



We can support MHP project from the initial survey, design and engineering, equipment's supply and installation.

MICRO HYDRO POWER (MHP)

Micro hydro is a term of small hydro power generation with capacity from 5 - 250 kW. Micro hydro offer simpler arrangement and cheaper than large hydro system, therefore its suitable for village electrification, plantation, villas, telecommunication, health facility and agricultural processing.

Power generated are depending on two main components which is flow of the water (Q) and water drop (head) according to following equation :

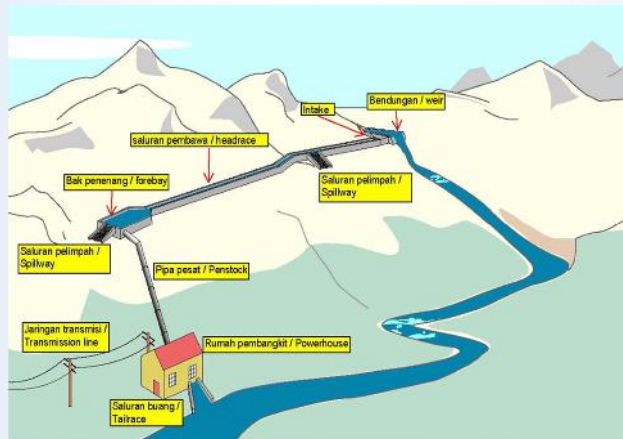
$$Pel = H \times Q \times G \times t$$

Pel = Electrip power output (kW)

H = Head (m)

Q = FLOW (m³/s)

G = Gravity 9.81 (m/s²)



Although micro hydro looks simpler but careful technical design must be considered as well as settled operation management to ensure the sustainability of the system. Well made equipment's is one of key factor for successful micro hydro project.



We have supply more than 50 turbines and 700 ELC controller all over the world since 2011.

MHP equipment's that we supply consisting of :

1. Turbine and accessories
2. Mechanical transmission (pulley, belt, coupling, etc)
3. Generator and accessories
4. Controller ELC and ballast load
5. Accessories (spare parts, operator tools, cable, etc)

MICRO HYDRO POWER (MHP)



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CROSSFLOW TURBINE C-200

Cross flow turbine type C-200 is developed to fulfill the needs for efficient, robust and simple cross flow turbine with competitive price. It is made based on T14 design with simplified arrangement to reduce cost while maintaining the efficiency and performance.

SPECIFICATION OF CROSSFLOW TURBINE C-200 :

1. Runner diameter : 200 mm
2. Runner width : 50 – 700 mm
3. Head range : 5 – 60 m
4. Flow range : 40 – 400 l/s
5. Power range : 5 – 30 kW
6. Efficiency : 70 – 75%
7. Mech. Transmission : Pulley+Ve belt



CROSSFLOW TURBINE T14/T15

Crossflow turbine T14/T15 is Entec AG Swiss licensed design. The model was tested in university of Stuttgart, fabricated and developed in Bandung Indonesia. It is robust, efficient and tough turbine design. Installed all over the world and has become one of the most popular cross flow turbine design.



SPECIFICATION OF CROSSFLOW TURBINE T14/T15 :

1. Runner diameter : 300 and 500 mm
2. Runner width : 50 – 2,000 mm
3. Head range : 5 – 70 m
4. Flow range : 50 – 2,500 l/s
5. Power range : 5 – 300 kW
6. Efficiency : 78 – 80%
7. Mech. Transmission : Plat belt / gearbox



PELTON TURBINE

Pelton turbine are best used for high head site (>50m) with relatively small flow. Its popular turbine type for its efficiency and simpler construction. We use improved bucket design and material with careful fabrication to ensure efficiency and performance of the turbine.

PELTON TURBINE SPECIFICATION:

1. Runner PCD : 150 – 800 mm
2. No. of Nozzle : 2 - 4 nozzle
3. Head range : 50 – 200 m
4. Flow range : 20 – 1,000 l/s
5. Power range : 5 – 500 kW
6. Efficiency : 85 – 92 %
7. Mech. Transmission : direct coupled / belt

