

Small Solar Pumping System (Surface Pumps)

Nano

- DC motor - 18-24V, 2.3A
- Positive displacement Pump
- 100 / 160 Wp Solar PV module
- Total max head – 40 m
- Max. discharge – 750 LPH
- Pressure control switch
- Motor model EB2420

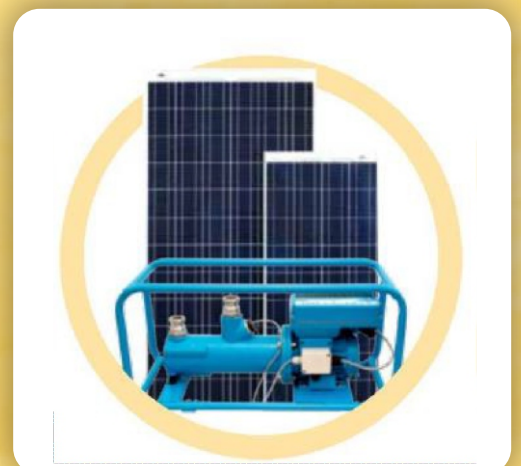


Performance

| Head in mtr | Discharge in litre per day at 7.15kWh/m ² /day solar radiation | |
|-------------|---|--------------|
| | 100 Wp model | 160 Wp model |
| 10 | 3,811 | 4,605 |
| 20 | 2,601 | 3,781 |
| 30 | 1,468 | 3,054 |
| 40 | 790 | 2,422 |

Sunlight

- BLDC motor – 15-52 VDC
- Positive displacement Pump
- 200-530 Wp Solar PV modules
- Total max head – 40 m
- Max. discharge – 3800 LPH
- Integrated pump controller – MPPT, protections against Overload, well dry, tank full, over temperature etc
- Simple & comprehensive human interface – Manual & Bluetooth



Performance

| Head in mtr | Discharge in litre per day at 7.15kWh/m ² /day 6M Suction | | | | |
|-------------|--|--------|--------|------------|------------|
| | 200Wp | 265Wp | 325Wp | 400Wp | 530Wp |
| | 100Wpx2Nos | | | 100Wpx4Nos | 265Wpx2Nos |
| 10 | 17670 | 16,647 | 18,736 | 24,804 | 22,970 |
| 20 | 11327 | 8,315 | 11,300 | 20,401 | 16,803 |
| 30 | 7668 | 2,434 | 5501 | 16,610 | 9,052 |
| 40 | | | | 13,268 | 4,184 |



Instruction for use

- The solar panels are to be installed in shadow free area
- Regular cleaning of the panel is required
- The pump works directly on solar panel throughout the day. If the pump is to be operated during night time, then power pack can be used. You will need to purchase this power pack separately.

Suction Pipe & Delivery Pipe Provided for both the above Pumps

| | | |
|---|----------------------|----------|
| 1 | Suction Pipe Length | 6 Meter |
| 2 | Delivery Pipe Length | 20 Meter |

SE1 Solar irrigation Pump System

The SE1 is a robust surface pump designed for small holder farmers with shallow water sources. It can pump up to 0.45 liters per second of water using just the power of the sun.

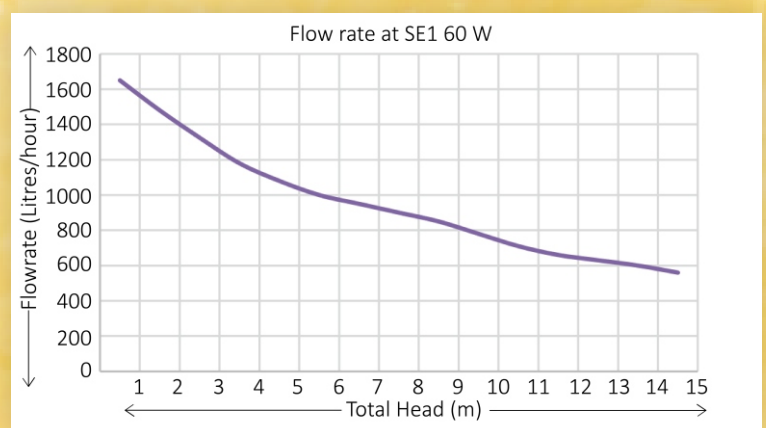
Benefits

- Robust, and farmer-fixable (as simple as bicycle)
- Pumps enough for a farm of up to an acre
- Ideal with tanks, sprinklers, hoses or drip systems
- Removable PV panel reduces theft risk
- Supplied with 1 X 60 Wp panel
- Solar panel tilting system for best performances
- No damage caused by dry pumping
- Tolerant of grit, sand, mud, and debris



Performance

At shallow heads (1m)
SE1 can deliver upto 0.45 litres per second which is 1640 litres per hour or over 9800 litres per 6-hour pumping day



- Inlet side vertical suction limit: 7 metres
- Maximum total vertical lift: 15 metres
- Horizontal discharge: 500m
- Peak system efficiency: 60%

| Head in mtr | 9 | 10 | 11 | 12 | 13 | 14 |
|----------------------------|-----|-----|-----|-----|-----|-----|
| Discharge in litre per day | 800 | 780 | 700 | 640 | 610 | 590 |

Weight & Dimmension

- Pump weight: 15.5 kg
- Pump dimensions (mm) (LxWxH): 330 X 240 X 470
- Carton weight Pump: 19 Kg PV: 7.7 kg
- Carton size pump (mm) (LXWXH): 670 X 665 X 50
- Supplied with 8 m of flexible inlet/suction pipe:
- Internal diameter of 1" (25mm)

Electrical/ Mechanical

- Maximum pump rated voltage : 36V DC
- Maximum pump current: 2.5 amps DC
- Piston diameter: 61 mm
- Inlet/outlets designed for 1" (25 mm) hosepipe
- Displacement volume per stroke 55 cm³
- Normal flywheel RPM range: 100-600 rpm

Spare Parts & Tools

- 4 X spare flywheel belts
- 4 X PU yoke pads
- 5 X bellows
- 2 X spare piston seals
- 4 X adjustable hose clips
- 2 X 1 inch pipe couplers
- 1 X inlet filter/strainer
- 1 X complete set of spare
- O-ring seals
- Toolkit: Three sizes of spanner, double ended screwdriver, allen key



SF2 solar irrigation pump system

The SF2 is a robust surface pump designed for smallholder farmers with shallow water sources, it can pump up to 1 litre per second of water using just the power of the sun.

Benefits

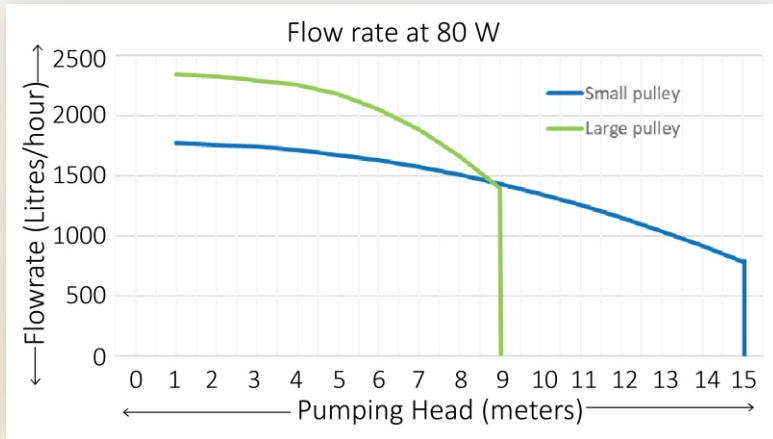
- No fuel or electricity costs
- Robust, and farmer-fixable (as simple as a bicycle)
- Pumps enough to irrigate up to two acres
- Ideal with tanks, sprinklers, hoses or drip systems
- Removable, folding PV panels reduces theft risk
- Supplied with 80W panel, upgradeable to 120W
- Solar panel tilting system for best performance
- No damage caused by dry pumping
- Tolerant of grit, sand, mud and debris
- 5V USB charging socket for mobile phones & small electrical items



SF2 80W

Performance

At shallow heads, the Futurepump SF2 can deliver up to 1 litre per second, which is 2,200 litres/hr.



| Head in mtr | Discharge in Litre per day | |
|-------------|----------------------------|--------------|
| | Small Pulley | Large Pulley |
| 5 | 1650 | 2150 |
| 6 | 1600 | 2000 |
| 7 | 1450 | 1850 |
| 8 | 1500 | 1600 |
| 9 | 1400 | 1400 |
| 10 | 1350 | |
| 11 | 1250 | |
| 12 | 1150 | |
| 13 | 1050 | |
| 14 | 950 | |
| 15 | 800 | |

- Inlet side vertical suction limit: 7 metres
- Maximum total vertical lift: 15 metres
- Horizontal discharge: 500m+
- Peak system efficiency: 70%

Electrical/ Mechanical

- Maximum pump voltage: 60V DC
- Maximum motor current: 5 amps DC
- Piston diameter: 104mm
- Inlet/outlets designed for 1 1/4 (32mm) pipe
- Displacement volume per stroke: 150cm³
- Normal flywheel RPM range: 100-250 rpm
- 90mm pulley gear for 0–8m pumping heads
- 50mm pulley gear for >8m pumping heads

Weight & Dimmension

- Pump weight: 19.5kg
- Pump dimensions: 520mm x 530mm x 200mm
- Inlet side vertical suction limit: 7 metres
- Maximum total vertical lift: 15 metres
- Horizontal discharge: 500m+
- Peak system efficiency: 70%

Spare Parts & Tools

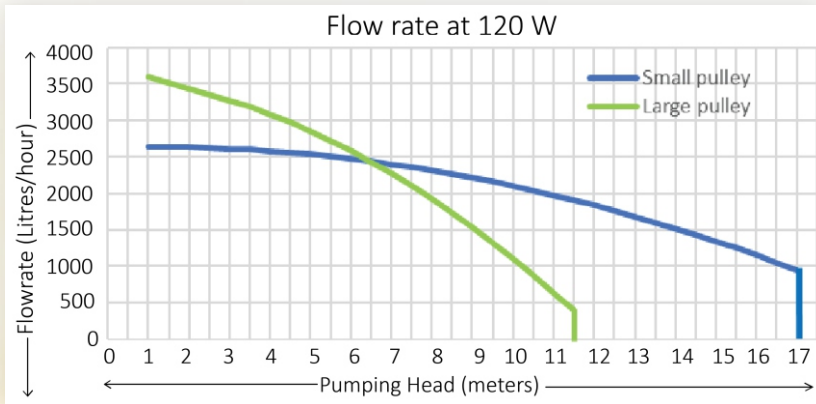
- 3 x spare flywheel belts
 - 3 x spare piston seals
 - 4 x adjustable hose clips
 - 2 x 1 1/4 inch pipe couplers
 - 2 x 1 1/4" -> 1 1/2 inch reducers
 - 1 x inlet filter/strainer
 - 1 x pack stuffing box graphite packing rope
 - 1 x complete set of spare O-ring seals
 - Toolkit: 3 sizes of spanner, double ended screwdriver.
- Complete disassembly & reassembly possible wit these tools



SF2 120W

Performance

At shallow heads, the Futurepump SF2 can deliver up to 1 litre per second, which is 2,200 litres/hr.



| Head in mtr | Discharge in Litre per day | |
|-------------|----------------------------|--------------|
| | Small Pulley | Large Pulley |
| 5 | 2500 | 2850 |
| 6 | 2450 | 2600 |
| 7 | 2350 | 2300 |
| 8 | 2300 | 1500 |
| 9 | 2200 | 1050 |
| 10 | 2100 | |
| 11 | 2000 | |
| 12 | 1850 | |
| 13 | 1700 | |
| 14 | 1500 | |
| 15 | 1350 | |

- Inlet side vertical suction limit: 7 metres
- Maximum total vertical lift: 15 metres
- Horizontal discharge: 500m
- Peak system efficiency: 70%

Electrical/ Mechanical

- Maximum pump voltage: 60V DC
- Maximum motor current: 5 amps DC
- Piston diameter: 104mm
- Inlet/outlets designed for 1 1/4 (32mm) pipe
- Displacement volume per stroke: 150cm³
- Normal flywheel RPM range: 100-250 rpm
- 90mm pulley gear for 0-8m pumping heads
- 50mm pulley gear for >8m pumping heads

Weight & Dimmension

- Pump weight: 19.5kg
- Pump dimensions: 520mm x 530mm x 200mm
- Pump carton weight and dimensions (incl. spares ansuction pipe): 25.1kg; 560mm x 260mm x 560mm
- PV panels carton weight and dimensions: 15.8kg; 700mm x 110mm x 680mm
- Supplied with flexible inlet/suction pipe:
- Internal diameter of 31.8mm,
- External diameter 38.8mm 6000mm length

Spare Parts & Tools

- 3 x spare flywheel belts
- 3 x spare piston seals
- 4 x adjustable hose clips
- 2 x 1 1/4 inch pipe couplers
- 2 x 1 1/4" ->1 1/2 inch reducers
- 1 x inlet filter/strainer
- 1 x pack stuffing box graphite packing rope
- 1 x complete set of spare O-ring seals
- Toolkit: Three sizes of spanner, double ended screwdriver. Complete disassembly and reassembly possible with these tools.



SF2H solar irrigation pump system

SF2H 120W

The SF2H is a robust surface pump designed for smallholder farmers with shallow water sources and high heads, it can pump up to 0.4 litre per second of water at a 15m lift using just the power of the sun.

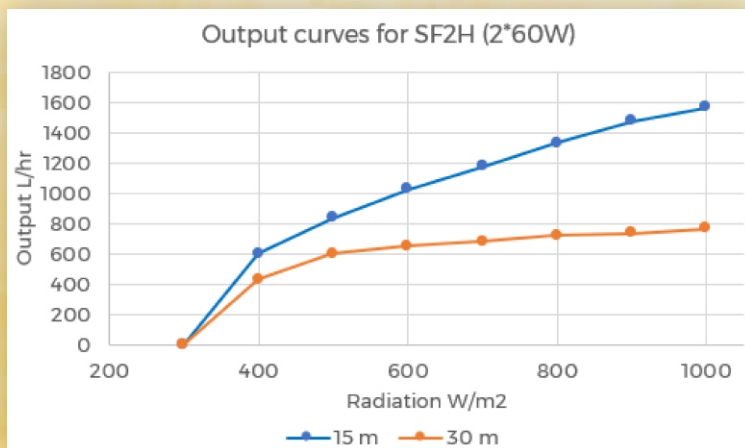
Benefits

- No fuel or electricity costs
- Robust, and farmer-fixable (as simple as a bicycle)
- Pumps enough to irrigate up to one acre
- Ideal with tanks, sprinklers, hoses or drip systems
- Removable, folding PV panels reduces theft risk
- Supplied with 2 x 60 Wp panels
- Solar panel tilting system for best performance
- No damage caused by dry pumping
- Tolerant of grit, sand, mud and debris
- 5V USB charging socket for mobile phones & small electrical items



Performance

At a 15m head, the Futurepump SF2H can deliver up to 0.4 litre per second, which is 1,500 litres per hour or over 9,000 litres per 6-hour pumping day.



- Inlet side vertical suction limit: 7 metres
- Maximum total vertical lift: 15 metres
- Horizontal discharge: 500m+
- Peak system efficiency: 70%

Electrical/ Mechanical

- Maximum pump voltage: 60V DC
- Maximum motor current: 5 amps DC
- Piston diameter: 61mm
- Inlet/outlets designed for 1^{1/4}(32mm) pipe
- Displacement volume per stroke: 55 cm³
- Normal flywheel RPM range: 100-500 rpm
90mm pulley gear for 15-30m pumping heads
50mm pulley gear for >30m pumping heads

Weight & Dimension

- Pump weight: 20kg
- Pump dimensions: 520mm x 530mm x 200mm
- Carton weight (incl. 120W PV & suction pipe): 38kg approx.; Carton dimensions: 560mm x 380mm x 740mm
- Supplied with flexible inlet/suction pipe: Internal diameter of 31.8 mm, external diameter 38.8mm. 8000mm length

Spare Parts & Tools

- 3 x spare flywheel belts
- 3 x spare piston seals
- 4 x adjustable hose clips
- 2 x 1^{1/4} inch pipe couplers
- 2 x 1^{1/4}" -> 1^{1/2}" inch reducers
- 1 x inlet filter/strainer
- 1 x complete set of spare o-ring seals
- 1 x manual pumping handle
- 4 x PU yoke pads
- 5 x bellow
- Toolkit: Three sizes of spanner, double ended screwdriver, allen key (5mm)

DC Submersible Pumping System

Technical Data

| | | |
|----------------------------|-------------|-------------|
| Type of Pump | Submersible | Submersible |
| Source of water | Borewell | Borewell |
| Assumed Total Head (Meter) | 73.00 | 73.00 |
| Wattage (Wp) | 1,320 | 1,980 |
| Average Discharge (LPD) | 16,758 | 24,882 |

Considerations

| | |
|---------------------------|-------------------|
| Perticular | For both the sets |
| 1. Pump Riser Pipe Length | 50 meter |
| 2. Pump Cable Length | 65 meter |

