



Pump and Filter Worksheet

How to determine Head Height and "GPH" (Gallons Per Hour).

STEP 1: DETERMINE HEAD HEIGHT

- A. Fountain** – Distance in feet from pond surface to top of fountain head. A. Fountain _____ ft.
B. Waterfall – Distance in feet from pond surface to top of waterfall. B. Waterfall _____ ft.
C. Hosing – Add 1 foot of head height for every 10 feet of hosing. C. Hosing _____ ft.
Total (A+B+C) Head Height _____ **ft.**

STEP 2: DETERMINE FLOW RATE (GPH)

A. Calculate Pond Volume

- **Square or rectangular** - Length (ft.) x width (ft.) x Average depth (ft.) x 7.5 = _____ Gal.
 - **Round** - 0.785 x top diameter (ft.) x bottom diameter (ft.) x depth (ft.) x 7.5 = _____ Gal.

÷ 2
- Pond water should circulate every 2 hours**
 Divide pond volume (gallons) above by 2 = _____ + _____ **GPH**

B. Width of Waterfall at top of Waterfall

- 75 to 100 GPH (gallons per hour) required per inch of width of waterfall = _____ **GPH**
Total = _____ **GPH**

STEP 3: SELECT YOUR PUMP

To select your pump, find the first column that shows your desired head height. Move horizontally across chart until the flow rate is equal or greater to the GPH your pond needs. This is the minimum size pump needed.



HEAD HEIGHT (FT.)	FLOW RATE (GPH)											14'	14'		
		0'	100	200	400	600	900	1300	1500	2000	2142	2400	2900	2905	4200
13'	290												793		760
12'	449												1141		1141
11'	607												1347	850	1395
10'	700												1585	1200	1711
9'	845												1744	1400	1902
8'	105												1854	1600	2092
7'	317												1981	1800	2345
6'	92												2140	2000	2662
5'	63												2251	2200	2853
4'	21												2409	2400	3106
3'	82												2504	2500	3296
2'	48												2631	2600	3550
1'	79												2747	2700	3740
0'	100												2800	2800	3930
POWERJET		100	200	400	600	900	1300	1500	2000	2142	2400	2900	2905	4200	
MAX-FLO		-	-	-	600	900	-	1500	2000	-	2400	2900	-	4200	

STEP 4: SELECT YOUR FILTER and optional UV Sterilizer

	POWERJET	100	200	400	600	900	1300	1500	2000	2400	2900
POWERFALLS Filter Spillway up to 1000 gallon pond <small>PT-490</small>	POWER CLEAR MAX 1000 – 8W										
POWER FLO External Biological Filter up to 1500 gallon pond <small>PT-510</small>	POWER CLEAR MAX 2000 25W										
PRESSURE-FLO 700 UV Filter with 11W – UV sterilizer included up to 700 gallon pond <small>PT-1500</small>											
PRESSURE-FLO 1400 UV Filter with 11W – UV sterilizer included up to 1400 gallon pond <small>PT-1502</small>											
PRESSURE-FLO 2100 UV Filter with 20W – UV sterilizer included up to 2100 gallon pond <small>PT-1504</small>											
PRESSURE-FLO 3200 UV Filter with 25W – UV sterilizer included up to 3200 gallon pond <small>PT-1506</small>											
POWER FLO 5000 Filter Falls up to 5000 gallon pond <small>PT-1770</small>	OR	POWER FLO 5000 Skimmer Filter up to 5000 gallon pond <small>PT-1774</small>									