

Pump Calibration Work Sheet

What is the pumping rate of a lift station with the information below?

Wet Well Diameter	- _____	*Convert inches to ft.
Drawdown Time	- _____	e.g.- 7" = .583ft
Drawdown Distance	- _____	* Convert min to sec
Refill Time	- _____	e.g. – 2 min= 120sec
Refill Distance	- _____	

	P#1 Trial 1	P#2 Trial 2	P#1 Trial 2	P#2 trial 2
DDT	_____	_____/av____	_____	_____/av____
DDD	_____	_____/av____	_____	_____/av____
RFT	_____	_____/av____	_____	_____/av____
RFD	_____	_____/av____	_____	_____/av____
	_____	_____/av____	_____	_____/av____

$$\text{Pumping Rate} = \frac{\text{Drawdown Volume} + \text{Refill Volume}}{\text{Drawdown Time} + \text{Refill Time}}$$

1. Drawdown Volume = .785 X D X D X H Cylindrical
- 1a. Drawdown Volume = L X W X H Rectangular

Formula-

Answer in ft³ _____

This will get you to Cubic Feet now convert Cubic Feet to Gallons
7.48 gallons in a cubic foot!

_____ ft³ X 7.48= _____ gallons

2. Refill Volume = $.785 \times D \times D \times H$ Cylindrical
2a. Refill Volume = $L \times W \times H$ Rectangular

Formula-

Answer in ft³ _____

This will get you to Cubic Feet now convert Cubic Feet to Gallons
7.48 gallons in a cubic foot!

$$\text{_____ ft}^3 \times 7.48 = \text{_____ gallons}$$

3. Pumping Rate = $\frac{\text{_____ gallons}}{\text{_____ seconds}} + \frac{\text{_____ gallons}}{\text{_____ seconds}}$

Divide first before adding!

$$= \text{_____ gal/sec} + \text{_____ gal/sec}$$

$$= \text{_____ total gal/sec}$$

WE now have to convert to gallons per minute to get the answer in correct units!

Pumping Rate (Gallons per Minute)

$$= \frac{\text{_____ gallons} \times 60 \text{ seconds}}{\text{Seconds} \quad 1 \text{ min}}$$

Answer = _____ Gal/min pumping rate

Answer = _____ Gal/hr (gpm ans _____ X 60 min)