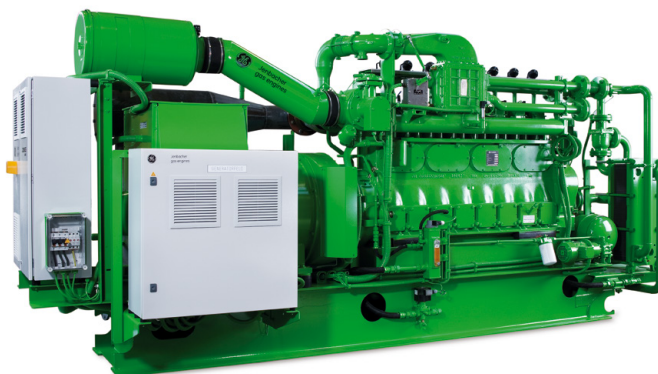




Jenbacher type 2

Continuous development for 30 years

Introduced in 1976 and continuously improved, the Jenbacher type 2 engine offers extremely high efficiency in the 250 to 350 kW power range. Its robust design and stationary engine concept result in excellent component durability and a service life of 80,000 operating hours before the first major overhaul. Enhanced components and a proven control and monitoring concept give this engine outstanding reliability.



Reference installations

J208 Sewage treatment plant Fritzens, Austria

Fuel	Engine type	Electrical output	Thermal output	Commissioning
Sewage gas	2 x J208	660 kW	2,598 MBTU/hr	12/2002 (a), 04/2005 (b)

a) 1st engine b) 2nd engine

Both J208 engines generate more than 3.3 MWh of electricity per year, which offsets the plant's electricity demand. In addition, the engine's heat is used for food waste processing and additional energy generation while benefiting the waste management operations.



J208 Biogas plant Lamping Emstek Germany

Fuel	Engine type	Electrical output	Thermal output	Commissioning
Biogas	1 x J208	330 kW	1,383 MBTU/hr	12/2003

The gas engine runs on biogas produced from liquid manure and corn from the Lamping farm. The generated electricity is entirely fed into the public grid, and the produced heat is used for heating of the digester, housing and stables.



J208 Strass im Zillertal Tirol, Austria

Fuel	Engine type	Electrical output	Thermal output	Commissioning
Sewage gas	1 x J208 1 x J312	330 kW / 625 kW	1,434 MBTU/hr 2,273 MBTU/hr	04/2001 (a) 06/2009 (b)

a) 1st engine b) 2nd engine

The shining star for energy efficiency in WWTPs. The engines provide electricity and heat for a facility that generates 120 % of its energy demand. The excess power is fed into the local grid.





Technical data

Configuration	In line
Bore (inch)	5.31
Stroke (inch)	5.71
Displacement / cylinder (cu.in)	126.6
Speed (rpm)	1,800 (60 Hz)
Mean piston speed (in/s)	343
Scope of supply	Generator set, cogeneration system, generator set / cogeneration in container
Applicable gas types	Natural gas, flare gas, propane, biogas, landfill gas, sewage gas
Engine type	J208
No. of cylinders	8
Total displacement (cu.in)	1,013

Dimensions l x w x h (inch)	
Generator set	200 x 70 x 80
Cogeneration system	200 x 70 x 80
Container 40-foot (cogeneration)	480 x 100 x 110

Weights empty (lbs)	
Generator set	12,570
Cogeneration system	14,110

Outputs and efficiencies

Natural gas		1,800 rpm 60 Hz				
NOx <	Type	PeI (kW)¹	ηel (%)¹	Pth (kW)²	ηth (%)²	ηtot (%)
1.0 g/bhp.hr	J208	335	37.2	1,445	47.1	84.3
0.5 g/bhp.hr	J208	335	35.9	1,443	45.3	81.2

Biogas		1,800 rpm 60 Hz				
NOx <	Type	PeI (kW)¹	ηel (%)¹	Pth (kW)²	ηth (%)²	ηtot (%)
1.0 g/bhp.hr	J208	335	36.3	1,399	44.4	80.6



1) Technical data according to ISO 3046
 2) Total heat output with a tolerance of +/- 8 %, exhaust gas outlet temperature 120°C, for biogas exhaust gas outlet temperature 180°C
 All data according to full load and subject to technical development and modification.
 Further engines versions available on request.