

JENBACHER TYPE 4 LEADING THE WAY

with next-generation
technology



JENBACHER
INNO



JENBACHER J420 D/E UNIT

A great product just got even better!

The new Jenbacher J420 D/E unit is based on our proven Type 4 platform of more than 6,000 delivered engines generating about 7 GW of power worldwide. Leading the way with next-generation technology innovation, the new J420 D/E delivers as much as 4% more output – up to 1,560 kW – and up to 1% point of additional electrical efficiency compared to respective J420 B versions.

Engineering excellence delivers a standardized compact design with enhanced serviceability. While these units provide significant advantages for pure power generation – fueled by pipeline gas, biogas or special gas – they excel in cogeneration applications and in countries with warmer climates.

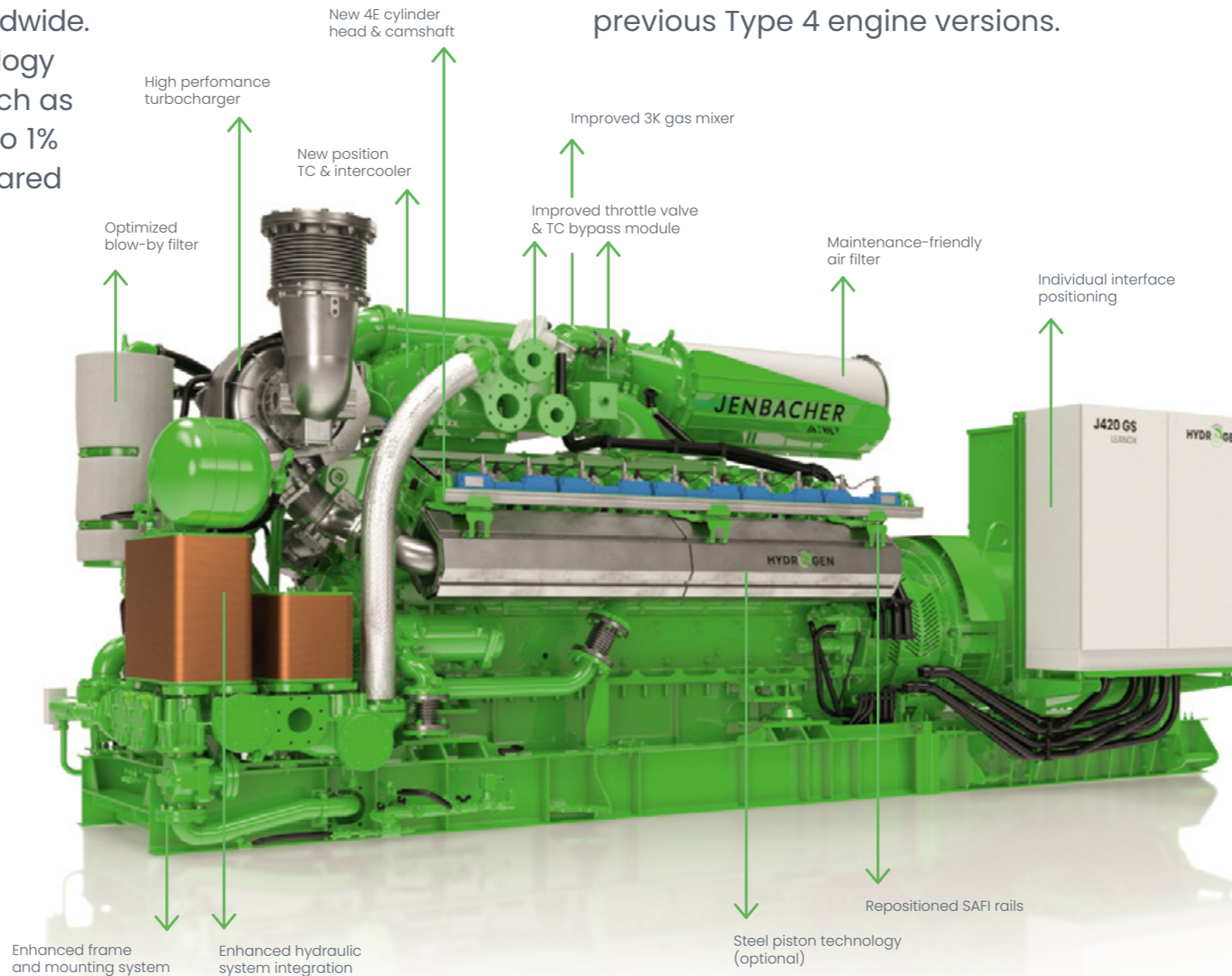
Additionally, they are remarkably well-suited for container installations.

- **More output:** up to 1,560 kWel
- **Greater efficiency:**
 - up to 44% for pipeline gas
 - up to 43.1% for biogas
- **Smaller footprint:** 0.6 meters shorter
- **Future-proof fuel flexibility**
- **Enhanced serviceability**

COMPACT AND EASY TO SERVICE

Greater reliability and serviceability

The J420 D/E engine delivers a robust concept with a compact footprint with a 0.6-meter reduction in length compared to previous Type 4 engine versions.



Standardized interfaces

Help better align and integrate components, delivering greater reliability and serviceability without compromising operator flexibility.



Watch the video of the new Jenbacher J420 D/E unit!

TECHNOLOGY

Proven Innovation

Steel piston technology (optional)

Our optional steel pistons provide much higher power loading capability as well as significant reductions in total unburned hydrocarbons (THC), resulting in improved efficiency.

Optimized piston cooling technology translates to better heat dissipation and thus reduced thermal load – increasing the overall robustness of the entire power unit.

Improved 3K gas mixer

Derived from proven Type 6 engine technology, our new gas mixer design delivers a homogenous, stable and smooth gas-to-air mixture—with a wide range of fuel gas types—over the entire power range to enable secure low NOx operation.

High performance turbocharger

Latest turbocharger technology delivers excellent efficiency in addition to full output at high ambient temperatures and altitudes.

Repositioned SAFI rails

This design modification improves the operating conditions for the ignition-rails and the knocking detection system and results in lower component temperature.

Improved cylinder head and camshaft

Our newly designed cylinder head with an optimized camshaft profile improves the charging efficiency, which translates to greater fuel efficiency.

An enhanced cooling design further reduces thermal load – improving the component robustness and service life.

Innovative throttle valve and TC bypass module

The maintenance-friendly concept of the throttle valve actuator improves reliability, and the integrated flame arrestor also supports operational safety specifically for special gas applications.

More output



Greater efficiency



Smaller footprint



Future-proof fuel flexibility



Enhanced serviceability



Enhanced frame and mounting system

Our innovative split-frame design simplifies installation in restricted spaces.

The new installation concept reduces vibration levels, translating to less component stress.

High-flexible coupling significantly reduces vibration transmission to the generator.

3D-adjustable chocks provide rigid generator support and fast alignment possibilities.

Quickly removable safety guards offer improvement over a bell-housing design, meaning that the generator doesn't need to be shifted for coupling changes.

The new design delivers easier access to all maintenance-relevant parts like filters, pumps and turbocharger.

Maintenance-friendly air filter

A single cartridge with a larger filter surface delivers longer life.

Electronic differential pressure monitoring improves service friendliness.

Individual interface positioning

Three pre-defined interface panel positions help optimize adjustments to local conditions.

Optimized blow-by filter

A longer component life and exchangeable cartridge further reduces service costs.

Enhanced hydraulic system integration

The new hydraulic concept covers various customer requirements and enables standardized and proven interfaces. Consequently, flexibility regarding heat recovery concepts can be achieved without compromising reliability.

TECHNICAL RESULTS

That match customer needs

J420 D/E 50 Hz

	Max. electrical efficiency (E07)	Max. total efficiency (CHP; E511)	Hot country (E105)	Biogas (E25)
Electrical Output	1,562 kW	1,560 kW	1,560 kW	1,560 kW
Electrical Efficiency	44%	42.4%	43.1%	43.1%
Thermal Efficiency	46%	49.7%	46.8%	42.6%
Gas Type	Pipeline gas	Pipeline gas	Pipeline gas	Biogas
Genset Dimensions	6.5 x 1.9 x 2.3 m (l x w x h)			
Engine Speed	1,500 rpm			
Bore/Stroke	145/185 mm			

Technical data according to ISO 3046. Based on emission values of 500 mg/Nm³ NOx at 5% O₂ at dry exhaust gas
 Total heat output with a tolerance of +/-8%, exhaust gas outlet temperature 120°C, for biogas gas outlet temperature 180°C
 Pipeline gas with a methane number > 70
 All data according to full load and subject to technical development and modification. Further engine versions available on request.



Want to prepare for a greener future?

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Zero-carbon H₂ operation tomorrow

In addition, your INNIO equipment can be moved from conventional fuels today to full CO₂-free H₂ operation tomorrow, once H₂ becomes more readily available.

INTERESTED?


INNIO is ready to position you for a greener tomorrow. Get your individual energy concept now.

Reach out today by completing the contact form online: innio.com/contact

Our Sales contact will follow up with you.

INNIO is a leading provider of renewable gas and hydrogen-rich solutions and services for power generation and compression at or near the point of use. With our Jenbacher and Waukesha products, INNIO helps to provide communities, industry and the public access to sustainable, reliable and economical power ranging from 200 kW to 10 MW. We also provide life-cycle support and digital solutions to the more than 54,000 delivered engines globally through our service network in more than 100 countries. We deliver innovative technology driven by sustainability, decentralization, and digitalization to help lead the way to a greener future.

Headquartered in Jenbach, Austria, the business also has primary operations in Welland, Ontario, Canada, and Waukesha, Wisconsin, U.S.

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For more information, visit www.innio.com/en/j420 or www.innio.com



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"Ready for Hydrogen" = Optional scope on demand

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