



Water Wheel Power Calculator

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Water Wheel Power Calculator

enter any 2 variables

net head distance (m)

water flow rate (L/s)

Water Wheel Power (watts)



Enter the net head distance (m) and the water flow rate (L/s) into the calculator to determine the Water Wheel Power.

- All Electrical Calculators
- WHP (Water Horsepower) Calculator

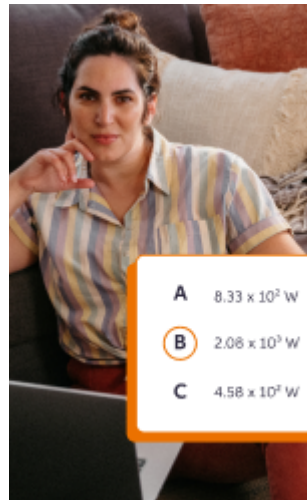


- [Hydro Power Calculator](#)
- [Hydro Energy Calculator](#)

Water Wheel Power Formula

The following formula is used to calculate the Water Wheel Power.

$$P_{ww} = H * Q * g$$



**Know it on
exam day**

- Where P_{ww} is the Water Wheel Power (watts)
- H is the net head distance (m)
- Q is the water flow rate (L/s)
- g is the acceleration due to gravity (9.81 m/s^2)

To calculate water wheel power, multiply the net head distance by the volume flow rate, then again by the the acceleration due to gravity.

How to Calculate Water Wheel Power?

The following two example problems outline how to calculate the Water Wheel Power.



Example Problem #1:

1. First, determine the net head distance (m). In this example, the net head distance (m) is measured to be 3.
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2. Next, determine the water flow rate (L/s). For this problem, the water flow rate (L/s) is calculated to be 100.
3. Finally, calculate the Water Wheel Power using the formula above:

$$P_{ww} = H * Q * g$$

Inserting the values from above and solving the equation with the imputed values gives:

$$P_{ww} = 3 * 100 * 9.81 = 2943 \text{ (watts)}$$

Example Problem #2:

Using the same process as example problem 1, we first define the variables outlined by the formula. In this case, the values are:

net head distance (m) = 5

water flow rate (L/s) = 140

Entering these values into the formula or calculator above gives us::

Water Wheel Power Calculator

net head distance (m)

100

water flow rate (m³/s)

5

Calculate

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