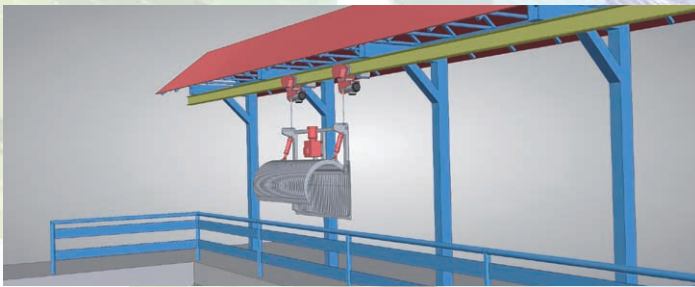


## SHP EQUIPMENT

Hydroergia offers comprehensive SHP design and construction along with the SHP equipment. Our engineers carry out analysis of modern solutions selection directed at optimization of electricity generation. Equipment selection is always agreed with the Investor and the possible solutions are thoroughly reviewed to obtain economically the best solutions for the SHP.

We are extensively experienced in the area of the offered services, we have our own design office and a machine park situated at our business premises.



The scope of the company's activities also includes comprehensive activities connected with the SHP running, such as:

- construction of a turnkey SHP,
- renovation and modernization of the existing SHP,
- technical counseling,
- investment counseling, support at the purchase of a location dedicated for the investment related to the SHP,
- preparation of necessary documentation and carrying out analyses.



We design and produce all components and mechanical systems used during the process of power generation in a hydro power plant. The offer includes the following:

- **Trash-rack cleaning machine**

Each trash-rack cleaning machine is individually designed to match inlet canals of a power station, pumping station or a sewage treatment. We distinguish trash-rack cleaning machines with a mechanical or hydraulic drive system – the decision is taken individually with the investor and the most suitable option for a given investment is then chosen. The trash-rack cleaning machine is connected to two water sensors situated in front of and behind the inlet opening. When the deposited foreign bodies collect on the rack then the difference of water column height in front of and behind the inlet openings appears. Automation follows the indications of probes – when the pressure difference appears – the trash-rack cleaning machine starts.

The advantages of trash-rack cleaning machines:

- › reduction of the SHP service costs,
- › increase of power generation through constant monitoring and waste disposal – which cause the decrease of a power station's head – actual increase of power generation up to 10% depending on the type of a river.

- **Pulleys**

For our projects – both a new turbine installation and the SHP modernization – we design and produce pulleys. To ensure long fault-free work the pulleys are annealed during the production process.

- **Overhead cranes and lifts**

Upon request of the investor we supply the SHP with overhead cranes and lifts fixed over generators which enable maintenance and modernization work of hydraulic devices. We choose individual solutions for each project. During the project lifting equipment is always calculated in terms of strength.

- **Mechanical equipment**

During the SHP construction or modernization we perform comprehensive work and supply the object with all necessary mechanical equipment. The additional elements include: valves, renovation gates closures together with motoreductors enabling opening and closing the SHP canals.