

NORTHEAST – WESTERN™

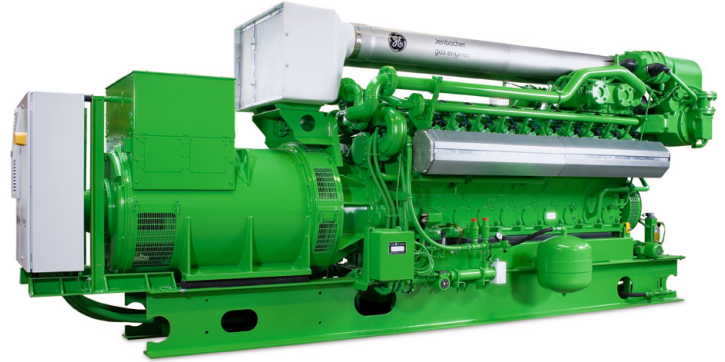
ENERGY SYSTEMS

Power Systems Specialists

Jenbacher type 3

Efficient, durable, reliable

Long service intervals, maintenance-friendly engine design and low fuel consumption ensure maximum efficiency in our type 3 engines. Enhanced components prolong service life even when using non-pipeline gases such as landfill gas. The new type 3D generation offers an outstanding service interval with up to 80,000 operating hours until the major overhaul. This engine type stands out in its 600 to 1,100 kW power range due to its technical maturity and high degree of reliability.



Reference installations

J312 Containerized Solution; Miller Brewery, Irwindale, CA

Fuel	Engine type	Electrical output	Thermal output	Commissioning
Biogas	2x JMC312	1,266 kW	6,946 MBTU/hr	September 2016

Containerized JMC312 units operate on digester biogas providing electricity to Miller Brewing and heat to digester tanks to speed biogas production.



J312 Cold Storage Facility; Santa Maria, CA

Fuel	Engine type	Electrical output	Thermal output	Commissioning
Natural gas	1 x J312	633 kW	2,934 MBTU/hr	June 2016

This cold storage facility uses all the electricity generated by this Jenbacher containerized unit while the heat powers a 125 ton chiller to provide low temperature chilled water to the facility.



J316 Waste Water Treatment Plant; Durham, OR

Fuel	Engine type	Electrical output	Thermal input	Commissioning
Biogas	2 x JMS316	1,696 kW	6,946 MBTU/hr	May 2016

This installation at WWTP in Durham, OR converts biogas produced by sewage into valuable electricity used by the plant and heat which is used in the digester to speed the conversion process and the production of biogas.



J320 Santa Maria Landfill, Santa Maria, CA

Fuel	Engine type	Electrical output	Thermal output	Commissioning
Landfill gas	1 x JGS 320	1,059 kW	4,954 MBTU/hr	December 2010

Jenbacher engine generator converts landfill gas into valuable electricity. It provides green power and heat to a hospital.



Technical data

Configuration	V 70°			Dimensions l x w x h (inch)		
Bore (inch)	5.31			Generator set	J312	190 x 70 x 90
Stroke (inch)	6.69				J316	210 x 70 x 90
					J320	230 x 70 x 100
Displacement / cylinder (cu.in)	148.5			Cogeneration system	J312	190 x 90 x 90
					J316	210 x 90 x 90
					J320	230 x 80 x 90
Speed (rpm)	1,800 (60 Hz)			Container	J312	480 x 100 x 110
Mean piston speed (in/s)	402				J316	480 x 100 x 110
					J320	480 x 100 x 110
Scope of supply	Generator set, cogeneration system, generator set / cogeneration in container			Weights empty (lbs)		
Applicable gas types	Natural gas, flare gas, propane, biogas, landfill gas, sewage gas. Special gases (e.g., coal mine gas, coke gas, wood gas, pyrolysis gas)			Generator set	J312	18,740
					J316	22,490
					J320	29,770
Engine type	J312	J316	J320	Cogeneration system	J312	21,830
No. of cylinders	12	16	20		J316	24,910
Total displacement (cu.in)	1,782	2,376	2,970		J320	30,870

Outputs and efficiencies *

Natural gas		1,800 rpm 60 Hz				
NOx <	Type	PeI (kW)	ηel (%)	Pth (MBtu/hr)	ηth (%)	ηtot (%)
1.0 g/bhp.hr	J312	633	38.1	2,837	50.0	88.1
	J316	849	38.3	3,796	50.2	88.5
	J320	1,062	39.1	4,658	50.3	89.4
0.5 g/bhp.hr	J312	633	36.8	3,053	51.9	88.7
	J316	849	37.0	4,047	51.6	88.6
	J320	1,062	38.2	4,836	51.0	89.2

Natural gas		1,800 rpm 60 Hz				
NOx <	Type	PeI (kW)	ηel (%)	Pth (MBtu/hr)	ηth (%)	ηtot (%)
1.0 g/bhp.hr	J312	633	38.1	2,764	48.8	86.9
	J316	849	38.3	3,699	48.9	87.3
	J320	1,062	39.1	4,507	48.6	87.8
0.6 g/bhp.hr	J312	633	36.8	2,934	49.9	86.7
	J316	849	37.0	3,914	49.9	86.9
	J320	1,062	37.0	4,951	50.5	87.5

fSubject to site conditions and established tolerances. Contact us for specific detail.