



# SERVICES

FOR KLINGELNBERG MACHINES



KLINGELNBERG

## Leading the Market in Gear Technology with Tradition, Expertise and Passion

The **KLINGELNBERG Group** is one of the world's leading companies in developing and manufacturing machines for **bevel gear and cylindrical gear machining** and **precision measuring centers for axially symmetrical components and gearing**. The group also **manufactures spiral-cut bevel gears to customer specifications** – with ultimate precision using in-house technology.

The origins of the engineering company date back to the year 1863. Up to date family Klingelberg is invested as an anchor shareholder of the company. The path from the company's origins to global market leadership has been shaped by a continuous striving towards first-rate quality and absolute reliability, both for products and service. With numerous R&D engineers worldwide and more than 200 registered patents, the company demonstrates its capacity for innovation each and every day.

Klingelberg operates engineering and manufacturing facilities in Switzerland and Germany. The company ensures a global presence with regional sales offices and service centers. In addition, its ISO 14001 certification and participation in the VDMA's (German Engineering Federation) "Blue Competence" initiative give credence to the company's sustainable, environmentally sound business practices.

### Production Sites



Hückeswagen, Germany



Hückeswagen (Winterhagen), Germany



Headquarters of the KLINGELNBERG Group  
in Zurich, Switzerland



Ettlingen, Germany



# KLINGELNBERG SERVICE OVERVIEW



## KLINGELNBERG – Quality and Competence that Impress

Our understanding of precision and reliability goes well beyond our products. That is why we provide our customers with comprehensive service in the Klingelberg business areas, with a focus on individual, customer-specific requirements.

Be it all-round support throughout the lifecycle of the machine or individual service modules – made-to-measure, coordinated solution packages and competent discussion partners are the norm at Klingelberg.

Our well-trained, highly motivated, and experienced service technicians are available in every phase of the lifecycle of your Klingelberg machines and measuring devices. Comprehensive care is also guaranteed by our help desks, providing support for all your questions and requests.

### Our Service Advantages for You:

- Maximum flexibility thanks to fast response times
- Outstanding technical expertise from trained service technicians with many years of experience in-house and in the field
- Less working time due to previous targeted remote maintenance
- Well-networked, international locations
- Excellent planning reliability due to precisely customized maintenance agreements
- Tailor-made solution concepts



# KLINGELNBERG Lifecycle-Management

## Overview of our Comprehensive Service Portfolio:

### Commissioning



Everything for the perfect start of production – from exact installation to precise setting of the machines – Klingelberg provides qualified commissioning and final acceptance services.

### Maintenance Contracts



Continuous, reliable maintenance of machinery for smooth process sequences – a central service of Klingelberg.

### Production Support



Klingelberg also offers its customers constructive support from staff during the production process.

### Calibration



Klingelberg precision measuring technology ensures that regular workpiece measurement takes place and that basic accuracy is verified.

### Spare Parts & Repair



The modern, perfectly organized Klingelberg warehousing system makes spare parts available quickly.

### Retrofitting & Overhauling



Klingelberg provides competent support for a long, reliable usage period and consistent production quality of the machine

### Training



Comprehensive qualification by Klingelberg ensures that your employees work just as precisely and reliably as the machines themselves.

### Grinding Service



You can also make use of our comprehensive complete service from the manufacture of new stick blades, to sharpening and re-coating, to the delivery of fully set-up cutter heads.

### Closed Loop / Networking



Optimum production control due to closed, networked hardware and software loops.

### Helpdesk



Qualified KLINGELNBERG employees are at your disposal via our Helpdesk from Monday to Friday from 07:00 to 17:00 (CET).

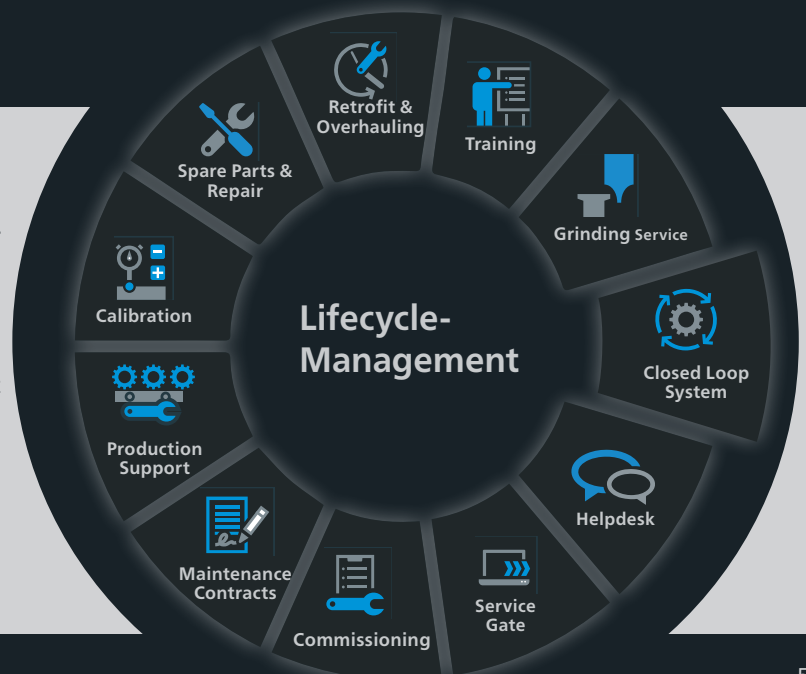
### Service Gate



All machines can now be equipped with a LAN modem for remote diagnosis. The LAN modem automatically establishes a tunnel to the Klingelberg server, ensuring secure handling of the data.

Klingelberg provides a range of interlinked services for your machine, which you can use as an overall package or in modules.

In our lifecycle, you are guaranteed to find the offer that perfectly matches your ideas and meets your requirements; we would be pleased to develop the specific individual design together with you.



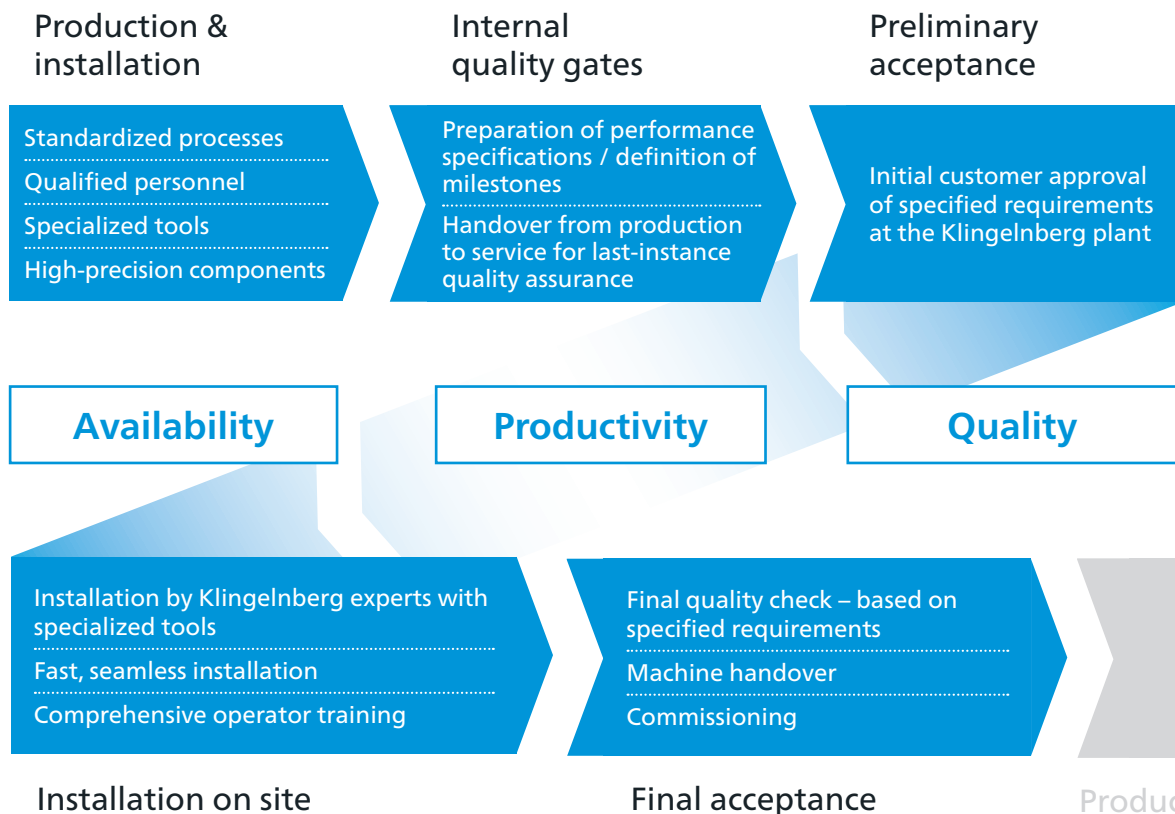
## Commissioning: The Perfect Start to Your Production

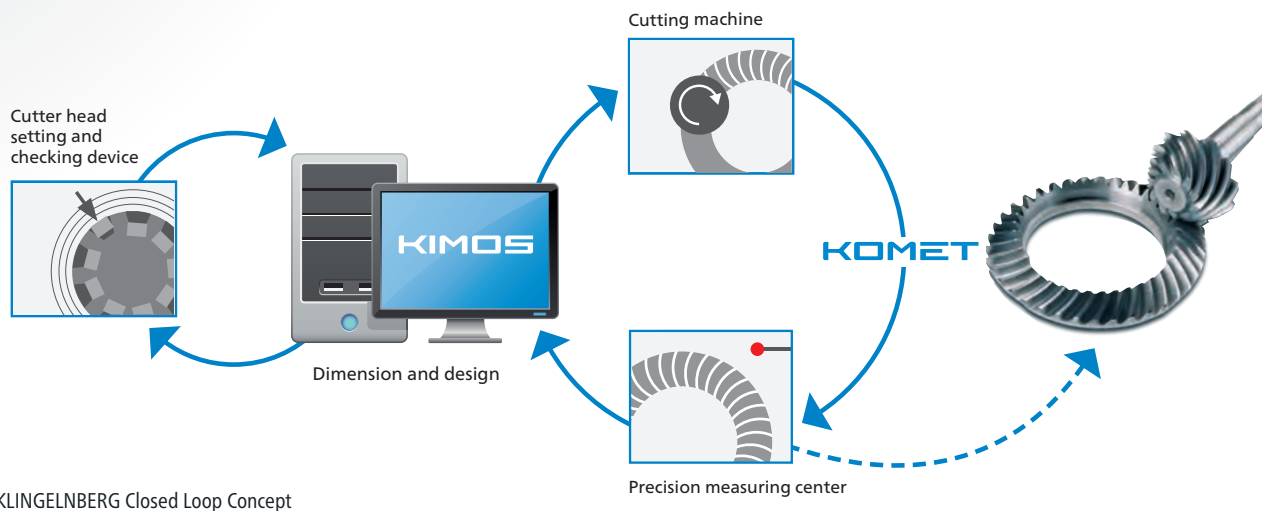


From exact installation to precise setting of the machines, Klingelberg provides qualified commissioning and final acceptance:

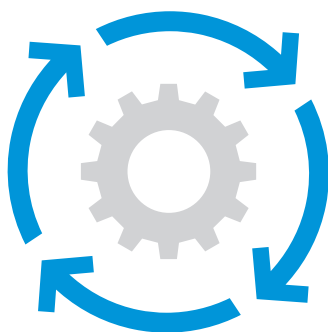
- Machine installation worldwide at the customer's site
- Complex project management by qualified, committed employees
- Immediate availability of machinery ensured

## Perfect Commissioning Results from the Sum of Various Quality Checks





## More Efficient Production Thanks to the Closed Loop System



Improve the efficiency, quality, and safety of your production thanks to intelligent networking on the shop floor. A central production database and networked processing and measuring machines are at the core of the Closed Loop concept. The production simulation used in the KIMoS software to develop and optimize gearings provides the data records required for efficient manufacturing.

- Data management for optimizing production and ensuring improved efficiency and quality
- Lower scrap rates and significantly reduced machine setup times



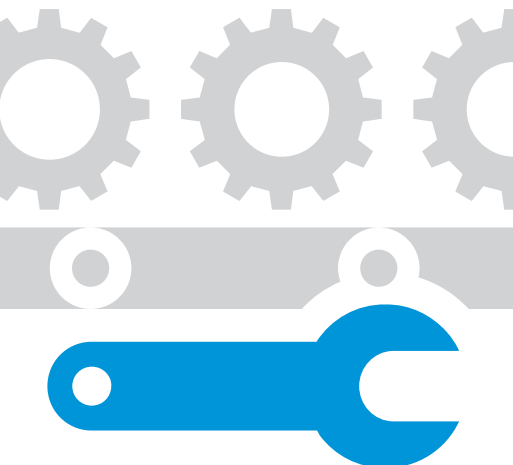
## Maintenance Contracts: Safeguarding Smooth Process Sequences



Continuous, reliable maintenance of machinery for smooth process sequences – a central service of Klingelberg:

- Basic technical agreements (recommended manufacturer standard) for achieving maximum productivity
- Extended service agreements with the option of extending the fields of activity – tailored to customer requirements
- Range of maintenance agreements for new machines and existing machines
- Remote service / remote maintenance – special service tool that can be used at any time for quick solution analysis via remote connection to the machine
- Prevention of machine failures through regular maintenance and the associated quality assurance and machine performance

## Production Support: Technical Expertise for Maximum Reliability



Klingelberg also offers its customers constructive support from staff during the production process:

- Assistance with machine operation
- To safeguard maximum output, we provide our customers with reliable, competent machine operators to cover staff shortages
- Staff training from starting up a machine to recognizing machine malfunctions





**With KLINGELNBERG,  
You are in the Best Hands  
– for the Lifetime of the  
Machine.**

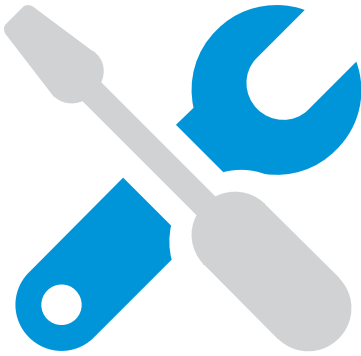
## **Calibration: Continuous Precision and Optimum Performance**

Klingelberg precision measuring technology ensures that regular workpiece measurement takes place and that basic accuracy is verified:

- Available as an individual service
- Reliably reproducible determination and documentation of deviations
- Validation of basic accuracy with certified normals



### Spare Parts & Repair: We're Ready for Anything



Original spare parts mean top-notch quality and maximum safety. The modern, perfectly organized KlingelInberg warehousing system makes spare parts available quickly:

- More than 100,000 materials can be stocked
- Spare part availability guaranteed for at least 10 years
- Parts dispatched on same day if order received by 12 noon
- Perfect coordination to the respective machine type

### Retrofitting & Overhauling: Ensuring Quality for the Long Run



The tried-and-tested superior manufacturing quality of a KlingelInberg machine ensures excellent productivity and high-quality production over many years, but a machine's lifecycle is also greatly influenced by routine machine care. After several years of operation, a replacement of used components during an overhaul is therefore often unavoidable. Component replacement ultimately ensures the quality of your machines and production for years to come:

- A comprehensive service concept meticulously developed for you following an extensive inspection
- Individually tailored to your particular requirements, an entire range of different service modules are available for long-term support

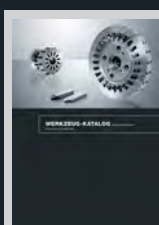


## Nothing as Good as the Original: KLINGELNBERG Spare Parts

### After Sales: Ensuring Seamless Processes with KLINGELNBERG Tool Systems

Klingelberg also offers its customers high-quality, customized products for tool manufacturing. Working in close partnership with customers, we provide comprehensive consulting services covering gearing design and the appropriate tools for large-scale production as well as custom solutions to address specific requirements. The product range includes tools for spiral gears, internal gearing, hypo-flex straight-gearing, face clutches, clamping devices for standard production, and more.

Optimized maintenance of the tools is essential to guarantee the highest-level productivity from our machine tools. Our grinding service provides you with a complete service, from the manufacture of new stick blades, to sharpening and re-coating, to the delivery of fully set-up cutter heads. In collaboration with Application Engineering, Klingelberg also takes care of tool design, data and drawing production, as well as optimization of tool geometries, and therefore tool service life.



Compact and clearly laid out – the KLINGELNBERG tool range for bevel gear cutting machines. To order the tool catalog, send an e-mail to: [tools@klingelberg.com](mailto:tools@klingelberg.com).





## Keep Up-to-Date on the Latest – with Expert Seminars

Modern technology is constantly changing. That's why it's so important to keep up with the latest in technical knowledge. Expert seminars by Klingelberg are the perfect way to do this.

Klingelberg training courses are offered throughout the year, either according to the training schedule or based on customer requirements. Basic technical principles are taught in these courses. In addition to pure theory, participants also have the opportunity to have a glimpse "behind the scenes." For all machines included in the product range, maintenance training is available on request.

The seminars:

- Small groups of no more than six to eight participants
- Seminar center in Zurich with adjoining demonstration hall
- Technology courses at three different levels that build on one another (bevel gear, KIMoS)
- Pool of instructors comprising 15 application engineers
- Seminars offered in German and English



## Our Training Programs:

### Basic Principles of Bevel Gearing

Training includes:

- Presentation of applications and classification of bevel gears
- Knowledge and understanding of the various gear cutting systems
- Interaction between gear geometry and gear properties
- Closed loop: from design to production to quality control

### KIMoS for Beginners

Training includes:

- General information on the KIMoS bevel gear calculation program
- Data record handling and management
- Explanation of the different program modules
- Bevel gear calculation procedures from A to Z, based on examples of various gear cutting methods

### KIMoS for Advanced Users

Training includes:

- Deepening of participants' understanding of bevel gear calculation methods
- Methods for optimizing (existing) gear designs
- Stick blades, load capacity, noise behavior, hardening distortions, etc.
- Consideration of individual calculation examples based on participants' current needs



Here you will find  
our current  
Training offers:



## GRINDING SERVICE



### Blade Precision from the First Grinding to the Last

In order to guarantee the highest-level productivity of our bevel gear cutting machines, optimized maintenance of the tools is essential. Our grinding service provides you with a complete service, from the manufacture of new stick blades, to sharpening and re-coating, to the delivery of fully set-up cutter heads. In collaboration with our Application Engineering, we also take care of tool design, data and drawing production, as well as optimization of tool geometries, and therefore tool service life.

Our experience and technical expertise – your advantage:

- Optimum order processing, on-time delivery
- State-of-the-art production machinery, adjusting and measuring devices
- Top-quality precision, confirmed by measurement reports
- Decentralized organization of grinding service centers worldwide

We provide a wide range of service offers – geared to your production:

- Finish-grinding and coating of stick blades and universal blades
- Fitting and adjustment of cutter heads with refinished blades
- Measuring and reporting of a fitted cutter head with reworked blades
- Ready-to-ship packaging that guarantees safe transportation from the grinding service to the customer

Of course, it is also possible to make use of individual services from the overall package.

State-of-the-art adjusting and measuring devices guarantee an optimum workflow, from servicing and repairing the tool, to use in the machine tool, enabling efficient, trouble-free production of drive components for our customers.

The turnaround time for a cutter head with coating and subsequent cutter head fitting is 13 working days (ex works delivery). All that we need from you is the neutral data of the blade geometry.



Oerlikon stick blade grinding machine B 27 for grinding stick blades for all bevel gearing types



Oerlikon stick blade measuring device BC 12 for high-precision measuring of stick blades and documenting the individual blades



Oerlikon cutter head setting and checking device CS 200 for quick and easy setting of the cutter heads as well as for checking and documenting the cutter heads

## TAILOR-MADE SOLUTION CONCEPTS



### Your Advantages with KLINGELNBERG Service:

- Prevention of machine downtimes
- Cost control
- Extended service life of your machine
- Maximum operating safety

### The Right Combination of Services for your KLINGELNBERG Machines

The “right combination” means a solution precisely tailored to your requirements – from a single source. As a leading systems supplier in gear cutting technology, our aim is to ensure the value of your investment over the long term.

**Contact us for a tailor-made service agreement that meets your individual needs:**


- From basic equipping of a machine tool or gear measuring machine, all optional add-ons that fulfill the appropriate quality requirements can be obtained from Klingelberg. The required installation and commissioning work is performed by qualified technicians, of course. This applies to all clamping fixtures and tools, and naturally to auxiliary equipment as well.
- From designing the workpiece to be manufactured to the complete test report – our qualified staff will assist you with every step in the production process.
- Should your machine tool or gear measuring machine mal-


function, our service technicians are at your disposal, with training in state-of-the-art technology. You can reach our skilled service team Monday through Friday from 7:00 AM to 5:00 PM (CET). If needed, you can also take advantage of our backup production services in a cutting-edge production workshop.


- Is it time to plan a retrofit of your machine? Flexible solutions, such as overhauling at your facility (large systems, long transport distances) or directly in our main factory, are also part of our service offering. This ensures not only the use of Klingelberg original parts but also the know-how needed for implementation.



**CUSTOM SERVICES,  
MADE TO ORDER**


 Commissioning


 Closed loop networking

 Maintenance contracts

 Production support

 Calibration

 Spare parts & repair

 Retrofitting & overhauling

 Training

**PRODUCT SELECTION**

Services for existing machines

Services for new machines

**BEVEL GEAR  
TECHNOLOGY**

**GEAR MEASURING  
TECHNOLOGY**

**CYLINDRICAL GEAR  
TECHNOLOGY**

**YOUR SERVICE**



We will be happy to create a customized service package precisely tailored to your needs.



## Technical Support / Help Desk

Klingelnberg guarantees the availability of qualified employees as follows: Monday through Friday (except official holidays) 7:00 AM to 5:00 PM (CET).

**Machine Tools Help Desk  
Bevel Gear Technology**  
Fon: +49 2192 81-534  
Fax: +49 2192 81-524  
E-mail: [TSM-H@klingelnberg.com](mailto:TSM-H@klingelnberg.com)

**Machine Tools Help Desk  
Cylindrical Gear Technology**  
Fon: +49 7243 599-176  
Fax: +49 7243 599-278  
E-mail: [TSM-O@klingelnberg.com](mailto:TSM-O@klingelnberg.com)

**Help Desk  
Precision Measuring Centers**  
Fon: +49 2192 81-272  
Fax: +49 2192 81-514  
E-mail: [TSP-H@klingelnberg.com](mailto:TSP-H@klingelnberg.com)



As a globally operating company, we are naturally also represented at important international locations for our business partners all over the world. So that you can also rely on our proximity, short distances and quick, precise solutions in far-away places.

## KLINGELNBERG Service

The KLINGELNBERG Group is a world leader in the development and manufacture of machines for bevel gear and cylindrical gear production, and precision measuring centers for gearing and axially symmetrical components, as well as the production of customized high-precision drive components. In addition to the headquarters in Zurich, Switzerland, further development and production facilities are located in Hückeswagen and Ettlingen, Germany.

The company also maintains a presence with Sales and Service offices and numerous marketing agents. On this basis, Klingelberg offers users a comprehensive range of services for all aspects of toothed gear design, manufacturing, and quality inspection. The spectrum includes technical consulting, on-site machine acceptance, operator and software training as well as maintenance contracts.

## KLINGELNBERG Solutions

Klingelberg solutions are used in the automotive, commercial vehicle, and aviation industries, as well as in shipbuilding, the wind power industry, and the general transmission manufacturing industry. With numerous R&D engineers around the globe and over 200 registered patents, the company consistently demonstrates its capacity for innovation.

EN 08/2023 - Subject to technical modifications without notice.

FOLLOW US AND STAY UP TO DATE:



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You can also find your local contact for sales advice at <https://klingelberg.com/en/contact>