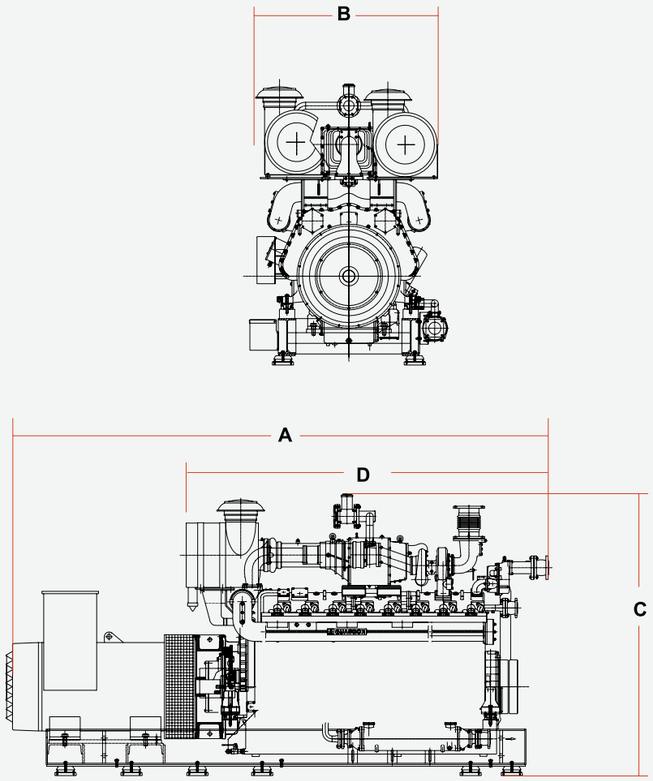
DIMENSIONS



Genset Dimensions (60Hz)	English Units	Metric Units	SFGLD 560	
Width (B)	inch	mm	65.709	(1,669)
Length (A)	inch	mm	183.819	(4,669)
Height (C)	inch	mm	85.669	(2,176)
Dry weight genset	lb	kg	22,046	(10,000)

Engine Noise dB(A)	HZ (Frec. Band)	SFGLD 560
		1,200
	125	71
	250	79
	500	81
	1,000	83
	2,000	84
	4,000	79
	LpA, â dB(A)	89

Exhaust Noise dB(A)	HZ	SFGLD 560
		1,200
	63	98
	125	109
	250	112
	500	117
	1,000	113
	2,000	113
	4,000	114
	LpA, â dB(A)	121

Notes:
- Data obtained according to ISO 9614-2
- Data obtained @ 1 m from engine according to LINE-EN ISO-11203-1996
- Maximum data standard deviations = ± 4 dB(A)

OPTIONAL FUELS: biogas, landfill gas, sewage gas, flare gas, and other special gases. Performance parameters of the engine may be different than the ones listed (based on natural gas) in this brochure; please see note-2 on page 3.

Corporate Headquarters

West8 Tower Suite 1000
10205 Westheimer Road
Houston, TX 77042 USA
Tel: (Int'l+1) 713-354-6100
Fax: (Int'l+1) 713-354-6110
email: info@dresser-rand.com

112, Avenue Kleber
Cedex 16
Paris 75784 France
Tel: (Int'l +33) 156 26 71 71
Fax: (Int'l +33) 156 26 71 72
email: info@dresser-rand.com

Regional Headquarters

The Americas
Dresser-Rand
West8 Tower Suite 1000
10205 Westheimer Road
Houston, TX 77042 USA
Tel: (Int'l+1) 713-354-6100
Fax: (Int'l+1) 713-354-6110

EMEA
(Europe, Middle East & Africa)
Dresser-Rand S.A.
31 Boulevard Winston Churchill
Cedex 7013
Le Havre 76080 France
Tel: (Int'l+33) 2-35-25-5225
Fax: (Int'l+33) 2-35-25-5366 / 5367

Asia Pacific
Dresser-Rand Asia Pacific Sdn Bhd
Unit 9-4, 9th Floor
Bangunan Malaysian Re
17 Lorong Dungun,
Damansara Heights
50490 Kuala Lumpur, Malaysia
Tel: (Int'l+60) 3-2093-6633
Fax: (Int'l+60) 3-2093-2622

DRESSER-RAND

Bringing energy and the environment into harmony.®

www.dresser-rand.com

DRESSER-RAND

Bringing energy and the environment into harmony.®

GUASCOR® SFGLD 560 LEAN BURN GENSET

762 kW, 60 Hz at 1200 RPM*

*with natural gas

Guascor®

GUASCOR® SFGLD 560

Dresser-Rand supplies custom-engineered rotating equipment solutions for the worldwide energy infrastructure, including oil, gas, petrochemical, power generation, and process industries. Our high-speed rotating equipment is also supplied to environmental markets within the energy infrastructure. Backed by more than 45 years of experience, our Guascor® gas engines provide energy solutions from a bare engine to a complete generation plant. Guascor gas engines can use natural gases and a variety of biogases such as syngas, mine gas, sewage gas, and others, providing bioenergy solutions for wastewater treatment plants, landfills and digestion plants. These gas engines cover a power range from 242 to 1,308 kWe and provide excellent installation solutions for co- and tri-generation configurations. These configurations represent one of the best ways to reduce your energy costs and your carbon footprint.

SPECIFICATIONS

- Operating parameters – Otto Cycle, four-stroke, V-12 engine turbocharged with lean burn operation
- Engine block – alloyed and heat treated cast iron; standard inspection ports for the crankshaft and camshaft
- Flywheel housing – SAE 00, 18-inch with ring gear
- Cylinder liners – spun cast grey pig iron; liners cooled by main engine coolant circuit and removable for easy service
- Cylinder heads – individual cylinder heads grey cast iron; heads are water-cooled with four valves per cylinder and a centered spark plug
- Crankshaft – press forge hardened and tempered alloy steel; crankshaft dynamically balanced; two vibration dampeners on the Vee engines and one on inline engines
- Camshaft – alloy steel, induction hardened, gear-driven
- Connecting rods – forged, hardened, tempered alloy steel
- Pistons – aluminum alloy with three rings and a specially designed combustion chamber shape for maximum efficiency and minimum emissions; pistons cooled using oil jets directed at the underside of the piston
- Water-cooled exhaust manifolds
- Two-stage intercooling
- Starting system – 24V DC starting system; two starters on the Vee engines and one on the inline engines
- Engine oil pre-lube pump and oil heater
- Generator, 2/3 pitch, two bearings, temperature rise within 221 degrees F (105 degrees C), and precise voltage and frequency regulation to 0.25%
- Air / fuel ratio control – gas metering valve provides intelligent control, using engine intake temperature and pressure sensors; provides excellent emissions control and continuous adjustment for varying engine loads and changes in gas supply conditions
- Electronic ignition – a microprocessor-based digital ignition system optimizes engine combustion and performance, as well as fuel efficiency and spark plug service life; an individual ignition coil is used for each cylinder and a detonation control system is included
- Cooling system – two independent water cooling circuits for the main engine coolant and the secondary oil and aftercooler circuits; various options available; may include mechanical or electric engine coolant pumps, a shell and tube main circuit heat exchanger, and / or a radiator with an engine-driven fan

BENEFITS

- State-of-the-art technology with high efficiencies
- Low initial and operating costs
- Fuel flexibility: Can be designed to handle different gas fuels
- Designed for intensive use (continuous duty)
- Capable of working with variable loads
- Robust design to operate under severe conditions
- High operational availability
- Easy maintenance
- Exchangeable standard engine parts (cylinder heads, valves, etc.)
- Strong distribution network for spare parts and engine service

TECHNICAL (for natural gas with min MN=75) [1]

Engine Parameters	English Units	Metric Units	SFGLD560	
Speed	rpm [9]		1,200	
Engine power [2]	bhp	kWb	1,057	(788)
Cylinder arrangement			V16	
Mean effective pressure	psi	bar	203	(14.0)
Bore	inch	mm	6.30	(160)
Stroke	inch	mm	6.89	(175)
Displacement	cu.in	Litres	3,436	(56.3)
Mean piston speed	in/s	m/s	276	(7.0)
Compression ratio			11.6 : 1	
Combustion air mass flow [2]	lbs/hr	kg/h	8,274	(3,753)
Packaged ventilation air flow [3]	scfm	m^3/h	32,466	(55,160)
Engine coolant capacity [4]	gal.	Litres	53	(200)
Lube oil capacity [4]	gal.	Litres	61	(232)
Lube oil consumption [5]	lbs/bhp.hr	g/kWh	0.00033	(0.20)
Energy Balance				
Generator efficiency [6]	%	%	96.7	
Electrical power [6]	kWe	kW	762	
Jacket (HT) water heat	Btu x 1,000/hr	kW	1,946.2	(570)
Oil (HT) cooler water heat	Btu x 1,000/hr		293.6	(86)
Intercooler (LT) water heat	Btu x 1,000/hr	kW	133.2	(39)
Exhaust heat - cooled to 248 °F (120 °C)	Btu x 1,000/hr	kW	1,038.0	(304)
Engine radiation heat	Btu x 1,000/hr	kW	109.3	(32)
Generator radiation heat	Btu x 1,000/hr	kW	88.8	(26)
Fuel consumption [7]	Btu x 1,000/hr	kW	6,613.7	(1,937)
Mechanical efficiency	%		40.7	
Electrical efficiency	%		39.3	
Thermal efficiency	%		47.1	
Total efficiency	%		86.5	
System Parameters				
Jacket (HT) water temperature max.	°F	°C	194	(90)
Jacket (HT) water flow rate min.	gpm	L/hr	264	(60)
Intercooler stages			Double	
Intercooler (LT) coolant temperature max.	°F	°C	131	(55)
Intercooler (LT) coolant flow rate min.	gpm	L/hr	75/132	17/30
Exhaust manifold type			Dry	
Exhaust temperature	°F	°C	687	(364)
Exhaust mass flow wet	lbs/hr	kg/h	8,587	(3,895)
Exhaust backpressure max.	psi	mbar	0.65	(45)
Maximum pressure loss in front of air cleaner	psi	mbar	0.073	(5)
Fuel pressure range	psi	mbar	0.73 - 3.48	(50 - 240)
Starter battery 2x12 V, capacity required	Ampere-hour		280	
Emissions				
NOx	g/bhp.hr		< 2	
CO	g/bhp.hr		< 1.8	
THC (in C1 base)	g/bhp.hr		< 3.5	
NMHC (in C1 base)	g/bhp.hr		< 0.7	

Notes

1) For other MN consult Dresser-Rand
2) Engine performance data acc. to ISO 3046/1 (LHV 38,500 KJ/mn3 - 970 Btu SCF); for performance on alternate gases consult the factory team
3) Assumes intake air flow at delta T = 5°C including combustion air
4) Not including pipes and heat exchangers
5) Mean lube oil consumption between maintenance steps
6) At 60 Hz, U = 0.48 kV, power factor = 1
7) With a tolerance of + 5 %
8) Lower emission engines are available; consult Dresser-Rand for performance data
9) Please consult with factory team for other speeds (rpm) available

- Data is for continuous rating, at sea level, and at an ambient temperature of 77°F (25°C)
- Data for special gas and dual gas operation available on request
- The values given in this data sheet are for information purposes only and not binding