

JENBACHER

LIKE NEW.



Reman
Program

Jenbacher reUp spare parts:
a Remanufacturing (Reman)
offering from the experts
who built your engine

**ENERGY SOLUTIONS.
EVERYWHERE, EVERY TIME.**

INNIO

LIKE NEW: JENBACHER reUp SPARE PARTS

PROVEN OEM QUALITY AND EXPERIENCE DELIVERED WITH A SMALLER ENVIRONMENTAL IMPACT

As the experts who built your Jenbacher* gas engines, INNIO* understands that uptime is everything. That's why our reUp spare parts offering includes only remanufactured parts that meet our exact standards and specifications. With reUp parts, we keep your Jenbacher engines running smoothly, at lower operating costs and with a much smaller environmental impact than new parts.

INNIO'S JENBACHER REMANUFACTURING AT A GLANCE:

17 Logistic & Remanufacturing Centers to support your needs

200,000+ cylinder heads and **10,000 water/oil pumps** remanufactured during the last decade

10,200 tons of material saved over the last 10 years through Remanufacturing

More than just remanufactured parts



Increased uptime

- ✓ Upfront delivery of reUp parts before you return your core parts
- ✓ Fast return to service



Lower operating costs

- ✓ Cost savings achieved through reuse of core parts
- ✓ Improved total cost of ownership with same performance and lifetime expectation as new parts



Maintaining high reliability levels

- ✓ Holistic and systematic remanufacturing engineering process
- ✓ Accurately remanufactured to original or latest specifications



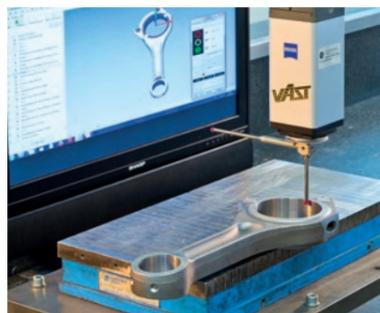
Delivering quality and OEM capability

- ✓ Remanufactured and tested to INNIO's factory-quality standards and specifications
- ✓ Same factory warranty as for new parts



Reducing the environmental footprint

- ✓ Reuse of material through refurbishing parts
- ✓ Resources saved as your parts are given a new life



CHOOSE FROM OUR JENBACHER reUp SPARE PARTS PORTFOLIO

INNIO's Jenbacher reUp spare parts help ensure your plant's availability and productivity throughout your equipment's lifetime. That means lower operating costs and less unplanned downtime—all covered by the same warranty you get with new Jenbacher OEM parts. All of the parts in our reUp spare parts portfolio are fully remanufactured, not just rebuilt.

	JENBACHER TYPE 2	JENBACHER TYPE 3	JENBACHER TYPE 4	JENBACHER TYPE 6
Bypass valves	✓	✓	✓	✓
Connecting rods		✓	✓	
Cylinder heads	✓	✓	✓	✓
Flat tappet¹		✓		
Intercooler	✓	✓	✓	✓
Lube oil pumps²	✓	✓		✓
Pre-chamber gas valves				✓
Roller tappet			✓	
Servomotor ProAct		✓	✓	✓
Servomotor STG				✓
Spark Plug Sleeve				✓
TecJet^{**3}	✓	✓	✓	✓
Water pumps⁴	✓	✓		✓

MINOR OVERHAUL JENBACHER reUp KIT

In addition to our reUp spare parts portfolio, INNIO offers a minor overhaul reUp kit—typically applied at 20,000 or 30,000 operating hours, depending on the maintenance schedule. Unique to Jenbacher Type 2/3/4 and 6 gas engines, our minor overhaul reUp kit offers a mix of remanufactured parts—such as reUp cylinder heads, reUp connecting rods, and a reUp water pump—along with new Jenbacher OEM parts.



► Ask for a detailed offering for your engine.

¹ reUp flat tappet for Jenbacher Type 3 engines, not available for Type 4 valve heads

² reUp lube oil pumps available on request for Jenbacher Type 4 engines

³ Electronic gas metering valve

⁴ reUp water pumps (only mechanical driven) available for J208, Type 3 B- and C-version, Type 6 C-versions

ABOUT INNIO'S REMANUFACTURING PROCESS

With our holistic and systematic five-step Remanufacturing process (Reman process), our engines and parts are carefully re-assembled and comprehensively tested before delivery. We call our remanufactured products – reUp engines and reUp spare parts.



It's vital that our remanufactured components work effectively with other OEM-connected components to increase performance and decrease plant wear. That's why our experienced engineers thoroughly inspect and test all reUp engines and reUp parts to make sure they meet INNIO's exact standards and specifications.

► **The basis of our Remanufacturing process is an exchange program in which you can receive our remanufactured products before you give us your used components back.**

HOW IT WORKS FOR SPECIFIC reUp PARTS

- Bypass valves**
 - ✓ The bypass valve is disassembled as per work instruction.
 - ✓ Seals, gaskets, O-rings and bearings are replaced.
 - ✓ The bypass valve, including rotor and shaft, is carefully inspected and cleaned.
 - ✓ All bypass valves are tested for functionality and leakage before re-qualification to a full new lifecycle.
- Cylinder heads**
 - ✓ Smart process uses combination of new and remanufactured Jenbacher OEM parts to deliver cylinder heads that are re-qualified for a full new lifecycle.
 - ✓ New components include valves, valve guides, valve rotators, seat rings, springs, o-rings, and gaskets.
 - ✓ Core is re-machined to new parts tolerances/specifications to enable exact valve guide, seat ring concentricity, and uncompromised seal at the fire deck.
- Flat & Roller Tappet**
 - ✓ The flat and roller tappet are inspected and disassembled as per process.
 - ✓ Machining, including quality inspection, is followed by conservation and packaging.
- Intercooler**
 - ✓ The intercooler is pre-cleaned and inspected for damage and contamination.
 - ✓ Cleaning is followed by corrosion protection.
 - ✓ All threads are checked and re-tapped, and all O-rings and gaskets are replaced.
 - ✓ Painting and the final leak test of the water tubes are undertaken according to INNIO's overhaul acceptance criteria to help ensure safe operation.
- Pre-chamber gas valves**
 - ✓ Every pre-chamber gas valve is fully tested with analysis performed on opening/closing behavior, valve flow, and valve and system leakage.
 - ✓ Pre-chamber gas valves are re-qualified for a full new lifecycle.
- Pumps & conrods**
 - ✓ Pumps are overhauled and equipped with new bearings, shaft, gears, o-rings, and sealings.
 - ✓ Conrods are re-qualified for a full new lifecycle and equipped with new small end pushing and bolts.
- Servomotor ProAct**
 - ✓ The Servomotor is carefully cleaned and inspected.
 - ✓ Seals, gaskets and O-rings are replaced.
 - ✓ All Servomotors are tested for functionality and leakage before re-qualification to a full new lifecycle.
- Servomotor STG**
 - ✓ Bearings, seals, gaskets and O-rings are replaced.
 - ✓ A functional test is undertaken according to OEM instructions.
 - ✓ All Servomotors also are tested for leakage before re-qualification to a full new lifecycle.
- Spark Plug Sleeve**
 - ✓ All sockets are inspected and cleaned.
 - ✓ All relevant geometric tolerances are measured and validated.
 - ✓ Machining, including quality inspection, is followed by conservation and packaging.
- TecJet****
 - ✓ Bearings, seals, gaskets, and o-rings are replaced.
 - ✓ Throttle valve and leakage tests are performed to help ensure smooth and safe operation.
 - ✓ TecJet is re-qualified for a full new lifecycle.

► **Ask for a detailed offering for your engine.**

INNIO'S REMANUFACTURING SITES & LOGISTIC CENTERS

INNIO operates three main Remanufacturing sites and several additional sites for our Jenbacher and Waukesha* reUp products. All of our Remanufacturing facilities are equipped with the latest available equipment for Remanufacturing – including CNC machines, 3-D measurement equipment, and dyno test equipment – to help ensure that each of our remanufactured products meets INNIO's exact, high-quality OEM standards and specifications. That's why we are able to provide the same factory warranty on all Jenbacher and Waukesha reUp engines and reUp spare parts as for our new OEM products.

INNIO's global distribution network provides a sophisticated spare parts network consisting of two main and several regional distribution centers dedicated to Jenbacher and Waukesha OEM spare parts supply. The two main INNIO spare parts distribution facilities in Nuremberg, Germany and Pleasant Prairie, WI, USA comprise more than 290,000 square feet (27,541 square meters) and incorporate warehousing, technical inspections, repacking, and reverse logistics for fast global shipping.



OUR EXCHANGE PROGRAM—HOW TO RETURN YOUR REPLACED CORE PARTS

The exchange works as a deposit system. Exchange parts manufactured, pre-assembled and delivered by INNIO Jenbacher replace your original parts on site. Each exchange part carries a deposit, which is credited once the former part is returned.

To receive your exchange program deposit refund, you must return your replaced core parts to INNIO Jenbacher within six months after reUp parts arrival. You can easily use the boxes from your reUp core parts to pack and return your used core parts.

Note: If the returned core part is incomplete, excessively damaged, cracked, welded, corroded, mechanically machined, or a non-OEM core, you will be charged.

OUR COMMITMENT TO YOU

- ✓ Always working to protect your investment, INNIO will continue to develop the solutions that make your plant run more efficiently throughout its lifetime.
- ✓ With our Jenbacher* Remanufacturing program, used components are returned to like-new condition. The program saves you money, and even helps the environment!¹
- ✓ You'll find that our remanufactured products are made from genuine Jenbacher materials, and they carry the same warranty as our new ones. That's how we've maintained – and will continue to strengthen – our special relationship with you.
- ✓ With decades of OEM experience, we give you the expertise you can trust to give your engine and parts a second life.

¹ Reducing your environmental footprint by reusing materials whenever possible

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 was awarded the Gold Medal from EcoVadis in 2022 for our outstanding sustainability efforts.

For more information, visit INNIO's website at www.innio.com

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