

# ELECTRA THERM®

THIS IS SMART POWER®

WASTE HEAT  
170°-252°F / 77°-122°C



FUEL-FREE kWe  
COOLING BENEFITS  
ADDITIONAL THERMAL  
USAGE  
INCENTIVES

**POWER+**  
GENERATOR™

*Convert your waste heat into power*

## WHAT IS WASTE HEAT?

Waste heat is an untapped resource for sustainable energy. Waste heat is most commonly generated by fossil fuel combustion and vented to the atmosphere through smokestacks, exhaust, radiators or cooling towers.

## WHAT IS WASTE HEAT TO POWER?

Waste heat to power (WHP) refers to capturing waste heat and converting it to electricity with no additional combustion or emissions. Today's WHP systems like the Power+ Generator™ can cost-effectively make use of an overlooked clean energy resource by generating power and offsetting cooling costs.

## WHAT ARE SOURCES OF WASTE HEAT?

Waste heat is a byproduct of most manufacturing processes, power generation systems, and heating and cooling systems. ElectraTherm's customers make clean electricity from a wide variety of heat sources, such as:



Stationary Engines



Biomass/Biogas



Boilers & Process Heat



Flares



Oil & Gas, Geothermal



Waste Water Treatment

# POWER+

GENERATOR™

ElectraTherm's Power+ Generator™ produces fuel-free, emission-free electricity from low grade waste heat. The Power+ Generator is fully packaged with outputs up to 110kW for distributed power generation.

## FEATURES INCLUDE:

- Zero Emissions
- Zero Fossil Fuel Requirements
- Ease of Installation and Maintenance
- CE Certified
- Modular and Scalable
- Automated Control System
- Remote Monitoring
- Low Maintenance
- Robust, Twin Screw Expander Power Block
- Single or Dual Heat Stream Input
- Radiator Replacement Option

**CAPTURES HEAT. GENERATES POWER.**

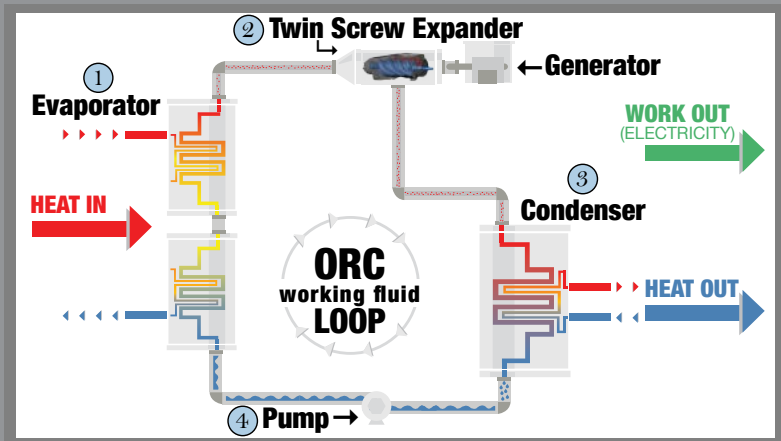
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## HOW IT WORKS

ElectraTherm's waste heat-to-power system uses a closed loop Organic Rankine Cycle (ORC).

## STEPS IN THE PROCESS

1. Working fluid is pumped to higher pressure and transferred to the evaporator.
2. Heat captured by the evaporator boils the working fluid into pressurized vapor.
3. The vapor flows through the twin screw expander, spinning an electric generator to produce power.
4. The vapor is cooled and condensed back into a liquid in the condenser to repeat the cycle.



# Configurations

## ELECTRATHERM'S POWER+ GENERATOR™ IS AVAILABLE IN THREE DIFFERENT MODELS...

1. Power+ 4200 - up to 35kwe
2. Power+ 4400 - up to 65kwe
3. Power+ 6500 - up to 110kwe

...AND TWO DIFFERENT CONFIGURATIONS:

Standalone



Turnkey



## GROSS POWER OUTPUT

Assumes Sufficient Available Thermal Power and Cold Water Source Conditions of  
70°F [21°C] / 220gpm [13.9 l/s] / 0% Propylene Glycol

