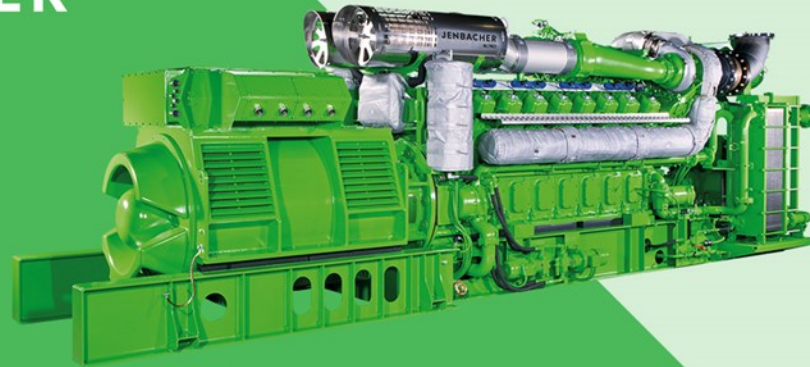


**JENBACHER**



**INNIO 日本事務所**  
**2022年**

# Pushing beyond the impossible and looking boldly toward tomorrow

## INNIOの企業概要



## INNIO\* is...

- A leading technology 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.
- Renowned for our proven Jenbacher\* and Waukesha\* product brands.
- Headquartered in Jenbach, Austria, with additional primary operations in Welland, Ontario, Canada, and Waukesha, Wisconsin, USA.
- INNIO(イニオ)はInnovationから作られた造語です。
- Jenbacher及びWaukeshaという2つの製品ブランドを統合する発電ソリューション企業名として、“革新”をイメージするINNIOと名付けられました。
- アジア地域の拠点として、シンガポール事務所があり、その他諸国に営業所を設けています。

# Pushing beyond the impossible and looking boldly toward tomorrow

## INNIO Jenbacher/Waukeshaの概要

### Our diverse product and service portfolio includes...

- Reliable, economical and sustainable industrial gas engines generating 200 kW to 10 MW of power for numerous industries across the globe
- Lifecycle support for more than 50,000 gas engines worldwide
- Local rapid response to your service needs, backed by our service network in more than 100 countries
- Jenbacherは高効率機として主に発電用途として、Waukeshaは発電用途に加え、ガスコンプレッサーなどの駆動用原動機として世界中で使用されています。
- Jenbacher/Waukesha共に、適用燃料の多様性と、既設納入後のアップグレードや長期部品供給契約、myPlant遠隔監視システムの利用が特長として挙げられます。



Jenbacher\* gas engines provide power for a broad range of applications.  
Generating reliable & efficient power in the **250 kW to 10.4 MW** range at or near the point of use

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INNIO

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# Jenbacher\* ... a comprehensive power generation network

Jenbacherの世界拠点



## ALBLASSERDAM, NETHERLANDS

Greenhouse Center of Excellence



## JENBACH, AUSTRIA

INNIO\* Group Headquarters and Power Generation Hub for Research, Technology Development, Digital Evolution, and Manufacturing



## KAPFENBERG, AUSTRIA

Spark Plug Manufacturing Hub for Jenbacher gas engines



## VERESEGYHAZ, HUNGARY

Packaging



### Main operation sites

- Jenbach, Austria
- Alblasserdam, Netherlands
- Kapfenberg, Austria
- Veresegyhaz, Hungary
- 5 Subsidiaries



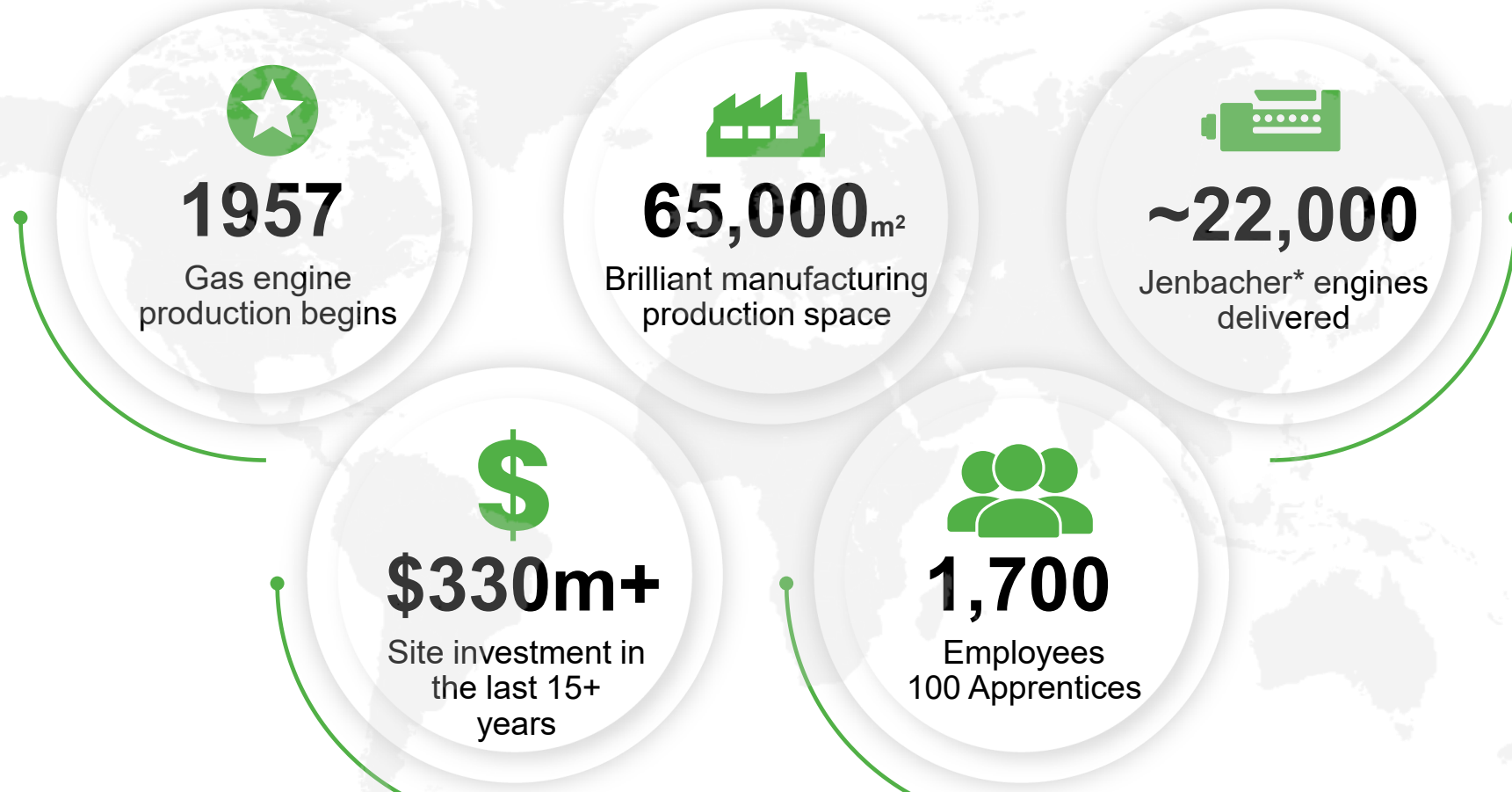
### Delivered fleet

- ~22,000 units
- >30 GW capacity
- >15,500 connected assets

- 2022年、シンガポールに、アジア地域を管轄するサービス拠点を設立

# Center of research, technology development, digital evolution, and manufacturing for power generation solutions | Products: Power Generation, CHP

Jenbacherを表す”代表数値” (直近5年では、年間1200台以上を毎年製造/出荷)

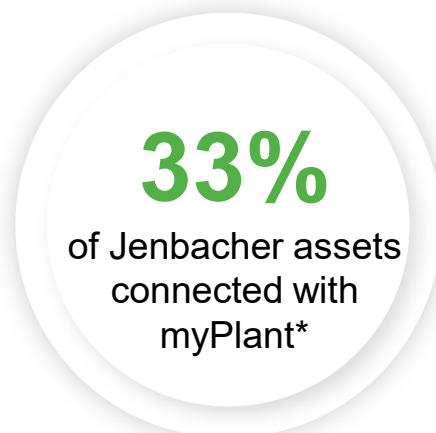
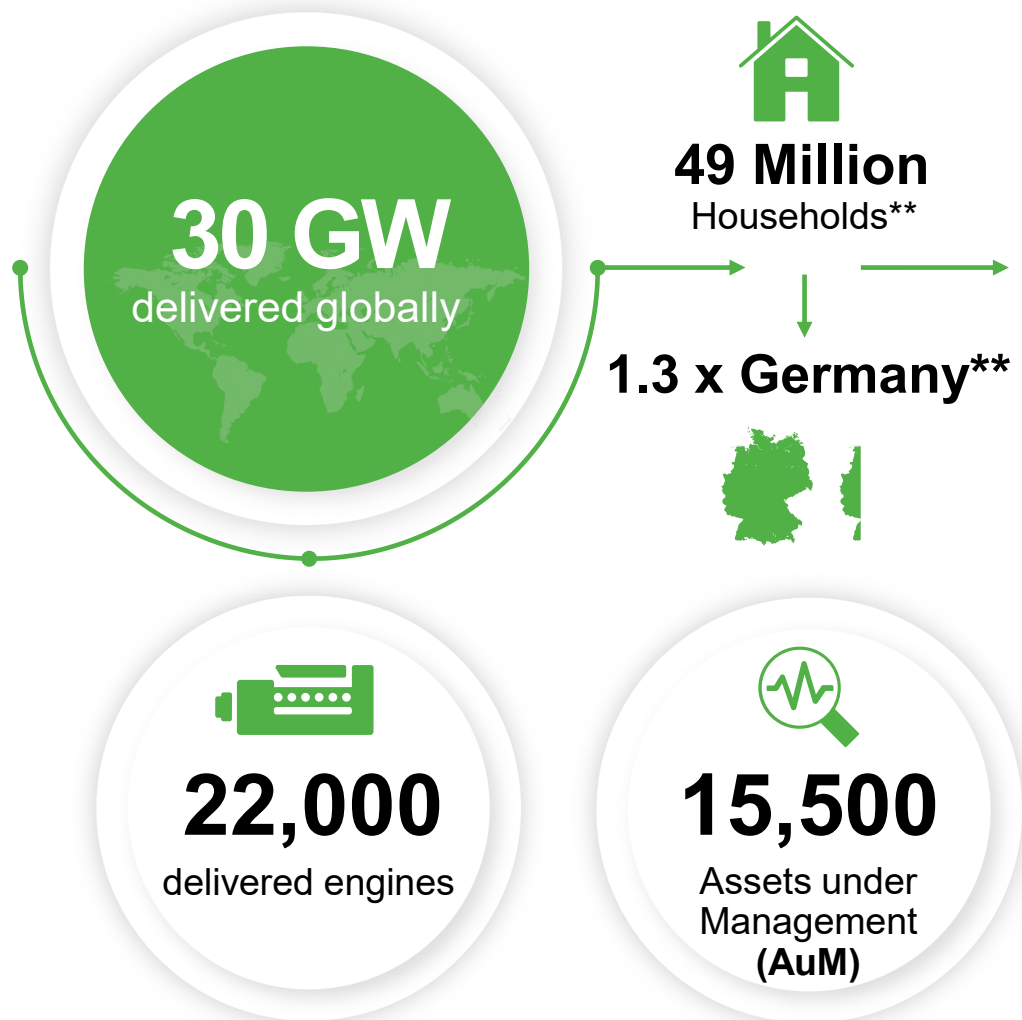


## ADVANCED MANUFACTURING FACILITY NAMED 2017 GEO FACTORY OF THE YEAR

- Supplying onsite heat and power (self generation)
- 5 product lines
- INNIO Group headquarters

# Generating reliable and efficient power at or near the point of use

総合効率、適用燃料ガスの多様性、アップグレード、遠隔監視システム



Reciprocating engines



0.2 MW → 10 MW

High efficiency & fuel flexibility

- Natural gas
- Special gas applications
- PG
- CHP, CCHP

## Advantages



Overall efficiency of 90% or more

高い総合効率



Durability



90+ years experience



Fast-start capability



Fuel flexibility

多様な燃料ガスの適用が可能



Lifecycle services

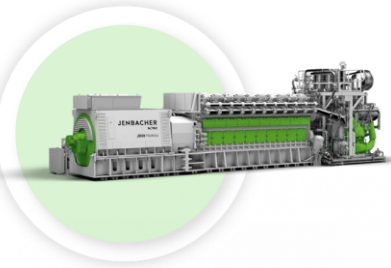
既設アップグレード/MSAも可能

Jenbacher\* focused on power generation and services

# Power generation – Delivering fuel flexibility, long service life, outstanding durability & reliability

日本市場向けには500kW-4MW級の単機出力エンジンをラインアップ

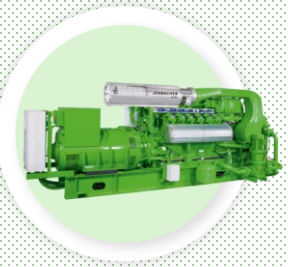
## Jenbacher J920 FleXtra



- V20 cylinder; 1,000/900 rpm (50/60 Hz)
- **Electrical output:** 10.4 MWe (50 Hz), 9.3 MWe (60 Hz)
- **Electrical/total efficiency:** 49.1/>90% (50 Hz), 49.9/>90% (60 Hz)
- **Fast start:** 2-minute startup capability
- **Delivered engines:** ~40
- **Launch date:** 2013

## Jenbacher Type 4

日本国内50Hz向け  
発電効率43.1%



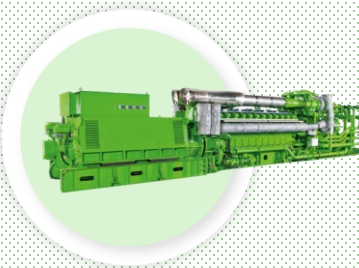
- V12, V16 and V20 cylinder: 1,500/1,800 rpm (50/60 Hz)
- **Electrical output:** 0.8 – 1.5 MWe (50 Hz)
- **Electrical efficiency:** up to 44%
- **Delivered engines:** ~4,900
- **Launch date:** 2002

## Jenbacher Type 3



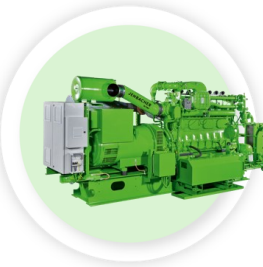
- V12, V16 ,V20 cylinder; 1,500/1,800 rpm (50/60 Hz)
- **Electrical output:** 0.5 - 1 MWe (50 Hz)
- **Electrical efficiency:** up to 41%
- **Delivered engines:** ~10,100
- **Launch date:** 1988

## Jenbacher Type 6



- V12, V16, V20 cylinder; 1,500 rpm (50/60 Hz)
- V24 2-stage turbocharged
- **Electrical output:** 1.8 – 4.5 MWe (50 Hz)
- **Electrical efficiency:** up to 47%
- **Fast start version:** 45-sec (J620)
- **Delivered engines:** ~5,500
- **Launch date:** 1989 (J624 in 2007)

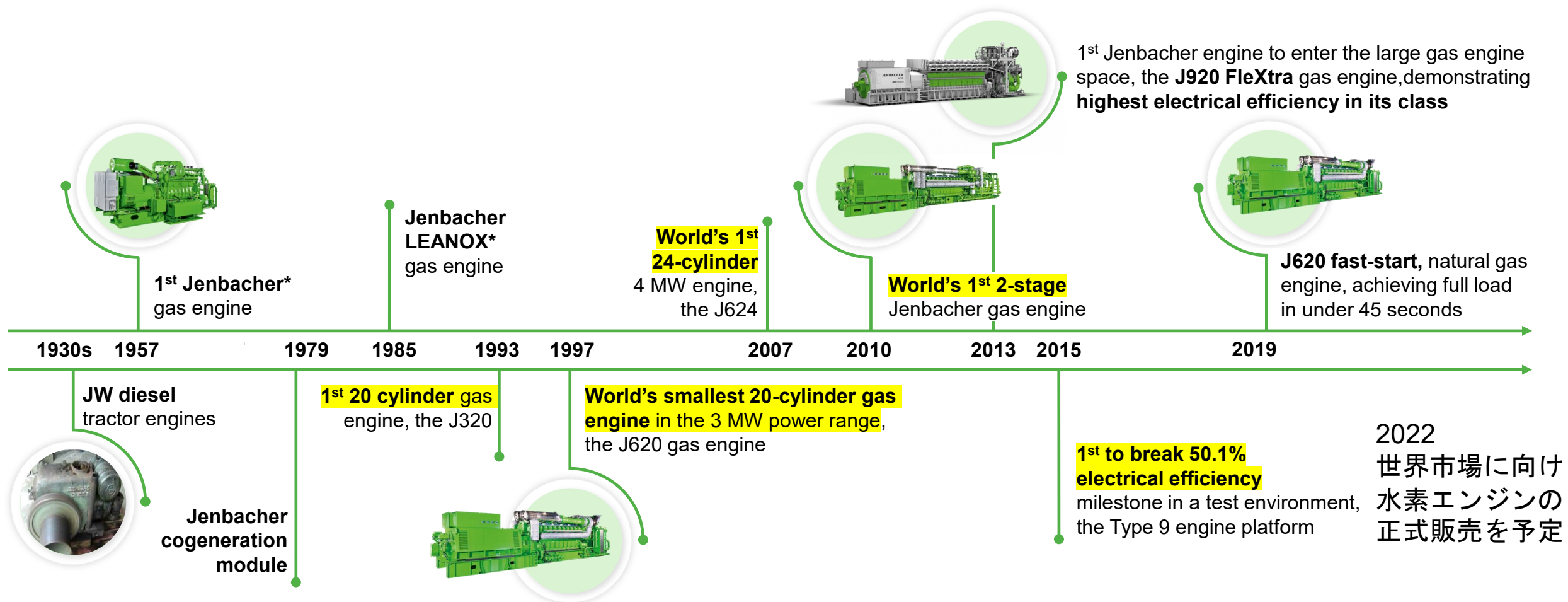
## Jenbacher Type 2



- L8 cylinder; 1,500/1,800 rpm (50/60 Hz)
- **Electrical output:** 250 - 330 kWe (50 Hz)
- **Electrical efficiency:** 39%
- **Delivered engines:** ~1,200
- **Launch date:** 1976

# Continuous evolution in innovation from your gas engines specialist

60年以上のガスエンジン専門メーカーとしての歴史があり、多数の”世界初”技術を開発



Dedicated gas engine specialist

JENBACHER



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# Global service network to support your Jenbacher\* gas engine operations

欧州を中心に 22,000台以上のガスエンジンを納入 (500kW-5MW単機出力に於いて、世界シェア~40%)



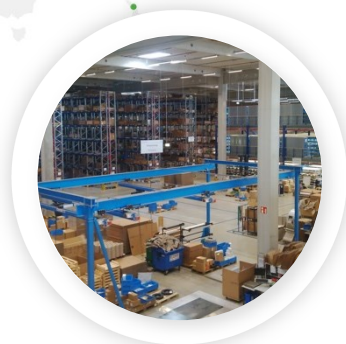
Training Center



Remanufacturing Locations



Repair Shop



Warehouse

## Jenbacher\* engines Key Service Facts



**22,000+**  
Delivered units



**3,000+**  
Service personnel



**3,000+**  
Students trained every year



**15,500+**  
Assets digitally connected  
via myPlant\*

- 日本国内向けには、総計300台以上の納入実績
- 国内正規代理店  
(株)日立パワーソリューションズ

# Jenbacher services: Our extras provide even more customer value

本部の遠隔監視システムと協働で、カスタマイズされたサービス/メンテを実施

## Customer collaboration

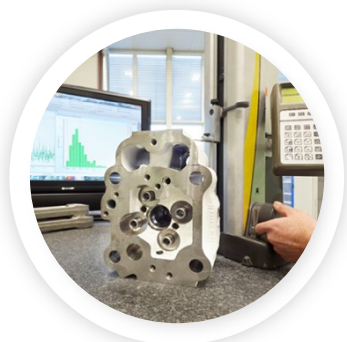


### Optimized planned service

Contractual service agreements include:

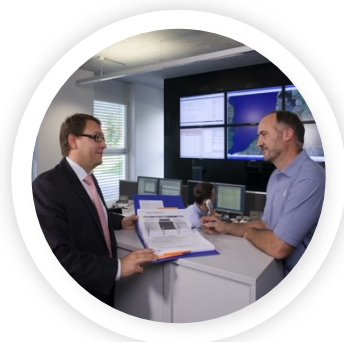
- Scheduled maintenance and onsite support
- Performance guarantees
- Predictive payments
- Corrective support
- Monitored equipment

## Service on demand



### OEM parts usage

- Spare parts kits
- Proven quality components
- Volume frameworks



### Local service technicians

- Planned maintenance
- Remote real-time diagnostics
- Unplanned repairs

## Value-added services



### Remote monitoring

- 24/7 hotline
- Remote monitoring



### Value-added options

- Major overhauls
- Upgrade solutions

- 遠隔監視システム myPlant も提案  
世界中で15500台以上が接続され、予兆診断を実施  
(重故障の予防やメンテナンス時期の同期化が可能)

# Global service network to support your Jenbacher\* gas engine operations

ユーザー/代理店に対する座学、実機、及び eTrainingでのトレーニングを実施



- Locations in Europe, North America and Asia
- Experts totaling 100+ years of gas engine technology experience
- Training programs for beginners to the highly experienced
- Methods include theoretical and practical training, onsite coaching, and digital training



## Useful links:

### Training Center Website:

Browse and book our courses and online trainings: [training.innio.com](https://training.innio.com)

### INNIO Learning Experience App:

Learn how our gas engines work in an engaging way:  
[training.jenbacher.com/app](https://training.jenbacher.com/app)

## Effective & Sustainable Product Training



**3,000+**

Students each year



**9,000+**

Classroom days per year



**100,000+**

eTrainings completed



**60,000+**

On-the-job training tasks completed



**3,000+**

Active Training website users each month

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