Swimming pond pump selection brief

A discussion brief, not an engineering specification or installation approval. Unknown inputs stay unknown; do not substitute a product maximum. Print and fill by hand. This paper PDF has no interactive fields or data submission.

1. The system the pump must serve

Complete one brief for one proposed pump and operating condition. Ask the designer to supply the required duty, then ask the supplier to document how the exact regional model meets it. Keep separate copies for alternatives or different operating modes.

Project and responsibility

Project / location / country

Prepared by / date / revision

Designer responsible for treatment and hydraulic duty

Intended use: private / rental / public / other - describe

Designer-supplied duty

Record flow and total head together, with the calculation reference. Leave unknowns open for the designer; this sheet does not size a pump. State whether any gallons are US or Imperial. Maximum flow and maximum head on a product page are not one operating point.

Circuit purpose and treatment components served

Operating mode and other branches running at the same time

Required design flow - value and units

Total head at that flow - value and units

Permitted flow range and location where flow must be checked

Hydraulic calculation / designer / date; clean or loaded filter condition

Layout used for that calculation

Attach a measured layout showing water levels, pipe internal diameters and lengths, fittings, valves, treatment components and the proposed pump position. Ask the designer which losses are included; pond depth alone is not the total head.

Drawing / calculation reference and revision

Layout changes still awaiting assessment

Sketch or attachment reference: route, levels and service access

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Keep this part with the rest of the brief, drawings, curve and supporting documents.

2. The exact pump and installation

Use the manual and curve for the offered model, regional electrical version and control setting. A similar model name, "pond safe" description or low-voltage label does not answer all of these questions.

Identity and permitted application

Manufacturer / complete model / regional product code

Supplier quote reference / date / exact bundle contents

Site mains supply and offered primary supply rating: V / Hz / phase

Pump-side supply: V / AC or DC; power-supply model if separate

Explicit swimming-pond use: manual title / revision / page or written manufacturer confirmation

Conditions or exclusions for this intended use; unresolved differences between documents

Installation, controls and curve

Attach the marked curve and applicable manual pages. "External installation" does not mean a pump may run without water. Have the installer resolve supply placement, protective arrangements and intake design for this project; this sheet gives no wiring or installation recipe.

Proposed position: submerged or external; water-level relationship and manual reference

Controller model / included or separate / selected speed or operating mode

Exact flow-head curve reference / date / regional model / speed

Supplier-marked duty point: flow + head + setting; acceptable operating range

Professional responsible for electrical arrangement and intake protection

Access for inspection, removal and cleaning; local service / spares source

Before accepting the offer

Missing components, contradictory specifications or conditions still needing written confirmation

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Keep this part with the rest of the brief, drawings, curve and supporting documents.

3. Electricity, handover and open questions

Compare alternatives at equivalent treatment duty and an agreed operating schedule. Keep forecast figures separate from commissioning readings. Repeat this part for each distinct load or operating period, avoiding double counting.

What does the watt figure measure?

Electricity calculations need electrical input at the supply. Motor shaft output is a different quantity; a nameplate maximum or power-supply capacity is not automatically consumption at the selected duty. Identify what the figure includes, including power supply and controls.

Nameplate / published power figure and its meaning: input, output, maximum or other

Electrical input at the stated duty - W; source / date; forecast or measured

Measurement or estimate boundary: pump, power supply, controls; any loads excluded

Operating-period estimate

For constant input during a period: kWh = electrical input W ÷ 1,000 × operating hours. Energy charge = kWh × tariff per kWh. Calculate different settings or periods separately and add them. This is the energy charge only; record any other charges separately. Keep the treatment schedule agreed by the designer.

Period / mode; hours per day × number of days = total operating hours

Tariff per kWh / currency / tax basis / price date

Calculated kWh and energy charge for this period

Extra loads or charges / unknown inputs / calculation reference

Commissioning record - complete after installation

Keep the readings with the installed layout, settings, manuals, cleaning instructions and fault contact. Ask the responsible designer to review any difference from the agreed duty.

Date / person / measured flow / location / units / control setting

Measured electrical input W / measurement boundary / operating conditions

Open questions and supporting documents

Questions the supplier or designer still needs to answer

Question / responsible person / written answer reference / due date

Question / responsible person / written answer reference / due date

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Background: Grundfos on electrical input and shaft output. The accompanying pump guide explains the hydraulic and application checks.

Pump selection guide

Filtration guide

Running-cost calculator

Pump equipment checklist

Editable Markdown alternative