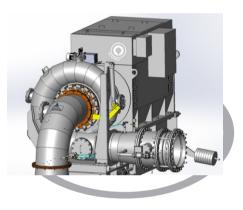


# Competences and advantages of Siapro equipment





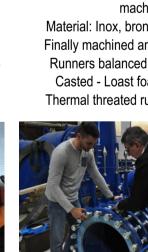
### OWN DESIGN, 3D MODELLING, PATENT

Professional approach in the investment process Mechanical and electrical project documentation Outline design of all structures Outside electrical system design Equipment constructions, building systems Patented regulation on Cross-flow turbine



#### **DIFFERENT HYDRO TURBINES UNITS**

Custom made design and construction Positional studies, MHE site survey Project documentation Advising, turbines technical designing Turbines construction Manufacturing and equipment supply Reliable components for a high lifetime Commissioning and maintenance



### **HYDRO POWER STATIONS** UP TO 10 MW

Pelton, Francis, Kaplan, Cross-flow **Hydro Power Plants** Complete electrical and hydro machinery equipment for Hydro Power Stations



#### 25 YEARS OF EXPERIENCE

Qualified constructors and engineering team We design and manufacture hydro equipment in Slovenia and install it around the world.

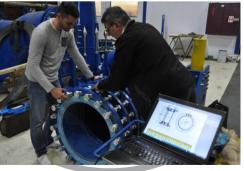




#### **RUNNERS TO MEET ALL BUDGETS**

Cost benefit approach Casted CNC machined or welded runners 3D Modelling and 3D 5 Axis CNC machining

Material: Inox, bronze, other materials Finally machined and polished runners Runners balanced on a run of speed Casted - Loast foam process used Thermal threated runners if necessary



#### **TURN KEY PROJECTS, REFERENCES**

Numerous reference projects around the world From modelling, to commissioning of Hydro Power Plants

Supply of control system, grid access solution Pre-assembly and tests before delivery





DESIGNING, MANUFACTURING, INSTALLATION **HYDRO POWER PLANTS** 

SIAPRO KNOW HOW

RE.10/000

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www.hydro-electricity.eu





## PELTON HYDRO TURBINES



Pelton turbines are suitable for high heads and small flows and with a wide range of configurations appropriate for a different turnkey project supplies. Siapro uses standardised manufacturing process to secure high quality of the end product. We offer consulting, engineering services, production and implementation.



**Special heat treated Pelton** runners for a very high heads.





high quality casted runners for Francis turbines made of 1.4317 material. Runners are finally machined, polished and balanced.





We design and

of up to 10 MW.

manufacture vertical and horizontal axis Francis

turbines with rated power

With achievable turbine efficiencies of the turbine of over 93%. Francis turbines are the most widely used turbines.

Siapro provides all hydro machinery equipment, for example coarse and fine grids in various configuration. Coarse grid is installed at the beginning of hydro power plant intake facility to remove impurities: stones, wood, etc.,







Quality starts already with the design.

Siapro design both vertical and horizontal axis Pelton turbines with up to 10 MW.



# **CROSS-FLOW**



Kaplan turbines are suitable for low heads and high flow applications, with achievable efficiencies of over 92% and with grey flexibility. We manufacture vertical and horizontal axis Kaplan turbines. Fixed, single or double regulation for the best flexibility is available. We offer proven technology.









With Siapro cross-flow turbine we offer you a proven, inexpensive solution with low overall investment.

**Siapro** has recently developed and specially designed the flow regulation of a standard Banki water turbine to increase its overall efficiency. Our patented invention takes a standard, reliable and proven technology to a new level. We offer increased efficiency up to 5% due to special designed and patented Siapro Flow Regulation System. Turbine can be manual or automatic controlled, depending on customer's requirements.



**KAPLAN**