer's needs and expectations, with strong understanding of cement production process and relative equipment. In addition to headquarter in Milan, Italy, through its manufacturing workshop located in Turkey with the team up to 140 people, CTP can ensure to all its customers a continuous assistance, with local manufacturing workshop and presence the qualified teams that can operate in emergency during the full life of the plant.