

Dankoff Solar Slowpump™



1300
1400
2500
2600
Series

Use solar-electric power to provide 200–2,600 Gallons per Day (750–10,000 ltrs.) from shallow water sources. Slowpump can push water as high as 450 vertical feet (137m).

Solar Slowpump was the world's first commercially available low power solar pump. It was developed by Windy Dankoff in 1983, in response to those who said "that's impossible". Thousands of Slowpumps have been installed worldwide by ranchers, homeowners, missionaries, health workers, government agencies, etc. Some of our oldest Slowpumps are still in daily service.

Slowpump is not submersible, but can draw water from shallow wells, springs, cisterns, tanks, ponds, rivers, and streams, and push it as high as 450 vertical feet and through miles (kilometers) of pipeline. Slow pumping minimizes the size and cost of the solar array, wire and piping.

Slowpump is less expensive than submersible DC pumps, and made in a much wider range of sizes. Wearing parts typically last 5 to 10 years. Overall life expectancy is 15 to 20 years.



1300 and 2600 Series Solar Slowpumps

Construction & Features

- Rotary vane mechanism (positive displacement) made of forged brass, carbon-graphite and stainless steel
- NSF® approved for drinking water
- Handles sea water, dissolved minerals
- Survives most freezes
- Permanent magnet, DC motor
- AC models use a low-surge PM motor that greatly reduces starting surges, inverter and wire size requirements
- Installation and Service Manual is highly detailed and illustrated

"The Slowpump #2507-24V is supplying water for a work camp on the outer island of Onotoa. It's supplying water for 60 people. The well is one half mile [800m] away from the camp."

B.C., Ministry of Works and Energy,
Kiribati, South Pacific

"I have been very happy with the 1308 Solar Slowpump!... We are using it in a 5 meter deep hand dug well in a valley, and pumping 200 meters distant and 50 meters vertically."

Dr. D.L., World Missions,
Cameroon, W. Africa

"These pumps work great... Even during low light levels when the motor is turning slowly, a small amount of water can be pumped... The manual is easy to read. Windy's troubleshooting section is excellent... Not only have these pumps stood the test of time, but small changes have made them even better."

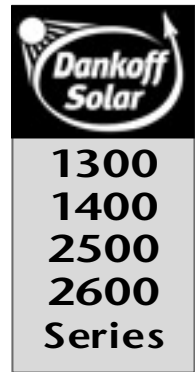
B. Schultze
product review in *Home Power Magazine* #42

"Over the last five years, we've found the Slowpump to perform impressively. We've also been very happy with Dankoff Solar's friendly service and great attitude."

JT, Nemia Valley, BC, Canada

Dankoff Solar Products, Inc. Solar Pump Manufacturing Since 1983

Solar Slowpump™ Performance Chart



**Dankoff Solar
Slowpump™**

1300 & 2500 Series 1/4 HP • PV or Battery 12, 24V • 115Vac															
Total Lift		Pump #													
		1322		1310		1308		1304		1303		2505		2507	
Feet	Meters	GPM	Watts	GPM	Watts	GPM	Watts	GPM	Watts	GPM	Watts	GPM	Watts		
20	6	0.51	27	0.92	29	1.25	30	1.75	37	2.50	48	3.25	52	4.00	57
40	12	0.51	32	0.92	41	1.25	48	1.75	53	2.50	60	3.23	69	3.95	78
60	18	0.51	36	0.89	46	1.20	54	1.68	64	2.40	78	3.15	90	3.90	102
80	24	0.49	40	0.88	51	1.20	60	1.64	73	2.30	93	3.10	106	3.90	120
100	30	0.49	45	0.88	57	1.20	66	1.64	82	2.30	105	3.08	124	3.85	144
120	36	0.48	50	0.88	61	1.20	70	1.62	90	2.25	121	3.02	142	3.80	165
140	42	0.47	56	0.88	66	1.20	75	1.60	100	2.20	138	2.92	166	3.65	195
160	48	0.47	62	0.87	74	1.20	84	1.60	112	2.20	153	2.85	187		
180	54	0.47	66	0.86	82	1.18	93	1.57	122	2.15	165	2.75	205		
200	60	0.45	74	0.85	89	1.16	101	1.56	133	2.15	180				
240	72	0.44	90	0.83	105	1.14	117	1.54	152	2.15	204				
280	84	0.41	102	0.81	120	1.12	135	1.51	175						
320	96	0.41	120	0.79	138	1.10	153	1.48	196						
360	108	0.41	134	0.76	154	1.05	171								
400	120	0.40	150	0.73	176	1.00	198								
440	132	0.39	168	0.70	202										

performance at 15 or 30V (PV-Direct voltage)
For battery, subtract 20% from Flow & Watts

24V pump may be run at 12 volts to yield 1/2 flow at 1/2 watts.
Actual performance may vary ±10% from specifications.

LPM = GPM X 3.8

1400 & 2600 Series 1/2 HP • Battery 24V, 48V • PV-Direct 36V • 115Vac										
Pump# →	1408		1404		1403		2605		2607	
Feet	Meters	GPM	Watts	GPM	Watts	GPM	Watts	GPM	Watts	
160	48							4.30	283	
180	54							4.25	305	
200	60							4.20	338	
240	72							4.05	396	
280	84							4.00	444	
320	96			1.66	255	2.50	338	3.20	410	
360	108			1.62	280	2.50	374	3.16	450	
400	120			1.64	312	2.50	406			
440	132	1.10	269	1.66	342	2.50	451			

Max Voltage: 29V or 58V on Battery Models

Order pumps using these item numbers			
Pump #	12V	24V	36VPV or 48VBatt
1322	22207	22208	
1310	22205	22206	
1308	22203	22204	
1304	22201	22202	
1303	22209	22210	
2505	22211	22212	
2507	22213	22214	
1408		22220	22221
1404		22222	22223
1403		22224	22225
2605		22226	22227
2607		22228	22229

Voltage option 115Vac—for any above, ADD Item 22219

Suction Capacity

- 20 vertical feet (6 m) at sea level— subtract 1 ft. for every 1000 ft. altitude (1 m for every 1000 m). Pump should be placed as low as possible.

Filtration Requirement

- This pump CANNOT tolerate dirt. Water MUST be filtered clear. If water is very dirty, improve the source or consider a different pump.

PV-Direct (non-battery) Requirements

- The rated power of the PV array must exceed pump watts by 20% or more.
- A Linear Current Booster (controller) is required to start and run in low light
- Solar Tracker (optional) will increase daily yield (40-55% in summer)

Accessories

- **#20242 Intake Strainer/Foot Valve:** Monel metal screen, stops coarse debris
- **#20235 Inline Filter:** (10") Uses standard filter cartridges
- **#20237 Intake Filter/Foot Valve:** (30") Replaces Intake Strainer and Inline Filter with a single unit, may be lowered into a shallow well or stream
- **Spare Filter Cartridges:** (5 or 10 micron spun fiber)
 - #20236 10" 2-pack
 - #20238 30" 3-pack
- **Dry Run Switch:** Prevents pump damage if source runs dry
 - #20240 for 1300/1400 Series
 - #20241 for 2500/2600 Series
- **#20308 Close Elbows** for use in 6-10" well casings (150-250 cm)
- **Linear Current Booster (LCB)** required for PV-Direct: Specify voltage and current (amps = watts from chart divided by volts)

Fittings

- 1300/1400 Series: 1/2" female
- 2500/2600 Series: 3/4" male

Dimensions (1300/2500 Series)

- 5.7 x 15.5" (14 x 39 cm)
- Weight 16 lbs (7 kg)

Warranty

1 year against defects in materials and workmanship

Available From: