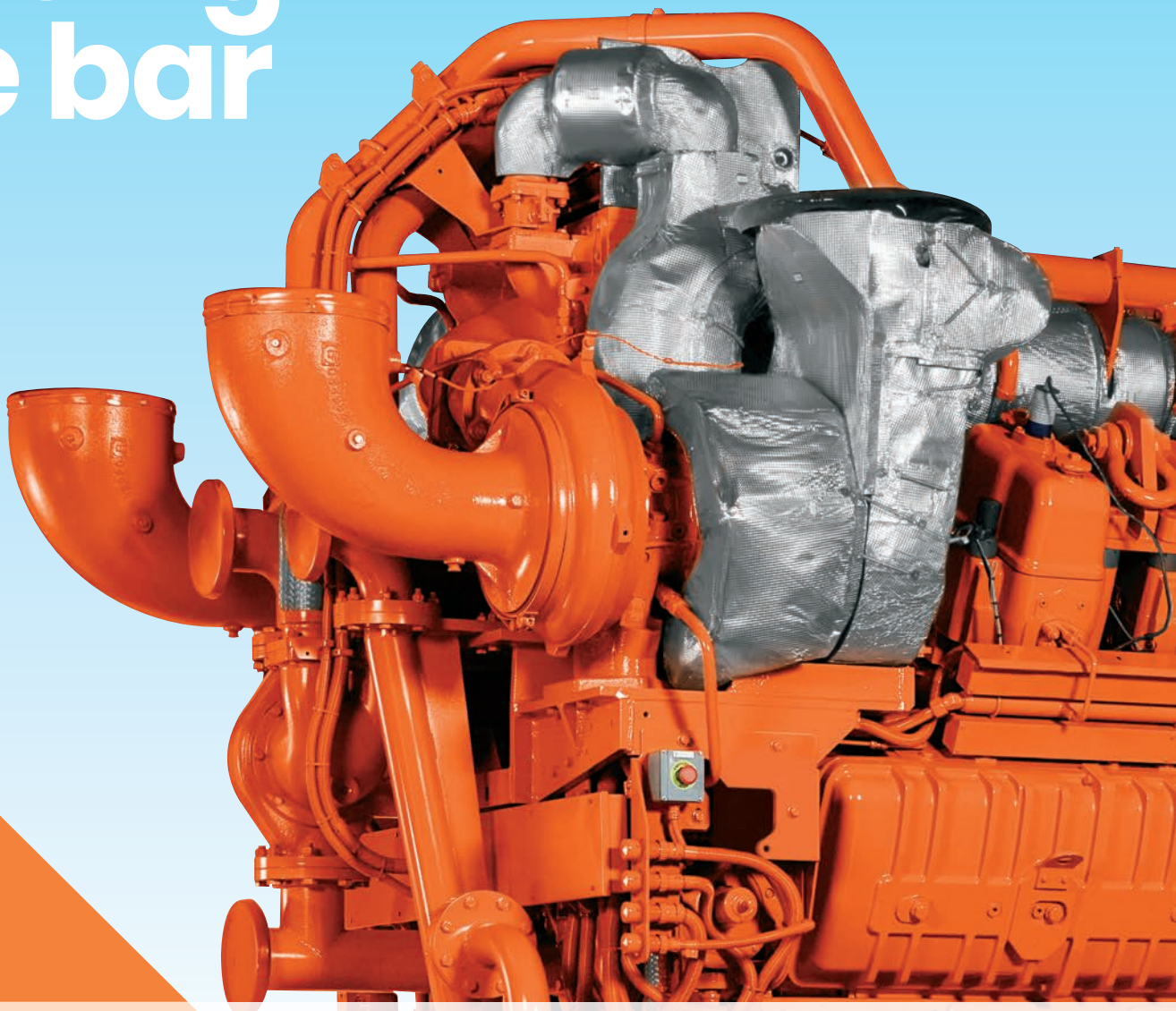
Waukesha

Raising the bar



Waukesha 275GL
Breaking new ground in high-horsepower applications

Waukesha INNIO

INNIO

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

INNIO'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 Data

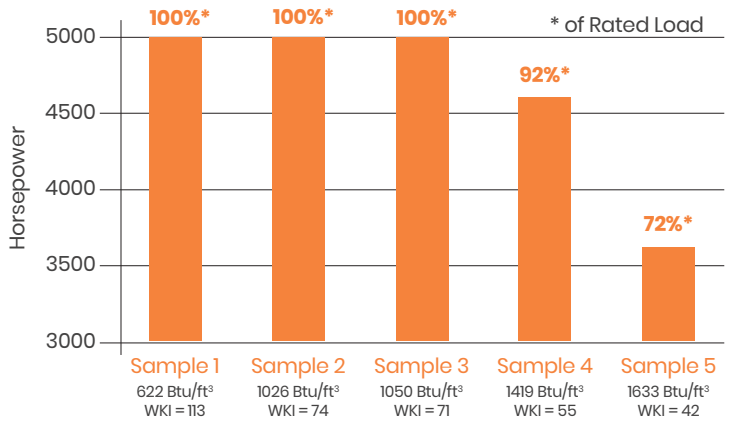
	12V 275 GL+	16V 275 GL+
Power (bhp)	3750	5000
BSFC (BTU/bhp-hr; +5% LHV)	6481	6464
Altitude w/o Derate; (ft) @ 100°F	4000	3000
Fuel Derate Begins at:	70 WKI 1125 Btu/ft^3	60 WKI 1450 Btu/ft^3
Allowable Fuel Range - Top	35 WKI 2300 Btu/ft^3	35 WKI 2300 Btu/ft^3
Allowable Fuel Range - Bottom	600 Btu/ft^3	550 Btu/ft^3
NOx (g/bhp-hr)	0.5	0.5
CO_2e (g/bhp-hr)	1.6	1.7
NMHC (g/bhp-hr)	0.7	0.8
CO_2e (g/bhp-hr)	509	525

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

Zero compromise

The 275GL+ is optimized for robustness in demanding gas compression applications while meeting your application needs for power, fuel flexibility, efficiency and emissions.

16V275GL+ Fuel Flexibility Comparison



Sample Performance shown at 100°F (38°C) and 500 ft (152 m)

We meet emissions requirements and minimize greenhouse gasses and carbon taxes

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.

It also meets the EPA's 2010 Spark Ignited New Source Performance Standard (SI NSPS) for NOx, CO and VOC, without aftertreatment. The 275GL+ is capable of achieving emissions down to:

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

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 550 Btu/ft^3 to 2300 Btu/ft^3. The 275GL+ is equipped with automatic air/fuel ratio control, which has the capability to automatically adjust for +-6% changes in fuel LHV. This engine is built to give you the kind of flexibility you'll need for more options and better profits.

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 or in hot ambient desert conditions.

A product of ecomagination

Ecomagination is Distributed Power's commitment to building innovative solutions for today's environmental challenges while driving economic growth. The Waukesha 275GL+ meets this commitment by offering industryleading 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.

Control

Proven ESM* control system
Factory-mounted, calibrated and tested on all 275GL+ engines, the ESM engine system control 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.

ESM

The enhanced ESM is a single controller that integrates all engine systems, providing diagnostics and step-by-step troubleshooting.

Power

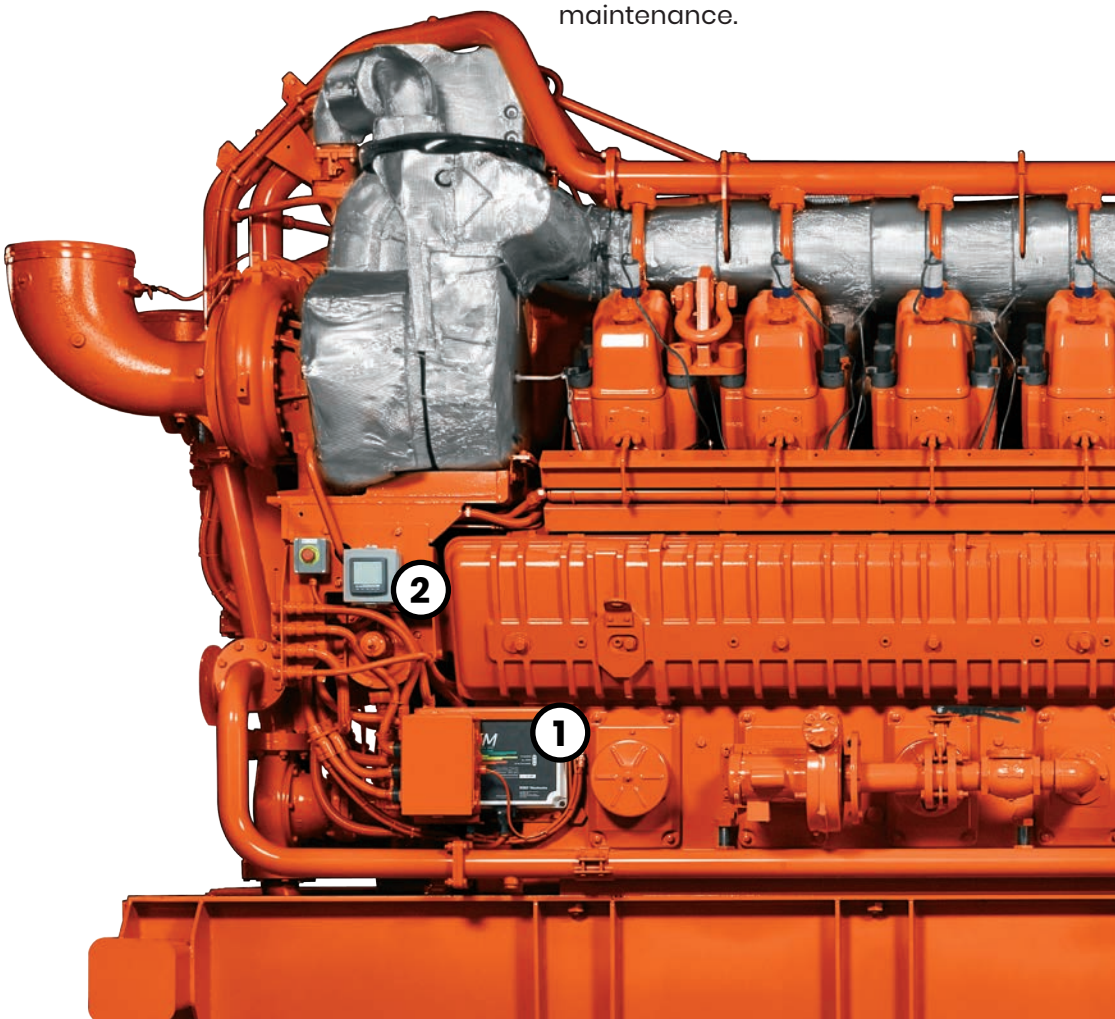
The power you need when it counts the most
It's the most-recognized equation in gas compression:
Power = Throughput = Profit

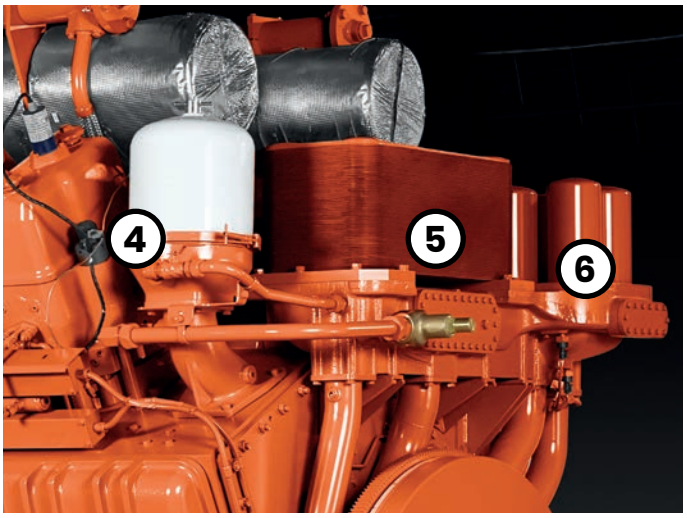
The 16V275 GL+ power push increases the power rating from 4835 to 5000 hp.
The 12-cylinder version is rated 3750 bhp (3605 kWb). These higher power ratings maximize throughput and profits, while lower fuel consumption provides a cost savings over other engines. Whatever your requirements, the 275GL+ ensures you have the reliable power you need to maximize profits.

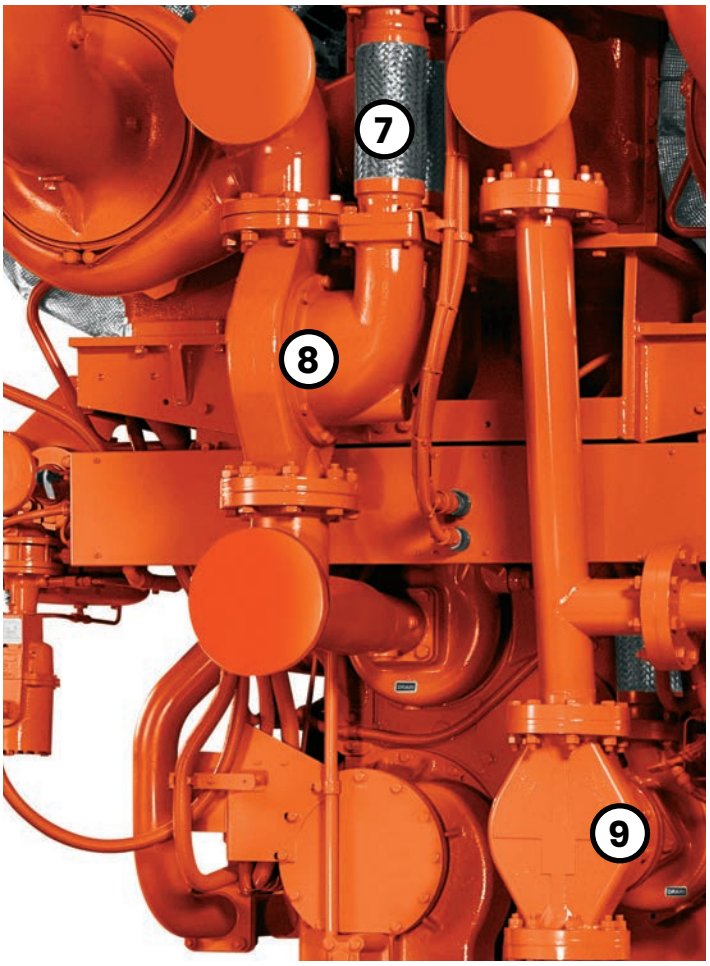
Ease of use

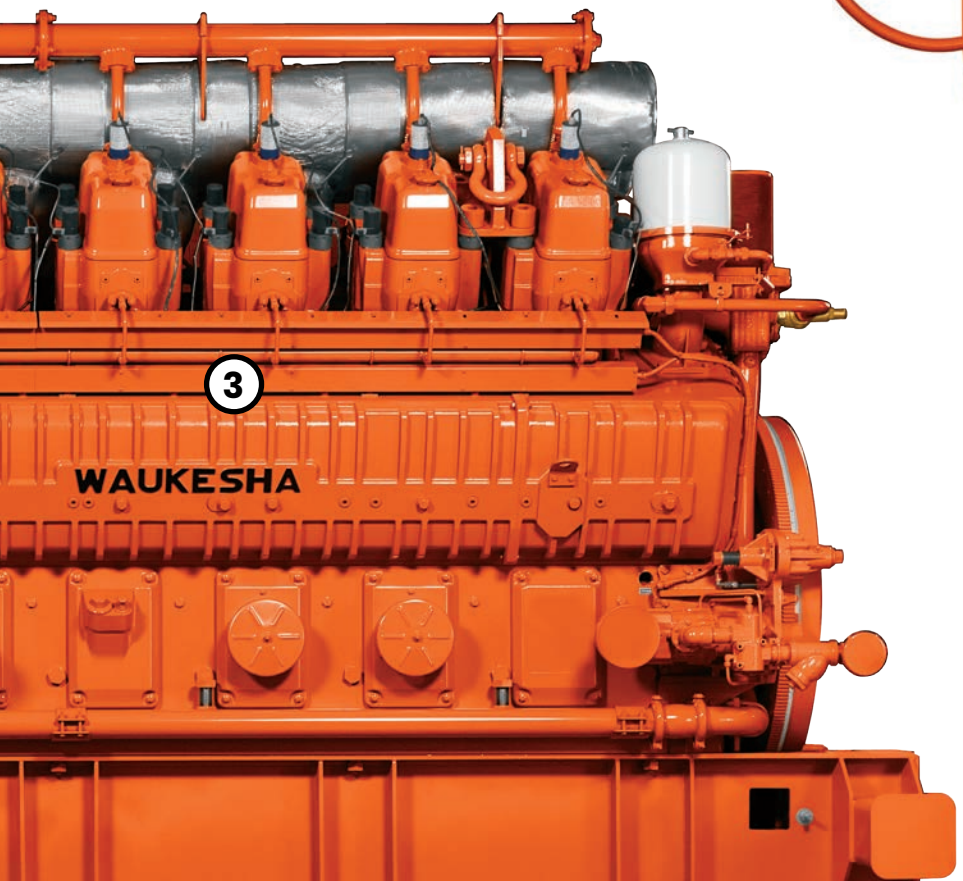
Simplified packaging and service

The 275GL+ is easy to package. By minimizing the number of connections required, valuable time and money are saved on the shop floor. Factorymounted lube oil system and cooling system thermostats are included on the engine. In addition, the pre-lube pump is fully integrated and enginemounted. 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

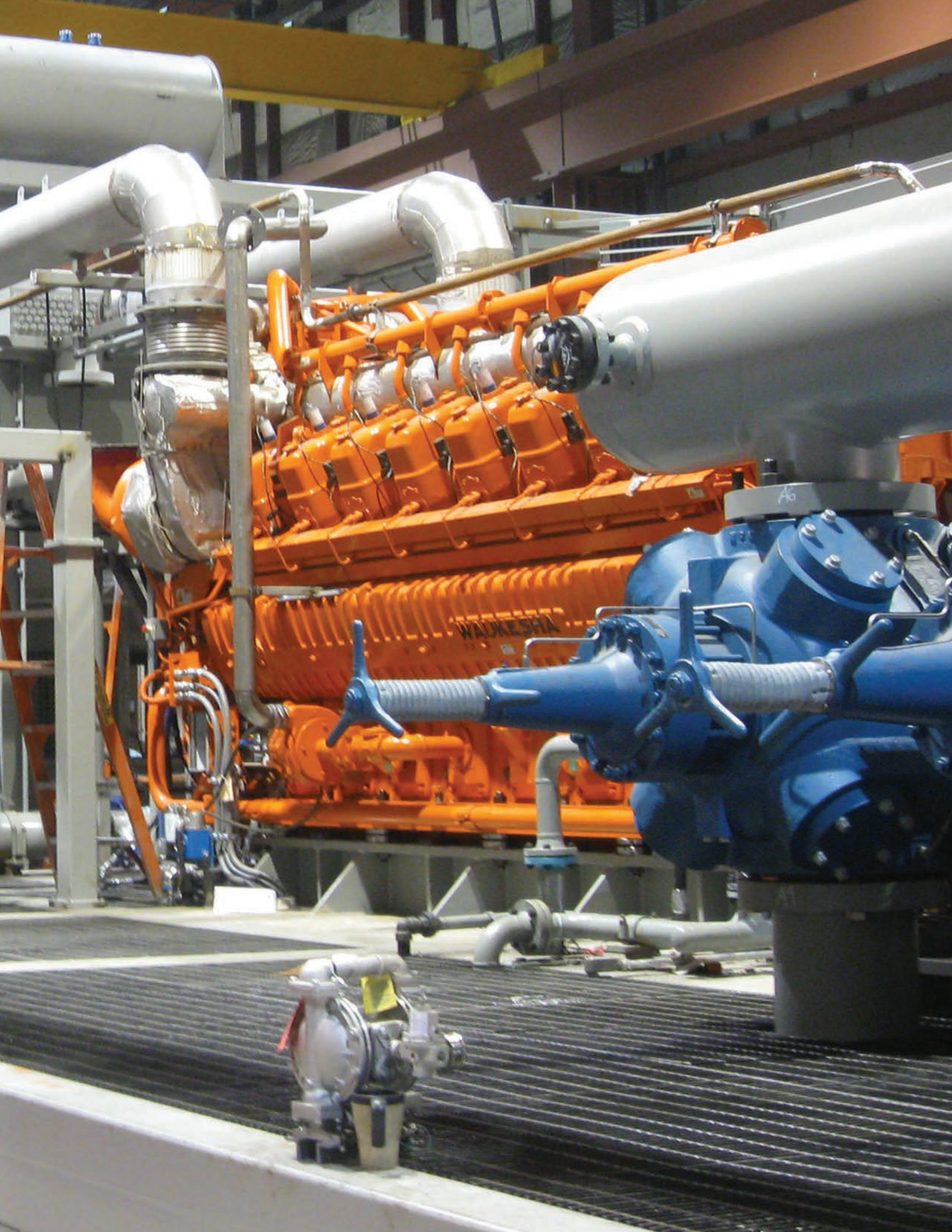
Pre-lube pump (Not visible)

Cooling System

7 Resized cooling pump outlets

8 Integrated thermostats & bypass jacket water piping

9 Integrated thermostats & bypass auxiliary water piping


WAUKESHA

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.

Waukesha

INNIO is a leading solutions provider of gas engines, power equipment, a digital platform and related services for power generation and gas compression at or near the point of use. With our Jenbacher and Waukesha product brands, INNIO pushes beyond the possible and looks boldly toward tomorrow.

Our diverse portfolio of reliable, economical and sustainable industrial gas engines generates 200 kW to 10 MW of power for numerous industries globally. We can provide life cycle support to the more than 48,000 delivered gas engines worldwide. And, backed by our service network in more than 100 countries, INNIO connects with you locally for rapid response to your service needs. Headquartered in Jenbach, Austria, the business also has primary operations in Welland, Ontario, Canada, and Waukesha, Wisconsin, US.

Visit https://www.innio.com for more information on INNIO technology:

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