

ORC UNIT TECHSIM:

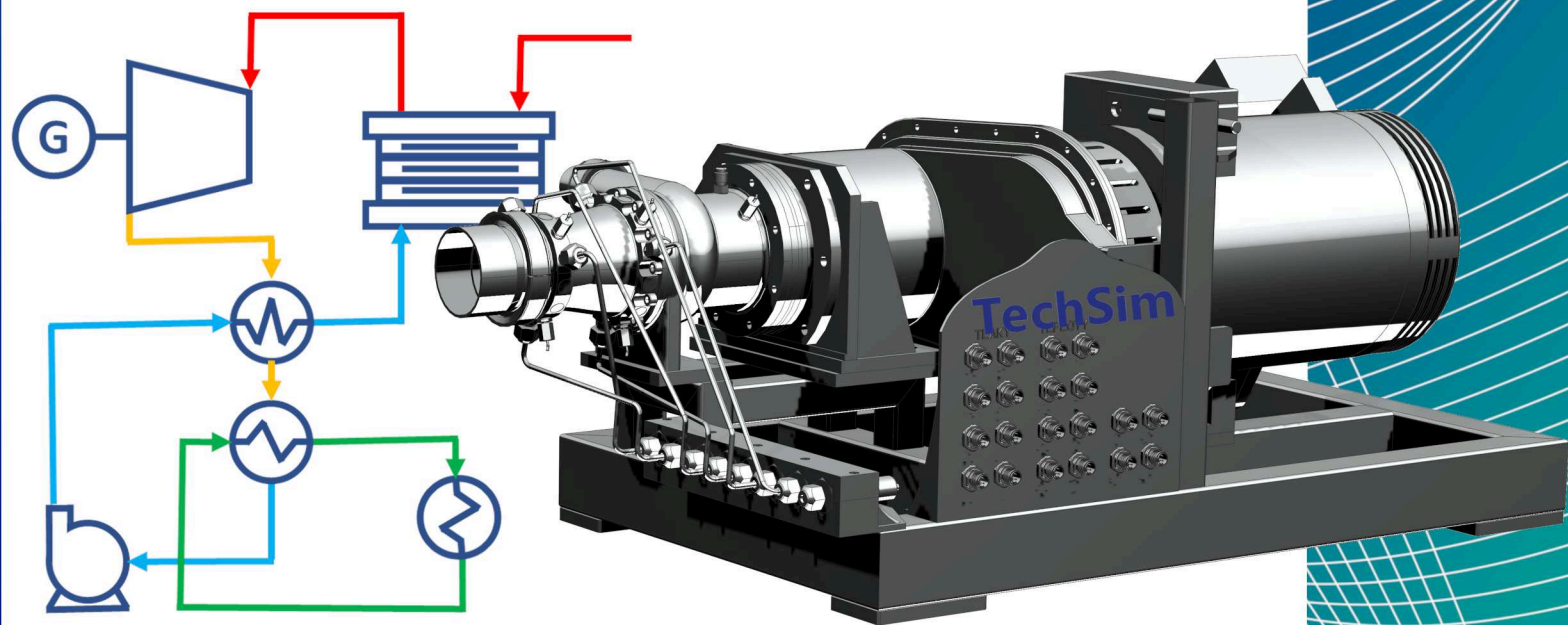
ORC = electricity production from waste heat

ORC technology is based on the steam engine cycle, where the working medium is an organic medium that receives heat from an external source into a closed loop. The device converts thermal energy into mechanical work, which can be used, among other things, to generate electricity. The working medium undergoes phase changes. It uses low-potential heat from any energy source (universal use). It is therefore a renewable energy source with zero emissions

Our technical solution

Our application is based on consistent development using digital prototyping methods. The solution itself is an innovative combination of a microturbine and an electromagnetic clutch. The advantages are low acquisition costs, automatic operation and flexible solutions for a wide range of temperatures and heat source configurations

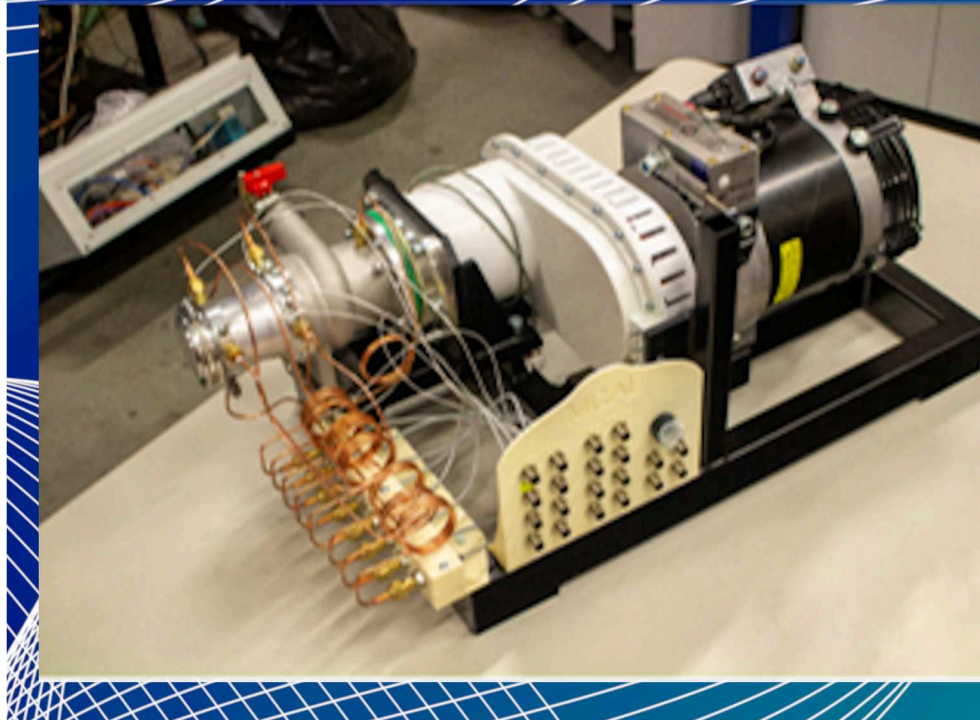
microcogeneration - low potential heat source -high efficiency



Product line:	NT	ST	VT
Heat source temp [°C]	80-110	120-220	230-390
1.5 kWe	MK2NT	MK2ST	MK2VT
5 kWe	MK5NT	MK5ST	MK5VT
10 kWe	MK10NT	MK10ST	MK10VT
50 kWe	MK50NT	MK50ST	MK50VT

Microcogeneration unit MK2NT

Input pressure	10.4 bar
Input temperature	100°C
Input heat power	21 kWt
Input cooling water	30°C
Output power	1.5 kWe
Output cooling water	50°C
Usable heat	18 kWt
Efficiency	85%



biogas - biomass - solar - geothermal - waste heat from production

TechSim Engineering provides a comprehensive engineering service for dimensioning, design and optimization of machine parts and equipment. We use top computer software in the field of FEA, CFD, ELMAG and 1D system analyzes. We are a partner and supplier of SW and measuring HW from Siemens Industry Software. We develop our own products and prototype products to order. We actively cooperate with a number of key companies in the field of automotive, transport and engineering technology, turbine and energy industries.