



Gain power

with the Againity ORC System



We convert your waste heat
into electric power

The Againty ORC System extracts energy from your waste heat and converts it to electricity. With our solution you can save fuel or gain more power from your system.

Aginity's turbine system is based on the long-known ORC technology (Organic Rankine Cycle), which is illustrated in the image below. The technology includes a steam turbine set in motion by the pressure from hot steam. The rotating turbine then drives a generator that produces electricity. In good conditions the electrical efficiency is 20%.

To heat up the steam some kind of heat source is needed. Any heat with a temperature from 90°C can be utilized in the system. After the turbine, the steam is

Quality first

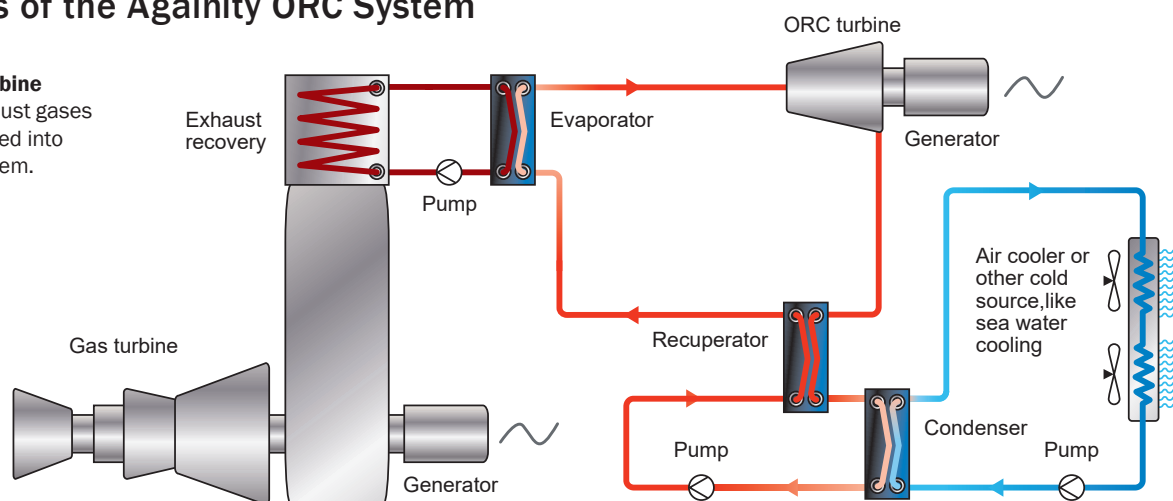
Thanks to the unique design of our patent-pending turbine and the low number of moving parts in the system, a high-quality product can be offered. This minimizes the need for service and maintenance and significantly shortens the payback time.

Adding the Againty ORC System to your existing system increases the effectiveness of your plant – at a low investment cost.



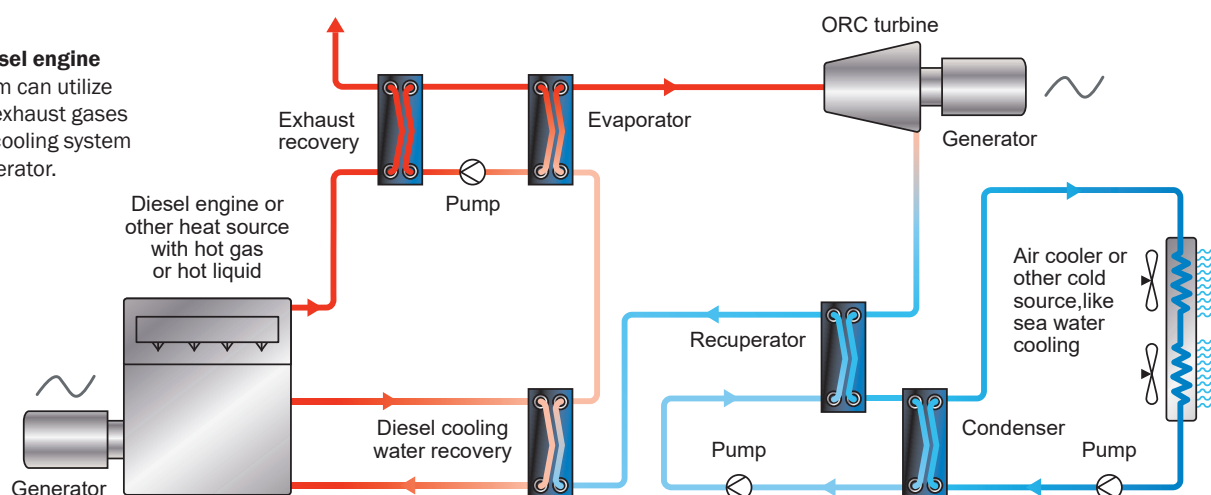
Flow chart gas turbine

Heat from the exhaust gases of a gas turbine is led into Againty's ORC system.



Flow chart diesel engine

The ORC system can utilize heat from the exhaust gases as well as the cooling system of a diesel generator.



Versatile application possibilities

The Againty ORC System can be installed in numerous applications, enabling you to gain more power from your existing system while saving energy and the environment.

Manufacturing



In manufacturing industries using diesel generators, gas turbines or heating processes there is heat generated in the exhaust gases as well as in cooling systems. These heat sources can easily be connected to Againty's system transforming the heat into electric power.

Boilers and heating plants



A steam or hot water boiler or an rice/coffee/sunflower husk incinerator can easily be combined with the ORC system by connecting part of the heat from the boiler circuit to the ORC system's evaporator. The excess heat from the ORC system can be utilized for local heat demands or cooled with air convector fans.

Mining



The mining industry often needs reliable sources of electricity for a safe and efficient production. By adding the Againty ORC System, energy cost savings without decreased reliability can be realized.

Real estate & hotels



With the Againty ORC System you can use your sun panels not only for hot water generation but also to produce electricity. By storing the hot water in isolated water tanks you can store the energy until you need it – without expensive batteries.

Power production plants



Gas turbines, gas engines and diesel generators all generate large amounts of waste heat. Why not turn this energy into electric power?

Also solar and geothermal energy can easily be turned into electric power with the Againty ORC System. By storing the hot water in well insulated water tanks the electricity production can continue day and night.

Benefits

A versatile system

The Againty ORC System consists of a stand-alone modular system specifically designed for easy installation at a wide range of industrial facilities.

Cost effective design

The innovative high efficiency turbine is designed for long service intervals reducing maintenance costs.

Simple commissioning

All our systems are factory built and tested, enabling a quick and easy installation on-site – almost like plug and play. On-site installation requires simply connecting the Againty system to the heat source and then plugging in to the electricity network.

Fully automated

The Againty ORC System is fully automated and designed for versatile use under a wide range of operating conditions. The system is equipped with a TCP/IP connection for remote monitoring and control – thus no personnel are required on site.

The range

Againty ORC modules starts at 50 kWe and are available up to 2 500 kWe. The modules are easily combined and the maximal power output of a plant hence unlimited. The systems are fabricated and delivered at a high grade of pre-assembly units for short installation and commissioning time at site.



Installed capacity 100 kWe








Installed capacity 2500 kWe



Againity is all about turning waste heat into something useful – electric power! This gives you a more energy efficient production, more performance and less cost – while saving the environment.



Againity offers ORC systems from 50 to 2500 kWe. Installed capacity is designed specifically for each customer case and the models in the table below show examples of different power outputs and corresponding dimensions.

					
Installed capacity	50 kWe	100 kWe	200 kWe	500 kWe	2500 kWe
Size¹ (LxWxH)	4.1 x 1.7 x 2.5 m	4.1 x 1.7 x 2.5 m	5.5 x 2.2 x 2.5 m	6.0 x 2.2 x 2.5 m	22.0 x 2.5 x 2.9 m Size of 40 + 20 ft containers
Frequency	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz
Weight	4.0 ton	5.0 ton	9.0 ton	12.0 ton	—
Voltage²	380–415 V	380–415 V	380–415 V	380–415 V	3000–6000 V

¹⁾ The measurements are approximate and tailored according to technical conditions of each built ORC system.

²⁾ Other voltages on request.

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