

# BORE PUMPS

Prices include GST - Oct 2009

## High Head Bore Water Pumping

### SHURflo Submersible Bore Pump

D-BOR-9325

Ideal for irrigation, livestock watering, ponds, islands, remote homes and cabins.

- Affordable
- reliable
- low volume
- high head
- 12 months warranty
- fully serviceable
- solid viton diaphragm
- suitable for potable water
- remote locations
- handles toughest of water needs



**\$1364.00**

Head (TDH)		Flow Rate		Min Array Size	Current Amps
meters	feet	L/hr	Gal/hr		
6m	20'	420	111	58W	1.7A
12m	40'	413	109	65W	2.0A
19m	60'	398	105	78W	2.3A
25m	80'	390	103	89W	2.6A
31m	100'	379	100	99W	2.9A
37m	120'	360	95	104W	3.2A
43m	140'	352	93	115W	3.5A
49m	160'	337	89	123W	3.8A
55m	180'	329	87	135W	4.0A
61m	200'	318	84	141W	4.3A
70m	230'	300	79	155W	4.6A

### Sun Pump Submersible Bore Pump

D-BOR-Q130

For water supply to remote homes, campsites, livestock or farms, this durable pump will deliver extraordinary water flow rates.

- Easy to install
- requires little maintenance
- fully serviceable
- 12V to 30 V DC range
- ideal for filling tanks
- high efficiency at low voltage
- ideal for maintaining pressure systems
- bronze & marine grade stainless steel
- positive displacement diaphragm
- 12 month warranty



**\$2970.00**

Head (TDH)		Flow Rate		PSI	Min Array Size	Current Amps
meters	feet	L/hr	Gal/hr			
0m	0'	16.7	4.4	0	59.W	1.58A
4m	12'	16.3	4.3	5	74W	1.96A
7m	23'	15.9	4.2	10	87W	2.32A
11m	35'	115.5	4.1	15	101W	2.70A
14m	46'	15.1	4.0	20	114W	3.05A
18m	58'	14.8	3.9	25	127W	3.39A
21m	69'	14.4	3.8	30	141W	3.75A
25m	81'	14.0	3.7	35	154W	4.11A
28m	92'	13.6	3.6	40	169W	4.50A
32m	104'	13.2	3.5	45	182W	4.85A

# AQUA Pack - SHURflo Submersible Bore Pump Kit

## The Complete Package System

includes:

- SHURflo 9325 Bore Pump Unit
- Electric Pump Enhancer
- 6" Bore Cap
- 175W 24V Solar Panel with pole frame for remote mounting

**\$3610.20**  
1 x 175W

Drop Kit: Extra \$409.20 (Comes with 33m Bore Cable & Stainless Steel Drop Cable)

TOTAL DYNAMIC HEAD (TDH) Distance from pump to tank		AQUA PACK Daily Volume*	
10 Meters	33 Feet	2810 Litres	624 Gallons
20 Meters	66 Feet	2600 Litres	578 Gallons
30 Meters	100 Feet	2450 Litres	544 Gallons
40 Meters	132 Feet	2200 Litres	489 Gallons
50 Meters	164 Feet	2080 Litres	462 Gallons
60 Meters	200 Feet	1750 Litres	389 Gallons
70 Meters	230 Feet	1332 Litres	296 Gallons

\*Based on an average of 6 peak sun hours

## 9300 Series - SUBMERSIBLE DC PUMP



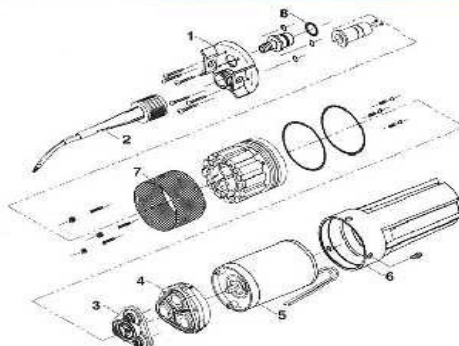
### Features

- ▶ Long life 24 VDC operation
- ▶ For 4" wells or larger
- ▶ Quick disconnect with "Watertite Gland" Patent design
- ▶ Corrosion-proof housing with stainless steel fasteners
- ▶ Runs dry without damage
- ▶ 50 mesh stainless steel screen
- ▶ State of the art solid diaphragm

The solution to your remote water pumping needs. This pump is rugged, durable and built to last. The 9300 delivers a steady 112 GPH [422 LPH] at its maximum depth of 230 ft. [70M] when supplied with 24 VDC. Its unique water-tight power connector stops water wicking and prevents potential condensation problems. Great for livestock watering, irrigation, pond aeration, remote homes and cabins.

Model	Description	Vertical Lift		Flow		Solar Array Min. Watts	Current Amps
		Feet	Meters	GPH	LPH		
9325-043-101	24 VDC Submersible Pump	20	6.1	117	443	58	1.5
		60	18.3	109	413	78	2.1
		100	30.5	103	390	99	2.6
		140	42.7	99	375	115	3.1
		180	54.8	93	352	135	3.6
		230	70.1	82	310	155	4.1

### 9300 Series Parts Kit List



Model Number	1 Lift Plate	2 Cable Plug	3 Valve	4 Lower Housing	5 Motor	6 Canister	7 Filter Screens	8 O-Ring
9325-043-101	94-135-00	94-136-00	94-137-00	94-138-00	94-139-00	94-140-00	94-141-00	94-142-00

# Sun Pack - Sun Pump Submersible Bore Pump Kit

## The Complete Package System

includes:

- Sun Pump Q130 Bore Pump Unit
- Electric Pump Enhancer
- 6" Bore Cap
- Plumbing fittings for connections to 3/4" poly pipe
- 175W 24V Solar Panel with pole frame for remote mounting

**\$4785.00**  
1 x 175W



Drop Kit: Extra \$409.20 (Comes with 33m Bore Cable & Stainless Steel Drop Cable)

TOTAL DYNAMIC HEAD (TDH) Distance from pump to tank		AQUA PACK Daily Volume*	
5 Meters	17 Feet	5688 Litres	1503 Gallons
10 Meters	33 Feet	5472 Litres	1446 Gallons
15 Meters	50 Feet	5320 Litres	1408 Gallons
20 Meters	66 Feet	5040 Litres	1332 Gallons
25 Meters	82 Feet	4968 Litres	1313 Gallons
30 Meters	100 Feet	4608 Litres	1218 Gallons
35 Meters	115 Feet	3744 Litres	989 Gallons

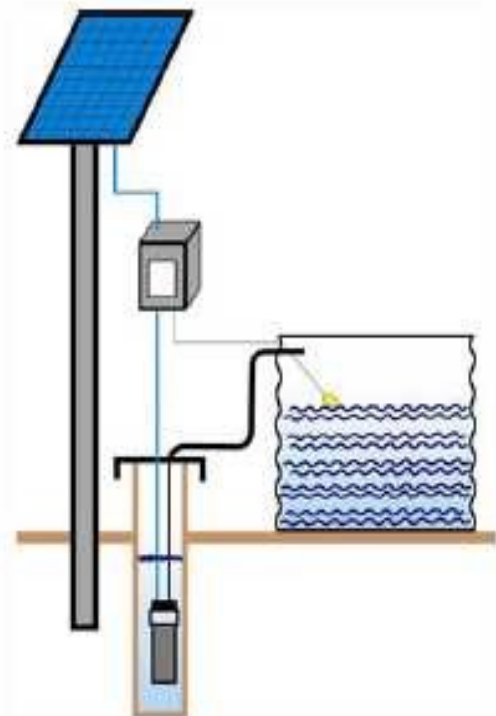
\*Based on an average of 6 peak sun hours

## Electronic Pump Enhancer

boosting your pump performance

The **Electronic Pump Enhancer** is specifically designed to automatically maximize solar pumping performance for both the SHURflo 9300 series and the Sun Pump Quad series bore pumps.

The **Electronic Pump Enhancer** uses power conversion electronics to boost the current produced by the solar array in low light conditions while simultaneously holding the voltage at the maximum power point. This allows the pump to start earlier in the morning and keep working till later in the evening. This way, the **Electronic Pump Enhancer** will maximize the total daily water delivery of your system while also providing protection to both the solar array and the pump.



D-BOR-ELPS

Features include:

- Better low light water flow
- Pump on/off switch
- Float switch control input
- 12/24 volt pump selection
- Pump over-voltage protection

Specifications:

Max Array	Max Volts	Max Amps	Volts Out
185W	46V	7A	12/24V

## Pump Accesories

Complete range of accessories used in all pumping situations

				
<b>D-BOR-CAPC</b>	<b>D-BOR-POLY</b>	<b>D-BOR-ROPE</b>	<b>D-BOR-CABL</b>	<b>D-BOR-GRIP</b>
6" Bore Cap	16mm Poly Pipe, 50m Roll	Stainless Steel Drop Cable	4.5mm 2-core DC Cable	Rope Grips
			Kits include: Stainless Steel Rope & Rope Grips, 1/2" or 3/4" Poly Pipe & Fittings and 2- or 3-core DC Cable	
<b>D-BOR-CAB3</b>	<b>D-BOR-FE15 / FF16 / FM16</b>	<b>H-PMP-FLSW</b>	<b>D-BOR-D35S</b>	<b>D-BOR-D35A</b>
4 mm 3-core DC Cable	Poly Fittings, Elbow & Sockets	Float Switch	35m 3/4" Drop Kit for SUN Pack	35m 1/2" Drop Kit for AQUA Pack

## Solar Panels

### DC Power Supplies

Range of Solar Panels for pumping situations. Starting from the versatile 5W and extending to the impressive 175W, these panels can form a dependable backbone to any solar system.

Featuring the Sharp range of high performance panels, which offer the proven design experience of the world leaders in durable solar modules. High power density mono-crystalline panels or poly-crystalline panels in 'Dark Blue', the latest development in efficiency improvements.

Model Number	A-SOL-010W	A-SSX-020M	A-SHP-123J	A-SOL-125W	A-SHP-167W	A-SOL-170W	A-SHP-175W
Nominal Output	10W	20W	123 W	125W	167 W	170W	175W
Panel Voltage	12V	12V	12 V	24V	24 V	24V	24V
No. of cells in series	36	36	36	72	72	72	72
Open Circuit Voltage	21.7 V	21.0 V	21.3 V	44.9 V	43.1 V	45.8V	44.4V
Short Circuit Current	0.64 A	1.29 A	8.14 A	3.65 A	5.37 A	5.10A	5.40A
Max. Power Voltage	17.3 V	16.8 V	17.2 V	35.5 V	34.6 V	36.3V	35.4V
Max. Power Current	0.58 A	1.19 A	7.16 A	3.44 A	8.83 A	4.63A	4.95A
Length [mm]	350	416	1499	1482	1575	1575	1575
Width [mm]	282	501	662	656	826	825	826
Depth [mm]	33	23	46	63	46	48	46
Weight [kg]	1.5	2.5	14	12	17	17	17
Packing	1/box	1/box	1/box	1/box	2/box	2/box	2/box
Output Tolerance	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%
Warranty	10 year warranty			25 year limited warranty			



# Solar Panel Mounting Frames

Panels need frames. A complete range to meet any panel configuration is available.



Model	Quantity and Size of Panels	
K-FRA-080P	2 x 80W	Tilt Angle is fixed at 30°
K-FRA-123P	1 x 123W/125W	
K-FRA-165P	1 x 167W/175W	
K-FRA-165P2	2 x 167W/175W	
K-FRA-SOL1	1 x 5W-60W	
K-UNI-5040	2 x 80W, 1 x 167W/175W	Variable Tilt Angle
K-UNI-5108	3 x 80W, 2 x 167W/175W	
K-UNI-5229	4 x 123W/125W	
K-UNI-5463	6 x 167W/175W	
K-UNI-5468	8 x 167W/175W	
K-UNI-5479	10 x 167W/175W	

Whether it's a single panel or an array of 10, the complete framing structure is here.

**Please Note:** Frames don't come with poles.

Check manufacturers specifications for pole strength and footing recommendations.

## FAQ

**Q: What is Total Dynamic Head (TDH)?**

**A:** TDH is the total height the water is to be pumped, from the low water level to the point of delivery & includes the calculated amount for friction loss

*TDH = static lift + static height + friction loss (see diagram 1)*

**Q: What is Friction Loss?**

**A:** Friction loss is the resistance to flow in a pipeline (expressed as the extra height the water is being delivered to). The resistance in a pipeline is affected by type of pipe, diameter of pipe, length of pipe & flow rate.

**Q: What is Low water level?**

**A:** Low water level is the lowest level the water will recede or drop to while being pumped

**Q: What is Bore capacity or yield?**

**A:** Bore capacity or yield is the amount of water the bore is expected to supply. Generally expressed as litres per hour

**Q: What is Bore recovery rate?**

**A:** The bore rate recovery is the rate at which the water level will return to normal, once pumping has ceased. The pumping rate should not exceed recovery rate unless low water level probes are fitted.

**Q: What is Solar energy insolation?**

**A:** Solar insolation is a measure of the amount of sunlight available to the solar module/s to power the pump. Solar insolation is usually expressed as watts per square metre. Commonly accepted solar insolation used in water pumping design is 1000 watts per square metre. Insolation is made up of direct sunlight & reflected sunlight. It can be affected by cloud, smog, heat haze & seasonal conditions (time of year).

**Q: What is Peak sun hours (PSH)?**

**A:** PSH is the number of hours per day that the sun will shine at an insolation rate of 1000 watts per square metre. Most solar water pumping system daily flow charts are based on G PSH.

**Q: What is a Floating Pump?**

**A:** A floating pump is used to pump water from dams, creeks or rivers. The pump is generally housed in a reinforced plastic case and floats on the surface of the water. Flow rates are general low.

**Q: What is a Submersible Pump?**

**A:** A submersible pump is suitable for deep well and bores. They can be used as an alternative to a floating pump where higher flow rates are required. Both the pump and motor are generally resistant to corrosion.

**Q: What is a Pressure Pump?**

**A:** A pressure pump provides pressurised water supply to a number of taps in your home. A switch is incorporated in these units which allows the water to flow when a tap is turned on. If the pressure drops off, the motor turns on to re-pressurise the system. When the tap is turned off the pressure in the system builds up to a point where it releases the switch and turns off the motor.

**Q: What is a Sacrificial Anode?**

**A:** A Sacrificial Anode is an anode attached to a metal object to inhibit the object's corrosion. The anode is electrolytically decomposed while the object remains free of damage.

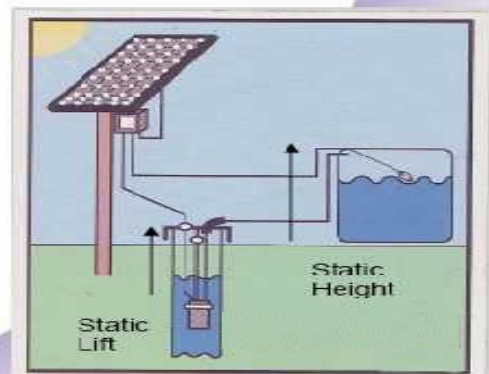


Diagram 1

# Cooloola Solar Systems

ABN: 76213153211

**Grid Connect** Electrical Contractors Lic No: 68336  
BCSE Installer / Design Accreditation Nos F688 & F689  
**Solar Systems**



[www.coolasola.com.au](http://www.coolasola.com.au)



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