

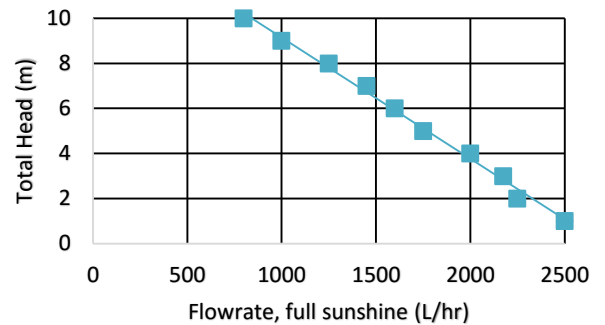
ROBUST & PORTABLE SOLAR IRRIGATION

Around the world, 500 million smallholder farmers rely on unpredictable rainfall for their crops; limiting farming potential.

To help alleviate this problem we have developed a low-cost solar-powered irrigation pump to meet their needs. It's called the SF1 solar pump.



Designed for shallow and surface water pumping the SF1 is ideal for retrieving lake and river water.



HOW IT WORKS

The SF1 has three main parts: **the PV panel**, an 80W solar panel to convert sunlight into electrical energy; **the motor**, a specially designed DC motor to use the electrical energy to turn the flywheel; and **the pump**, a reciprocal piston pump to draw water out of a well, river or lake.

BENEFITS

- No fuel or electricity costs
- Designed with durability & maintenance in mind
- Lifts 2,500 litres/hr at 1m, 1,600 litres/hour at 6m
- Pumps enough to irrigate around ½ an acre
- Farmer-fixable (similar complexity to a bicycle)
- Can lift water over 10m
- Removable PV panel reduces theft risk

TECHNICAL PERFORMANCE

The SF1 can lift over 12,000 litres of water a day, with best performance at low pumping heads, and slower flow rates with increasing head, as illustrated below. A manual switch allows for pumping early in the morning and late in the day.

The pump is efficient at both sucking and discharging across the head range; therefore, performance is not compromised by the position of the pump along the length of pipe.

The SF1 is intended for farm-wide irrigation and is able to pump over 100m with minimal loss of flow. This makes it ideally suited to pumping into elevated storage tanks or directly into drip irrigation systems.



MORE INFORMATION



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