MEIN

## APPLICATION OF OUR PRODUCTS IN THERMAL POWER PLANTS

### Phases

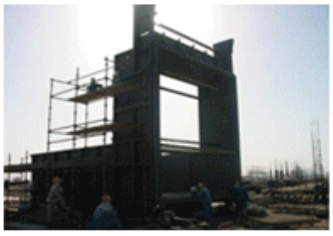
**1.** The fuel used is generally an oil derivative called fuel-oil, however gas and coal stations also exist. This fuel burns in a boiler and the heat generated is applied to water.

**2.** The liquid water, which has been pumped to a heating coil (piping system) is heated. The heating of the water occurs thanks to a boiler which obtains energy from the combustion of the fuel (pulverised coal, fuel or gas).

**3.** The liquid water turns into steam; this steam is wet and low in energy.

**4.** The steam is overheated until it is dry, at high temperatures and pressures.



**5.** The overheated steam passes through a conduction system and is released into a turbine, causing it to move at a high speed, in other words, generating mechanical energy.

**6.** The turbine is connected jointly to an alternator which finally produces electrical energy.

**7.** In this final step, the steam cools, condenses and returns to liquid form. The facility where condensation takes place is called the condenser. The liquid water forms part of a closed circuit and will return to the boiler again, prior to heating. To cool the steam, water from a river or the sea is used, which must be cooled in refrigeration towers.