

# E-VERSION UPGRADE FOR JENBACHER TYPE 4 ENGINES

## Product description

Upgrading your Jenbacher Type 4B/C engines to the latest E-version technology increases total efficiency while reducing the engine's fuel consumption.

## Product details

The performance upgrade can be applied anytime—ideally during a minor or major overhaul.

Key features of the Type 4E engine are: a new four-valve cylinder head for improved cooling, an optimized camshaft for better gas exchange, a new power unit for better combustion, and new cylinder heads combined with a roller tappet for improved reliability.

## Choose from two different E-version upgrade packages to meet your specific needs:

- Full scope (applicable to 4B versions)
- Light scope (applicable to 4B/C versions)

### Full scope:

- E-cylinder head
- Camshaft (LIVC 629)
- Valve train (roller tappets)
- Power unit (steel pistons and related parts: liner, cooling nozzle, etc.)
- Turbocharger modification, depending on engine version and application
- OEM documentation update

### Light scope:

- E-cylinder head
- Camshaft (LIVC 629)
- Valve train (roller tappets)
- Turbocharger modification, depending on engine version and application
- OEM documentation update

## Customer benefits



### Greater efficiency<sup>1)</sup>

The 4E upgrade 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 units.

### Improved reliability

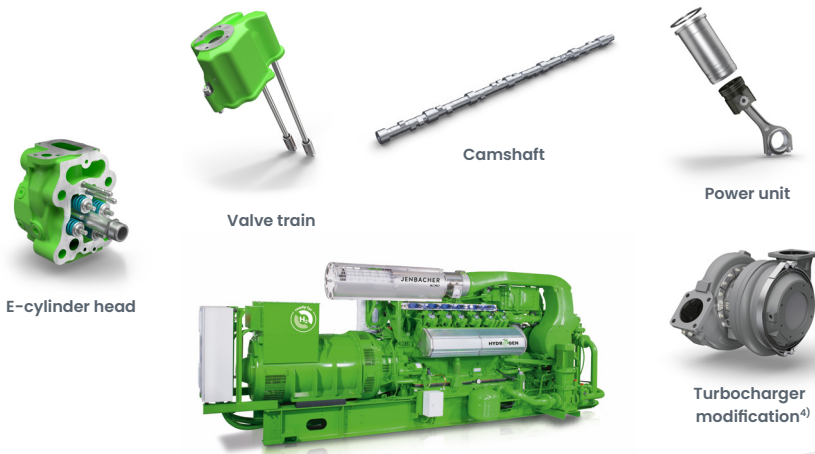
The new 4E technology includes a more robust E-cylinder head combined with the roller tappet.

### Convenient upgrade

This simple upgrade can be applied at your site anytime (such as during a minor overhaul) or at INNIO's Overhaul Center as part of a major overhaul.

## Jenbacher Type 4E:

### Output and efficiency increase compared to respective Type 4B/C versions



## Future-proof fuel flexibility<sup>2)</sup>

The upgrade prepares your engine for our "Ready for Hydrogen" option, facilitating your move from conventional fuels today to H<sub>2</sub> operation tomorrow, once H<sub>2</sub> becomes more readily available.

## Applicable units<sup>3)</sup>

Type 2	Type 4	
Type 3	Type 6	✓

<sup>1)</sup> Depending on version and scope, the feasibility of the necessary electrical output increase must be checked with the existing plant installation (BoP) in advance.

<sup>2)</sup> "Ready for H<sub>2</sub>" = Optional scope on demand

<sup>3)</sup> The upgrade is applicable on serial release for the following Type 4B versions with a production year before 2022:

- J412: B02, B05, B25
- J416: B02, B05, B25
- J420: B02, B05, B11, B25, B121

The upgrade is applicable on serial release for the following Type 4C versions with a production year before 2021:

- J412: C05, C25
- J416: C05, C25, C209
- J420: C05, C11, C25

The upgrade is available for special release on a case-by-case basis for all other Type 4B/C versions.

<sup>4)</sup> Depending on engine version and application

INNIO is a leading energy solution and service provider that empowers industries and communities to make sustainable energy work today. With our product brands Jenbacher and Waukesha and our digital platform myPlant, INNIO offers innovative solutions for the power generation and compression segments that help industries and communities generate and manage energy sustainably while navigating the fast-changing landscape of traditional and green energy sources. We are individual in scope, but global in scale. With our flexible, scalable, and resilient energy solutions and services, we are enabling our customers to manage the energy transition along the energy value chain wherever they are in their transition journey.

INNIO is headquartered in Jenbach (Austria), with other primary operations in Waukesha (Wisconsin, U.S.) and Welland (Ontario, Canada). A team of more than 3,500 experts provides life-cycle support to the more than 54,000 delivered engines globally through a service network in more than 80 countries.

INNIO's ESG Risk Rating places it number one of more than 500 worldwide companies in the machinery industry assessed by Sustainalytics.

For more information, visit our INNIO company website at [www.innio.com](http://www.innio.com) or Jenbacher product website at [www.jenbacher.com](http://www.jenbacher.com).

Follow INNIO on Twitter and LinkedIn.  
Find your local support online:  
[www.innio.com/en/company/providers](http://www.innio.com/en/company/providers)

"E-version upgrade" refers solely to the E-technology used for the engine update. The original engine version remains unchanged.

© Copyright 2022 INNIO. Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions

INNIO, INNIO, Jenbacher, Waukesha,  and myPlant are trademarks in the European Union or elsewhere owned by INNIO Jenbacher GmbH & Co OG or one of its affiliates. All other trademarks and company names are property of their respective owners

