

GE Energy

raising the bar

Introducing GE's
Waukesha* 275GL*+
breaking new ground
in high-horsepower
applications

a product of
ecomagination

 imagination at work



No matter how you assess performance, the 275GL+ challenges convention

GE's Waukesha 275GL+ represents the most advanced generation of high-horsepower engines in the gas compression segment. A unique combination of robust construction and innovative technology, the 275GL+ lean-burn engine delivers excellence in fuel flexibility, efficiency, power output and emissions for unmatched performance. For maximum uptime and profitability, you can depend on the 275GL+ to get the job done year after year.

275GL+ Performance

	12V 275GL+	16V 275GL+
Power (bhp)	3625	4835
BSFC (BTU/bhp-hr; +5% LHV)	6539	6499
Altitude w/o Derate; (ft) @ 100°F	4000	3000
Fuel Derate Begins at:	70 WKI ≈1125 Btu/ft ³	70 WKI ≈1125 Btu/ft ³
Allowable Fuel Range—Top	35 WKI ≈2300 Btu/ft ³	35 WKI ≈2300 Btu/ft ³
Allowable Fuel Range—Bottom	600 Btu/ft ³	600 Btu/ft ³
NO _x (g/bhp-hr)	0.5	0.5
CO (g/bhp-hr)	1.7	1.6
NMHC (g/bhp-hr)	0.7	0.7
CO ₂ e (g/bhp-hr)	507	498

The 275GL+ represents the most advanced generation of high-horsepower, lean-burn engines, leading the industry across a broad spectrum of evaluation criteria.

leading performance in:

- Fuel flexibility
- Efficiency
- Power output
- Emissions



Zero compromise

The 275GL+ excels in all evaluation criteria. There's no choosing between power and emissions, or between fuel efficiency and fuel flexibility. With the 275GL+, there are no trade-offs.

We're raising expectations for low emissions

When it comes to controlling emissions, the 275GL+ leads the way. It meets the EPA's 2010 Spark Ignited New Source Performance Standard (SI NSPS) for NO_x, CO and VOC, without aftertreatment. The 275GL+ is capable of achieving the lowest level of emissions available:

- 0.5 g/bhp-hr NO_x
- 1.7 g/bhp-hr CO
- 0.7 g/bhp-hr NMHC

In addition, the 275GL+ has lower greenhouse gas emissions and a smaller carbon footprint than competitive engines. Greenhouse gases (CO₂e) are about more than CO₂; unburned methane must also be considered—at 21 times the effect of the CO₂. Choosing a 275GL+ and its fuel-efficiency advantage provides low unburned methane and CO₂ emissions, reducing the effect on the environment, compared to historical engines.

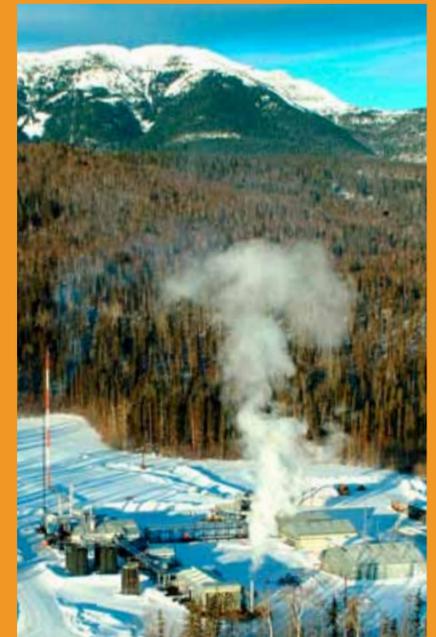
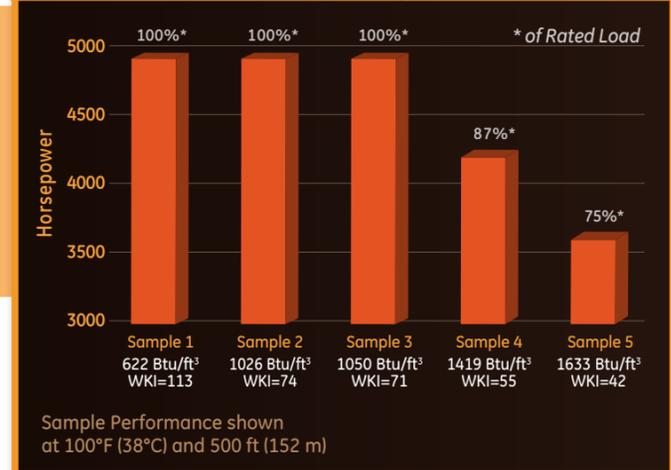
Variable fuels, one constant—the 275GL+ has you covered

Because field gases vary greatly and can change over time, the 275GL+ was built to maintain full power on a wide range of fuels, without the added cost of a fuel treatment skid. The 275GL+ can run on fuel with up to 1000ppm H₂S without treatment and operates on a wide range of fuels from 600 Btu/ft³ to 2300 Btu/ft³. This engine is built to give you the kind of flexibility you'll need for more options and better profits.

a product of ecomagination

Ecomagination is GE's commitment to building innovative solutions for today's environmental challenges while driving economic growth. The Waukesha 275GL+ meets this commitment by offering industry-leading emissions levels and efficiency without sacrificing power or application flexibility. With a smaller carbon footprint, lower fuel costs and more gas compressed, the 275GL+ is an engine without trade-offs.

16V 275GL+ Fuel Flexibility Comparison



The easy choice for harsh environments

Gas compression sites are found in some of the most hostile environments. The 275GL+ was built to work effectively even in challenging locations, delivering full power up to 4000 feet—twice the capability of competitive engines—making it an ideal choice for high-altitude applications.

275GL+

control

Proven ESM control system

Factory-mounted, calibrated and tested on all 275GL+ engines, the Engine System Manager (ESM) dramatically reduces on-site setup time and requirements. With a single, closed-loop control system integrating all engine functionality, starting and loading the engine takes only a few minutes. Once running, an HMI panel provides an easy-to-read display of engine operating parameters. Unlimited, free downloads ensure you always have the most current software to control the engine.

1 Engine System Manager (ESM)
The enhanced ESM is a single controller that integrates all engine systems, providing diagnostics and step-by-step troubleshooting.



power

The power you need when it counts the most

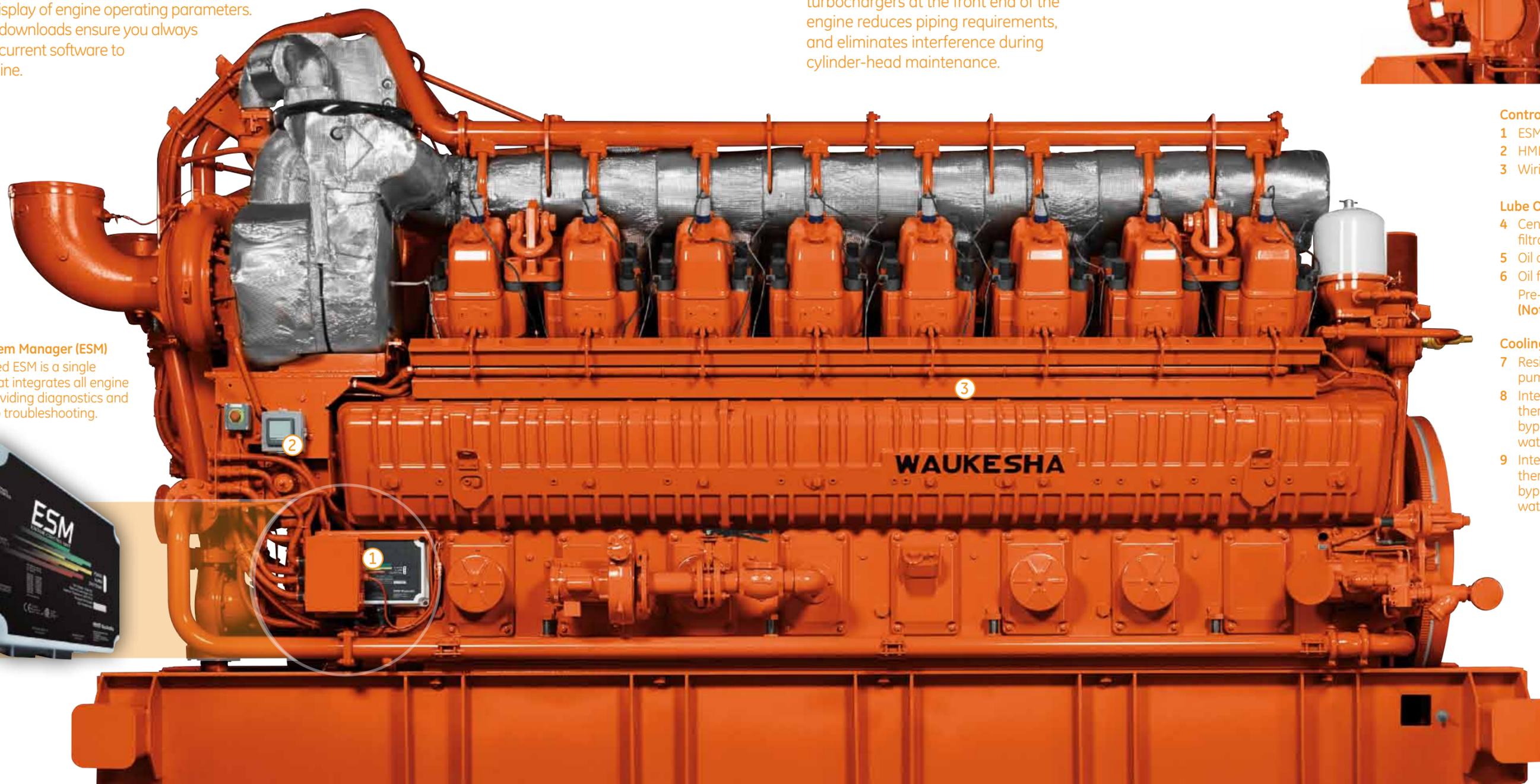
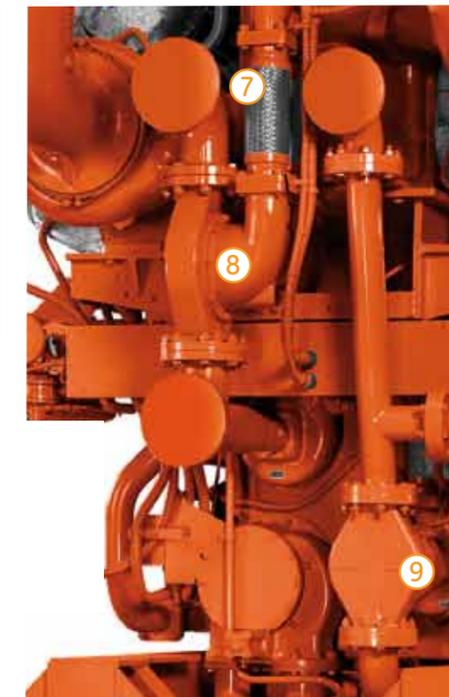
It's the most-recognized equation in gas compression:
Power = Throughput = Profit

The 275GL+ delivers superior power output and efficiency that directly impacts the bottom line. The 16-cylinder model is rated 4835 bhp (3605 kWb), with the 12-cylinder version rated 3625 bhp (2720 kWb). These higher power ratings maximize throughput and profits, while lower fuel consumption provides a cost savings over other engines. Whatever your requirements, the 275GL+ ensures you have the reliable power you need to maximize profits.

ease of use

Simplified packaging and service

The 275GL+ is easy to package. By minimizing the number of connections required, valuable time and money are saved on the shop floor. Factory-mounted lube oil system and cooling system thermostats are included on the engine. In addition, the pre-lube pump is fully integrated and engine-mounted. Quick disconnects on the ignition coils and thermocouples mean easy removal and servicing. Placing the turbochargers at the front end of the engine reduces piping requirements, and eliminates interference during cylinder-head maintenance.



Control System

- 1 ESM
- 2 HMI panel
- 3 Wiring trays

Lube Oil System

- 4 Centrifugal oil filtration
- 5 Oil cooler
- 6 Oil filter
- Pre-lube pump (Not visible)

Cooling System

- 7 Resized cooling pump outlets
- 8 Integrated thermostats & bypass jacket water piping
- 9 Integrated thermostats & bypass auxiliary water piping



ongoing

Purchasing an engine is only the beginning of a relationship.

We're in it for the long haul, supporting you with ongoing service, quality parts and our distribution network to ensure your engine delivers everything you need and more.

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A legacy of reliability and innovation

GE and Waukesha represent over 200 years of commitment to advanced technology that continues to drive the world forward. With a reputation for rugged durability and ongoing design advancements, Waukesha engines are the sound investment you can depend on in mission-critical applications. Now a part of GE's Gas Engines business, enhanced support in the form of parts, service and a network of distributors makes us an even stronger partner for today's global energy industry.

For more information, visit ge-energy.com/275GL.



imagination at work