

**RENEWABLE ENERGY SOURCES**

**8.4. Small HPPs**

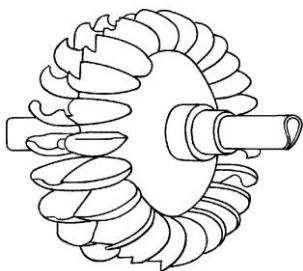
**8.4.2. Hydroturbine equipment**

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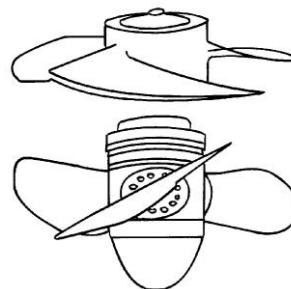
At small and microHPPs low-pressure turbines of various designs are used. The widest application received the following:

- active turbines with the tangential supply of a high-speed stream to the driving wheel, equipped with blades of a special form (fig. 8.20). In active turbines kinetic energy of the stream is almost completely used;

- reactive turbines with the axial supply of water to the driving wheel blades. Driving wheel rotation occurs due to drawoff of a pressure drop between the turbine inlet and outlet (fig. 8.21).



**Fig. 8.20. Configuration of the active (bucket) turbine**



**Fig. 8.21. Driving wheel of the reactive turbine**