electria

Seleccione la opción que desea consultar

agenitor

The global efficiency benchmark

75-450 kW

Fuel types: H_2

AGENITOR

Biogas
Natural gas
Propane
Hydrogen

avus

The powerful all-in-one solution

548–4,500 kW

Fuel types:

AVUS

Biogas
Natural gas
Propane

g-box

The profitable compact class

20–50 kW

Fuel types:

G-BOX

Natural gas
Propane

aura

The clean performer

100-420 kW

Fuel types:

AURA

Natural gas

patruus

The proven classic

140–263 kW

Fuel types:

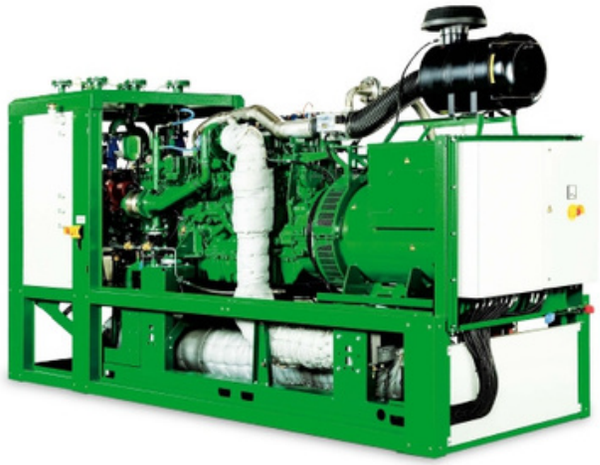
PATRUUS

agenitor. 80 - 450 kW.
biogas.

Evolution in effciency.

The agenitor by 2G is the result of intensive work by the 2G research and development team. Improving combustion chamber geometry has made it possible to increase the efficiency of the agenitor significantly.

- Highly efficient power plant with optimized gas engine
  - and therefore lower fuel costs
- Modular design facilitates installation in hard to reach places
- Very reliable even in regular start-stop operation thanks to highly wear-resistant engine components
- Resilient and low-maintenance
- Available as a twin pack configuration with two modules per container for twice the power



Type	Configuration	Output		Efficiency		
		Electrical	Thermal	Electrical	Thermal	Total
agenitor 404	at135-0	80 kW	341 MBTU	35.2 %	44.1 %	79.3 %
agenitor 404	bt135-0	100 kW	406 MBTU	37.0 %	44.0 %	81.0 %
agenitor 404	ct135-0	160 kW	580 MBTU	39.7 %	42.0 %	81.7%
agenitor 406	ct135-0	250 kW	887 MBTU	41.3 %	42.9 %	84.2 %
agenitor 408	ct135-0	360 kW	1306 MBTU	40.9%	43.6 %	84.5 %
agenitor 412	ct135-0	450 kW	1555 MBTU	40.2 %	40.8%	81.0%

applications.

Biogas Plants

Waste Water Treatment Plants

Agricultural Businesses

Landfill Sites

2G. Combined Heat & Power.

Waste Water Treatment Plant
Missoula, MT

agenitor 206
Biogas

Fast Facts:

Location: Missoula, MT

Generating Capacity: 220 kW

Configuration: Container Module

Extras: Biogas Treatment System, Siloxane Removal

About the Site:

The city of Missoula, Montana has a number of green initiatives that have been undertaken in recent years, including recycling, repurposing, and resource recovery. The newest addition is the methane gas to electricity initiative at the wastewater treatment plant.

Details:

- Generating $8,000 per month of electricity
- 25% of the plant's electric bill
- Treating 7.5 million gallons of raw sewage per day

Application:

On this site, wastewater comes into the plant and when it exits, it becomes compost, trees and energy. Where they used to burn off the excess methane to heat the plant, if there was no demand for it, it would be flared off. Now, they are going to be near 100% usage of the methane with the 2G Energy agenitor 220 kW CHP system. The methane is turned to electricity for the plant.

agenitor. 100 - 450kW. natural gas.

Evolution in efficiency.

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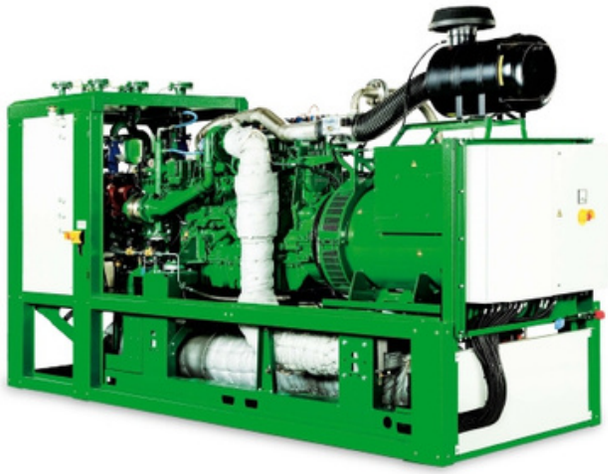


Type	Configuration	Output		Efficiency		
		Electrical	Thermal	Electrical	Thermal	Total
agenitor 404	bt80-0	100 kW	416 MBTU	36.9 %	45.0 %	81.9 %
agenitor 404	ct80-0	160 kW	610 MBTU	39.7 %	44.3 %	84.0 %
agenitor 406	bt80-0	250 kW	938 MBTU	40.6 %	44.7 %	85.3 %
agenitor 408	bt80-0	360 kW	1,361 MBTU	40.9 %	45.3 %	86.2 %
agenitor 412	bt70-0	450 kW	1,634 MBTU	40.2 %	42.8 %	83.0 %

applications.

Office and Administration Buildings

Shopping Centers

Sports and Rec Facilities

Residential Buildings

Swimming Pools

Senior Citizen Centers

Hotels

Schools and Universities

2G. Combined Heat & Power.

O'hair Shutters
Lubbock, TX

2 x agenitor 306, 2 x patruus 265, patruus 280
Natural Gas

Fast Facts:

Location: Lubbock, TX

Generating Capacity: 1310 kW

Configuration: Twin Pack Container Modules

Gas Type: Natural Gas

About the Site:

O'Hair Shutters is the largest domestic plantation shutter manufacturer in the United States. The company produces interior and exterior shutters for homes, on a 40-acre facility in Lubbock, Texas. In operation since 1940 and run by the fourth generation of the O'Hair family, the company prides itself on the use of American hardwoods, solid construction, advanced design, respect for the environment, honesty, and reliability.

Details:

- Generates 85% of the site's electricity needs
- Saves more than $40,000 per month on combined utility costs
- Uses waste heat for paint drying process, cooling buildings, and powering a kiln

Application

Natural gas can be used to generate electricity needed in a particular industrial setting. The excess heat produced from this process can be harnessed to fulfill industrial applications, including space heating, water heating, or generating steam. This Industrial Manufacturer of wooden shutters has installed 5 2G Energy CHP units - 2 agenitor 306, 2 patruus 265, and a patruus 280.

2G. Combined Heat & Power.

Inicio

Propane Product Overview

Built for Resilient Operation

The highly-efficient 2G propane product line is designed for maximum operation across many diverse applications including Hospitality, Manufacturing, Food Industry and base load power for Microgrids.
The modular systems include all components for simplified installation.

- Operation of multiple units in parallel allows for higher electrical output. A Master Control system enables synchronization and load sharing for up to 5 systems.
- Robust / Reliable engine designs facilitate Efficient operation and maximum uptime .

Product Name	Outputs		Efficiency		
	Electrical Output (kW)	Thermal Output (MBTU)	Electrical Efficiency	Thermal Efficiency	Total
agenitor 404	100 kW	419 MBTU	36.30%	44.50%	80.90%
agenitor 406	150 kW	631 MBTU	37.20%	45.90%	83.10%
agenitor 408	215 kW	887 MBTU	37.50%	45.30%	82.70%
agenitor 412	330 kW	1,426 MBTU	37.70%	44.50%	82.20%
agenitor 420	580 kW	2,327 MBTU	38.30%	45.10%	83.40%
avus 1000c	855 kW	2,555 MBTU	40.30%	46.40%	86.70%
avus 1500c	822 kW	3,306 MBTU	39.80%	46.90%	86.70%
avus 2000c	945 kW	3,852 MBTU	39.20%	46.80%	86.00%
avus 1000a	848 kW	3,876 MBTU	38.00%	50.89%	88.89%
avus 1000b	997 kW	4,080 MBTU	40.90%	49.00%	89.90%
avus 1500b	1248 kW	4,998 MBTU	40.90%	48.00%	89.00%

This site in Anasco, Puerto Rico is utilizing a 2G system with the generating capacity of 240 kW electrical and 367 kW thermal. This unit is generating both the heat and power for a local resort using propane as the source of fuel. It is fully containerized with Island Mode for resiliency and continuous operation during blackouts or natural disasters (hurricane) The system is rated to withstand tropical winds and seismic activity.

Hydrogen CHP
115 - 750 kW

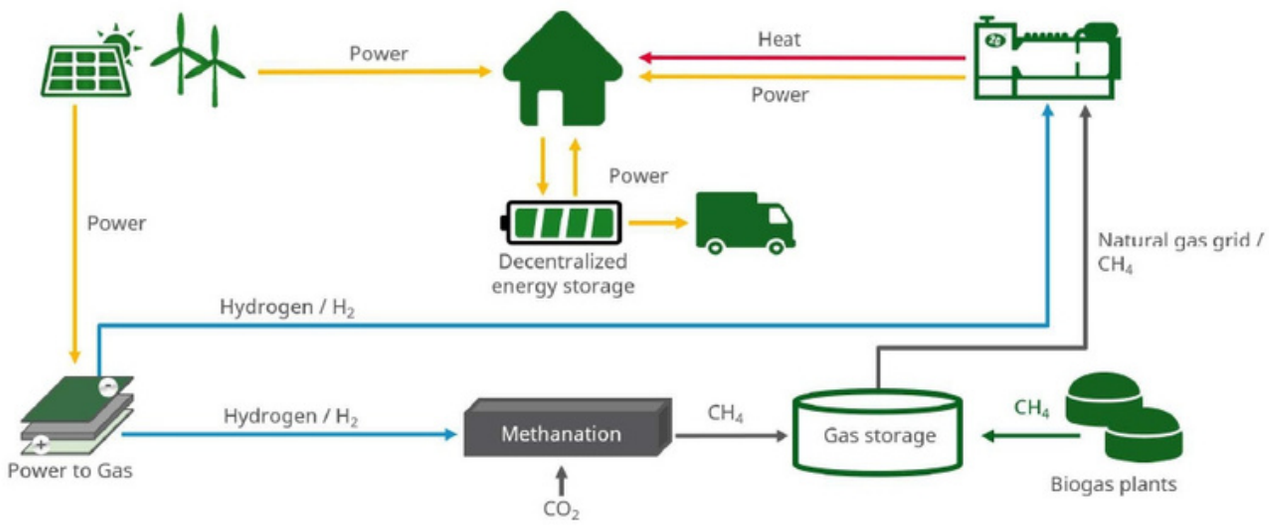
World's First 100% H2 CHP

2G has adapted an efficient natural gas CHP system that can use pure hydrogen in an economically friendly and reliable way for the decentralized generation of electricity and heat.

- 100% green hydrogen (H2) as a climate-neutral fuel for combined heat and power
- Highly efficient, field-tested natural gas engines from the agenitor, aura and avus product lines are the backbone of our hydrogen CHP lineup
- Wide range of gas types from pure hydrogen to variable gas mixtures with natural gas or lean gases
- Hydrogen engine CHP more robust and cheaper than fuel cells
- Delivery as a ready-to-connect container solution possible

Type	Output			Efficiency		
	Electrical	Thermal		Electrical	Thermal	Total
agenitor 404c	115 kW	129 kW	440 MBTU	37.7 %	42.3%	80.0 %
agenitor 406	170 kW	183 kW	624 MBTU	39.0 %	41.9%	80.9 %
agenitor 408	250 kW	250 kW	853 MBTU	40.2 %	41.9 %	82.1 %
agenitor 412	360 kW	371 kW	1,266 MBTU	40.5 %	41.7 %	82.2 %
agenitor 420	750 kW	687 kW	2,344 MBTU	41.1 %	39.3 %	80.4 %

2G Energy's standard natural gas engines can be fueled retrofitted to run on hydrogen anytime on site.



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Inicio

avus 550 - 2,000 kW.
biogas.

built for big tasks.

The avus is a highly-efficient 2G power plant for high electric power consumption (above 500 kW) which is used in larger industrial projects or for supplying micro grids.

The modular built systems include all components and are easy to install.

- Interconnection of multiple units allows for higher electrical output. A Master Control system enables synchronization and load sharing up to 5 modules.
- Efficient running mode and operation times due to excellent engine quality.

Type	Configuration	Output		Efficiency		
		Electrical	Thermal	Electrical	Thermal	Total
avus 500 plus	ct135.0	550 kW	2,002 MBTU	40.6 %	43.3 %	83.9 %
avus 600c	C	600 kW	2,190 MBTU	40.4 %	43.1 %	83.5 %
avus 800c	C	800 kW	2,859 MBTU	40.7 %	42.7 %	83.4 %
avus 1200c	C	1,200 kW	3,900 MBTU	42.8 %	40.7 %	83.5 %
avus 1500c	C	1,560 kW	5,374 MBTU	41.7 %	42.1 %	83.8 %
avus 2000c	C	2,000 kW	6,817 MBTU	42.3 %	42.2 %	84.5 %

applications.

Biogas Plants

Waste Water Treatment Plants

Agricultural Businesses

Landfill Sites

2G. Combined Heat & Power.

Three Rivers Landfill
Pontotoc, MS

avus 1,200 kW
Biogas

Fast Facts:

Location: Pontotoc, MS

Generating Capacity: 1,200 kW

Configuration: Container Module

Extras: Biogas Treatment System, Siloxane Removal

About the Site:

Like many landfills around the country that are currently flaring off a valuable fuel that could be used to produce energy, this customer is using a 2G avus 1200 LFG CHP to turn their free fuel to energy.

This 2G LFG to Energy module is fully equipped will all interconnection switchgear required by the local utility for feeding all 1,200 kW/h into the grid.

Application

The amount of electricity produced by this CHP is sufficient enough to power over 1,000 homes in the surrounding area. Along with all the required switchgear that is supplied as a standard component with every 2G package, the customer also selected a comprehensive gas treatment system for the removal of harmful Siloxanes typically found in LFG. This gas treatment consists of a triple vessel AVK 1000 carbon filter and oversized gas dehumidification system to remove all condensate and moisture in the raw LFG before it enters the combustion and energy conversion process.

2G. Combined Heat & Power.

Inicio

avus 550 - 2,500 kW.
natural gas.

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avus 500 plus	550 kW	2,084 MBTU	40.6 %	45.1 %	85.7 %
avus 600c	600 kW	2,320 MBTU	42.2 %	45.9 %	88.1%
avus 800c	800 kW	3,043 MBTU	42.4 %	45.7 %	88.1 %
avus 800e	997 kW	3,688 MBTU	43.2%	46.8 %	90.0 %
avus 1200c	1,200 kW	4,080 MBTU	43.4 %	43.2 %	86.6 %
avus 1500c	1,560 kW	5,421 MBTU	43.0 %	43.8 %	86.8 %
avus 1600e	2,014 kW	7,407 MBTU	43.3 %	46.7 %	90.0 %
avus 2000c	2,000 kW	6,793 MBTU	43.4 %	43.2 %	86.6 %
avus 2000e	2,521 kW	9,283 MBTU	43.6 %	46.7%	90.3 %

applications.

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g-box 60 kW.
natural gas.

profitable small power plant.

The g-box is the profitable small power plant by 2G ranging in electrical output to 60 kW. It is supplied as a connection-ready compact module. The control cabinet with PLC controller and operating unit is designed as a separate unit on the module. The g-box not only works extremely efficiently but also very quietly, thanks to the fully enclosed sound capsule.

- Island and Black start capabilities
- Connection-ready, super-silent compact module
- g-box 50 with max. 55 dB (A) at a distance of 1 m
- Very economical due to high thermal efficiency thanks to condensing technology (as standard)
- Long operating times, reliable and low-maintenance
- Possible incorporation into tight building spaces thanks to the modular design
- Completely water-cooled, no need for supply and return air thus reducing installation costs

Type	Configuration	Output		Efficiency		
		Electrical	Thermal	Electrical	Thermal	Total
g-box 50	as80-4	60 kW	423 MBTU	34.3 %	71.0 %	105.3 %

applications.

Office and Administration Buildings

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Sports and Rec Facilities

Residential Buildings

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Inicio

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2G. Combined Heat & Power.

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aura. 100 - 420 kW.
natural gas.

Clean and efficient.

Equipped with 2G's proprietary Lambda 1 technology and low-charged turbocharger, the aura is has extremely low exhaust emissions and meets the increasingly stringent requirements for low nitrogen oxide limits.

- Low emissions
- High heat efficiency
- Reliable, service-friendly engine
- Higher performance than 15% of conventional systems with the same displacement
- Designed as ready-to-connect compact module
- HYDROGEN READY

Type	Output		Efficiency		
	Electrical	Thermal	Electrical	Thermal	Total
aura 404	100 kW	525 MBTU	35.9 %	54.9 %	90.8 %
aura 406	170 kW	808 MBTU	35.4 %	55.8 %	91.2 %
aura 408	280 kW	1,493 MBTU	37.1 %	58.0 %	95.1 %
aura 412	420 kW	2,235 MBTU	37.2 %	58.0 %	95.2 %

applications.

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