

MD.9.**Title****MICRO-HYDROPOWER PLANT WITH
INDIVIDUAL BLADE ORIENTATION****Authors**

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Description

The invention can be used in hydropower and relates to a micro-flow hydropower plant containing a low-power hydraulic turbine, intended for the production of electrical or mechanical energy in individual households, villages, for irrigation in areas near rivers, using the kinetic energy of flowing river water.

The micro-flow hydropower plant includes a platform (1) connected to the shore, on which the electric generator (2) and the multiplier (3) are installed, the driving shaft of which is rigidly connected to the main shaft (4) of the hydrodynamic rotor (5). The hydrodynamic rotor (5) includes blades with a hydrodynamic profile (6) installed on the axles (7) each fixed to the free end of the arms (8). The

upper end of the shaft (7) of each hydrodynamic profile blade (6) of the hydrodynamic rotor (5) is kinematically connected to the shaft of the reducer (9) and the electric motor (10), connected to a monitoring system (11) of the angular orientation of the hydrodynamic profile blades (6) relative to the water currents. The orientation of the blades relative to the water currents can also be achieved by a lever system or a cam system.