



T.: +40725046178

sispe@standartpark.ro

tehnic@standartpark.ro

Dragomirești-Deal, Județ Ilfov, Aleea Constanza,
A1 Business Park, Unitatea L3 - L4,



standartpark.ro





SiSPe

Integrated Energy Efficient
Pumping Station System

Pumping Stations

Standart Park Romania

GRP prefabricated pumping stations for any application



Customized to the needs of the applicant

Standart Park offers a dimensional range of prefabricated pumping stations with a structure made of continuous fiberglass (GRP) polystyrene filaments that provide an extremely robust and durable construction.

Universal Units

We are able and willing to prefabricate these pumping stations exactly for your needs, as dry, wet or mixed chambers. The pumping stations are supplied fully equipped with the hydraulic installation (pipes, valves, flaps, pumps, control units and service devices), but also components such as:

- hybrid system for electricity production (photovoltaic panels + wind microturbine);
- storage capacity (9 kW- 35 kW);

Components that support green energy and that can support the electrical consumption of pumping stations.

Any size and configuration

Pumping stations can be configured to meet almost any requirements for size and configuration. The maximum standard depth is 12 m. The pumping stations are offered and delivered as a complete package with the help of our service team.

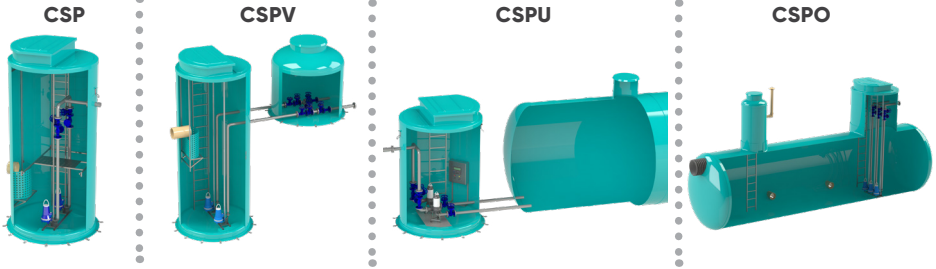
For more information, visit:

www.standartpark.ro

www.sispe.ro

Applications

The range of Standart Park pumping stations offers you different variants of installation and assembly



CSP - Chamber equipped with pumping station

CSPV - Pumping station with separate valves chamber

CSPU - Dry-use pumping station chamber

CSPO - Pumping station with horizontal mounting

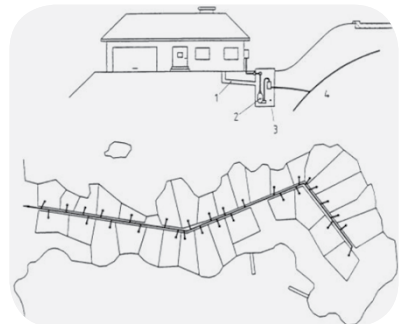
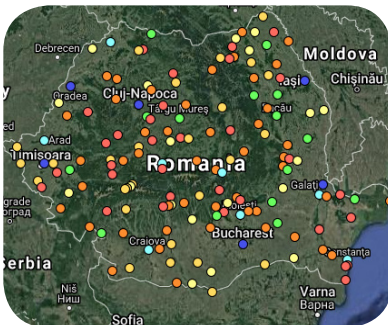
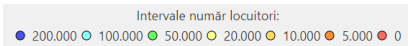
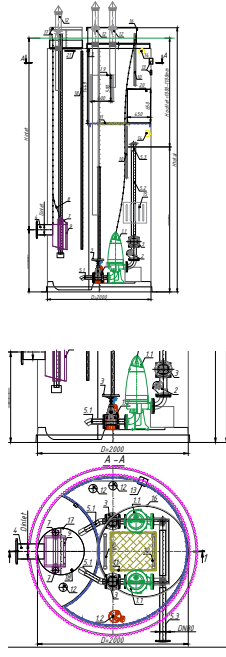
Caisson Diameter,mm	Caisson Height, mm	DN pipes
1000		40-50
1200		50-80
1400		80-100+
1600	starting from 3000	80-100+
1800	-	100-150+
2000	to 12000	150-200
2400		200+
3000		250+
3600		300+

Caisson Diameter,mm	Caisson length, mm	DN pipes
1200		50-80
1400		80-100+
1600	starting from 2500	80-100+
1800	-	100-150+
2000	to 13000	150-200
2400		200+
3000		250+
3600		300+



Integrated energy efficient Pumping Station system

This integrated system is environmentally friendly due to the materials and energy sources used. SiSPe is produced from continuous filaments of fiberglass reinforced polystyrene (GRP), and the main sources of energy are solar and wind.



SISPE Concept

Today's water services face challenges to provide their services under urban pressure in an increasingly unsafe climate due to power outages and adverse conditions and unsustainable costs of connecting to the SEN in certain localities.

The SISPE concept opens up a market that can help utilities plan to achieve their service goals, while taking into account climate change and reduced carbon footprint.

SISPE contains the following components:

- Hybrid system for electricity production (photovoltaic panels + wind microturbine);
- Storage medium (9 kW – 35 kW);
- Pumping / treatment plant (dimensioned for ATUs from + 500 dwellings);

This integrated system is environmentally friendly due to the materials and energy sources used.

SISPE is intended for both off-grid and on-grid installation.

Off-grid: SISPE can become 100% energy autonomous using 3 power supplies cascade electricity:

- solar/wind energy + storage medium + LPG-based generator;

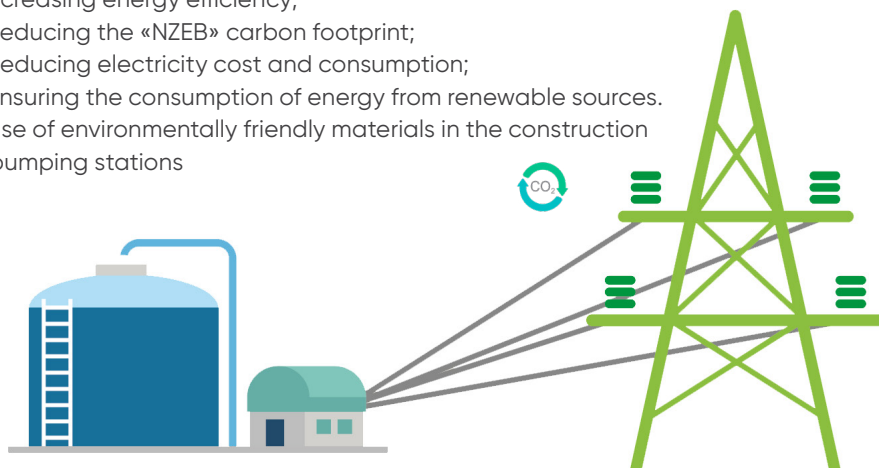
On-grid: it is recommended to go with 3 power supplies, so that the monthly costs are reduced by 90%:

- solar/ wind energy + storage medium + SEN (LPG-based generator becomes optional).

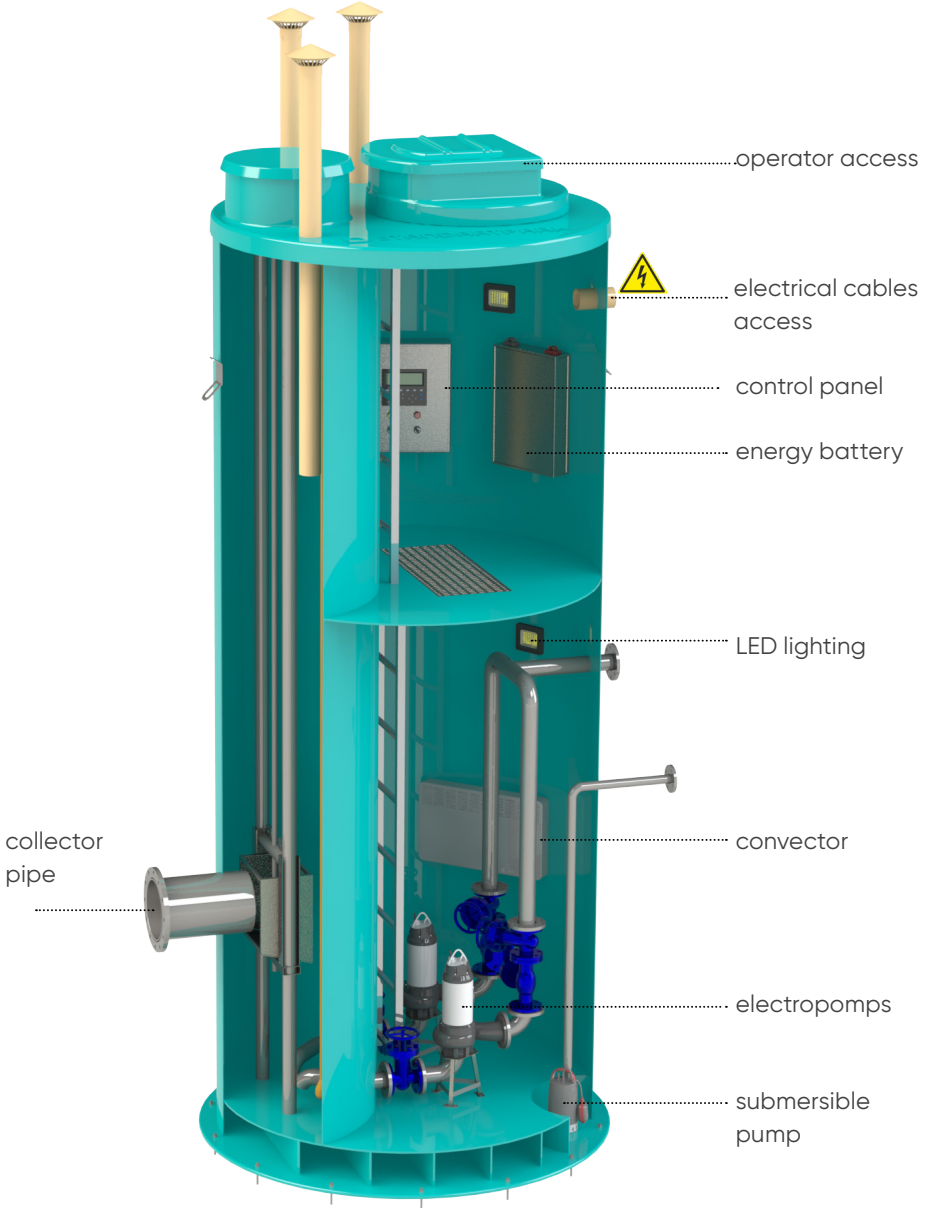
Water and wastewater utilities usually spend 10-35% of their operational energy costs. It can account for up to 40% of municipal energy consumption.

Indicators to be met according to EU regulations:

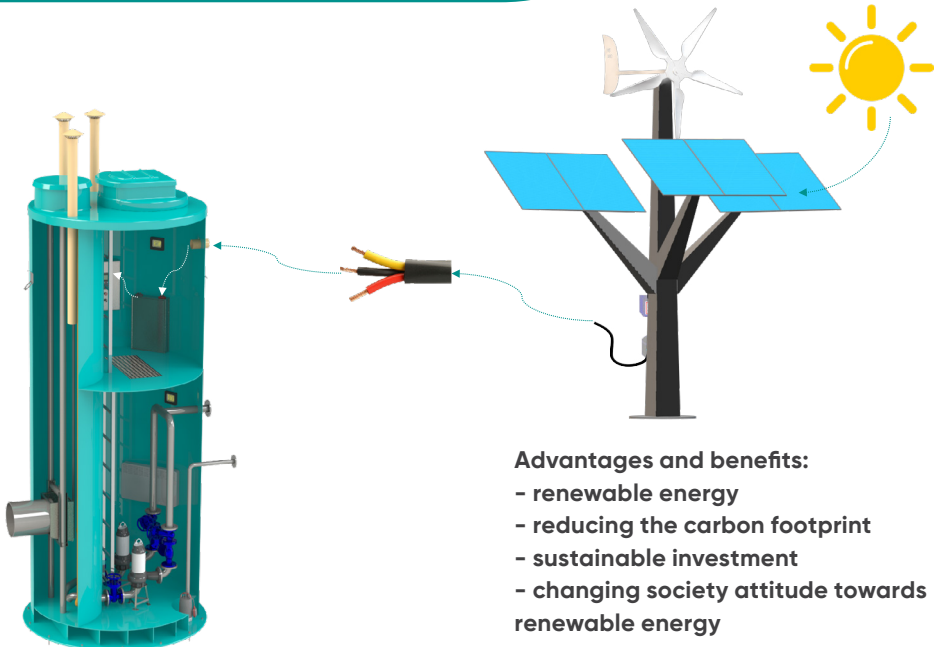
1. Increasing energy efficiency;
2. Reducing the «NZEB» carbon footprint;
3. Reducing electricity cost and consumption;
4. Ensuring the consumption of energy from renewable sources.
5. Use of environmentally friendly materials in the construction of pumping stations



SiSPe Details



Energy flow SiSPe



Components



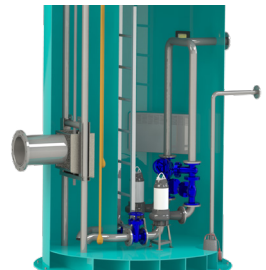
Photovoltaic panel

Panel Model	Capacity/ month kWh	Power kWh
Photovoltaic Kit	0.00452	25
OFF-GRID	29.4	15
OFF-GRID	34.28	15
OFF-GRID	60.74	30



Energy storage

Battery Model	Capacity/ month kWh	Power kWh
HS48-6	0.00452	25
HS48-9	29.4	15
HS48-12	34.28	15



SiSPe

Caisson Diameter, mm	Caisson Height, mm	DN Pipes
2000	-	80-100
2400	3000	100+
3000	12000	200+



Applications								SEN Ener	
Pumping station with SEN CSP connection	Model	No. of houses	No. of people.	Pers/loc.	Debit, Q		day	1year	
					mc/day	mc/h	kwh	kwh	
	CSP 1	500	1500	3	562.50	23.44	6.51	7.61	2,779.5
	CSP 2	1500	4500	3	1687.50	70.31	19.53	12.44	4,545.0
	CSP 3	5000	15000	3	5625.00	234.38	65.10	22.32	8,151.5

<https://www.rensmart.com/Calculators/KWH-to-CO2>

Applications								SEN Ener	
SISPE 100% autonomy on grid backup	Model	No. of houses	No. of people	Pers/loc.	Debit, Q		day	1year	
					mc/day	mc/h	kwh	kwh	
	SISPE 1	500	1500	3	562.50	23.44	6.51	15.22	5,559.0
	SISPE 2	1500	4500	3	1687.50	70.31	19.53	24.88	9,090.0
	SISPE 3	5000	15000	3	5625.00	234.38	65.10	44.64	16,303.0



	Energy Consumption		Energy Cost			Carbon footprint		
	5years kwh	10years kwh	1year €	5years €	10years €	1year kg CO2e/kwh	5years kg CO2e/kwh	10years kg CO2e/kwh
4	13,897.70	27,795.40	778.27	3,891.36	7,782.71	648.02	3,240.11	6,480.22
4	22,725.20	45,450.40	1,272.61	6,363.06	12,726.11	1,059.63	5,298.15	10,596.31
4	40,757.70	81,515.40	2,282.43	11,412.16	22,824.31	1,900.45	9,502.25	19,004.50

	Green energy produces		Green energy stored			Carbon footprint		
	5years kwh	10years kwh	1year kwh	5years kwh	10years kwh	1year kg CO2e/kwh	5years kg CO2e/kwh	10years kg CO2e/kwh
08	27,795.40	55,590.80	4,169.31	20,846.55	41,693.10	-	-	-
08	45,450.40	90,900.80	6,817.56	34,087.80	68,175.60	-	-	-
08	81,515.40	163,030.80	12,227.31	61,136.55	122,273.10	-	-	-

Standart Park Romania

Standart Park Romania is one of the main producers and suppliers on the Romanian market of products intended for stormwater management and solutions for the collection, drainage and pumping of wastewater.

Drainage

Surface drainage



Cast iron channels



Industrial drainage



Infrastructure



Inspection chambers



Water meter chamber



Cleaning and storing

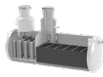
Water tanks



GRP Chambers



Oil separators



Grease separators GRP



Grease separators PE



Grease separators Stainless steel



Pumping stations



Garden

Geotextiles



Ecological pavers



Shading nets



Geocells



Gardening Edging



Urban Design

Covers - plastic, composite, cast iron



Cast iron traps



Stainless steel traps



Gratings



Doormats



STANDARTPARK®
 We offer solutions both for residential areas (parking lots, gardens, parks, pedestrian areas, houses and villas) and for the industrial field (food industry, infrastructure works, roads, highways, logistics parks, airports).

Permanent Magnet Generator Wind - wind turbine factory

We are producers of renewable energy. PMG WIND's main mission is to protect the future.



We offer renewable energy solutions through products such as: wind turbines, photovoltaic panels and hybrid systems. Energy independence is a reliable, natural thing and has low costs. Our systems are manufactured in Romania, have maximum design quality and a 25-year warranty. Our solutions are tailored to the energy needs.

We are established on the national market, but also on the international market. Our company's activity focuses on obtaining high-efficiency energy from alternative sources. We want to bring energy savings and innovative management of natural resources.



Wind Turbines



Photovoltaic Panels

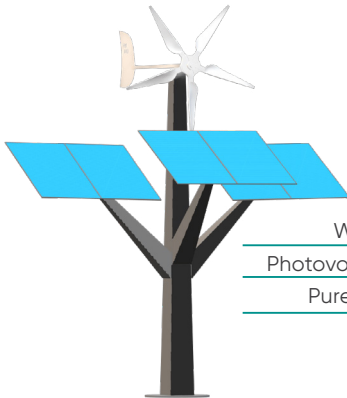


Hydro Systems



Hybrid systems

We are in a permanent development of renewable energy systems, wind systems, small hydropower plants, photovoltaic panels, integrated control, synchronization and automation systems.



HYBRID ENERGY TREE

Wind turbine	3.5 kwh
Photovoltaic panels 250W	6 buc
Pure sinus inverter	6000 w
Batteries	2 LI batteries with semi integrated protection and management system

Prime Battery Technologies

- Built in 2016, young and dedicated team
- 60+ Products certified on the market
- 45+ Expert engineers in Li-ion Batteries
- South Europe's largest testing laboratory
- Current factory capacity: 200 MWh
- Expansion plan: 1.5 GWh in 2023



SISPe Project

Model 1	Residential complex/ap	People	Total consumption
	No. of houses ≤60	pers/house 3	kw/h 7,94
Model 2	Region	People	Total consumption
	No. of houses ≥ 200	pers/house 3	kw/h 10,04
Model 3	Region	People	Total consumption
	No. of houses ≥1000	pers/house 3	kw/h 19,04

The system is composed of:

1. Pumping station
2. Photovoltaic panels
3. Wind turbine
4. Li-ion storage battery

The system will also be connected to the national electricity grid, so that when there is no energy from renewable sources, the consumption can also be done from the grid.

The battery can be charged from renewable sources, when it is excess of production, or from the national power grid, when there is no production from renewable sources (only if the price of energy is favorable).

