

Hydroscrew Ltd

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Hydrodynamic Screws (hydroelectric production)



Hydroscrew Hydrodynamic Screws are designed for the production of electrical energy. The operation of the machine is based on the difference in potential energy between two different points in a water flow. The water, thanks to the drop from the highest point of its natural flow, is used by the rotor - which transforms the energy - and then flows back into its bed.

One single machine can handle head up to 10m and flow rate up to 5,500 l/s although several machines can be used on the same site.

Applications

- ◆ Replacement of small turbines and **plants which require maintenance**
- ◆ Replacement of **damaged water-wheels**
- ◆ Clean water discharge in **waste water treatment plants**
- ◆ Utilization of excess water in **existing channels or weirs**
- ◆ Utilization of water power in **channels**
- ◆ Utilization of cooling water from **electric power stations**
- ◆ Utilization of process waters (**paper mills, water mills etc.**)





Low Investment Costs



High Profit

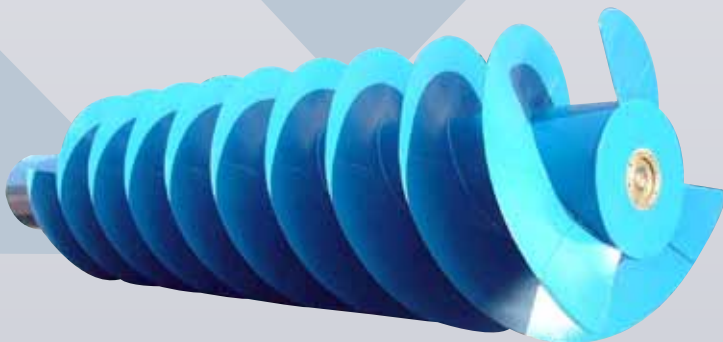


Low Maintenance Costs

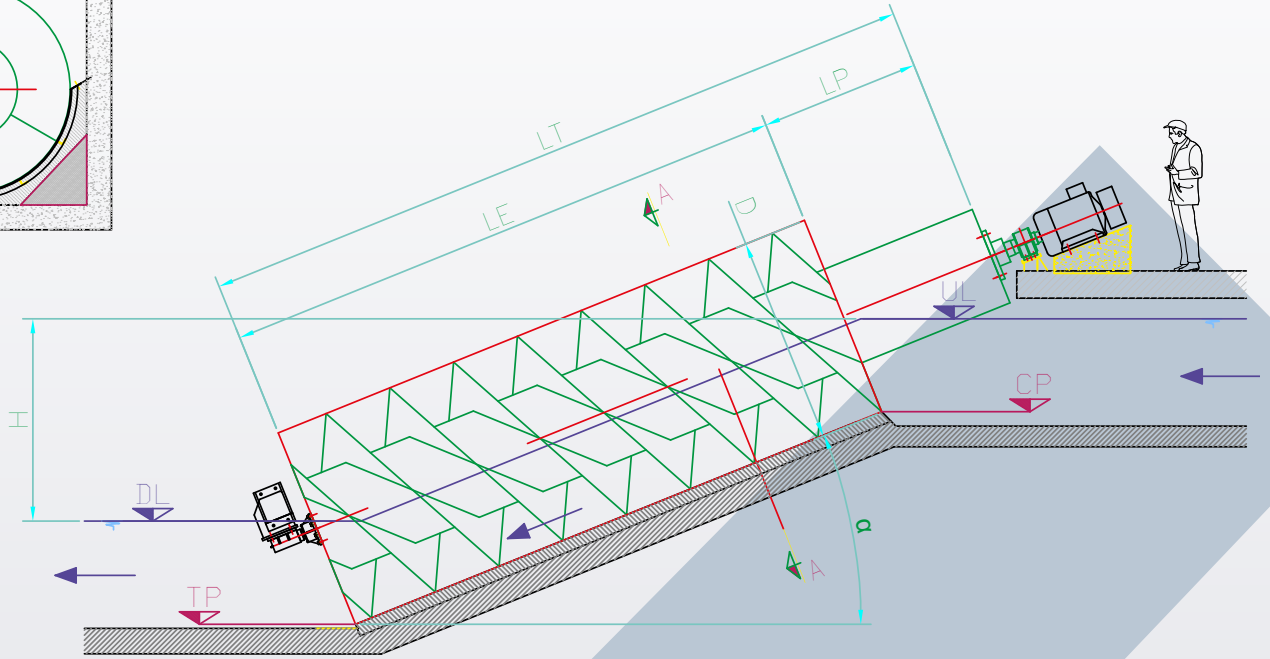
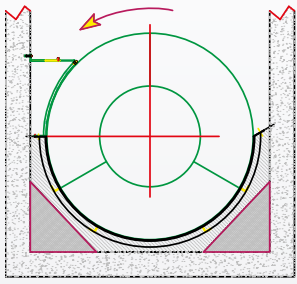
**HIGH
COST-
EFFECTIVENESS
AND SHORT
PAYBACK**

Benefits

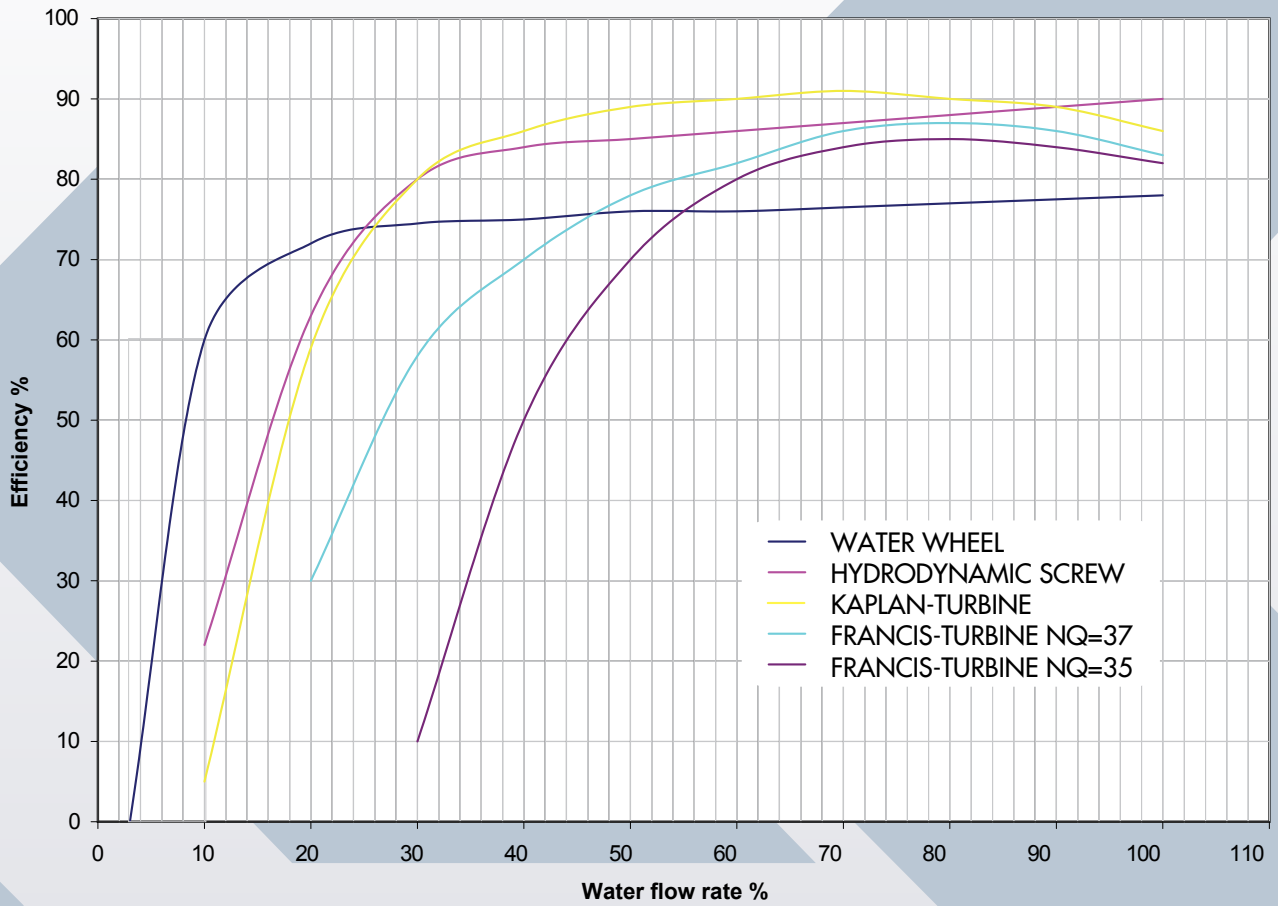
- ◆ **No control system required.** The screw conveyor automatically adapts to main frequency and to the water flow rate. **Frequency converter and PLC are not required.**
- ◆ **Higher efficiency** than water wheels or small turbines
- ◆ **Constant and stable efficiency**
- ◆ **Solid sturdy design**
- ◆ **No cleaning, little maintenance and shortest possible machine downtime**
- ◆ **No fine screen needed**
- ◆ **Little underground digging required**
- ◆ **Fish-friendly**



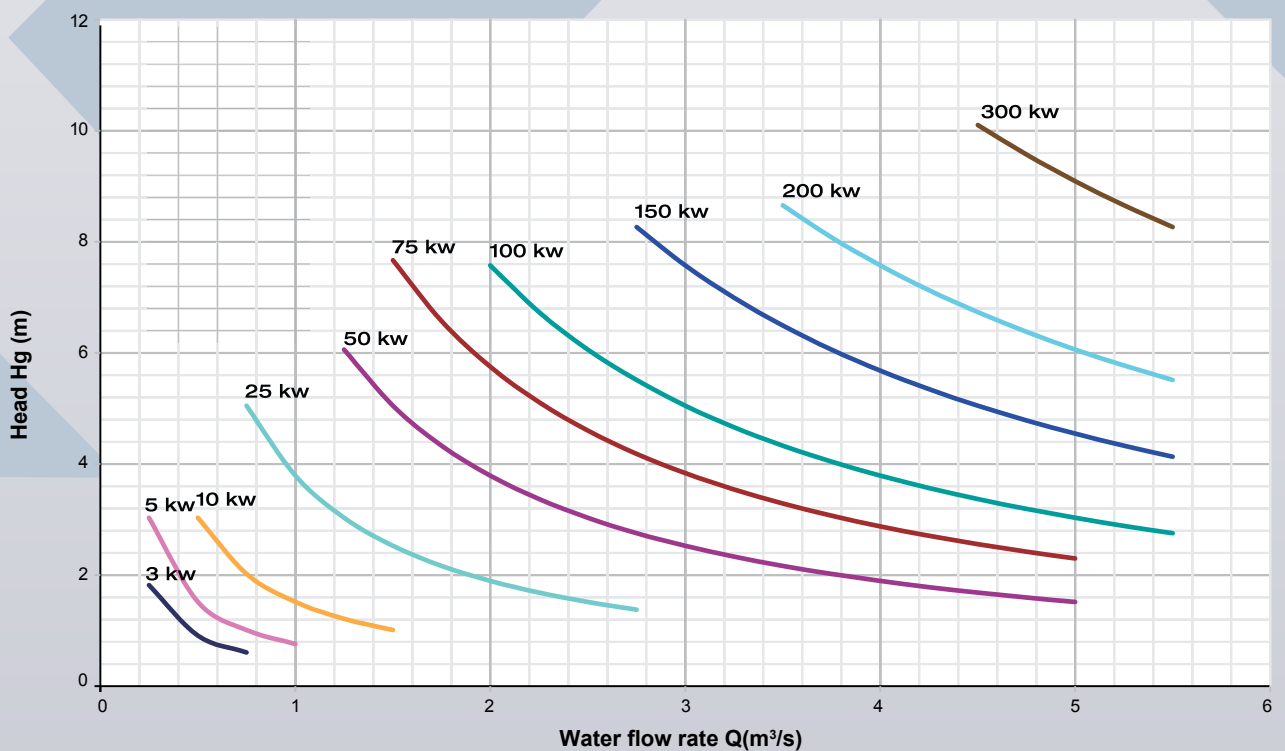
Cross Section A-A



Efficiency



Generated Power





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