

Choose the right pond pump

① Calculate the required flow

As a rough guide you will need a flow of about 110 gallons per hour for a 40" high tiered fountain plus about 220 gallons per hour to give a reasonable waterfall for every 4" of waterfall width. If using a **FISH MATE** filter, the required flow through the filter should be approximately 50% of your pond volume every hour (subject to the maximum flow rating of the filter). Once you have calculated the flow as above we recommend you multiply this as follows to compensate for losses.

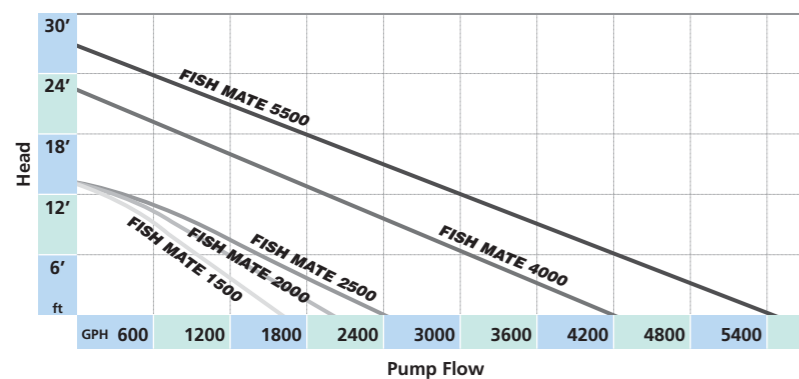
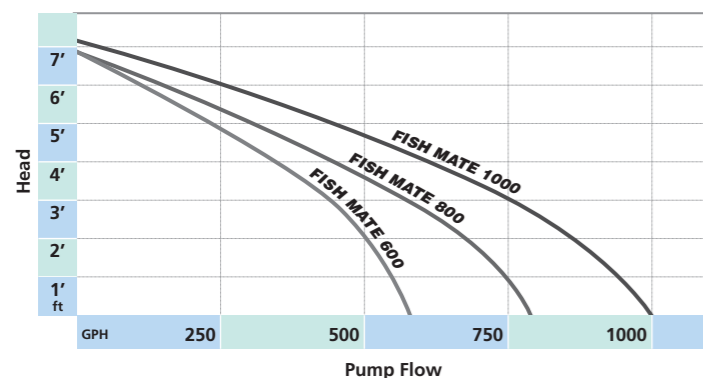
- Hose runs under 20' : x 1.25
- Hose runs over 20' : x 1.5
- Filter losses : x 1.5 (average)

② Calculate the required "head"

As a reasonable approximation to calculate the required head (pressure), measure the height of the highest outlet above the pond surface.

③ Consult the Pump Selection Charts






Find the point on the charts below, where your figures for flow and head meet. To achieve the flow at that head you will need a pump whose line is above this point.



Example:

You require a 10" wide waterfall and a small fountain. The waterfall starts 40" above the pond surface.

- 110 GPH for fountain + (2.5 x 220) GPH for waterfall = 660 GPH. Multiply by 1.25 to allow for pipe losses etc. gives 825 GPH required flow.
- Required "head" = 40"
- First consult the top flow chart, (Head 40", Flow 825 GPH). From the chart the **FISH MATE 1000** pump would not quite have sufficient power and therefore we must consult the flow chart below from which it is clear that the **FISH MATE 1500** would be the preferred choice.

FISH MATE® POND PUMPS		600	800	1000	1500	2000	2500	4000	5500
Ref.		247US	248US	249US	277US	278US	279US	326US	327US
Performance	Max. flow rate	580 GPH	790 GPH	1000 GPH	1600 GPH	2000 GPH	2400 GPH	4200 GPH	5350 GPH
	Max. Head	6' 9"	6' 9"	7' 2"	15' 0"	15' 0"	15' 4"	23' 3"	28' 10"
	Power Consumption	40 Watts	42 Watts	44 Watts	90 Watts	95 Watts	100 Watts	295 Watts	445 Watts
Accessories	Outlet Size	1/2", 3/4", 1", 1 1/4"	1/2", 3/4", 1", 1 1/4"	1/2", 3/4", 1", 1 1/4"	3/4", 1", 1 1/4"	3/4", 1", 1 1/4"	3/4", 1", 1 1/4"	3/4", 1", 1 1/4", 1 1/2"	3/4", 1", 1 1/4", 1 1/2"
	Fountain Set (No. of options)	4	4	4	4	4	4	3	3
	Aerated Plume Fountain max. Diameter x Height	-	-	-	-	-	-	3' 0" x 7' 0"	3' 0" x 7' 0"
	Bell Fountain max. Diameter	2' 0"	2' 0"	2' 0"	2' 8"	2' 8"	2' 8"	-	-
	Column Fountain max. Diameter x Height	2' 0" x 4' 7"	2' 0" x 4' 7"	2' 0" x 4' 7"	2' 8" x 6' 3"	2' 8" x 6' 3"	2' 8" x 6' 3"	-	-
	Plume Fountain max. Diameter x Height	0' 8" x 2' 4"	0' 8" x 2' 4"	0' 8" x 2' 4"	1' 4" x 4' 3"	1' 4" x 4' 3"	1' 4" x 4' 3"	3' 0" x 5' 0"	3' 0" x 5' 0"
	Tiered Fountain max. Diameter x Height	2' 4" x 4' 11"	2' 4" x 4' 11"	2' 4" x 4' 11"	3' 3" x 6' 7"	3' 3" x 6' 7"	3' 3" x 6' 7"	6' 0" x 13' 0"	6' 0" x 13' 0"
	2 Way Outlet with Flow Adjuster	✓	✓	✓	✓	✓	✓	✓	✓
	Vertical & Horizontal Outlet	✓	✓	✓	✓	✓	✓	✓	✓
Motor and Shaft/Bearings	Power Cable Length	24'	24'	24'	24'	24'	24'	33'	33'
	Ceramic Bearings	✓	✓	✓	✓	✓	✓	✓	✓
Solids-Handling	Pond-life Friendly Strainer Filter	✓	✓	✓	✓	✓	✓	-	-
	Optional Fountain Filter Foam	✓	✓	✓	✓	✓	✓	-	-
	Anti-clog Open Impeller	✓	✓	✓	✓	✓	✓	✓	✓
	Solids-Handling	3/16"	3/16"	3/16"	1/4"	1/4"	1/4"	1/2"	1/2"
Dimensions	Length x Width x Height	7 3/4" x 5 3/4" x 4"	7 3/4" x 5 3/4" x 4"	7 3/4" x 5 3/4" x 4"	9 3/4" x 6 3/4" x 5 1/4"	9 3/4" x 6 3/4" x 5 1/4"	9 3/4" x 6 3/4" x 5 1/4"	16 3/4" x 7 1/2" x 7 3/4"	16 3/4" x 7 1/2" x 7 3/4"
Safety	Fully Encapsulated Electrical Parts	✓	✓	✓	✓	✓	✓	✓	✓
	Thermal Cutout	✓	✓	✓	✓	✓	✓	✓	✓
Guarantee		3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years