°LAUDA

LAUDA SERVICE An overview of our services

°FAHRENHEIT. °CELSIUS. °LAUDA.

LAUDA A world market leader with tradition

Improving the world together with precise temperatures

We are LAUDA – the world leader in precision temperature control. Our constant temperature equipment and systems are at the heart of important applications, contributing to a better future. As a complete one-stop supplier, we guarantee the optimum temperature in research, production and quality control.

We are the reliable partner for electromobility, hydrogen, chemicals, pharmaceuticals/biotech, semiconductors and medical technology. We have been inspiring our customers for almost 70 years with our expert mentoring and innovative solutions – every day anew and all over the world. From water baths to high-performance process thermostats: LAUDA constant temperature equipment is characterized by its excellent handling, highly ergonomic design and intuitive operation, and provides a working temperature range from –100 to 320 °C.

High product quality and comprehensive professional services form an inseparable unit at LAUDA. Regular care, service and maintenance by highly qualified LAUDA service specialists ensure the outstanding performance of your LAUDA devices.

Our services are tailored to your specific requirements. We offer you a variety of different service packages that are perfectly tailored to your needs according to your budget and system. Allow us to advise you so that you convince yourself of the quality of our service in Germany and from our global partners.



WE HAVE YOUR BACK

Our services - Your benefits

Our service promise

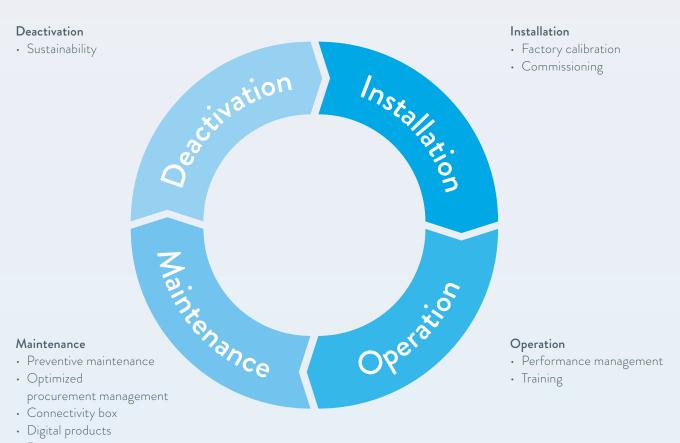
The markets are changing, just like your requirements. Quality, efficiency and cost-effectiveness are drivers of your success. We also know the requirements of your industry. As your service partner, we aim to help you fully utilize the performance of your devices.

Always one step ahead

Our service offerings give you time to address more important matters, regardless of the life cycle phase of your product. You have the option of signing up for established additional services such as commissioning, maintenance and equipment training. Our service team will be happy to help you select the best solution.

Your benefits

- A partner for all precision temperature control applications
- Custom service packages for all requirements
- Transparency and full cost control
- Professional implementation by qualified service technicians
- Accessible worldwide with local service centers in seven countries



Repair

OUR SERVICE PORTFOLIO

For greater equipment availability





Factory calibration

For quality assurance, measured values (temperature parameters, flow) of the system being tested are compared with those of a standard calibration and checked for accuracy. Compliance with the specified tolerances is checked and a comparison is carried out, if necessary.



Commissioning

In order to ensure future operational reliability, it is essential that all sub-components of a system interact perfectly with one another. Professional commissioning ensures smooth operation, which includes in particular the coordination of sub-components and accessories as well as their assembly.

- · Calibration meets current valid standards
- Issue of a calibration certificate (documentation of the calibration results)
- $\checkmark\,$ Reproducibility through regular monitoring of test equipment
- ✓ Ensuring product or service quality based on internationally comparable measuring results
- ✓ Maximizing performance while maintaining quality in line with industry standards

- Check of the installation conditions according to the device specification
- · Check for functional and operational safety
- Instruction of the operator in the basic functions and operating concept
- Provision of the necessary documentation
- ✓ Faster operational readiness
- \checkmark Low susceptibility to failure in the initial phase









Performance management

Control behavior is adapted individually to achieve the best possible result for your application. The preset parameters are adapted and optimized to the real-time conditions or conditions specific to the application.

· Adaptation of the control system

- Expansion of software-supported optimizations
- · Complete documentation of optimizations

- ✓ Better operating conditions resulting in fewer system failures
- ✓ More efficient utilization of resources
- ✓ Adapting the control system can make a positive contribution to quality assurance



Quality further training – training courses are aimed at specialist personnel who work with the products and are responsible for commissioning, maintaining and using them. Experienced service technicians provide in-depth knowledge on site, in modern training rooms either in Lauda-Königshofen or online via digital platforms. This knowledge is specifically tailored to the needs of the participants.

- Basic product information
- Tips and tricks for handling the product
- Hands-on exercises for practical implementation
- ✓ Analyze technical issues effectively
- ✓ Detect complex malfunctions more quickly
- ✓ In-depth technical product know-how





OUR SERVICE PORTFOLIO

For greater equipment availability





Preventive maintenance

Work is carried out at regular intervals to check operational readiness and operational safety. Performing maintenance professionally will maintain the condition of the product or restore it to its original condition and delay or even completely prevent progressive wear as a result.

- Leak test
- Filter changes
- Cleaning
- Replenishing operating materials*

✓ Reduction in downtimes for maximum productivity

- ✓ Reduction in repair and operating costs
- ✓ High degree of system reliability and availability
- ✓ Maximum operating safety together with environmental and health protection



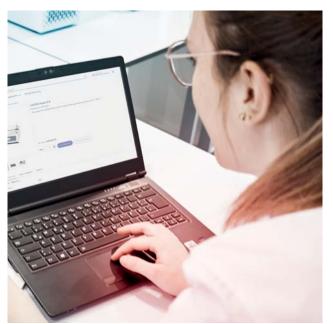
Optimized procurement management

Using LAUDA spare parts for maintenance and repair work consistently ensures the quality, reliability and efficiency of your system. Our spare parts management system ensures that the right spare parts and the right resources are always in the right place at the right time. The LAUDA ordering platform gives you the opportunity to order LAUDA constant temperature equipment and accessories online both quickly and easily.

- LAUDA ordering platform
- Spare parts management system
- ✓ Available around the clock
- $\checkmark\,$ Simple overview of products and comparison options
- ✓ Easy access from anywhere
- \checkmark Fast ordering with no manual processes



* paid additional service



DIGITALIZATION WITH LAUDA

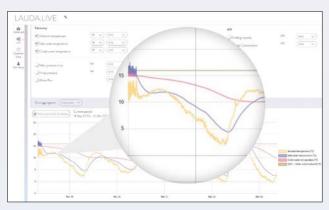
Precision temperature control in the digital age

Intelligent and future-proof - our digital products

At LAUDA, we are constantly driving forward the process of digitalizing constant temperature technology. We are moving LAUDA constant temperature solutions into the digital age and shaping the evolution of precision temperature control. Examples of such solutions include connectivity to cloud systems accompanied by the development of corresponding digital platforms, and the intensive investment in future-oriented technology such as artificial intelligence, especially through machine learning and the programming of corresponding algorithms.

Our applications allow intuitive operation and monitoring via PC or mobile devices – even irrespective of location if required. In the event of machine failures, LAUDA service employees can provide remote support to diagnose the steps required to resume system operation as quickly as possible – your direct line to the LAUDA service help desk. Our digital products offer powerful monitoring and analysis functions that help you get the most out of your constant temperature solutions.

Start digitalizing your constant temperature technology with us.



Remote maintenance and monitoring with LAUDA.LIVE services



OUR SERVICE PORTFOLIO

For greater equipment availability





Connectivity box Immediate help with the Connectivity box. Do you have a question about a system, but cannot gain remote access so easily? The Connectivity box brings the remote access connection right to the system. No long waiting times and excessive related costs such as travel expenses for services. Our Connectivity box offers rapid assistance by creating a secure remote access connection.

Connectivity box (ready-to-use package)

Digital products

Digital solutions supplement LAUDA's products and services to improve or simplify everyday constant temperature applications. A wide range of comprehensive digital functions are available for every device, with or without an IoT connection.

- LAUDA Command control and monitoring app for mobile devices
- LAUDA.LIVE digital services remote maintenance and monitoring via a live data connection
- ✓ Quick and easy error analysis and rectification through remote maintenance
- ✓ Accompanying costs are reduced to a minimum
- $\checkmark\,$ Reduction in downtimes and disruptions
- ✓ Simplification of life cycle management and operation
- $\checkmark\,$ Reduction in downtimes and disruptions
- $\checkmark\,$ Remote maintenance for quick and easy troubleshooting
- ✓ Minimization of related costs such as travel expenses for services











Repair

Quick, professional repairs are essential in minimizing expensive downtimes. With our flexible service department, repairs can be carried out on site, at one of our service centers or by returning the product to our LAUDA service workshop in the main factory – always with a high level of expertise and using the latest technology.

· On-site repairs, including testing

sustainability

- Return to the LAUDA service workshop, including testing
- Service centers employing specialist staff to carry out repairs, including testing

- ✓ Saves valuable time over waiting for a new device
- ✓ Repairs are less expensive than purchasing a new product
 ✓ Saving energy and materials sets an example in



The environment in focus: we protect our environment and use resources sparingly. LAUDA stands for sustainability and high environmental awareness, which is why we are certified according to ISO 14001. Our systems are manufactured from high-quality materials that are highly recyclable. We offer the professional disposal of refrigerants and discarded old devices for a modern circular economy.

- Return of discarded old devices
- Professional disposal of refrigerants and discarded old devices
- · Documentation / certificate of disposal
- $\checkmark\,$ Professional disposal, no additional expenses
- ✓ Fast disposal process





WE ARE THERE, WHEREVER YOU NEED US

Service locations worldwide

LAUDA has embodied professional service for almost 70 years. Regular care, service and maintenance by highly qualified LAUDA service specialists prevent downtimes and ensure the outstanding performance of your LAUDA devices. Place your trust in the efficiency of the LAUDA service.

E-mail: service@lauda.de · Website: www.lauda.de

Support hotline 24/5 · Mon – Fri

Germany: Service LAUDA KG 8.00 a.m. – 5.00 p.m. (CET)

+49 (0) 9343 503 350

USA / Marlton NJ: Service LAUDA Brinkmann 5.00 a.m. – 11.00 p.m. (CET) +1 856 764-7300-2

USA / Morgan Hill CA: Service LAUDA Brinkmann 11.00 p.m. – 2.00 a.m. (CET) +1 908 963-6170

China: Service LAUDA 2.00 a.m. – 8.00 a.m. (CET)

+86 21-67800100

2501 SE Columbia Way, Suite 140 Vancouver, WA 98661 • USA T +1 360 993 1395 • info@lauda-noah.com

LAUDA-Brinkmann, LP

LAUDA-Noah, LP -

9 East Stow Road, Suite C • Marlton, NJ 08053 • USA 308 Digital Drive • Morgan Hill, CA 95037 • USA T +1 856 764 7300 • info@lauda-brinkmann.com

> LAUDA América Latina Tecnologia Ltda. Av. Paulista, 726 – 17° andar – Cj. 1707 01310-910 – São Paulo • SP Brazil T +55 11 3192-3904 • info@lauda.net.br

LAUDA Ultracool S.L.U.

Carretera de Rubí, 316 · 08228 Terrassa (Barcelona) · Spain T +34 93 7854866 · info@lauda-ultracool.com

LAUDA Ibérica Soluciones Técnicas, S.L.U.

Carretera de Rubí, 316 • 08228 Terrassa (Barcelona) • Spain T +34 93 7854866 • info@lauda-iberica.es

LAUDA Technology Ltd.

Unit 12 • Tinwell Business Park • Tinwell Stamford PE9 3UN • Great Britain T +44 (0)1780 243 118 • info@lauda-technology.co.uk

LAUDA DR. R. WOBSER GMBH & CO. KG

Burgwedel Subsidiary Schulze-Delitzsch-Straße 4 · 30938 Burgwedel Germany · T +49 (0) 5139 9958 - 0 · info@lauda.de

LAUDA DR. R. WOBSER GMBH & CO. KG

Laudaplatz 1 • 97922 Lauda-Königshofen • Germany T +49 (0)9343 503-0 • info@lauda.de

LAUDA Medical GmbH & Co. KG T +49 (0)9343 503-345 • info@lauda-medical.com

LAUDA Scientific GmbH T +49 (0)9343 503-190 • info@lauda-scientific.de

new.degree GmbH · The LAUDA Digital Innovation Hub Leightonstrasse 2 · 97074 Würzburg · Germany T +49 (0)173 1962993 · info@new.degree

LAUDA Production China Co., Ltd.

Room A , 2nd floor, Building 6 • No. 201 MinYi Road Song Jiang District • 201612 Shanghai • China T +86 10 57306210 • info@lauda.cn

LAUDA China Co., Ltd.

2nd floor, Building 6 • No. 201 MinYi Road Song Jiang District • 201612 Shanghai • China T +86 21 64401098 • info@lauda.cn

LAUDA Italia S.r.l.

Strada 6 – Palazzo A – Scala 13 20090 Assago Milanofiori (MI) • Italy T +39 02 9079194 • info@lauda-italia.it

LAUDA France S.A.R.L.

ZAC du Moulin • 25 rue Noyer • CS 11621 95724 Roissy Charles de Gaulle Cedex • France T +33 (0)1 39926727 • info@lauda.fr LAUDA Singapore Pte., Ltd.
 25 International Business Park • #01-11/14 German Centre
 Singapore 609916 • Singapore • T +65 6563 0241 • info@lauda.sg

LAUDA DR. R. WOBSER GMBH & CO. KG Laudaplatz 1 • 97922 Lauda-Königshofen • Germany www.lauda.de

