

Dankoff Solar Slowpump™

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.

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

"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





1300 and 2600 Series Solar Slowpumps

- · 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

"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."

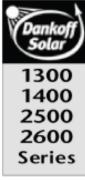
> B. Schultze product review in Home Power Magazine #42

"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

Solar Slowpump™ Performance Chart

1300 & 2500 Series 1/4 HP • PV or Battery 12, 24V • 115Vac															
Total Pump #															
Lift		1322		1310		1308		1304		1303		2505		2507	
Feet	Meters	GPM	Watts	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	narfo	rmanca	at 15 c	- 30V (P	V.Dirac	t voltan	4)	
440	132	0.39	168	0.70	202			performance at 15 or 30V (PV-Direct voltage) For battery, subtract 20% from Flow & Watts							



Dankoff Solar Slowpump™

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	# ─➤	14	08	1404		1403		2605		2607	
Feet	Meters	GPM	Watts	GPM	Watts	GPM	Watts	GPM	Watts	GPM	Watts
160	48		Mari	Valtana	- 201/	EQ./				4.30	283
180	54			Voltage: 29V or		DOV		3.35	280	4.25	305
200	60	on Battery Models					3.33	296	4.20	338	
240	72					2.55	266	3.30	331	4.05	396
280	84					2.50	302	3.25	373	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				

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)

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

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

