Low head hydropower

The Scott Turbine/Generator Unit

Cross-Flow Turbine

Unlike most water turbines, which have axial or radial flows, in a cross-flow turbine the water passes through the turbine transversely, or across the turbine blades. As with a water wheel, the water is admitted at the turbine's edge. After passing the runner, it leaves on the opposite side. Going through the runner twice provides additional efficiency. When the water leaves the runner, it also helps clean the runner of small debris and pollution. The cross-flow turbine is a low-speed machine that is well-suited for locations with a low head.

No dam is required, only an upstream diversion through a 6" pipe, which is coupled to the unit.

Technical requirements

- 6" pipe, 8-bolt pattern, 9.5 b.c. (at turbine).
- Recommend 25 feet net head (fall) or 9 psi minimum.
- Screened intake to prevent fish, leaves and rocks from entering system.
- Small shelter to cover unit.

Scott's Turbine/Generator

- Designed & Manufactured for years of maintenance free service
- Turbine housing constructed of heat treated aluminum with powder coated finish
- Entire assembly made of non-corrosive material
- Bearings are double sealed permanently lubed stainless steel
- Runner is made from 300 series stainless steel.
- Shaft and fasteners are also stainless steel
- Alternator is 3-phase AC high voltage for long line transmission
- 3-phase rectifier changes AC to DC for battery charging
- Generator is rated at 1500 watts output, and capable of up to 2000 watts depending on installation conditions.
- Made in the United States of America.

20 degrees Fahrenheit below zero.

A low-RPM permanent magnet generator is direct-coupled to the turbine.

We run an electric refrigerator, washer, lights, TV, computer, appliances plus 110-volt shop tools on a Scott Hydroelectric turbine at our home in Republic, Washington.

For more information, contact
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