Tailored high-efficiency complete solutions to utilize environment-friendly energy, in both new and renovation projects.
Sarlin provides environment-friendly energy solutions

Sarlin Oy Ab is forerunner in environment-friendly energy technology. It is our passion to discover the best, most functional technical solution that surpasses your expectations and genuinely advances your business. We provide tailored high-efficiency complete solutions to utilize environment-friendly energy, in both new and renovation projects.

We take charge of the maintenance, monitoring, operation and reporting of the plants we supply. The Sarlin-designed remote monitoring system improves operability.

We have gained expertise in biogas for more than twenty years. Having started with landfill biogas pumping plants and flares, we are now focusing on the exploitation of biogas. More than 80% of the biogas electricity in Finland is now generated by turbine and engine power plants supplied by Sarlin.

We are involved in building the network of Finnish natural and biogas filling stations. We also supply liquefied natural gas and biogas filling stations.
All services and solutions from Sarlin

**SOURCES OF ENERGY**

- **BIOGAS**
  - Biogas collecting & pumping
  - Biogas purification & upgrading

- **NATURAL GAS CNG**
  - Chp Engine power plants & ORC
  - Chp Turbine plants

- **LNG**
  - LNG ja LBG customer systems
  - Natural & biogas filling stations CNG, LNG

**Maintenance, monitoring, operation and reporting.**
The Sarlin-designed remote monitoring system improves operability.
CHP MICRO TURBINE PLANTS

Capstone micro turbines
- Fuelled by biogas, natural gas, LNG and other liquid fuels
- Electricity generation: 30 to 1000 kW
- Heat generation: 50 to 1500 kW
- Just one moving part: low service requirement – no lubrication, no cooling
- An unlimited number of units can be connected in parallel; an easily scalable system
- Optional supply: complete plant

CHP ENGINE POWER PLANTS

MWM gas engines
- Fuelled by biogas or natural gas
- Engine capacity/electricity 400 kW to 4500 kW
- Engine capacity/heat 400 kW to 4500 kW
- High efficiency
- Optional supply: complete plant with building or container
**Triogen ORC**

Triogen ORC is a closed system to generate electricity from the exhaust gas of a gas or diesel engine. Heat energy generated from domestic biomass fuel can also be converted to electric energy.

**WASTE HEAT**

- CIRKA 180 °C
- 450 - 900 kW\textsubscript{th}
- T > 350 °C

**ELECTRICITY PRODUCTION**

- 60 - 165 kW\textsubscript{e}

**COOLING**

- T > 55 °C (UP TO 90 °C, OPTIONAL)
- T < 35 °C
- 350 - 700 kW\textsubscript{th}

**Combi and trigeneration plants**

Besides conventional CHP plants, we supply combi and trigeneration solutions, also supplemented with ORC.

Different energy sources can be combined, e.g. bio/natural gas and solar energy.

Not only electricity and heat can be produced flexibly, but also steam and cold water.
LNG AND LBG CUSTOMER SYSTEMS

LNG (Liquefied Natural Gas) or LBG (Liquefied Biogas) stored in tanks can be vaporized into gas and used as vehicle fuel or in the generation of electricity and heat.

Applications
- Industry
- Power plants, energy generation
- Distribution network (back-up)
- Biogas plants (back-up)
- LNG/LCNG filling stations

GAS FILLING STATIONS – CNG, CBG, LNG, LCNG

We supply complete filling stations of natural & biogas and liquefied natural & biogas.

Sarlin has so far supplied 19 natural and biogas filling stations in Finland.

We take charge of the maintenance, monitoring, operation and reporting of our stations. Our remote monitoring system enhances the usability, and the customer receives all necessary alarms and information into their protected monitoring system.
Biogas can be generated in a digester or it can be collected from a landfill through collecting pipes. A biogas pumping plant maintains a safe underpressure in the collection network, securing controlled flow of the gas into the system and reducing harmful emissions.

Biogas is utilized to generate electric power, heat or steam, and it is purified and used as fuel. Biogas can also be burnt in a flare, if practical utilization is not worthwhile.

We supply overall solutions for the collection, utilization and burning of biogas.

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Biogas typically contains 65% methane and 35% carbon dioxide. To make it applicable as vehicle fuel or in natural gas network, its relative methane content is increased and as much carbon dioxide is removed as possible.

Biogas also contains hydrogen sulphide that reacts with most metals, resulting in corrosion and damage to the equipment. Its hydrocarbon content should therefore be limited before usage.

**Removal of hydrogen sulphide**
The THIOPAQ scrubbing system is based on a biological process.

**Removal of methane and carbon dioxide**
The Greenlane Biogas system uses water for scrubbing.
Sarlin Oy Ab is forerunner in industrial compressed air, automation and environment-friendly energy technology.

It is our passion to discover the best, most functional technical solution that surpasses your expectations and genuinely advances your business. We guarantee that our solution is a functioning one.

We implement the best possible technological solutions for our customers, also taking charge of their maintenance and service.

AUTOMATION
- Measurement
- Data transmission
- Operation and monitoring
- Safety engineering
- Safety of potentially explosive environments

ENERGY
- CHP micro turbine plants
- CHP engine power plants
- Combi and Trigeneration plants
- ORC plants
- Gas filling stations: LNG, CNG
- Biogas systems
- Biogas treatment
- LNG and LBG customer systems

COMPRESSED AIR
- Compressors
- Air treatment
- Sarlin Balance -air system management
- Air production services
- Air system optimizing service

PROCESS TECHNOLOGY
- Water filtration and disinfection
- Water analysis
- Gas alarms

INDUSTRIAL FURNACES
- Heat treatment of metals
- Melting of aluminium
- Hot galvanizing
- Modernizations and renovations
- Gas and burner technology