

POWER PLANT

combined cycle thermal Power Plant, become operational in 2001, consists of a gas turbine (GT), an heat recovery steam generator (HRSG) with two levels of pressure (HP @ 7,5 MPa 485°C/LP @ 0,6 MPa 203°C), a steam turbine (ST) with LP extraction/induction, one generator (G1), mounted in axis with the gas turbine and the steam turbine and an air cooled condenser equipped with 12 fans "low noise" and condensate extraction pumps.

The gases produced by the GT combustion of natural gas are conveyed through the exhaust frame to the heat recovery steam generator HRSG which produces steam at two different pressure levels (HP and LP). This steam is sent to the steam turbine.

The power axis is as follow:

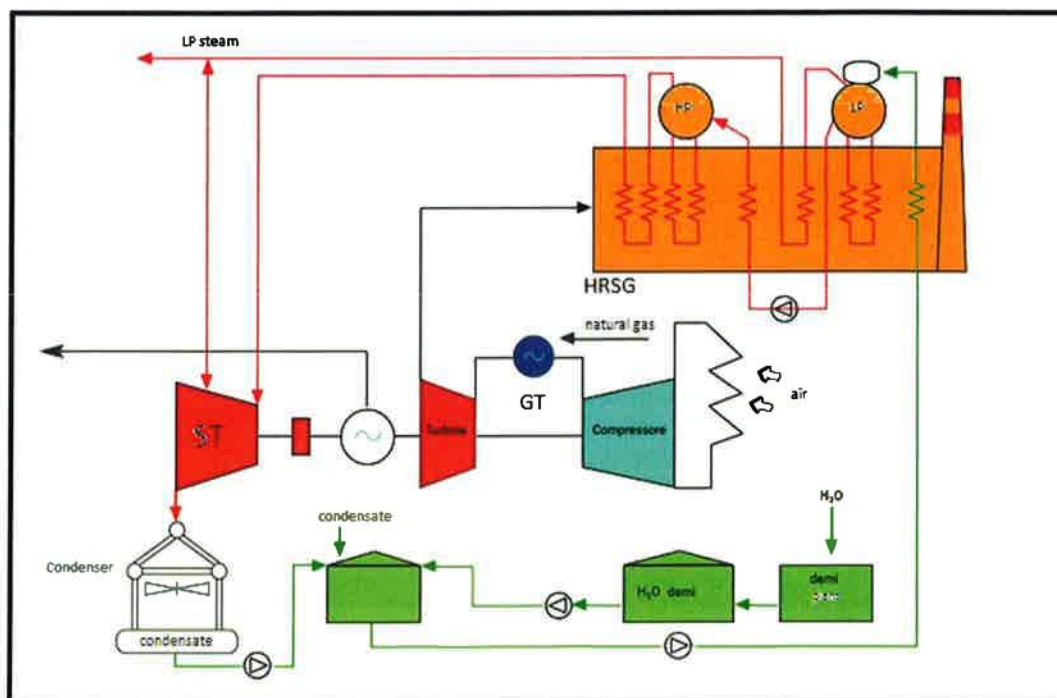
GT: MS 9001 Nuovo Pignone (GE)

ST: EHNK 50/5 m2 Nuovo Pignone (GE)

G1: WY ABB

The electricity produced by the generator (G1) in medium voltage (15 kV) is transformed in high voltage (120 kV) by means of a transformer (T1). On the side of the medium-voltage is derived a reducer T1A 15/6 kV for the auxiliary services supply. There is, in addition, a transformer TAG 120/6 kV for the auxiliaries.

The power generated by the plant in combined cycle is about 130 MW and the flow scheme is shown in the figure.



The power plant occupies an area of about 18000 m² and the layout is reported below.