



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'												
												793	760												
												13'	13'												
												1141	1141												
13'	290											12'	1347	14'	850	12'	1395								
12'	449	12'	105	14'	650	12'	132	12'	1347	14'	850	12'	1395												
11'	607	11'	528	12'	990	11'	660	11'	1585	12'	1200	11'	1711												
10'	700	10'	766	10'	1294	10'	924	10'	1744	10'	1400	10'	1902												
9'	845	9'	924	9'	1370	9'	1135	9'	1854	9'	1600	9'	2092												
8'	105	8'	951	8'	1083	8'	1452	8'	1320	8'	1981	8'	1800	8'	2345										
7'	317	7'	1056	7'	1268	7'	1585	7'	1479	7'	2140	7'	2000	7'	2662										
6'	92	6'	488	6'	1162	6'	1373	6'	1664	6'	1664	6'	2251	6'	2853										
5'	63	5'	137	5'	280	5'	660	5'	1215	5'	1479	5'	1796	5'	2409	5'	2400	5'	3106						
4'	21	4'	151	4'	254	4'	422	4'	792	4'	1320	4'	1585	4'	1849	4'	1954	4'	2504	4'	2500	4'	3296		
3'	82	3'	222	3'	351	3'	565	3'	951	3'	1386	3'	1690	3'	1952	3'	2060	3'	2631	3'	2600	3'	3550		
2'	48	2'	132	2'	280	2'	433	2'	686	2'	1083	2'	1479	2'	1796	2'	2024	2'	2193	2'	2747	2'	2700	2'	3740
1'	79	1'	177	1'	335	1'	515	1'	803	1'	1207	1'	1532	1'	1876	1'	2084	1'	2298	1'	2800	1'	2800	1'	3930
0'	100	0'	200	0'	400	0'	600	0'	900	0'	1300	0'	1500	0'	2000	0'	2142	0'	2400	0'	2900	0'	2905	0'	4200
POWERJET	100	200	400	600	900	1300	1500	2000	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
	MAX-FLO	-	-	-	600	900	-	1500	2000	2400	2900/4200
POWERFALLS Filter Spillway up to 1000 gallon pond POWER CLEAR MAX 1000 – 8W											
POWER FLO External Biological Filter up to 1500 gallon pond POWER CLEAR MAX 2000 25W											
PRESSURE-FLO 700 UV Filter with 11W – UV sterilizer included up to 700 gallon pond											
PRESSURE-FLO 1400 UV Filter with 11W – UV sterilizer included up to 1400 gallon pond											
PRESSURE-FLO 2100 UV Filter with 20W – UV sterilizer included up to 2100 gallon pond											
PRESSURE-FLO 3200 UV Filter with 25W – UV sterilizer included up to 3200 gallon pond											
POWER FLO 5000 Filter Falls up to 5000 gallon pond OR POWER FLO 5000 Skimmer Filter up to 5000 gallon pond POWER CLEAR MAX 5000 55 watt – UV Sterilizer											