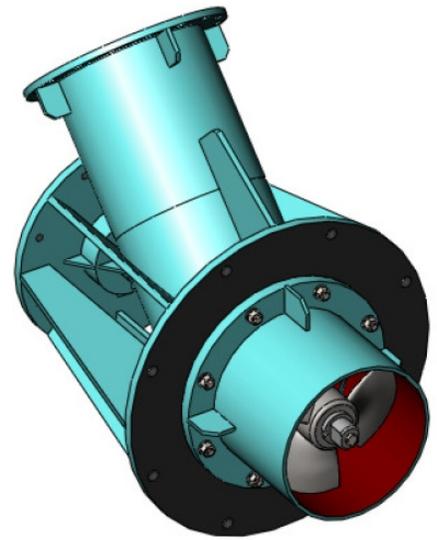


# *Kreisel Pumps*



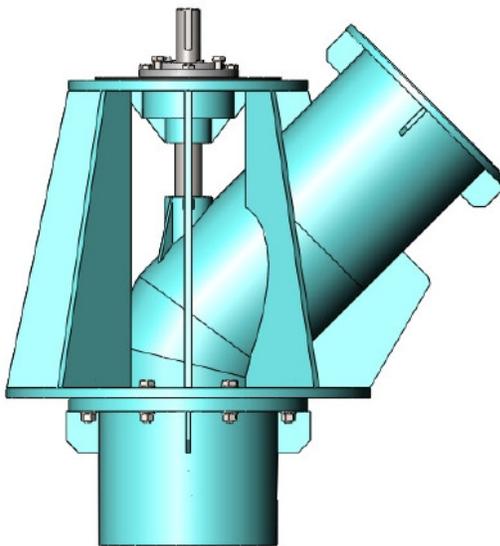
Kreisel Axial Flow Turbine

## AXIAL FLOW TURBINE:

### PORTABLE VERTICAL / HORIZONTAL AXIAL FLOW TURBINE DEVELOPMENT

We have developed a portable Vertical / Horizontal new concept of 'Axial flow water turbine' for water (for low head Hydro Projects) which should allow it to directly mount an economically viable hydro plant having net head below  $5 \text{ kg/cm}^2$  -  $6 \text{ Kg/cm}^2$  max.

The concept to undertake such a task was created for most of those involved in the hydro power industry, it has been well known that under normal investment circumstances, development of a hydro power project will run into hundred to thousand of crores of rupees, hence our thought goes for requirement of mini portable 15 to 100 Kilowatts of power output into working in small hydro power project.



However if we take a look at the global hydro power potential of these sites and taking into account today's desire for sustainable development, it becomes clear that an effort to develop a method of utilizing this energy potential should be undertaken. Furthermore there is a strong demand to change energy resources of fossil fuels into renewable energy such as hydro power wind power, solar energy etc. Small hydropower generation is an alternative energy & the energy potential of a small hydropower is large. Small hydropower facilities that generate about 50 Kw to 500 Kw have spread widely. However it causes environmental destruction by foundation construction and an installation of draft tube. On the other hand there are lots of places that can

generate 10 Kw – 50 Kw in agricultural water and small stream .The small hydropower is expected to lower environmental destruction and acceptable without any objection. Recent technological advancement within the industry & modern mechanical designs have helped renewable energy developments, thus making it easier to decide about risking capital expenditure supporting research & development of this project.



Some of the Applications for 'Axial Flow Turbines' are as listed below:

- Rain water Harvesting System
- Small Barrages/dams
- Small hydropower stations
- Across Water stream in Rivers and Mountains
- Sewage/Water treatment plant at Municipalities and City Corporations.

Advantages of 'Axial Flow Turbine' :

- Inexpensive compared to conventional turbines as well as tapping other source of energy like solar power and wind energy.
- Ease of maintenance and installation.
- Readily available spares
- Occupies minimal area at installation sites.

## **AXIAL FLOW TURBINE NOW DEVELOPED**

### **VERTICAL AXIAL FLOW TURBINE**

*Requiring 200/250 lps of flow from a head of 50 meters to generate speed of 1450 rpm & generate 15/20 kilowatts of power*

Manufactured at:

Kreisel Pumps,  
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