

# Solar irrigation pumps developed by PRACTICA

**PRACTICA Foundation** has contributed to the development of a range of solar irrigation pumps that are manufactured and distributed by our private partners. Each pump has been optimised for specific water depths and plots sizes and has been designed to last long and be repairable by local technicians.

## Futurepump SF2 [www.futurepump.com](http://www.futurepump.com)

- ✓ For smallholders with plots up to 0.25 hectare
- ✓ For water depths up to 7 meter
- ✓ € 550-650 including panels
- ✓ 600 pumps produced per month
- ✓ Remote monitoring and 5 years warranty



## Mini Volanta pump

- ✓ For smallholders with plots up to 0.2 hectare
- ✓ For water depths up to 20 meter
- ✓ € 600-800 including panels
- ✓ Upgrade from handpump to solar possible

## Volanta high flow

- ✓ For irrigation from depths up to 40 meter
- ✓ For smallholders with plots up to 1 hectare
- ✓ € 2500-4000



	<b>Futurepump SF2</b>	<b>Mini Volanta pump</b>	<b>Volanta high flow</b>
<b>Discharge and total head</b>	80W: 2,2 m <sup>3</sup> /h at 1m and 2 m <sup>3</sup> /h at 6m 120W: 3,6 m <sup>3</sup> /h at 1m and 2,5 m <sup>3</sup> /h at 6m	1,5 m <sup>3</sup> /hr at 10 m, suff. for 0.22 ha 1.0 m <sup>3</sup> /hr at 20 m, suff. for 0.14 ha	7 m <sup>3</sup> /hr at 5-20 m, suff. for 1.0 ha 3.5 m <sup>3</sup> /hr at 20-40 m, suff. for 0.5 ha
<b>Irrigated area</b>	0.25 – 0.5 ha	0.14 – 0.22 ha	0.5 – 1 ha
<b>Max. suction lift, water depth</b>	7 m	20 m	40 m
<b>Maximum total lift</b>	15 m	20m	40 m
<b>Working principle</b>	Piston pump, suction type.	Piston pump. submerged cylinder.	Piston pump, submerged cylinder.
<b>Selling price</b>	€ 550-650 including panels	€ 600-800 including 2 panels of 80 Wp.	€2500-4000 depending on number of solar panels and depth of the water.
<b>Portability</b>	19.5 kg	Limited to the motor and panels, the rest is fixed in place.	not, fixed installation
<b>State of development</b>	Fabrication by Futurepump Ltd in India at a rate of 600 pumps/month.	Fabrication by Futurepump India and CSF in Burkina Faso. 25 pumps are currently being piloted in Burkina and 1 in Senegal.	Fabrication by CSF in Burkina Faso. 5 pumps are currently being piloted.
<b>Solar panel</b>	80 or 120 W panels	1 set of 2 100W or 2 150W solar panels, depending on requirement.	2-6 panels of 240 Wp
<b>Additional features</b>	ISO 9001:2015-certified 5 years warranty Remote monitoring Pay-AS-You-Go software integration	1) Without solar panels and motor, it is an efficient handpump. The selling price of the hand pump only version is estimated at \$100-150, where it can compete with Rope and Washer pumps. A farmer can start with the handpump and upgrade to solar later. 2) The hand pump option makes it a hybrid pump and allows manual pumping outside the sun hours. 3. The pump parts will be fabricated by Futurepump India as well as in Burkina Faso.	This is for 90% the standard Volanta solar pump but the higher output comes from the larger diameter pump cylinder and the increased pumping speed up to 150rpm.