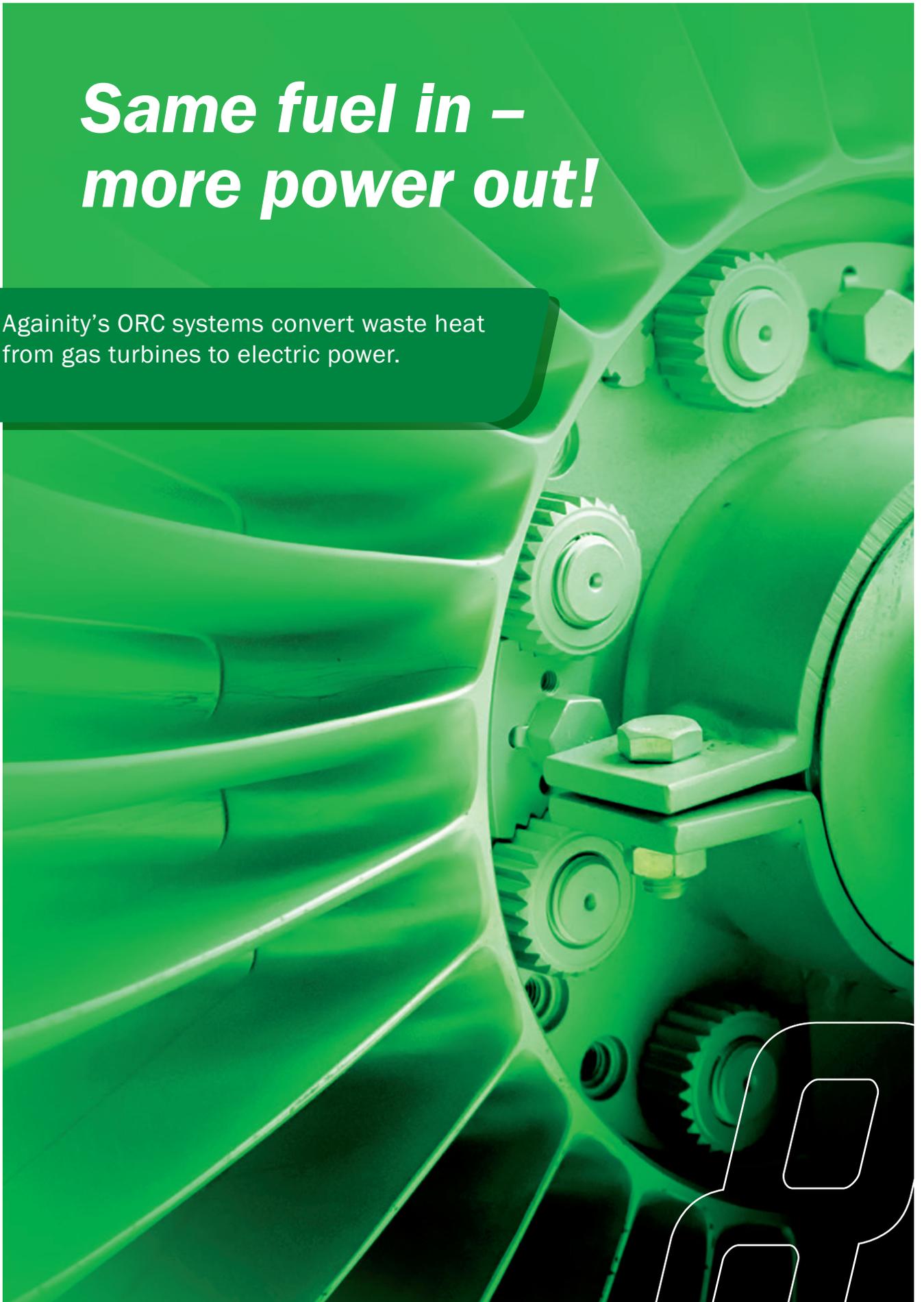




# *Same fuel in – more power out!*

Againty's ORC systems convert waste heat from gas turbines to electric power.



# From waste heat to electricity

When producing electricity from gas turbines, 65–75% of the fuel energy is often wasted as excess heat by the exhaust gas. The temperature of the exhaust gas is normally 350–550°C, which makes it an excellent source of energy for Againity's ORC<sup>1</sup> system and facilitates a highly efficient and cost-effective conversion to electric power.



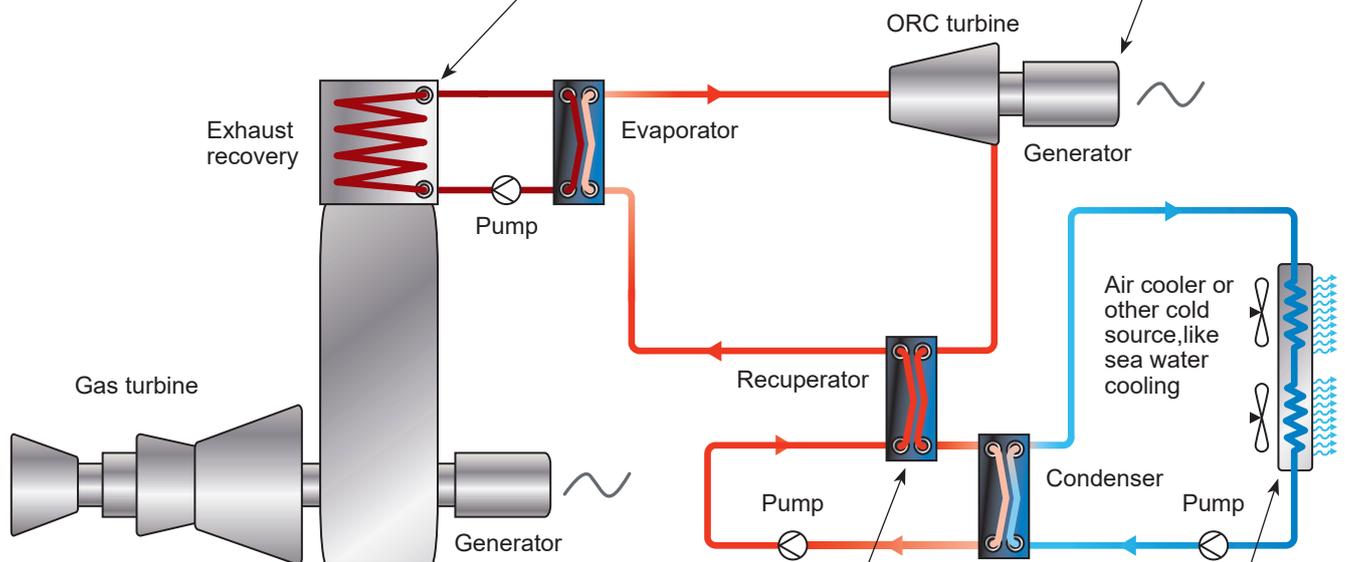
Layout of complete 1000 kW ORC turbine system.

## Flow chart

The Againity ORC System is based on the technology of the Organic Rankine Cycle (ORC). The core of the technology is a steam turbine set in motion by the pressure of hot steam. The rotating turbine then runs a generator that produces electricity.

The Againity ORC System uses thermal oil between the exhaust and the ORC unit, which prevents exposure of the working medium to the hot gases. The installation is simple and compact – no need of bypass of exhaust gases.

Againity's ORC turbine is a very compact unit with few moving parts. This gives a reliable turbine with a long life.



The Againity ORC System is always built with a recuperator that offers high performance yet a compact and economic installation.

The most economical way to cool the system is by using water from a nearby river or sea. When not available, air coolers are used.

<sup>1)</sup> Organic Rankine Cycle



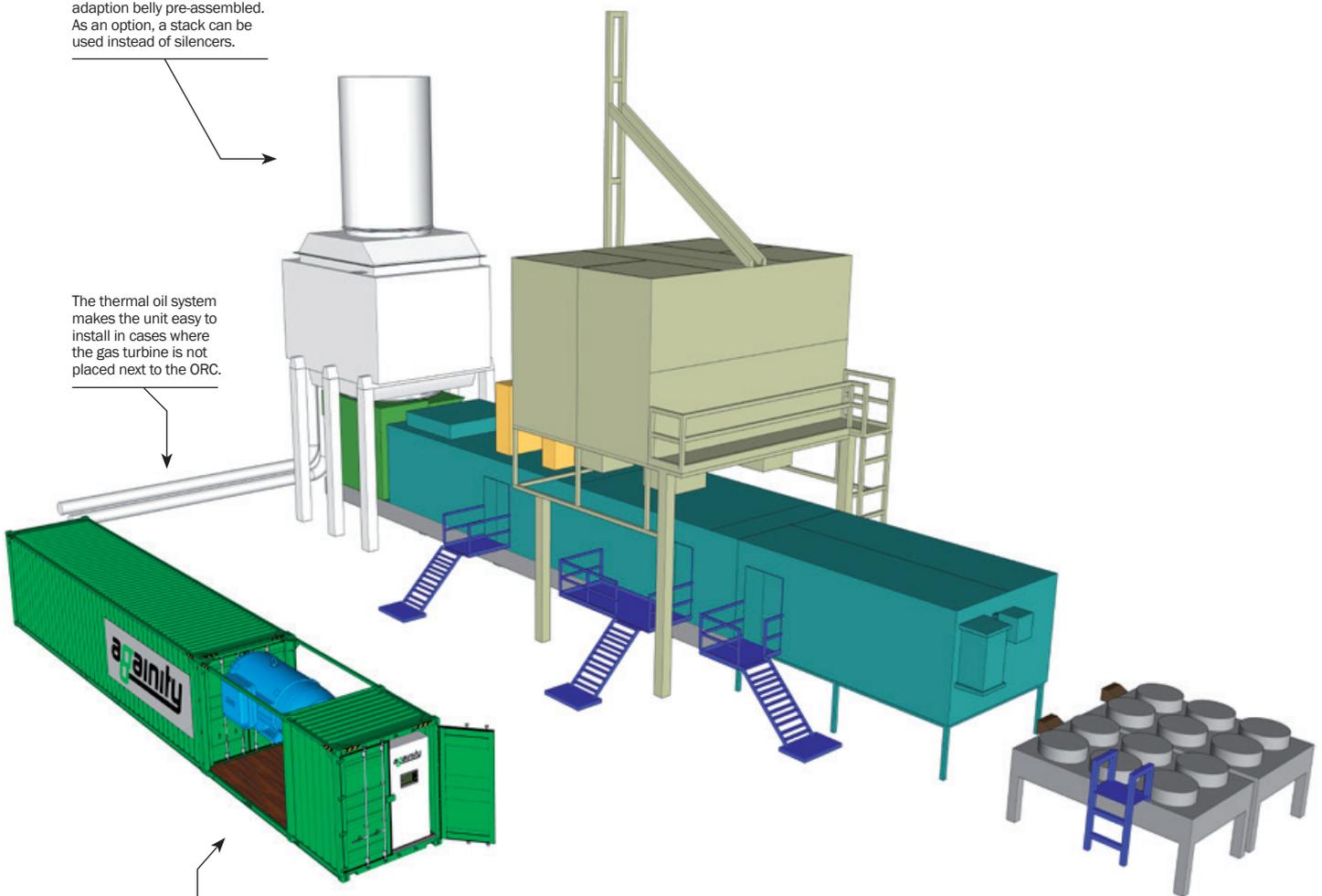
## Site layout

Againity's larger units come containerized – prepared for a fast and flexible installation. The containers make the site preparation very simple with a minimum of construction work.

The highly efficient waste heat unit only needs six support frames and comes with an adaption belly pre-assembled. As an option, a stack can be used instead of silencers.

The thermal oil system makes the unit easy to install in cases where the gas turbine is not placed next to the ORC.

The robust design with all connections practically located at the back of the unit makes it easy to install in narrow spaces.



# Same fuel in – more power out! with Againity's ORC systems

Againity is all about turning waste heat into value. We extract more power from your existing system to increase your plant's performance and cut your fuel cost – while contributing to a better 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.

					
<b>Installed capacity</b>	50 kWe	100 kWe	200 kWe	500 kWe	2500 kWe
<b>Size<sup>1</sup></b> (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
<b>Frequence</b>	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz
<b>Weight</b>	4.0 ton	5.0 ton	9.0 ton	12.0 ton	—
<b>Voltage<sup>2</sup></b>	380–415 V	380–415 V	380–415 V	380–415 V	3000–6000 V

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

<sup>2)</sup> Other voltages on request.

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