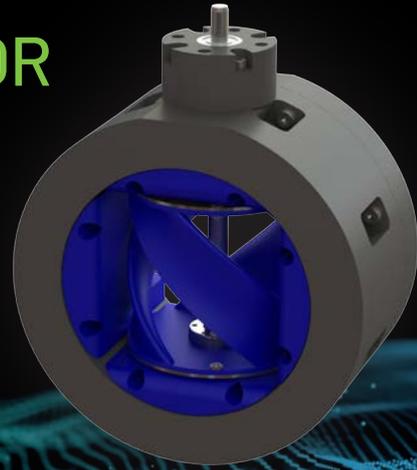


# OXFORD FLOW WATER TURBINE GENERATOR

MODEL: WTG

In-pipe Turbine Power Generator.



## PRODUCT OVERVIEW

This in-pipe water turbine generator (WTG) is based on vertical axis turbine technology. The rotational power is generated through lift and drag forces acting on the aerofoil cross-section of the helical turbine blades. Using this method, the turbine can rotate faster than the speed of the water flowing through it.

The design is inherently robust; the blades have clearances on the casing and large gaps between blades. Vertical turbines have been used for river water power generation exactly for this reason.

The outer casing of the WTG is made out of the same POM-C plastic as our game changing polymer axial flow valves, providing a high strength, lightweight solution. Most installations are within the manual handling limits\*, avoiding expensive and time consuming installations.

The WTG provides a 24VDC output to support most industrial electronics, with enough energy to be the primary supply for an off-grid SCADA node solution.

As the fitment is within the valve chamber, network providers have the peace of mind that the turbine is as secure as the rest of the equipment.

## FEATURES

- PN16 Pressure Rated
- -20°C to 70°C Temperature Range
- 24VDC, Up to 70W Electrical Output\*\*
- 0.5 to 1.5bar Pressure Drop\*\*
- Modbus RTU Communication
- Alarms for Charging and Battery Health
- IP68 / IP69K Industrial Connectors
- WRAS Approved Materials

## BENEFITS

- Power generated locally; no need for power infrastructure leading to the installation.
- Flow based power generation; repeatable daily flow profiles allow sizing on typical day, instead of annual variations.
- Installed in pipework; by installing in the valve chamber, equipment can be kept secure.

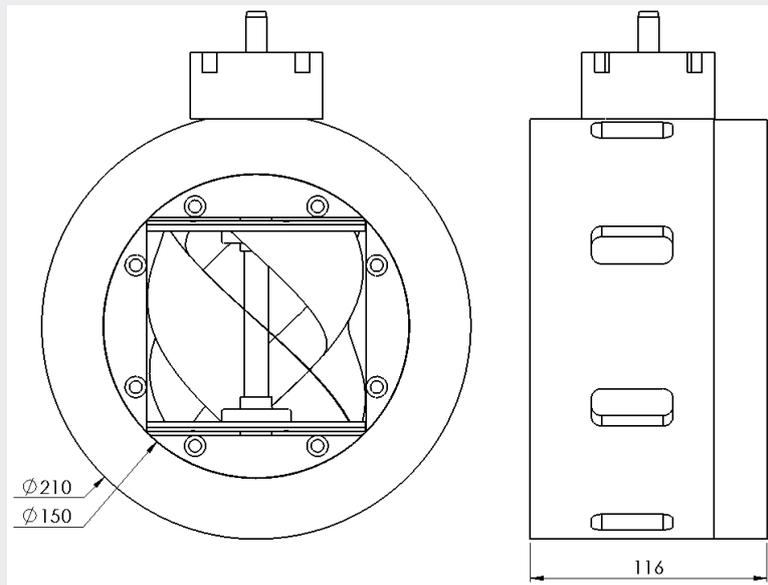
\* The installer is responsible for defining the installation procedure

\*\* Different turbine options are available dependent on application



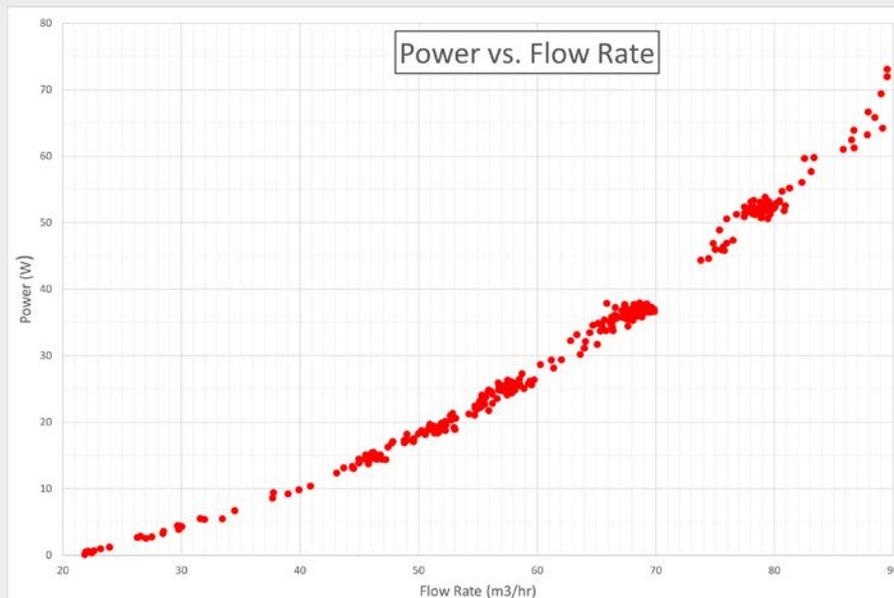
## DIMENSIONS

Pipe fitting dimensions for the PN16 DN150 design\*\*.



## POWER OUTPUT

The measured power output at 24VDC with changing flow rate\*\*.



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- \*\* Different turbine options are available dependent on application

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