

HIGH VOLUME PUMPS
The Dutch shaftless electric pump solution

WATER LEVEL MANAGEMENT

PROJECT CASE
HEMMEN

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Sustainable water management

A future-proof solution to maintain stable water levels in Hemmen, combining reliable performance with clean renewable energy.

About the project

Hemmen estate wanted to manage water levels in a sustainable an reliable way. Water is pumped from a river-connected pond to a higher location in the area, supporting nature, biodiversity ands a stable watersytem.

The solution had to be energy-efficient, low maintenance and suitable for continuous operation.

The solution

We installed a solar-powered submersible pump 133 with a 10 kWh battery and smart control. Fully off-grid, it keeps the water level stable, even with limited sunlight.

The shaftless design minimises clogging from ropes, plants and debris. The self-cleaning management system helps prevent blockages. Smart floats and remote monitoring support efficient and reliable water level management.

How it works

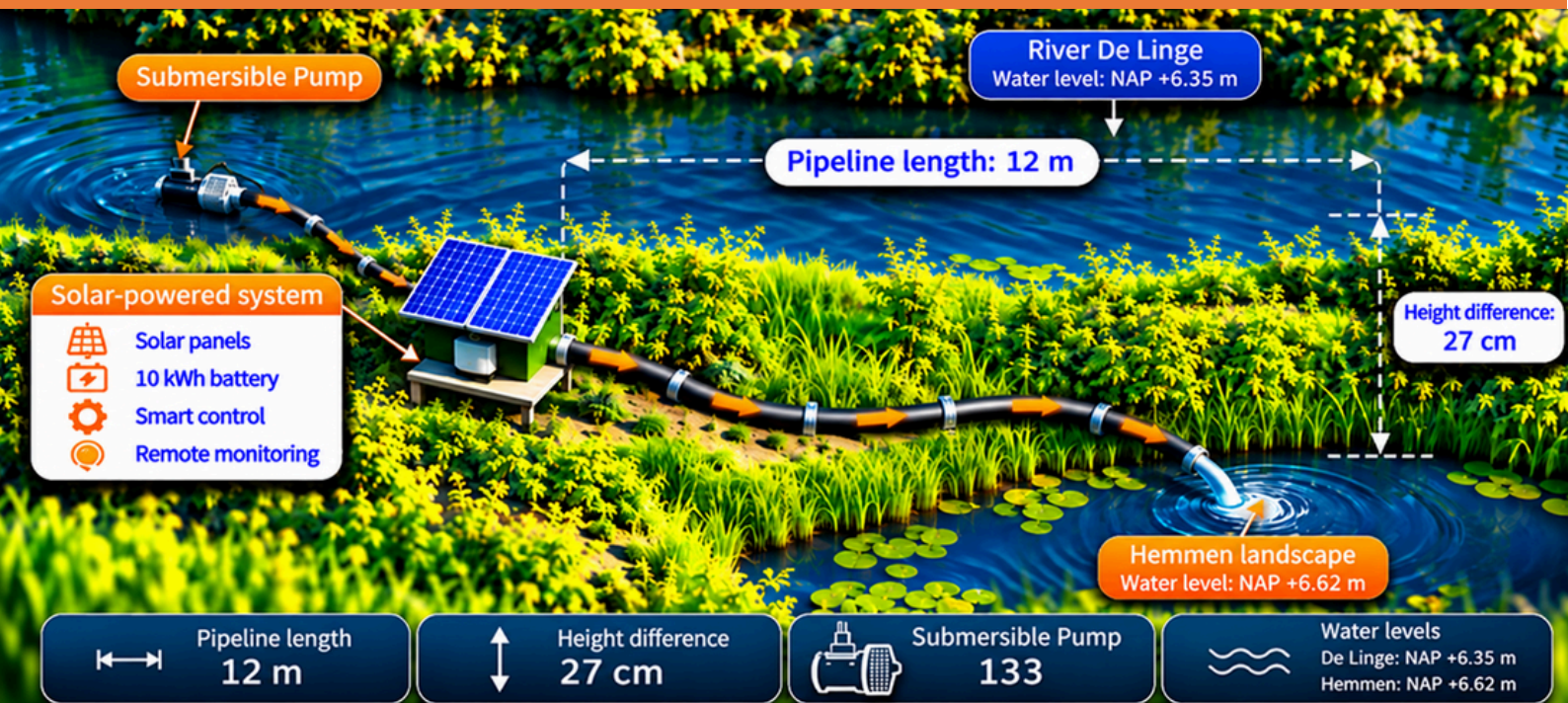
Solar energy
Solar panels power the entire system

Energy storage
Energy is stored in a 10kWh battery

Water movement
The submersible pump provides the required water flow

Smart control
Adjusts automatically to water level and energy

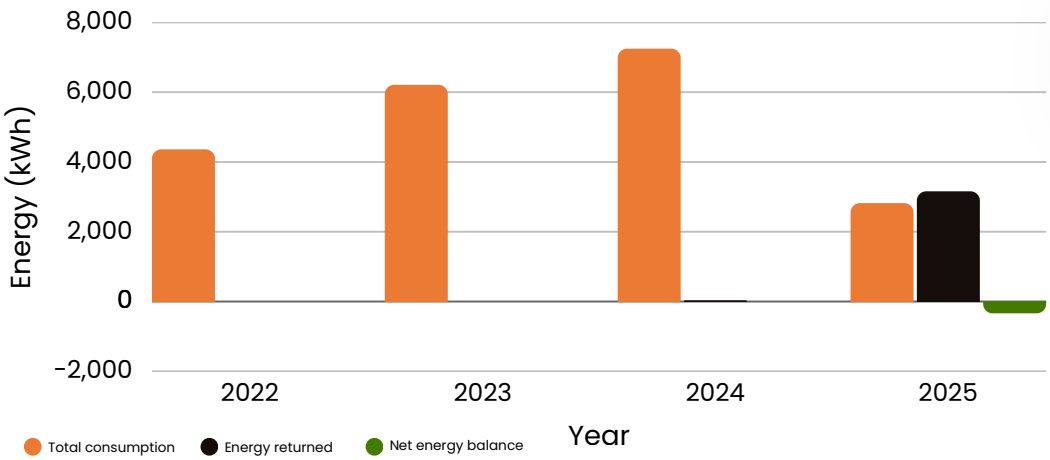
Stable water levels
A constant water level, fully off-grid



Results & Impact

Since the installation of the submersible pump 133 in January 2025, the pump system at Hemmen deliver significantly more water with lower energy consumption. The graph shows the development over the past years and highlight the clear improvement.

Energy performance



2,821 kWh
Total energy consumption in 2025

3,159 kWh
Energy returned to the grid in 2025

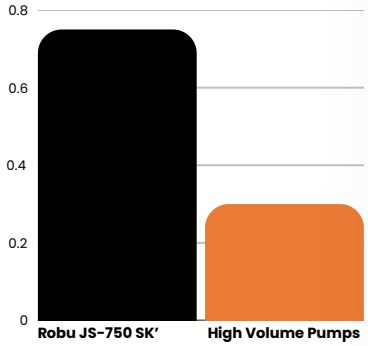
-338 kWh
Consumption minus returned energy in 2025

60% lower power requirement

The submersible pump delivers the same or higher water flow with 60% less power compared to the Robu JS-750 SK.

Power requirement

kW

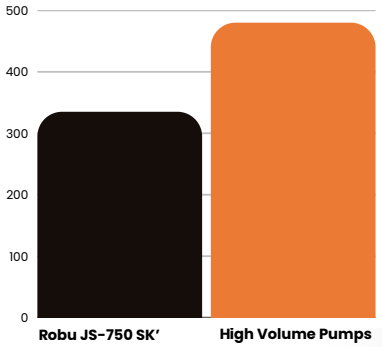


43% higher water flow

The submersible pump moves significantly more water in the same operating conditions compared to the Robu JS-750 SK.

Waterflow

L/min

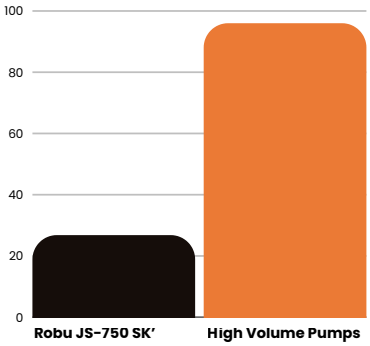


360% higher ratio water per kW

The submersible pump delivers more than 360% higher efficiency compared to the Robu JS-750 SK.

Water flow per kW

x1000 L/h/kW



Technical specifications

Compare the technical specifications of our submersible pumps to indentify the most suitable model fot your application.

Product	Power range (kW)	Voltage (V)	Thrust range (N)	Maximum capacity m3/h	Weight pump (kg)	Weight flange 316SS (kg)	Total weight (kg)	propeller diamater (mm)	Outside diameter (mm)	Standard cable lenght (m)
Submersible Pump 065	0.1 - 0.5	400V or on request	4-83	66	2,5	1.4	4	65	108	2.5
Submersible Pump 086	0.5 - 3.0	400V or on request	64-304	193	3,5	2.4	6	86	141	2.5
Submersible Pump 133	0.5 - 5.0	400V or on request	118-608	412	5	4.5	10	133	191	2.5
Submersible Pump 168	0.5 - 8.0	400V or on request	79-1196	750	10	6.2	16	168	239	2.5
Submersible Pump 212	0.5 - 11.0	400V or on request	181-1578	1062	14	8	22	212	290	2.5
Submersible Pump 212-PRO	0.5 - 15.0	400V or on request	186-1912	1179	22	8	30	212	290	2.5
Submersible Pump 290	0.5 - 22.0	400V or on request	127-2843	1939	50	15	66	290	378	2.5
Submersible Pump 341-3	0.5 - 30.0	400V or on request	147-4266	2677	70	31	101	341	470	2.5
Submersible Pump 341-5	0.5 - 50.0	400V on request	147-6374	3602	73	31	104	341	470	2.5
Submersible pump 341-PRO	0.5 -75.0	400V on request	118-8090	4128	100	31	131	341	470	2.5

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Shaftless
Electric pumps

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