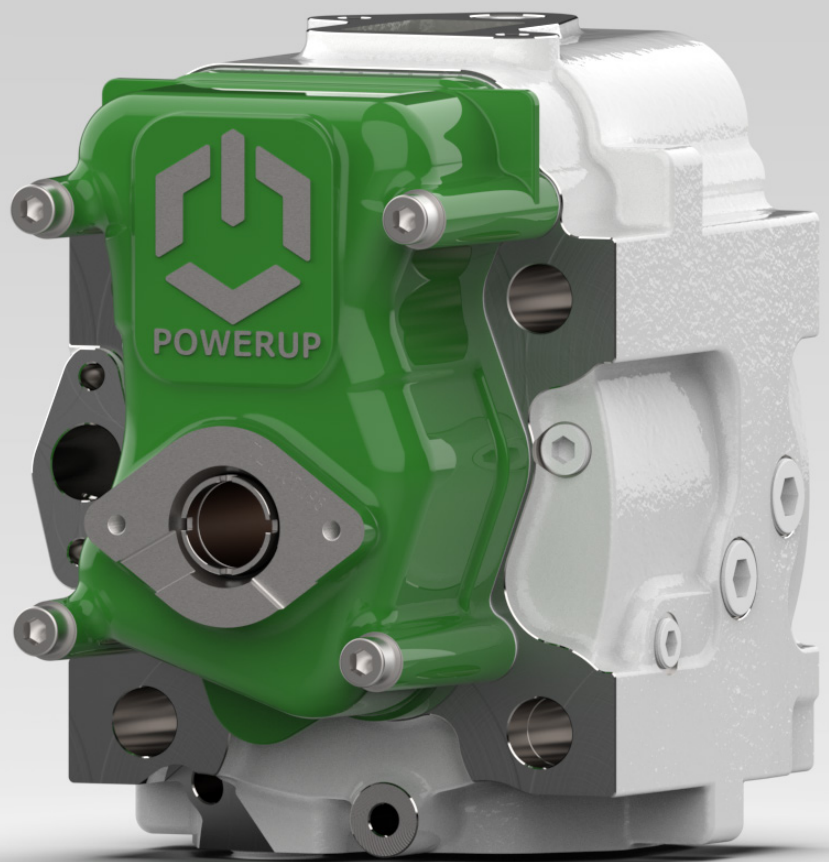


JENBACHER GAS ENGINES

SERIES 3



Increase the efficiency and reliability of your Jenbacher series 3 gas engine with our award-winning efficiency upgrade products. Our products are enhanced to friendly maintenance and ensuing overall higher efficiency lower fuel consumption. We have years of strong inhouse research and development for our efficiency upgrade package.



EVE₃ efficiency upgrade



Description

Upgrade your series 3 gas engine with our award-winning, state of the art EVE₃ Cylinder Heads with our 4-valve-design and highest standards regarding material-selection and processing. Cut your gas consumption and increase your engine's efficiency with minimal downtime or alongside your planned overhaul.

Advantages

- Up to +2.5 % higher electrical efficiency
- Resulting in up to -6 % less gas consumption @1 MW Biogas calorific value 5kWh/m³
- 4-valve-design for improved load-switching
- Central positioned pre-chamber spark plug for homogeneous combustion
- Optimized inlet- and outlet channel geometry

Compatibility

- All Jenbacher gas engines type 3
- Straight forward installation of cylinder heads without the need to adapt or exchange other critical components of the engine

Spark plug series 3



Description

Our designed pre-chamber spark plug for Jenbacher series 3 engines with two-valve-design cylinder heads. Reliable mechanical strength in operation and effective heat dissipation are key factors for spark plugs. Our spark plugs are designed with an ideal level of heat range and as a consequence increasing your engine uptime and availability. On top of that, our premium quality spark plugs require no regapping and are therefore maintenance-free.



Advantages

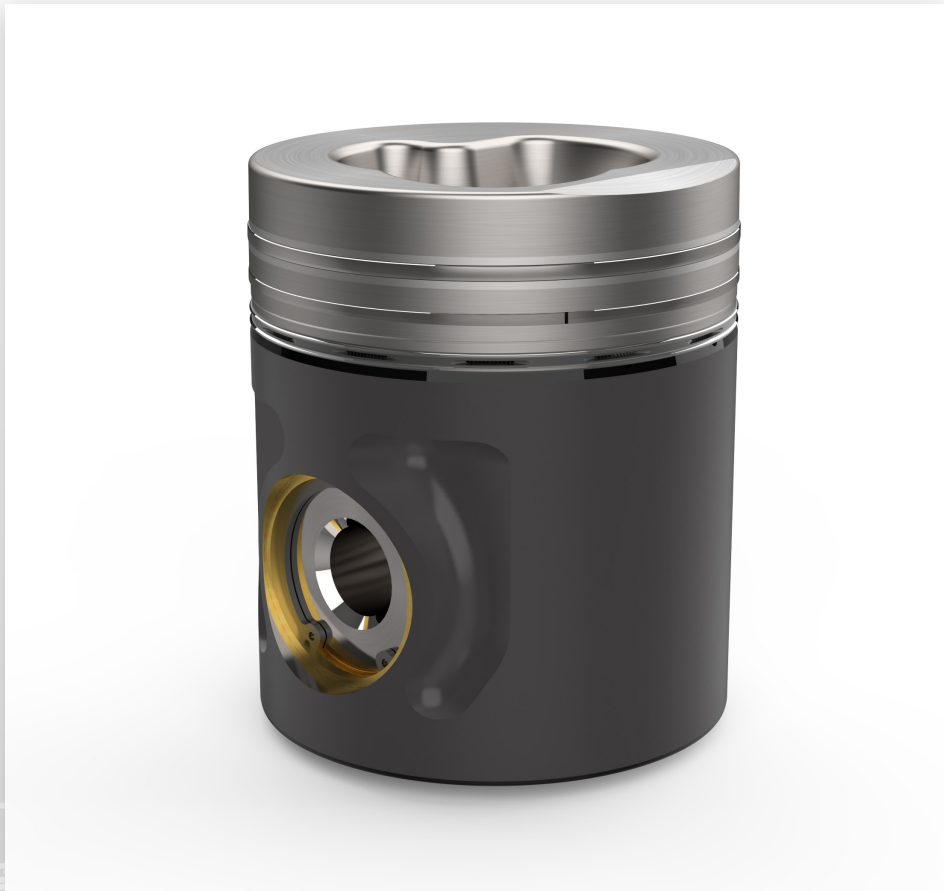
- No regapping necessary
- Can be operated as lean as 250 mg/NOx



Compatibility

- Plug and play Design, no adjustment of ignition-timing and boost-pressure necessary
- Available for Natural gas & Biogas, special release available for other gas-types

Piston series 3



Description

Our high quality piston for series 3 was designed to address reliability problems in the market.

State of the art materials and processing ensure highest mechanical strength and reliability in operation.

Together with our competent manufacturing partners and combustion-experts we are also able to provide tailored compression ratios for special-applications on-demand.

Advantages

- Manufactured with an insert brass sleeve in the piston pin bore for maximum reliability and mechanical strength.

Compatibility

- Compatible with all gas engines series 3
- Available in all commonly used compression ratios
- Tailored compression ratios available on-demand



Maintenance parts



Description

We cover the complete range of products for preventive and corrective maintenance.

All the products for daily operation, such as filters and gaskets, as well as parts for minor and major overhaul, such as bearings, starters, liners, valves and actuators are selected and specified for highest quality.



Availability

- An inventory of 100 000 items and a warehouse of 500m³ enables us to provide you with all the necessary parts for daily operation
- Our sales team is dedicated to react fast for emergency delivery with most items on stock or to be sourced quickly from our well-connected global supply-chain

Blowby-Filters



Description

Our blow-by filtration system significantly reduces the contamination of turbochargers, intercoolers and combustion chambers, thus extending the lifetime and performance of the entire gas engine.

Therefore the overall reliability of the power plant increases and on top of that our blow-by filtration system comes with a much higher expected lifetime than OEM setups.

Reliability

- Expected lifetime of up to 30.000 operating hours
- Guaranteed oil separation rate of 99,98%
- No thermal insulation required
- Compact and vibration resistant filter design
- Easy to assemble and maintenance free

Compatibility

- Plug and play design for easy, direct exchanges of the filter-unit on most series 3 engines
- Retrofitting kits for special versions ensure compatibility with all series 3 engines

Cylinder head overhaul



Description

We provide all required spare parts for a proper overhaul of series 3 two-valve design (OEM) cylinder heads.

We can also offer a condition-based overhaul of your used cylinder heads by our highly qualified inhouse staff with full inspection, re-machining of all relevant surfaces and check & exchange / refurbish of critical parts which are subject to wear.



Advantages

- Economical alternative to replacing the entire cylinder head
- Expected lifetime > 30.000 hours
- Reduced valve-wear due to high-quality valves and seat-rings
- Highest reliability standards due to crack-check and full inspection by experts
- Highest cleanliness standards due to inhouse vacuum-washing process



Availability

- Valves, seat rings, springs & guides are always available on PowerUP's stock

Long-term Supply Agreements (LTSA)

We offer Long-Term Supply Agreements (LTSA) that provide the most flexibility through a strategic combination of parts, repair and field service at discounted, fixed cost for the contract period. With our (LTSA) you will have preferential access to PowerUp parts inventory, field service resources and engineering expertise.

- Define „List of Parts “(LOP)
- Based on LOP the yearly parts requirement/order volume (sales target) is assumed
- Depending on order volume special LTSA discounts are granted
- End of each year the payments received are reviewed, LTSA discount (credit note) issued
- This LTSA discount will be set off against future LTSA orders

PowerUP Long-Term Supply Agreement (LTSA)	Standard Service Contract based on operating hours
Invoicing is done at order placement. NO pre-financing cost.	Invoicing is done per operating hour which is in fact a kind of pre-financing. Customer pays from first operating hour already partly the big and cost intense bigger maintenance works (e.g. minor overhaul).
Flexible scope of supply. Parts can be added or taken out of the LTSA at any time with minor/no impact.	Fixed scope of supply. No change of scope is possible as any part which is taken out has already been partly pre-paid (invoicing per OPH). This pre-payment is lost.
LTSA can be easily adapted to new technologies enabling e.g. longer part life times.	Very difficult for the same reason as above mentioned (invoicing per operating hour).
No exclusivity.	Strict exclusivity, even on parts where better prices/technologies are available in the market.

About us

PowerUP GmbH is an energy engineering company that specialises in high-tech products and solutions for gas engines. With customers in over 40 countries in the world, we are constantly developing cutting edge technology and solutions for the energy industry.



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A large, light blue world map is centered in the background, overlaid with a white hexagonal grid pattern. The map shows the continents of North America, South America, Europe, and Africa.

Driven by efficiency