

How Dorot saves the Chinese 1 million USD per day?

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By Dorot Control Valves

Hydroelectric energy is electrical energy generated by the movement of water, such as the movement of water in rivers, streams, waterfalls, waves and tidal movement of the oceans.

The mechanical (or kinetic) energy is converted into electrical energy in a hydroelectric generation plant. At this site, the water falls from a dam or a natural waterfall and turns a turbine, thus creating electrical energy.

Longtan Hydroelectrical is the second largest hydroelectric plant in China. The Longtan Dam in China is the largest on the Hongshui River and is considered the tallest of its kind in the world. Its height is 216 meters and its width is 850 meters. The turbine and control hall is considered the largest in the world - 300 meters in length. Three turbines first started operation on site at the beginning of 2007, and by 2009, five more turbines were added (in the future two more are planned). These eight turbines have a total output of 6400 MW, which is almost three times the output produced by the largest power station in Israel, "Orot Rabin" in Hadera city.



Turbines Hall ; 20" Series 300 valves

Dorot's control valves are used to control the pressure in the turbines' cooling system. This requires extremely high reliability of the valves, as an unexpected stop of a turbine can cost the hydroelectric plant about 1 million USD per day!

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Each turbine has four 20" Series 300 valves which are responsible to keep constant water pressure along the turbine axis, independent of the water level or flow rate. There are also hundreds of other Series 300 valves in the hydroelectric plant, of various diameters, as well as 2" air valves.

Dorot's control valves provide a high quality and reliable solution to the stringent requirements of the largest and most advanced hydroelectric generation plant of its kind, and guarantees optimal utilization of the available resources.



Pump valves 300-16



Cooling line - reduces pressure 20"