Aqua Delta
Solar Pumps

Factsheet

Hay Marsh Pump
Technical data

Lift	van 50-500cm
Flow	9m³/hr @ max 2m, 6m3/hr @ 3m.
Average expected yield per day Netherlands @ 1m lift	March 29m3/dag April 35m3/dag May 39m3/dag June 40m3/dag

This means for extraction calculation between 1-2 m3/hr is used over a 24hr day
The max yield is **70m3** per day in the summer months with a clear sky.
With an extra panel this can be increased to **100 m3** per day (9m3 x 11 hour/day).*

Electrical data

Wattage panel	370 Watt piek
Max Amp panel	9,6 Amp
Max voltage panel	38 Volt
Motor	250 watt
Max Amp motor	13,5 Amp
Used power motor	6,8 Amp bij 38 Volt

Pro's

- Environmental friendly and durable
- No electricity or fuel costs
- Low maintance costs
- No emmisions and low noise
- Good service life expectancy
- Capable of a 5 meter lift/head
- Yield of 35m3 per hour max 40m3/hr
- Maximum yield of 350m³ per day
- Low maintenance costs with a no-battery system and durable pump
- Robust system that can be handled by hand or small transport (quad, tractor with frontloader)

Other options and possibilities

- Can be made floating
- Extra solarpanels
- Smart Tech System
- Ground anchors 35€ per panel (to prevent blowing over from the panels with high winds)
- Float switch when water level from where it is pump cannot be guaranteed (pump must not run dry) 75€
- Anti gras mat (rubber in front of panel) to prevent grasses and weeds growing in front of panel

(these will create shadow on the panel) occasional mowing or more permanent ground cover (e.g. concrete slab) are other options for this

Hay Marsh Pump
The pump is ideal for creating wetlands to improve the habitat for meadow birds. It has very low noise levels and doesn't provide a vantage point for predator birds due to low to field level parts.

No batteries
The pump is directly driven by the sun so no battery and no electronics. Our pumps are the only in their kind to do so. The great advantage of this is a higher reliability No replacement of batteries every 3 – 4 years. Keeping maintainance costs low. If batteries are needed for instance for whole year round pumping needs we will use only high grade batteries and electronics. By simply unplugging the MC4 connectors you don't need to use a Main Switch.

Besides this we provide

- Site assessment and water need calculations
- Installation made to situation
- 1 year warranty
- Cheap compared to other options (mains power, wind)
- Purpose designed

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Product specifications			
Usage	Inundation for meadow bird management Compensation for fish passes Water level management Water for livestock Drainage systems Disease /pest control by inundation		
Maximum yield	100m3 water @ 11 hrs sunshine.		
Average yield per day London	Month	Average hours of sunshine (Met office)	Gemiddelde Wateropbrengst
	Januari	1,6	56m³
	Februari	2,5	88m³
	Maart	3,4	119m³
	April	5,2	182m³
	Mei	6	210m³
	Juni	6	210m³
	Juli	6,7	235m³
	Augustus	6,1	214m³
	September	4,5	158m³
	Oktober	3,6	126m³
	November	2,1	74m³
	December	1,6	56m³
Lift/head	Maximum of 5 meter		
Pump type	Centrifugal		
Solar panels	1 to 3 pcs 380 Watt panels. 25 yrs factory warranty. Efficiency loss after 5 years 5%, after 12 yrs 10%, after 18 yrs 15%, after 25 yrs 20 %.		
Frame	Panels are individually mounted in a galvanised frame. Those frames are easy movable. They also can be fixed with anchors to the ground.		
Outlet pipe	Standard included 16 Meter 38mm Hosepipe.		
Weight	Pump unit: 27 kilo. Panel in frame: 78 kilo.		
Dimensions	Pump unit: 145 x 26 x 26 cm (h x l x b) Panel in frame: 200 x 110 x 100 cm.		
Warranty	One year full in the Netherlands, Western Europe parts warranty and telephone service, service based on mailing parts to be serviced (training of technical personnel with installation), Outside Europe to be negotiated		

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