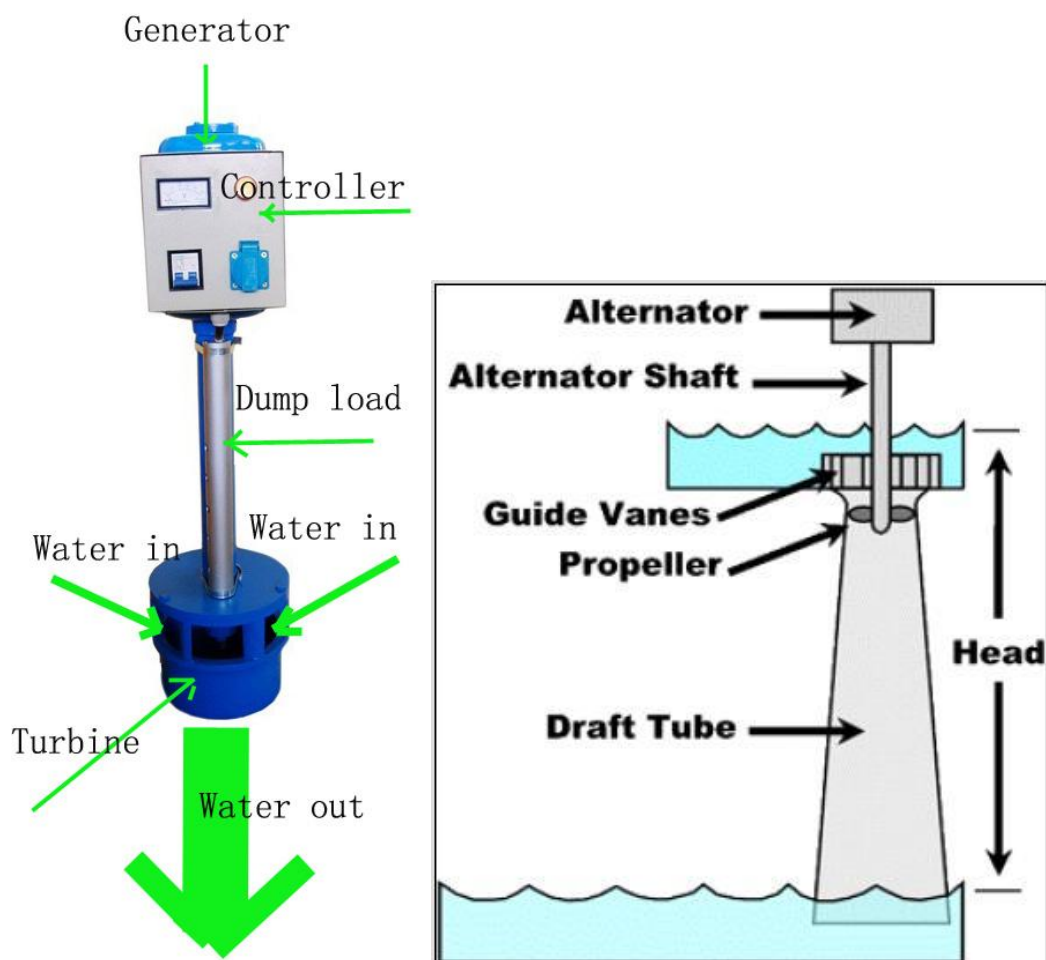


Low Head Micro-hydroelectric Generator

The ZD series low head micro hydroelectric generators are designed for families in remote areas to produce power for their households easily and inexpensively. Thousands of them has already installed throughout the world.

ZD series are the perfect hydro turbine for slow moving rivers and streams. Small, natural waterfalls or dams provide the ideal setting for them.



A simple AC single-phase, brushless permanent magnet alternator is attached to a propeller turbine. All or part of the stream flow is diverted into an intake canal where it forms a vortex, causing the propeller to rotate as it exits through a draft tube to flow free again. All that is required is a vertical drop (head) and a sufficient rate of water flow, which are commonly obtained by installing the micro-hydroelectric generator on a small waterfall, dam or diversion trench. Electricity passes along a wire and into a house and an electronic load controller (supplied) stabilizes the voltage to 110V or

220V to protect electrical appliances during use. The generator can also be used to set other voltages such as 120V, 230V or 240V. Being lightweight and portable, installation is very simple and is explained in the Instruction Manual. Once installed there are no running costs and maintenance costs are extremely low.

MODEL	Runner Diameter	Water Fall (m)	Water Flow (m3/s)	Power (W)	Speed r/min	Price EX WORKS
ZD1.8-0.3DCT4-Z	120mm	1.7 ~ 2.0 (5~6feet)	0.04	300	1500	Sample >5 pc USD388 USD288
ZD2.0-0.5DCT4-Z	120mm	2.0 ~ 2.5 (6~6.6feet)	0.045	500	1500	Sample >5 pc USD525 USD425
ZD3.0-0.7DCT4-Z	120mm	2.5 ~ 3.0 (6.6~7feet)	0.05	700	1500	Sample >5 pc USD604 USD504
ZD3.5-1.0DCT4-Z	150mm	3.2 ~ 3.5 (7~8.2feet)	0.05	1000	1500	Sample >5 pc USD754 USD654
ZD2.8-30-3KW	220mm	2.2 ~ 2.8 (7~8.5feet)	0.21	3000	750	
ZD4.0-30LMC-60	990mm	3.5 ~ 4 (12~13feet)	1.3	30,000	600	USD17,050



Note: The price will increase by 10% if customer asks for 110V voltage or 60HZ frequency.



Note:

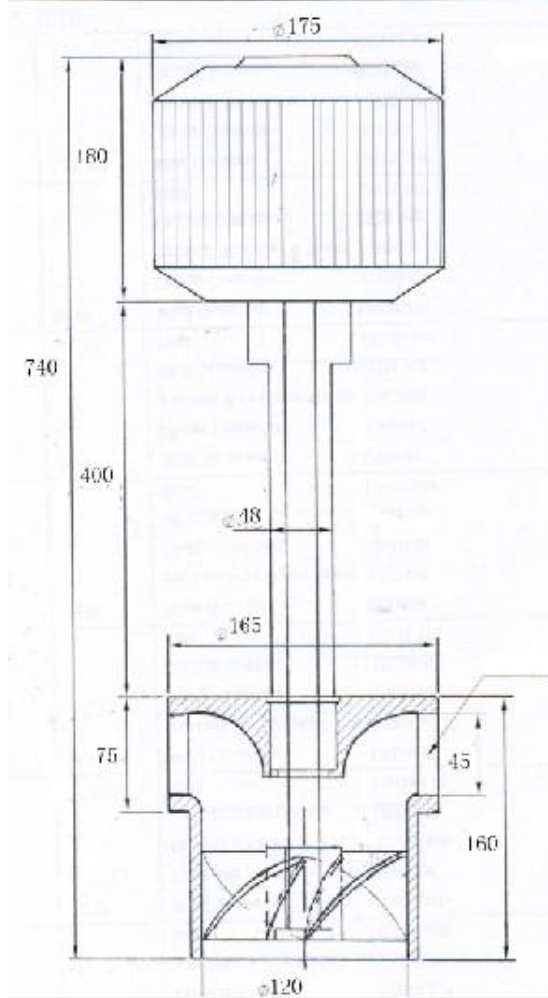
When comparing the cost per watt for these systems to other manufacturer, keep in mind the issue of efficiency! Our micro hydroelectric generator has efficiency of 60%. They produce much more power at a given water head and water flow than some bad products from some manufacturers! Their product has efficiency of 20% only.

It is important to keep in mind that output can only be accurately determined if head and flow measurements are made correctly, so care should be taken during this process. Two other important factors in a site assessment are system voltage, and transmission distance. The voltage and distance the power must travel can affect the

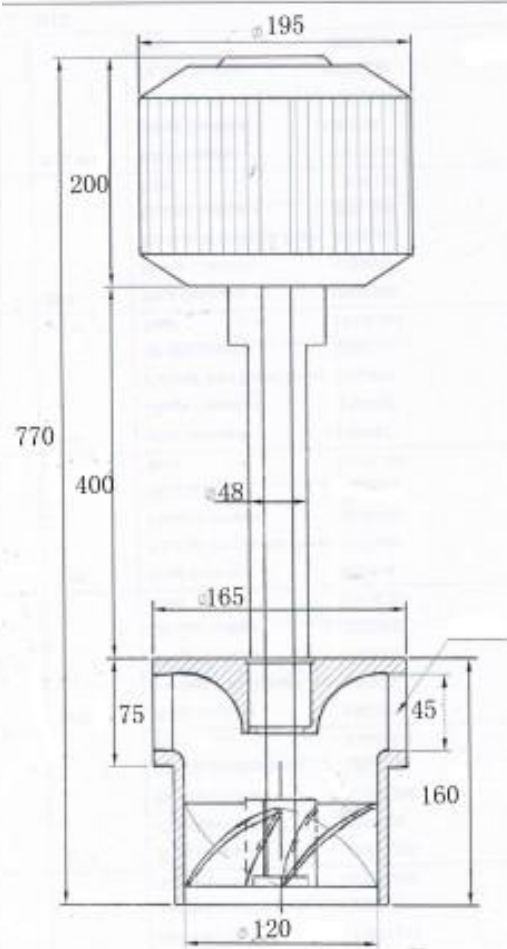
efficiency and cost of your transmission lines.



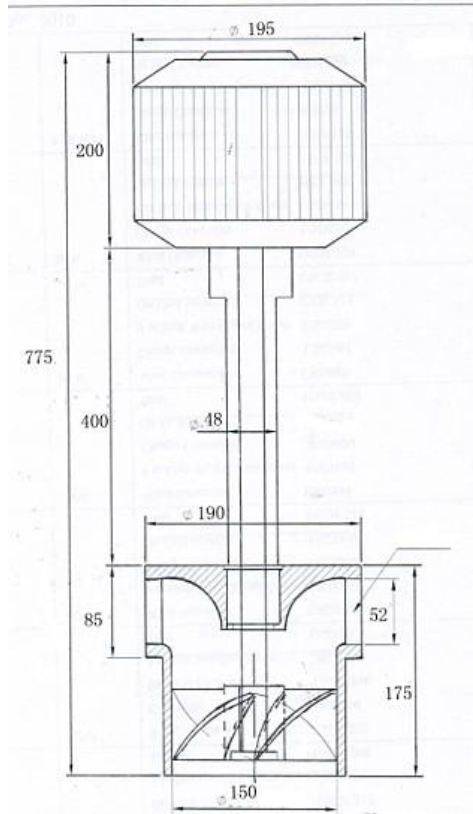
ZD1. 8-0. 3DCT4-Z



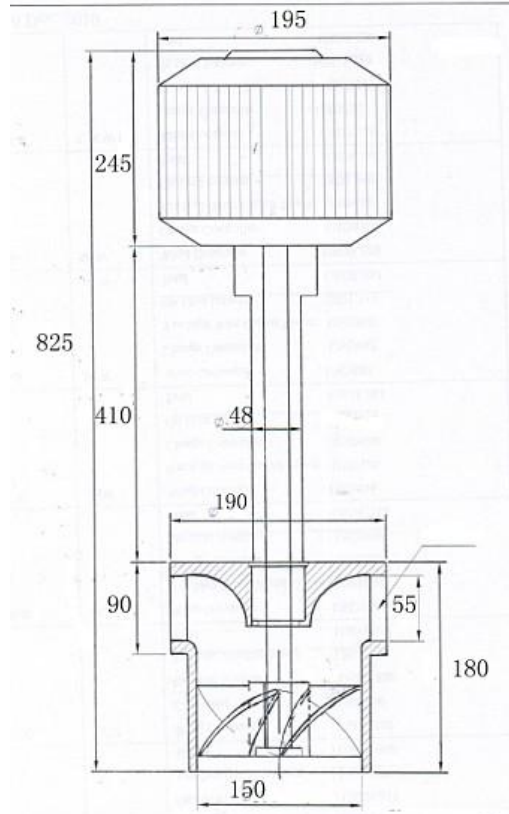
ZD2. 0-0. 5DCT4-Z



ZD2. 2-0. 7DCT4



ZD2. 5-1. 0DCT4-Z



Errors expected and possible alternations without prior notice