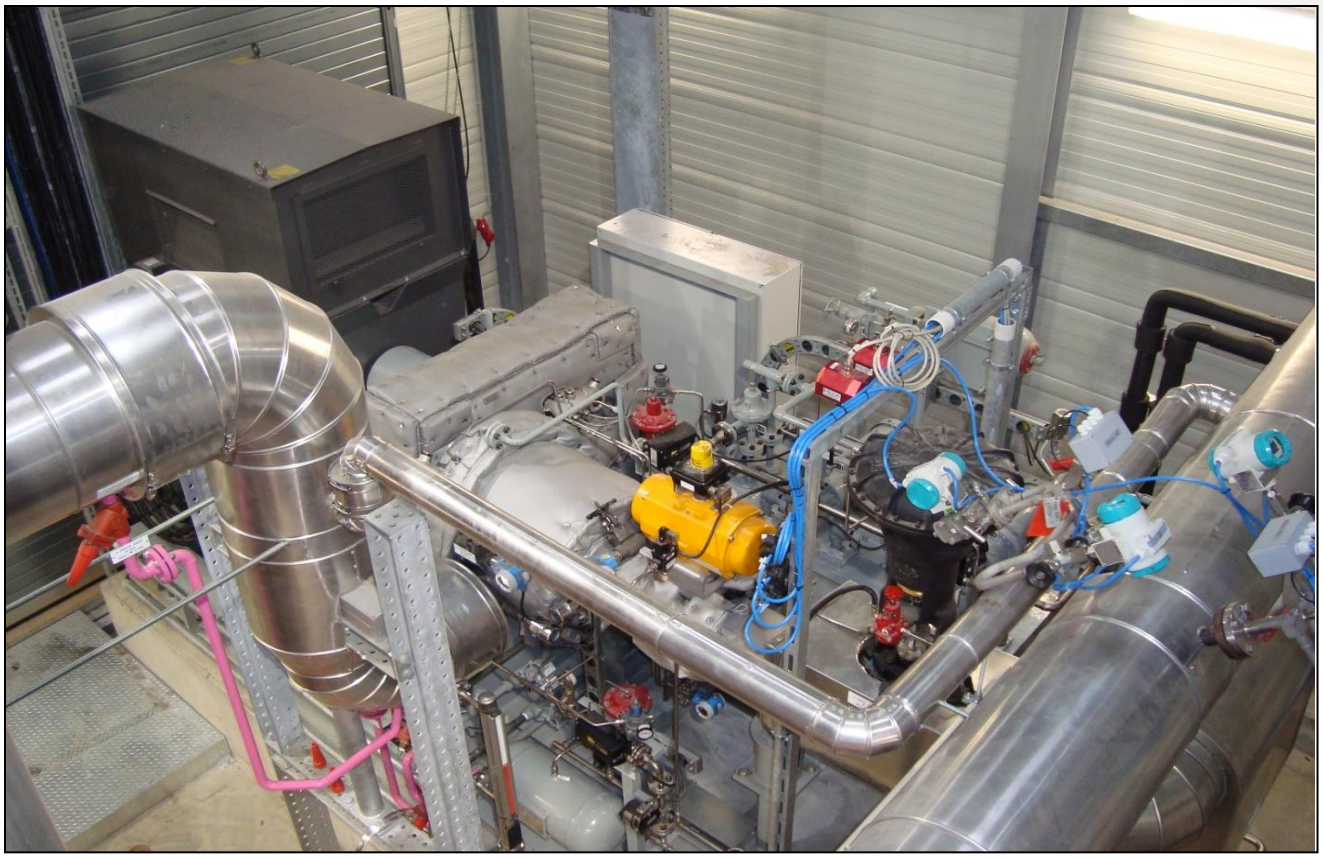
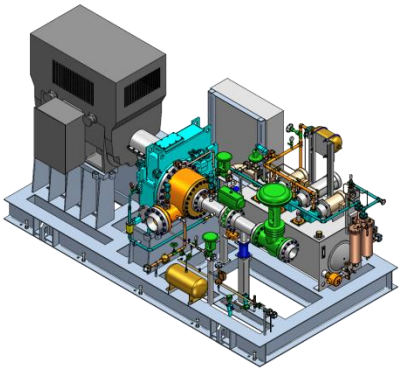
PROJECT EXPERIENCE

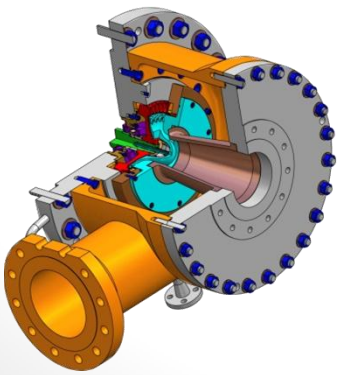


580 kW Kalina Cycle Euler Turbine

Built for EnBW and Siemens AG
Bruchsal, Germany



Energent's **EULER TURBINE** technology was applied to a **KALINA CYCLE** geothermal power plant in Bruchsal, Germany. The **RADIAL OUTFLOW** turbine rotates at 28,000 rpm, allowing the use of a single stage gearbox as opposed to a two-stage gearbox which would be required by a radial inflow turbine. Its rugged, **TITANIUM ROTOR** provides corrosion and moisture resistance to operate with the saturated vapor supplied by the **KALINA CYCLE**.

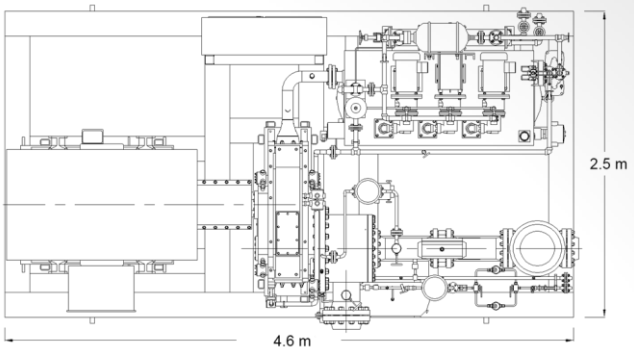


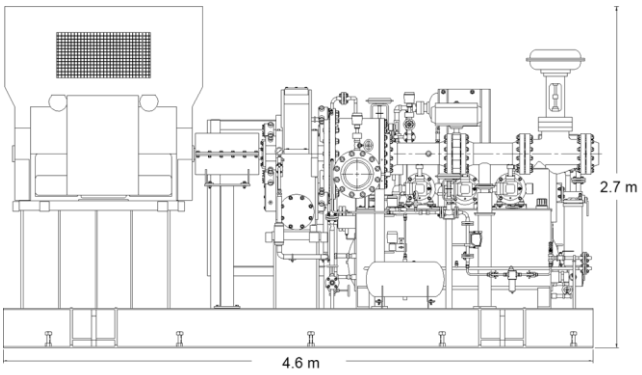
The power package, which includes turbine controls and switchgear, was **FACTORY TESTED** at part load using a pressurized nitrogen system, 50 Hz diesel generator, and load bank for reduced installation time. Since its official startup in December 2009, Energent's turbine has **EXCEEDED PERFORMANCE** guarantees.

ENERGENT

System Specifications

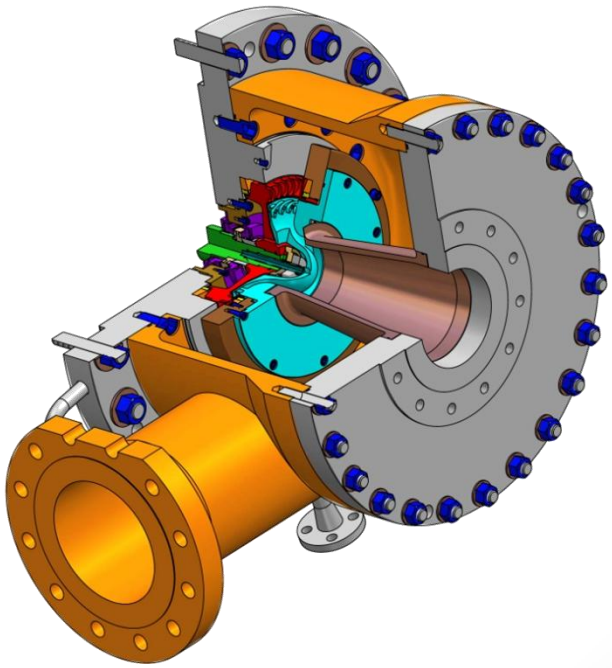
Power System	Type	Kalina Cycle
	Size (m)	4.6 L x 2.5 W x 2.7 H
	Power (kW)	587.5
Turbine	Type	Radial Outflow
	Speed (RPM)	28,000
	Efficiency	82%
Generator	Type	Induction
	Efficiency	95.4%
	Rated Output	640 kW, 400V AC, 3Ph
Gearbox	Type	Horizontal Offset
	Ratio	9.33:1
	Efficiency	95.7%
Controls	Interface	25 cm Touchscreen
	Panel Size (cm)	76 L x 46 W x 183 H
	Communications	Modbus





Euler Turbine Benefits

- High Efficiency
- Single Stage Gearbox
- Titanium Alloy Construction
- Erosion and Corrosion Resistant
- Rugged 2D Blade Design
- Moisture Resistant



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ENERGENT

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