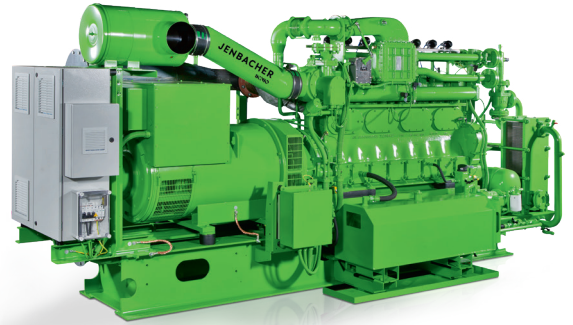


Jenbacher type 2

Continuous development for more than 40 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 Biogas plant in Schlitters, Austria

Fuel	Engine type	Electrical output	Thermal output	Commissioning
Biogas	1 x J208	350 kW	1,264 MBTU/hr	2008 2015 ⁽¹⁾

A single J208 engine at the combined heat and power (CHP) station in Schlitters annually transforms about 12,000 tons of leftover food and biowaste into electricity and heat. The residual digested biowaste then is compressed into compost or turned into liquid manure to fertilize agricultural fields in the region.

1) Engine replaced by a new J208



J208 Sewage treatment plant in Fritzens, Austria

Fuel	Engine type	Electrical output	Thermal output	Commissioning
Sewage gas	2 x J208	660 kW	2,599 MBTU/hr	2002 ⁽¹⁾ 2005 ⁽²⁾

At the sewage treatment plant in Fritzens, two J208 engines running on sewage gas generate more than 3.3 MWh of electricity to offset the facility's annual electricity demand. Furthermore, heat generated by the engines is used to process food waste and generate additional energy that benefits the plant's waste management operations.

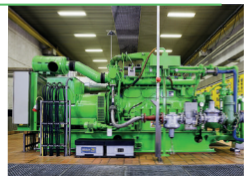
1) First engine 2) Second engine



J208 Sewage treatment plant in Strass im Zillertal, Austria

Fuel	Engine type	Electrical output	Thermal output	Commissioning
Sewage gas	1 x J208 1 x J312	625 kW	2,473 MBTU/hr	2009

Two Jenbacher gas engines generate 120% of the electricity and heat needed at the sewage treatment plant in Strass. The excess power is fed into the local grid.



J208 & J320 Arif Habib Group Business Building in Karachi, Pakistan

Fuel	Engine type	Electrical output	Commissioning
Natural Gas	1 x J208	330 kW	2009
	1 x J320	1,064 kW	2009

For the Arif Habib Group, a business conglomerate company based in Karachi, two Jenbacher generator sets generate 1,394 kW electricity to support their head office with onsite power. The J208 engine has already achieved more than 50,000 operating hours.



Technical data

Configuration	In line
Bore (inch)	5.31
Stroke (inch)	5.71
Displacement / cylinder (cu.in)	126.4
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
Container 40-foot (cogeneration)	41,000

Outputs and efficiencies

Natural gas		1.800 rpm 60 Hz				
NOx <	Type	PeI (kW) ¹	Pth (MBTU/hr) ²	ηel (%) ¹	ηth (%) ²	ηtot (%)
1.0 g/bhp.hr	J208	335	1443	35.9	45.3	81.2
0.6 g/bhpr	J208	335	1445	37.2	47.1	84.3

Biogas		1,800 rpm 60 Hz				
NOx <	Type	PeI (kW) ¹	Pth (MBTU/hr) ²	ηel (%) ¹	ηth (%) ²	ηtot (%)
1.0 g/bhp.hr	J208	335	1399	36.3	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 gas outlet temperature 180°C
All data according to full load and subject to technical development and modification.
Further engines versions available on request.

