



OTTOJUNKER
WE UNDERSTAND METALS

MORE ... SERVICE



**UPGRADES AND REVAMPS
OTTO JUNKER IS YOUR EXPERIENCED PARTNER**

WE
UNDERSTAND
METALS

A blurred background image of a factory interior. In the foreground on the right, a person's arm and hand are visible, holding a bright yellow hard hat. The factory background shows industrial structures, pipes, and what appears to be a conveyor belt system.

Upgrades and revamps
OTTO JUNKER is your experienced partner



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OTTO JUNKER GmbH

Innovation and Tradition since 1924



OTTO JUNKER is a globally leading manufacturer of sophisticated industrial furnace equipment for the metal processing industry, and of ready-for-installation high-grade steel castings.

More than 700 employees are dedicated to the development, manufacture and worldwide installation of our melting, pouring and heat treatment systems for metal processing applications. Our high-grade steel foundry specializes in prime-quality castings and high-precision machining of customer-specific parts.

With a clear focus on technology and innovation leadership, OTTO JUNKER continues to set standards in both its plant and equipment building and high-grade steel foundry activities, remaining committed to excellence in engineering, material properties, process reliability and energy efficiency.



WE
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METALS

MORE ... Service

Overview of our after-sales portfolio

Genuine spare parts



Monitoring / Analysis



Maintenance / Repairs



Process optimization



Technical support
7 x 24 hotline services



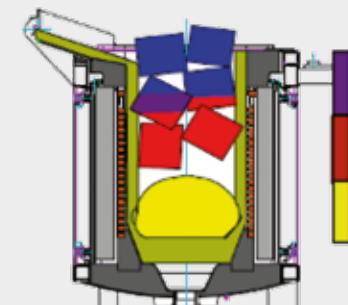
Upgrades / Retrofits



Instruction / Training



Refractory lining installation



Spare part supplies

MORE ... reliability. To ensure that your OTTO JUNKER furnace system will consistently deliver its high performance at all times, we rely exclusively on long-lasting components of unsurpassed quality.

Customers working with very old OTTO JUNKER furnaces will benefit from OTTO JUNKER's practice of archiving nearly all drawings. Whenever a spare part is discontinued, our service department will offer an alternative or retrofit solution.

Furthermore, OTTO JUNKER maintains an extensive spare parts stock comprising numerous different components. When a part must be manufactured for a special, customer-specific solution, we can rely on our in-house mechanical fabrication shops plus a broad network of suppliers.



*Thyristors in power electronics –
authentic OTTO JUNKER products make the difference.*

An inventory of numerous different items ensures a rapid replacement, should the need arise.



Technical support

MORE ... Service. To us, customer service first and foremost means a high level of availability and effective support worldwide.

Via our 24/7 service helpdesk, you can reach us anytime to obtain fast assistance.

Another option is for us to access your furnace system by remote link to provide specific help in an given situation.

OTTO JUNKER Service

Phone +49 2473 601 555

Email service@otto-junker.com

You can reach us
PERSONALLY ANYTIME!



Repairs and reconditioning

MORE ... lifespan. In many cases, a competent repair or overhaul of individual assemblies can restore a system to its full performance capacity for a long time.

To this end, we will give you expert advice and carry out the necessary repair and reconditioning work swiftly and to the highest quality standard.

**Repairs and overhauls of all
component parts of our
industrial furnace systems
are our speciality.**



Past projects have involved the following ...

- Coils of any description
- Inductors of diverse sizes and types
- Coil assemblies
- Yokes
- Furnace cradles
- Hydraulic power packs
- Water re-cooling systems
- Electronic PCBs
- Water-cooled power cables
- Interior housings of heat treatment furnaces
- Gas-fired heating systems
- Furnace controllers (JOKS)

OTTO JUNKER coilmaking

Our in-house coilmaking department repairs coils for, e.g., coreless induction furnaces (up to and including high-performance coils), inductors and billet heaters.

An interior building height of 15 m allows us to manufacture and repair even very large coils.

Individual technology steps of a typical coil repair include the following:

- Removal of refractory lining (coil grout)
- Pressure testing of coil
- Coil bandaging and packing
- Impregnating and drying
- Installation of OCP crucible monitoring system
- Installation of refractory lining (coil grout)
- Application of exterior protective coating



The new OTTO JUNKER coil production from a bird's eye view.



Monitoring and analysis

MORE ... technology. Apart from classic equipment service, Otto Junker GmbH also offers research and development support.

Typical challenges we address every day, both in foundry engineering and heat treatment, are the following:

- How can the productivity of a given plant be increased?
- What should be done to boost process reliability?
- How can new processes and methods be experimentally investigated on a laboratory and production scale?

Wir unterstützen unsere Kunden mit dem Fachwissen von gleichermaßen spezialisierten und qualifizierten Ingenieuren mit teilweise jahrzehntelanger Branchenerfahrung.

Die genannten Themen begutachten wir vorzugsweise bei Ihnen vor Ort. Darüber hinaus sind wir dank unseres Technikums in der Lage, sowohl generelle Fragestellungen hinsichtlich der Realisierbarkeit von Investitionsvorhaben sowie technische Detailfragen zu beantworten,

Profitieren auch Sie von unseren Möglichkeiten. Unser Service-Team berät Sie gerne. Bei Modernisierungsmaßnahmen begleiten wir Sie von der Projektphase über die Angebotserstellung bis hin zur Lieferung und Installation – und natürlich darüber hinaus. OTTO JUNKER sorgt dafür, dass Ihr Schmelzbetrieb technisch jederzeit up-to-date ist. Darauf können Sie sich verlassen.

Wir sorgen dafür, dass Ihr Schmelzbetrieb technisch jederzeit up-to-date ist.



KNOWLEDGE MENT



The results will be presented in the form of a substantiated report or as a complete tailor-made solution.



*Tapping of our experimental melting furnace
(1.700 kg / 600 kW / 30 - 200 Hz)*



Extensive analytical resources of academic establishments.

Zur Beantwortung folgender und weiterer Fragen halten wir verschiedene Anlagen zum Schmelzen, Gießen, Anwärmen und Kühlen im Werk Lammersdorf bereit, die wir bei Bedarf jeweils auf Ihre speziellen Fragestellungen hin anpassen können. Von großer Bedeutung ist, dass diese Anlagen im Betriebsmaßstab ausgeführt sind, so dass eine Extrapolation der Ergebnisse auf größere Anlagen risikoarm möglich.

- How fast can a semifinished product be heated?
- Which cooling gradients can be achieved?
- What level of uniformity can be achieved in these process steps?
- What physical properties will your semifinished product exhibit after the heat treatment?
- Which melting system and process technology is best suited for the production of complex alloys?
- How can pyrometallurgical recycling methods be tested on a production scale?
- Which are the best industrial foundry automation processes for a given objective?

Beschäftigen auch Sie sich mit diesen Fragestellungen?
Dann sind wir Ihr erfahrener Partner! Kontaktieren Sie uns.

**Gemeinsam entwickeln wir mit Ihnen
die perfekte Lösung.**

Instruction and training

MORE ... progress through knowledge. Employee skill standards for the planning, operation and maintenance of industrial furnaces in metallurgy have changed rapidly in recent years as processes grew in complexity and the design and execution of equipment became more challenging.

For personnel to stay abreast of today's demands the OTTO JUNKER Academy was established at the end of 2014 with the aim of conveying knowledge and experience in planning and upgrading as well as in the operation, maintenance and repair of industrial furnace equipment.

The seminars focus on cost effectiveness, reliability, energy efficiency and safety.

Using scale models, demonstration equipment and trial facilities, application-focused instruction is administered, 'by practitioners for practitioners'.

The OTTO JUNKER Academy is aimed at serving managers and staff of the respective manufacturing, maintenance and investment planning departments. It is intended to provide both advanced training to proven employees and basic training to newly hired staff.

Welcome to the
**OTTOJUNKER
ACADEMY**



We impart valuable practical know-how relating to industrial furnaces.



Moreover, the OTTO JUNKER Academy offers regular practice-focused training programmes for plant operators and new customers.

Seminar foundry plant equipment

Module

- Fundamentals of induction melting
- Furnace mechanics and hydraulics
- Water recooling system including heat recovery
- Charge make-up and charging
- Frequency converter technology including IGBT and power supply systems
- Innovative applications and crucible monitoring systems (OCP)
- Refractories
- Maintenance and operation
- Live melting
- Factory tour

Seminar thermoprocessing equipment

Module

- Fundamentals of heat transfer
- Flow and heat transfer - Getting the heat into the charge
- Heat treatment methods
- Product-related equipment technology
- Cost and energy efficiency
- Natural gas burners: Basics & test rig demonstration of a practical example
- Factory tour

Upgrades and extension projects

MORE ... efficiency. Upgrades and extension projects on existing equipment hold significant potential for saving energy, increasing output and reliability, and reducing downtimes. As the costs will be much lower and erection times much shorter than those associated with a new investment, this option is therefore well-worth examining.

Solid technology, backed by proper maintenance and our reliable service, are the key to lasting success in plant and equipment operation.

**Wir verfügen über zahlreiche,
intelligente Ofentechnik zur
Modernisierung Ihrer Anlage.**



IGBT
Umrichtertechnik der
neusten Generation

OCP
Optical Coil Protection

JuDy4.0
JunkerDynamicHeater®
MC



Sparen Sie Zeit und Geld nach der Devise „Aus Alt mach Neu“ und sprechen Sie mit uns über die Möglichkeiten der Modernisierung bestehender Anlagen.

Dazu bieten wir Ihnen an:

- fundierte Beratung bei der Entscheidungsfindung über die Modernisierungsvarianten
- Analyse des Zustandes der Anlage inkl. Auswertung der Ausfallzeiten der Anlage und der Lieferfähigkeit der Ersatzteile
- Vorschläge für die Modernisierungsmaßnahmen
- Bereitstellung der erforderlichen neuen Baugruppen
- Durchführung der Planungs- und Montagearbeiten
- Inbetriebnahme und Leistungstest

MORE ... OTTO JUNKER
We are your experienced partner!

OTTO JUNKER main locations



**Subsidiaries, cooperation partners
and agencies in more than
40 countries enable customers
to access OTTO JUNKER products
and services quickly and easily.**

OTTO JUNKER GmbH
Jaegerhausstr.
52152 Simmerath
Germany

Phone: +49 2473 601-0 | Fax: +49 2473 601-600
Email: service@otto-junker.com

WWW.OTTO-JUNKER.COM

GERMANY

OTTO JUNKER GmbH
52152 Simmerath-Lammersdorf

INDUGA

Industrieöfen und Giesserei-Anlagen GmbH & Co. KG
52152 Simmerath-Lammersdorf

CHINA

OTTO JUNKER Metallurgical Equipment (Shanghai) Ltd.
200090 Shanghai

OTTO JUNKER Metallurgical Equipment (Shanghai) Co., Ltd.
Beijing Office, 100814 Peking

USA

JUNKER, Inc.
West Chicago, IL 60185

Otto Power LLC
West Chicago, IL 60185

CZECH REPUBLIC

JUNKER Industrial Equipment s.r.o.
68001 Boskovice

UNITED ARAB EMIRATES

OTTO JUNKER GmbH - Middle East Office
Dubai