

INDUSTRIAL SOLUTIONS

Waste Heat Recovery – Bottoming cycle

- + Flexibility with the heat source
- + Recovery of waste heat
- + Energy efficiency
- + Low maintenance
- + Modularity



Cogeneration

The products of the ENEFCOGEN^{GREEN} line allow recovery of thermal wastes, they transform low quality thermal energy into power energy of great value. The produced power can be consumed on industrial sites or injected into the electrical grid.

Thermal wastes

The thermal wastes recovered can come from industrial processes, motors (heat dissipation or heat from gas exhausts), from a heat-power combination or any heat generating equipment.

Energy saving

The wasted heat from industrial processes or from motors is usually dissipated by heaters placed on the roofs. The establishment of an ENEFCOGEN unit allows the recuperation of thermal wastes but also to reduce the energy needed to operate the heaters. The energy saving is double!

Use of the wasted heat

The low temperature residual heat resulting from the use of an ENEFCOGEN unit can be used for space heating or if necessary dispersed with heaters.

Benefits

The economic advantage of reselling or using the electricity produced is not the only benefit of ENEFCOGEN products. The following points should be carefully considered :

+ Flexibility

Possibility to absorb a variation up to 70% of the heat source.

+ Recovery of waste heat

Thermal wastes are converted into electricity and the energy initially used to dissipate heat through heaters is saved.

+ Energetic efficiency

95% cogeneration efficiency.

+ Modularity

The ENEFCOGEN units can be installed in parallel. An installation can therefore grow as needed.

+ Low maintenance

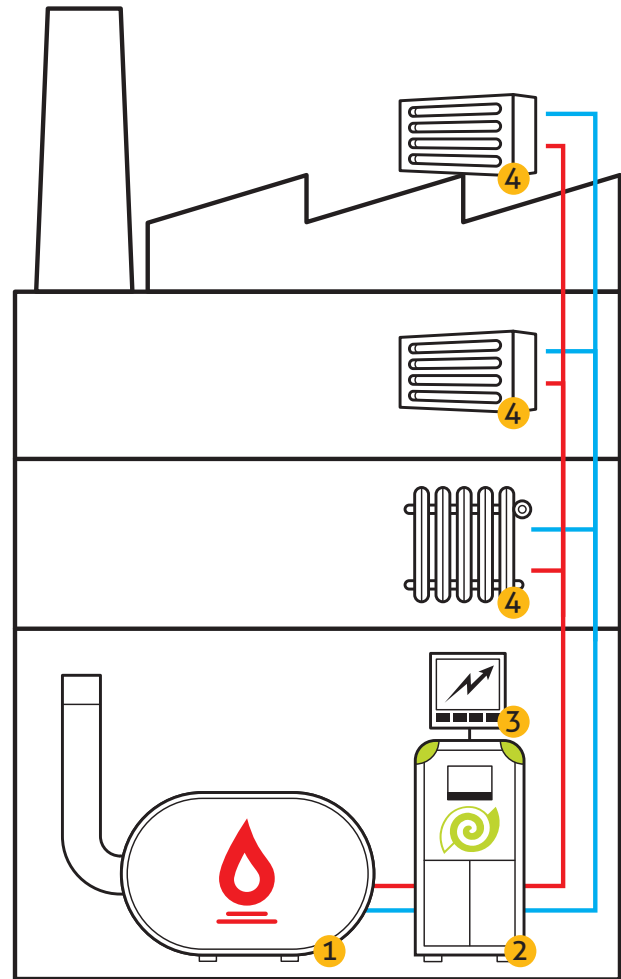
The sealed design of the turbines reduces the number of moving parts and therefore the maintenance frequency.

+ Acoustic comfort

The low noise level allows for easy installation without need for dedicated facilities.

+ Compact

Depending on the chosen model, the system occupies 1 to 2 m² of floor space.



1. Heat source (Industrial processes, motors)
2. ENEFCOGEN^{GREEN} Module
3. Electric switchboard
4. Heat used for heating or to be destroyed

Characteristics

		10kWe		20kWe		30kWe	
		010GRE-01		020GRE-01		030GRE-01	
Performances (Electricity Generation / Heat supplied)							
Electrical power up to	kW	5	10	15	20	25	30
Cogeneration efficiency		95%	95%	95%	95%	95%	95%
Thermal power	kW	45	80	156	170	260	255
Inlet temperature	°C	20-30	20-30	20-30	20-30	20-30	20-30
Outlet temperature *	°C	30-40	30-40	30-40	30-40	30-40	30-40
Thermal power required (Heat Required)							
Thermal power	kW	53	95	180	200	300	300
Inlet temperature	°C	125-135	140-150	125-135	140-150	125-135	140-150
Outlet temperature	°C	105-115	115-130	105-115	115-130	105-115	115-130
Installation (Dimensions)							
Electrical connections (three-phase)		400V / 50Hz, 32A		400V / 50Hz, 100A		400V / 50Hz, 100A	
Weight	kg	600		1150		1300	
Dimensions h/w/d	mm	1700x1500x750		2000x1900x1040		2000x1900x1040	

* Depending on the options, the temperatures output by the ENEFCOGEN can be selected in a range of 30°-65°C