

Power Recovery Turbines Mining Industry

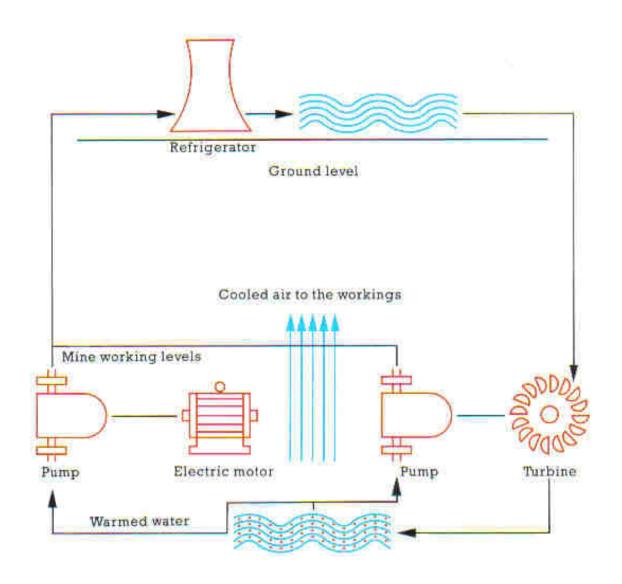
Hydro power turbines in the mining industry

In deep mines the air temperature can rise to unacceptable high levels for normal working conditions. Water is therefor refrigerated at the surface level and used in heat exchangers to cool the air at the working levels which may be 1500 to 3000 meter below ground.

The refrigerated water can drive a hydro power turbine which avoids a temperature rise in chilled water of 2.33°C per 1000 m fall which is reducing the cost of chilling and can assists with the produced electricity in returning the water to the surface.



Schematic of a hydro power turbines in a mine





Application data for turbines in mines

Head : 300 to 1000 m

Quantity : 180 to 500 l/sec

Power Output: 400 to 5000 kW

