

Sample Pump Performance Calculation

Work the Following Example by Hand:

A pump is connected to an electric motor. The motor is supplied with 1 A of current from a 12 VDC source. The apparatus is run steadily for 30 seconds, and the following measurements are recorded:

Mass of Fluid Collected:	500 grams
Diameter of Exit Tube:	3/16 inch
Density of Water:	1000 kg/m ³
Height of fluid exit above reservoir:	30 inches

Include ALL units in calculations. It would be very helpful to convert any US Customary units to SI units before beginning the solution to avoid complexity.