

Classification of turbines:-

• Based upon direction of flow water w.r.t. runner

Tangential - Pelton

Axial - Kaplan & Propeller

Radial - Francis

Mixed - Mixed Francis

• Based upon specific speed

0 - 60 Kaplan

60 - 300 Francis

300 - 1000 Kaplan / Propeller
(600 - 1000) (300 - 600)

• Based upon head and discharge

$$\underline{W_P} = \rho g Q H \quad Q = A_F V_F$$

<u>Head (H)</u>	<u>Discharge (Q)</u>	<u>Turbine</u>
High	Low	Pelton
Medium	Medium	Francis
Low	High	Kaplan & Propeller.

Note: For same discharge or power the turbine which has higher specific speed will be compact in size.