Product Range

The Vision

The Uhing difference

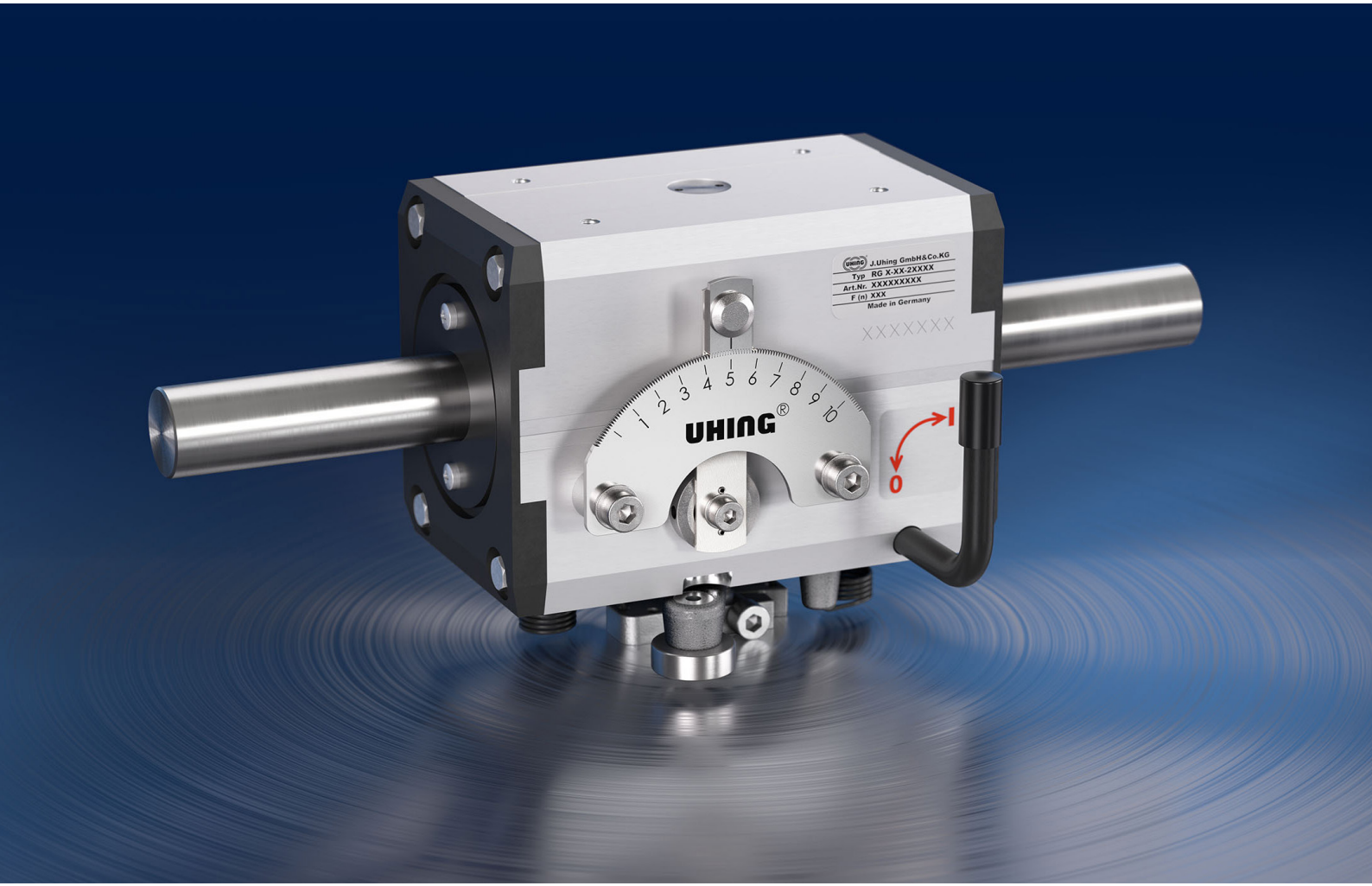
Uhing makes the difference. This promise is no coincidence – we live it.

Innovation and precision are firmly anchored in our DNA – as well as in our products, which are used reliably in numerous machines worldwide. Efficiency is standard for us, process stability is a matter of course. Our claim: Everything runs smoothly for our customers. After all, real quality often manifests itself in the fact that it remains inconspicuous – because our solutions reliably do exactly what they were developed for over many years. Our reliability is no coincidence, but the result of experience, care and technical expertise. This
is how we create products that redefine durability.

For over 80 years, Uhing has stood for consistency and the highest standards. For us, stability is much more than just a word: it shapes our North German identity and is the basis of our actions. Experience, diligence, and technical expertise combine with in-depth knowledge of the details, enabling us to act flexibly and with an eye to the future.

Uhing makes the difference. With tradition. With enthusiasm. With certainty.
This is how we move precisely into the future. Follow this path with us.

Content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UHING®
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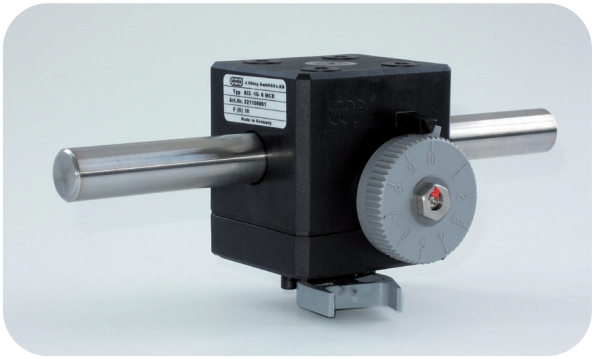
Uhing® Rolling Ring Drives (RG, RGK and KI)

These drives are mechanical friction drives which convert the constant rotation of a plain shaft in a single direction into a reciprocating motion. They act practically like nuts on screw spindles.

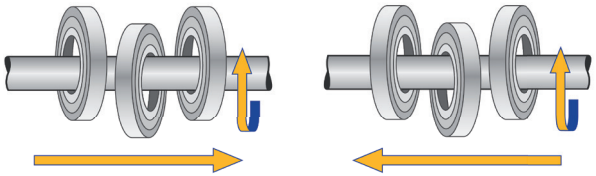
Rolling ring bearings are arranged at an angle to the shaft and press against the rotating shaft with their specially shaped running surfaces. Depending on the swivel angle, they generate a left- or right-handed movement. The pitch can be finely adjusted, right up to standstill.

Reversal is effected via a reversal mechanism, which is connected to the Rolling Rings and which makes contact with adjustable endstops.

Special features on request.



The Rolling Ring principle



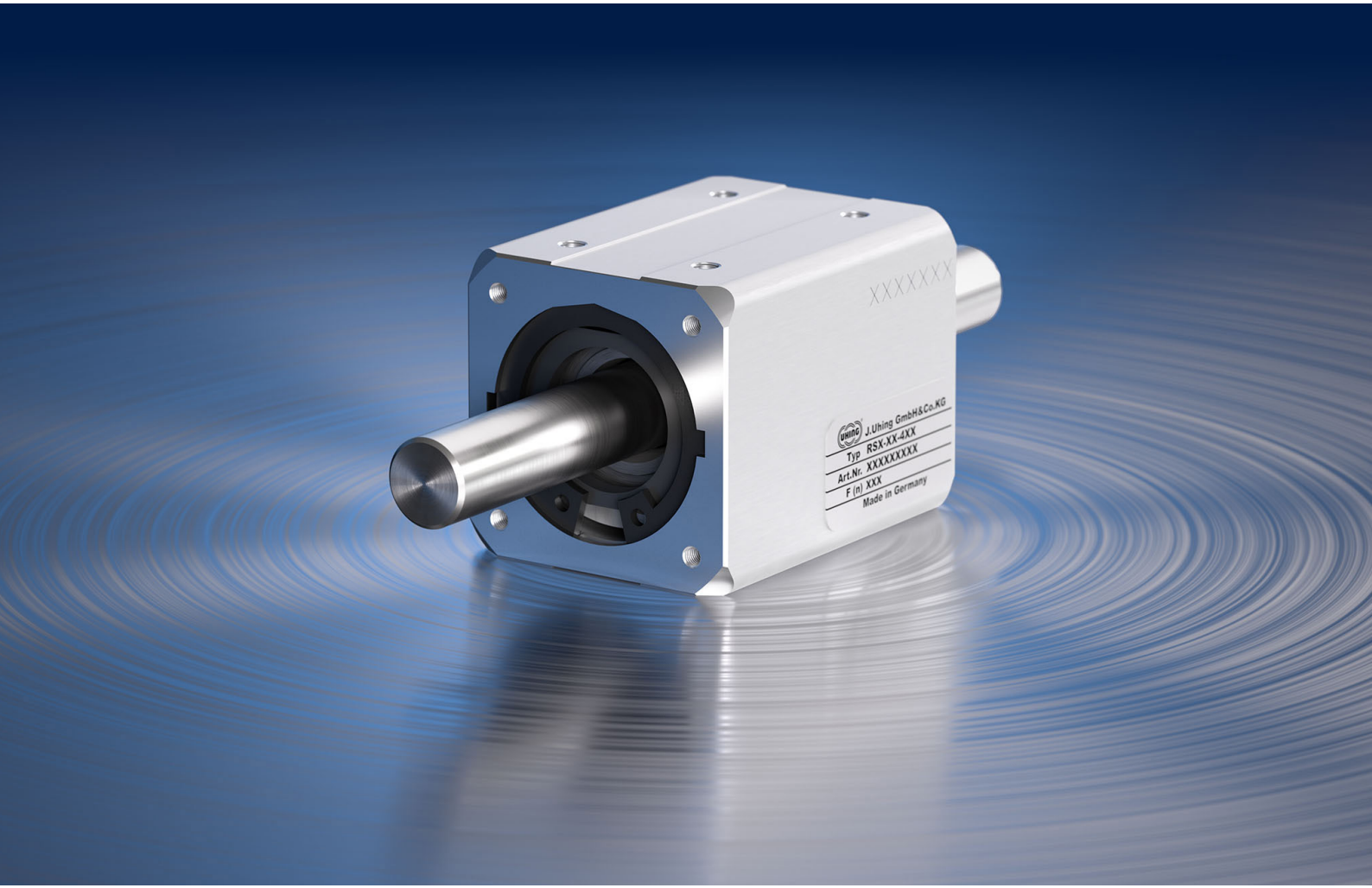
Application areas

- winding
- special drives
- drive technology

The main product features

- maximum efficiency due to complete rolling bearing support of drive and payload
- automatic back and forth movement
- variably adjustable speed of travel from 0 to max. 4.2 m/s
- variably adjustable stroke length and stroke position high dynamics at the reversal point
- can be disengaged from the shaft
- low operating costs
- low maintenance requirements
- alternative to ball screw, timing belt drive, etc.

On request, Uhing also offers the Rolling Ring Drive as a complete assembly.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Uhing® Linear Drive Nut (RS)

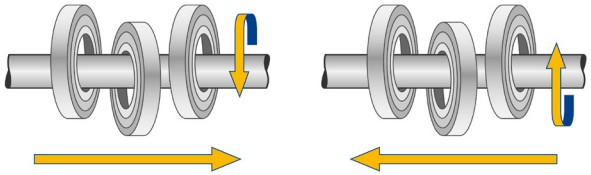
Uhing Linear Drive Nuts are friction drives that convert the rotation of a smooth shaft into a linear movement. Rolling ring bearings are arranged at an angle to the shaft and press against the rotating shaft with their specially shaped running surfaces. Depending on the swivel angle, they generate a left- or right-handed movement. The stroke direction is reversed by changing the direction of rotation of the shaft.

The system is backlash-free, compact, and easy to seal, making it suitable for dirty environments. It is vibration-resistant and features overload protection through functional slippage. Optionally, the Uhing Linear Drive Nuts can be equipped with mechanical or pneumatic disconnect switches, scrapers, roller guides, or coupled units to increase the thrust force.

Application areas

- coordinate measuring machines
- inspection technology
- materials handling
- conveyor systems
- engine controls
- food industry
- medical apparatus

The Rolling Ring principle



The main product features

- backlash-free
- very smooth running
- low noise
- high efficiency
- can be disengaged on the shaft
- compact design
- low installation space requirement
- safety due to slip in case of overload
- side thrust forces adjustable at the factory
- available with different pitch
- left and right pitch possible on one shaft
- good sealing possibilities against dust, dirt, moisture, etc


Uhing-Z-Drive
Uhing-Z-Drive

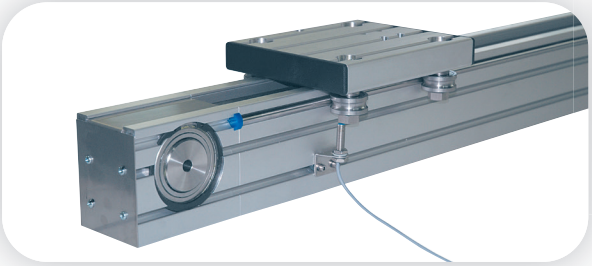
Uhing® Timing Belt Drive (AZ)

When speed, repeat accuracy and simple integration are required, the timing belt drive from Uhing is a reliable solution. It converts the rotary motion of a motor into a precise linear movement – efficient, robust and with versatile configuration options.

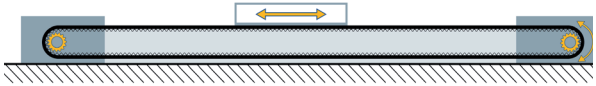
Uhing timing belt drives are based on a rigid and torsion-resistant aluminium profile with integrated T-slots for easy installation. A durable, dimensionally stable timing belt moves the carriage – quickly, precisely and quietly.

The Uhing timing belt drive is a mechanically guided linear actuator in which the carriage is moved by a circulating toothed belt. The belt lock transmits the motor power directly to the carriage. Thanks to optional roller or slide rail guides, the movement remains precisely guided – even at high-speed applications.

The materials used – anodised aluminium, hardened guides and robust toothed belts – ensure long-lasting, low-maintenance operation. Sensors, motor connections and special equipment such as wipers or brushes can be integrated.

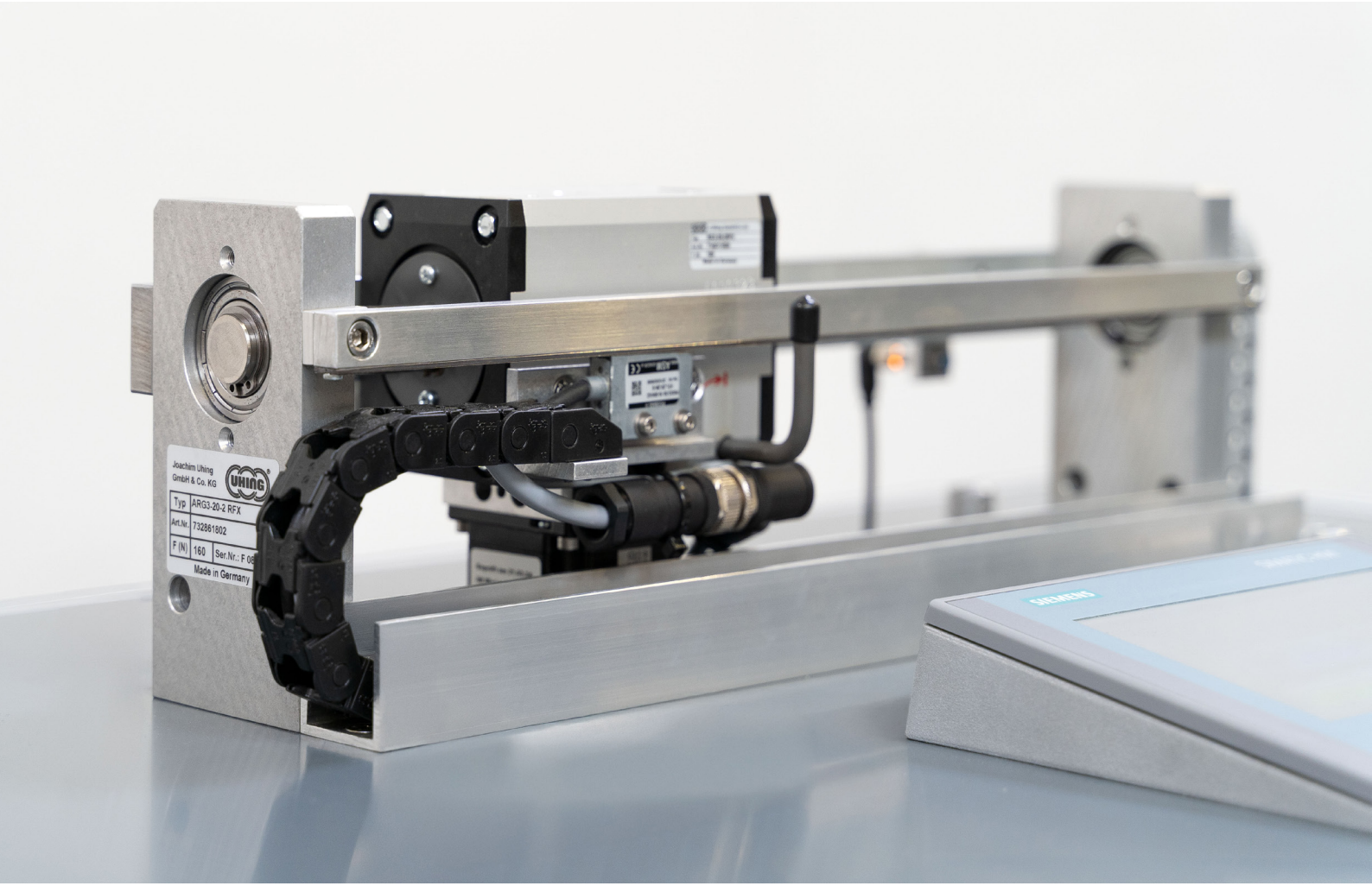


The Timing Belt Drive principle



The main product features

- easy installation
- precise guidance
- high traverse speed and acceleration
- extensive range of types and accessories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Uhing Motion Drive® (UMD)

The intelligent control system for your linear motion

The Uhing Motion Drive® (UMD) is the pioneering combination of a classic Rolling Ring Drive and modern automation technology. Instead of mechanical reversal, a stepper motor with intelligent control takes over all functions: Traverse speed, change of direction, motion profiles – all digitally configurable via a user-friendly touch panel. Whether for standardised winding processes or complex positioning tasks: The Uhing Motion Drive can be flexibly adapted to any application – and ensures maximum precision, efficiency and repeat accuracy.

The main product features

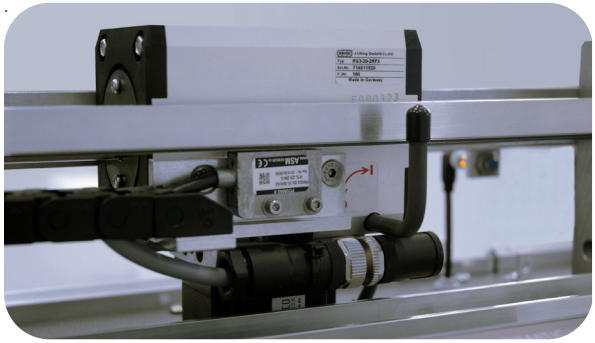
- robust, reliable Rolling Ring Drive technology
- all the advantages of the proven RG technology also apply to the Uhing Motion Drive®
- mechanical compatibility with previous RG drives – they can be retrofitted
- constant or variable speed – with constant shaft speed
- freely definable travel programmes – Definable action points/reversal points
- all components comply with industry standards
- integration into the customer's machine control system possible
- flexible adjustment
- almost all special designs of the Rolling Ring Drive can be implemented

The additional product features in winding technology

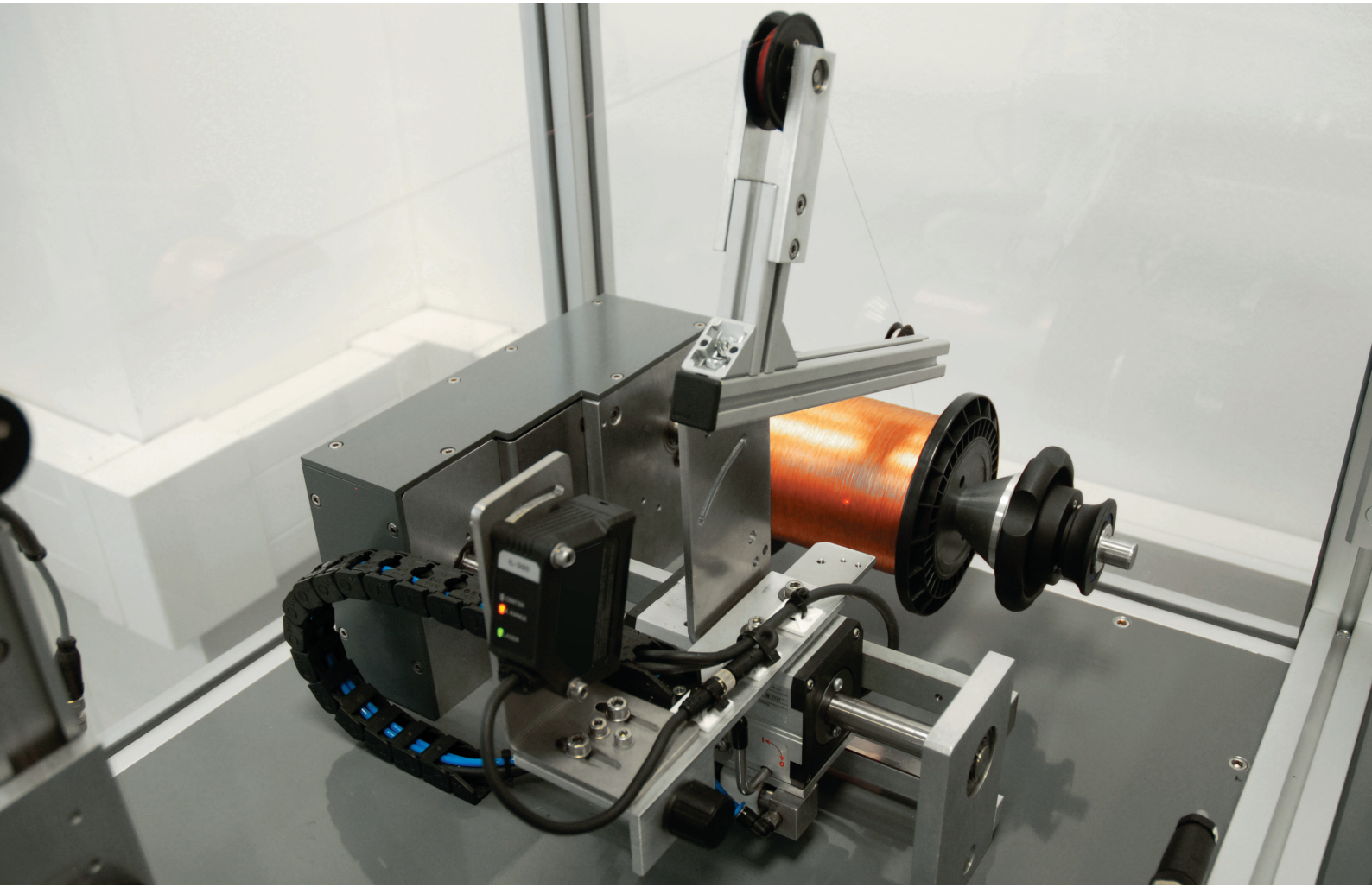
- a wide variety of spool types can be operated with one system: cylindrical, bi-conical, single-sided conical, etc.
- freely definable winding patterns
- stored spool types
- no need for calibration and test runs during winding operation – status messages on operating status
- multi-station systems are possible
- mechanical synchronisation between winding shaft and „Uhing shaft"

Application areas

The Uhing Motion Drive® was especially designed for winding and laying processes in the manufacturing industry. The system can also be used in processes where linear motion is required within certain limits.



UHING Motion Drive®



Uhing Measuring System® (UMS)

The smart sensor system for optimum winding quality

The Uhing Measuring System® (UMS) is a sensor-controlled scanning system for the automated control of linear movements in winding processes. With non-contact flange detection using a laser sensor, the system recognises material accumulations, flange positions and deviations – and ensures a uniform winding pattern in accordance with customer requirements.

The main product features of the UMS

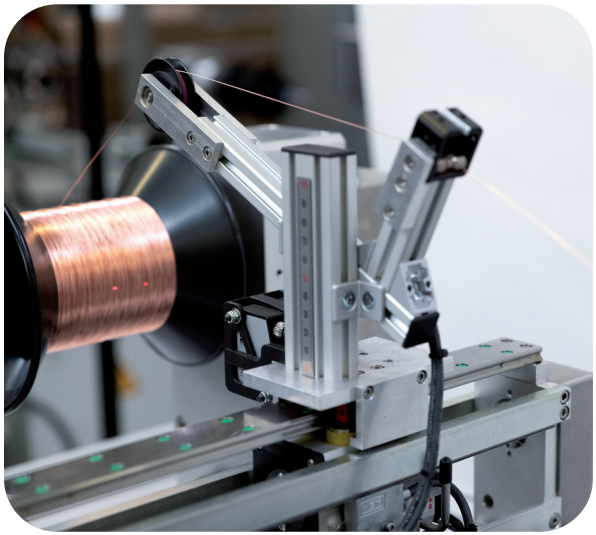
- automatic reversal without manual adjustment
- simple operation via touch panel or keypad
- robust sensor technology
- modular system
- various connections to the customer's control system possible
- flexible integration of pneumatics – in separate or existing pneumatic systems

The additional product features in winding technology

- significant time savings with different spool types and dimensions
- spool and material parameters can be saved in recipes
- perfect winding patterns

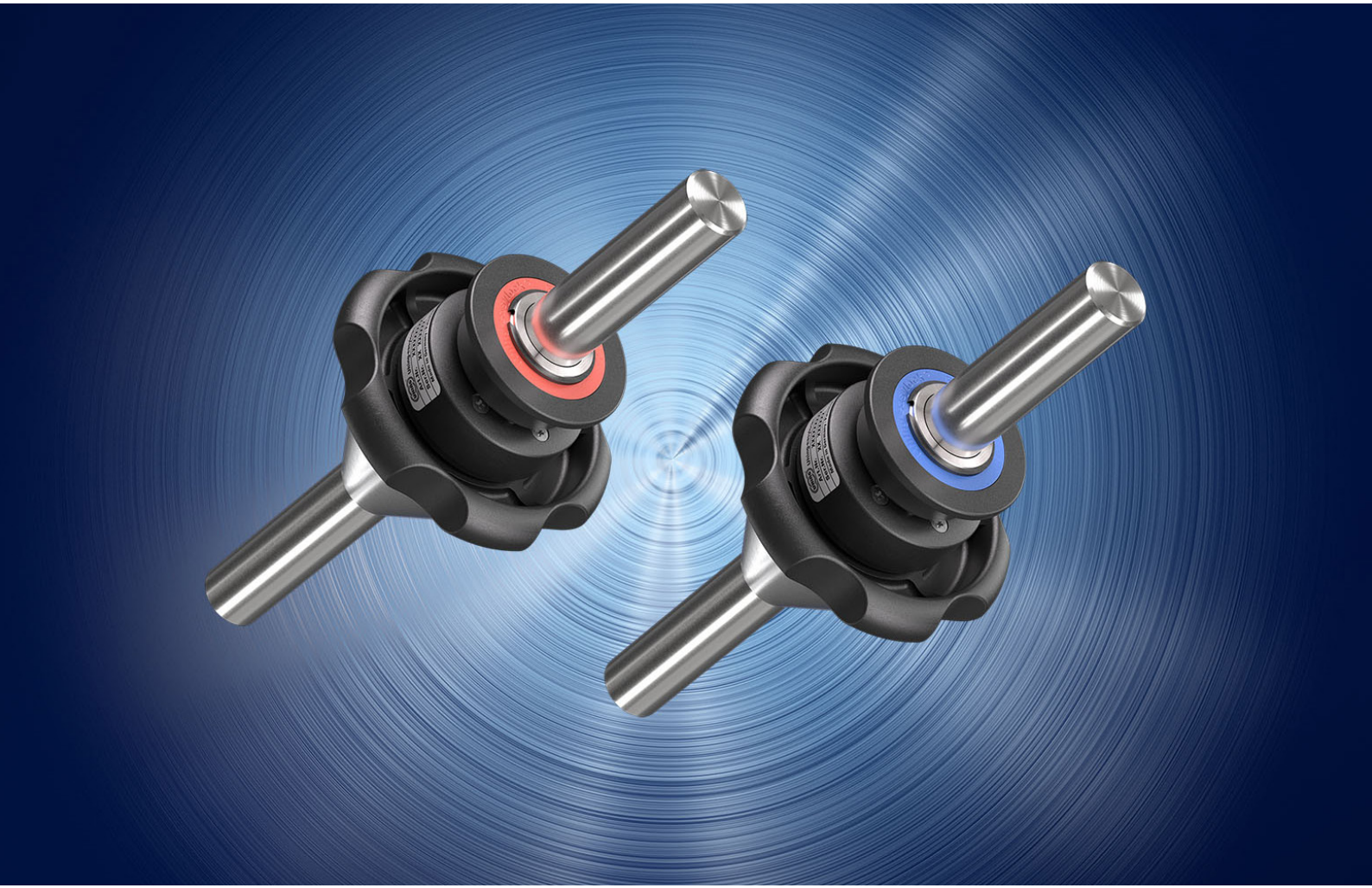
Application areas

Whether cylindrical or biconical spools or a wide variety of winding materials, such as wire, cable, glass fibre or flat material, the UMS automatically adapts to changing winding scenarios. Manual adjustment of the change-over positions, as with the classic Rolling Ring Drive, is taken over by the laser-assisted control system.
The system achieves maximum precision and process reliability, particularly in combination with pneumatically or electronically switchable Rolling Ring Drives.



Application with biconical spool

UHING Measuring System®



Uhing-easylock® (EL)

Tensioning system for bobbins, rollers and static applications

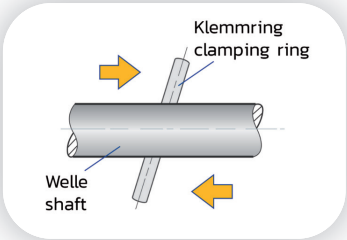
The Uhing-easylock® system impresses with its ease of use and reliable clamping and tensioning function on smooth shafts. It enables quick roll changes and powerful yet finely adjustable fixation of spools and rolls, and can be used flexibly for different clamping widths and core diameters.

The EL consists of a fixed pintle and a tension unit with an interchangeable pintle point. An integrated clamping ring in the tension unit ensures a friction-locked connection to the shaft: the greater the clamping force generated by the clamping wheel, the stronger the clamping effect. To release, the force is reduced and the clamping tension unit is removed.

The main product features

- shortest changeover times
- one-handed operation
- high clamping forces on a smooth shaft
- compact, rotationally symmetrical design
- maintenance-free and vibration-resistant
- also suitable for static applications
- modular design for easy adaptation to clamping tasks
- no tools required
- also suitable for driven shafts

How the Uhing-easylock® works

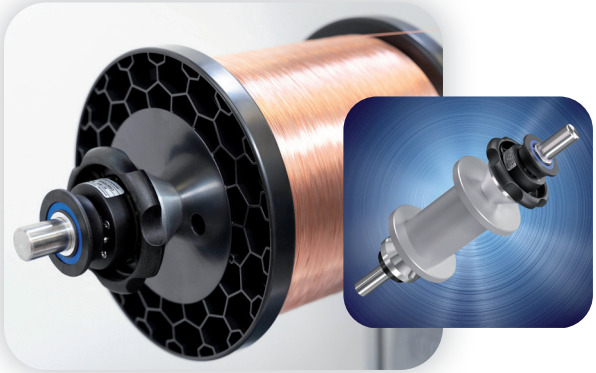


Available as

- standard version, marked by the blue ring
- version with positive release, marked by the red ring (The EL with positive release is always useful when a high residual axial force acts on the pintle point or tension unit during the release process.)

Application areas

- winding
- spools / supply rolls
- packing machines
- static applications




U-Grip

Uhing® U-Clip (UC)

Clamping elements for shafts and tubes

The U-Clip from Uhing is the intelligent solution for quick and tool-free clamping on smooth shafts or tubes. Whether for positioning, fixing or securing: The U-Clip can be fitted or released in a single motion – and holds reliably thanks to its self-locking mechanism.

The principle: A clamping ring inside the U-Clip tilts radially on the shaft surface under light pressure – without any tools. The U-Clip is simply pushed over the shaft like a bushing, pressed against the component to be fixed – and is immediately secure.

Depending on the size, it is operated using a handle or release button. The clamping holds reliably – even in the event of vibration, movement or position changes.

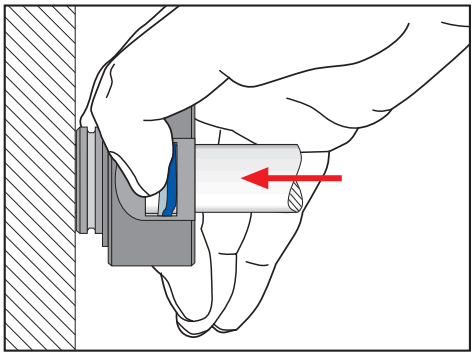
The main product features

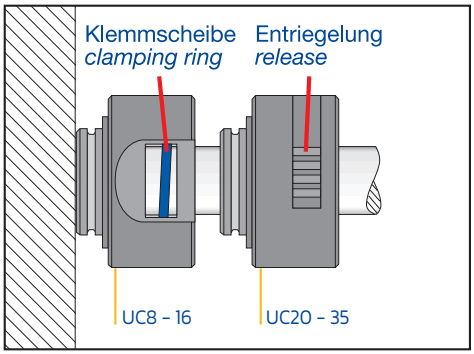
- self-locking
- one-handed operation
- rotationally symmetrical
- high level of self-locking compared to elements with balls and inclined planes
- corrosion-protected
- vibration-resistant
- suitable for shafts with tolerances from h6 to h9

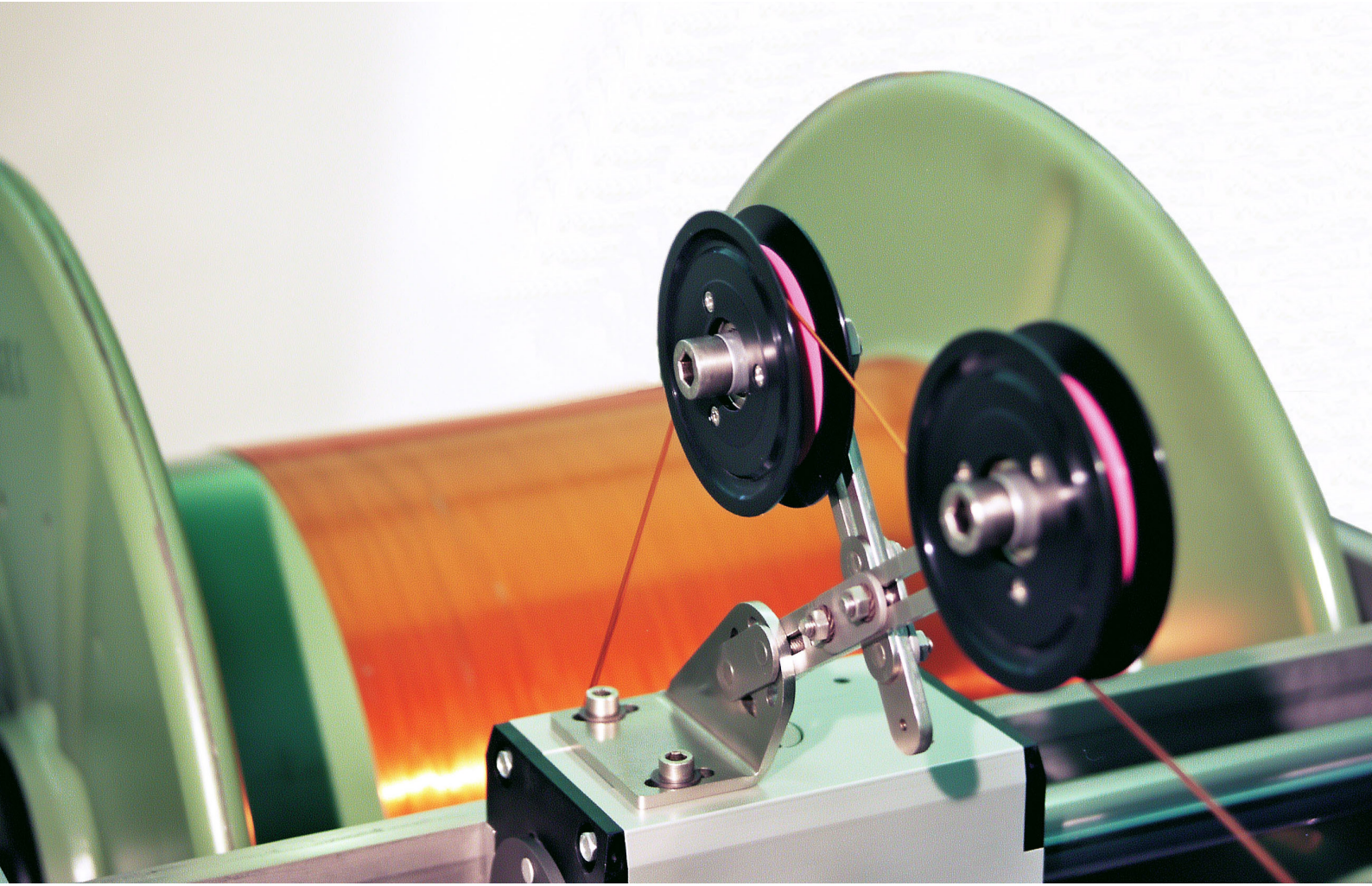
Application Areas

- positioning on rotating and non-rotating shafts, e.g. wind-up and pay-off
- Clamping on shafts/pipes, e.g., tripods
- quick adjustment of material guiding, e.g. packaging machines

How the U-Clip works







Guide system GS and HGS

Modular, precise, versatile – the guide system for every winding task.

The GS guide system transmits the linear movement of the Uhing drives to the guide rollers and winding material. Thanks to its modular design, the system can be customised precisely to different winding tasks – from standard cases to complex special applications. The guide rollers can also be selected depending on the customer's material.

Guide system GS

The main product features

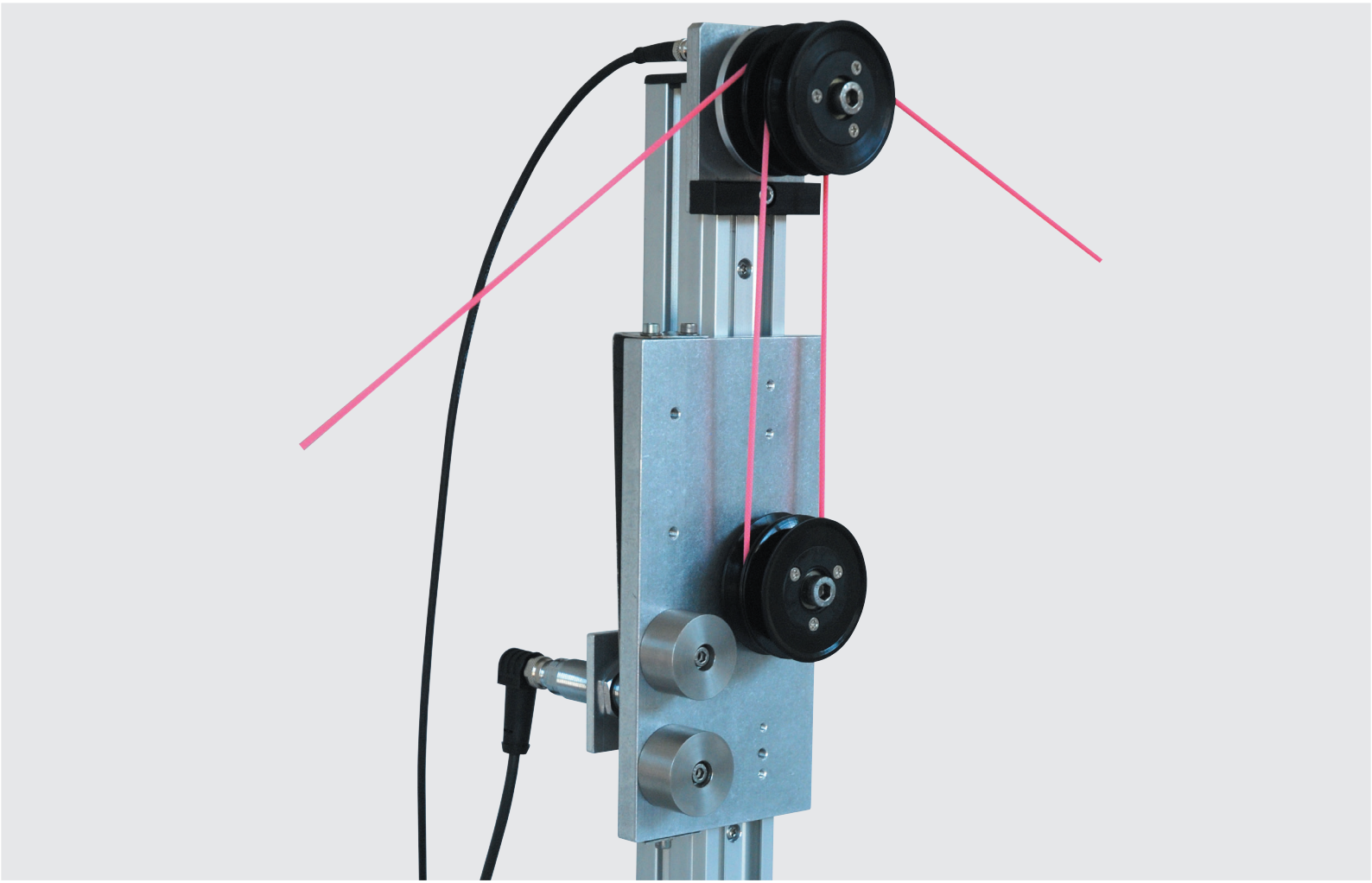
- modular design for easy adaptation to the winding task
- continuously adjustable
- torsion-resistant
- adapter for assembly on to Uhing® Rolling Ring Drives from KI to RG30 available
- made entirely of stainless steel
- versatile attachment options for guide rollers
- suited for all traversing systems

Strong guidance HGS

Strong guidance HGS

The HGS guide system is the high-performance version of the proven Uhing guides – developed and customisable for applications with increased tensile force and stability requirements. With its robust design and precise material guidance, the HGS system supports the winding process even under demanding conditions. The guide rollers can also be selected depending on the customer's material. Suitable adapter plates ensure that the material is always centred in relation to the linear unit.

UA-Guide rollers



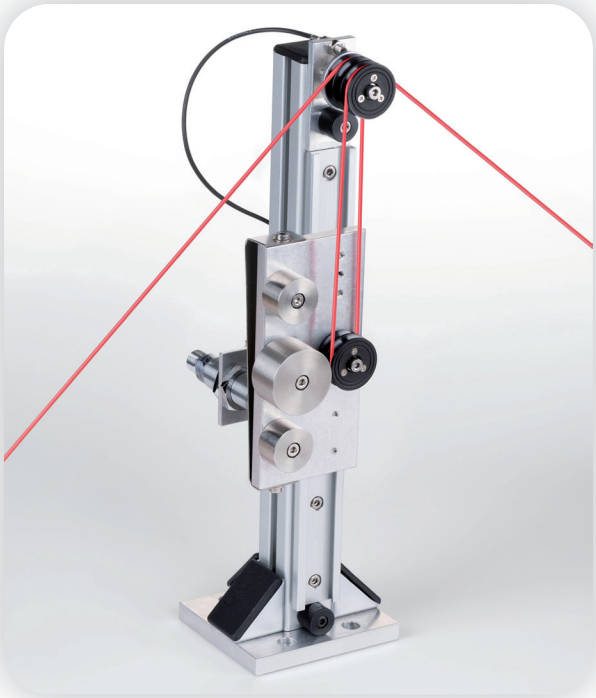
Uhing Tension control

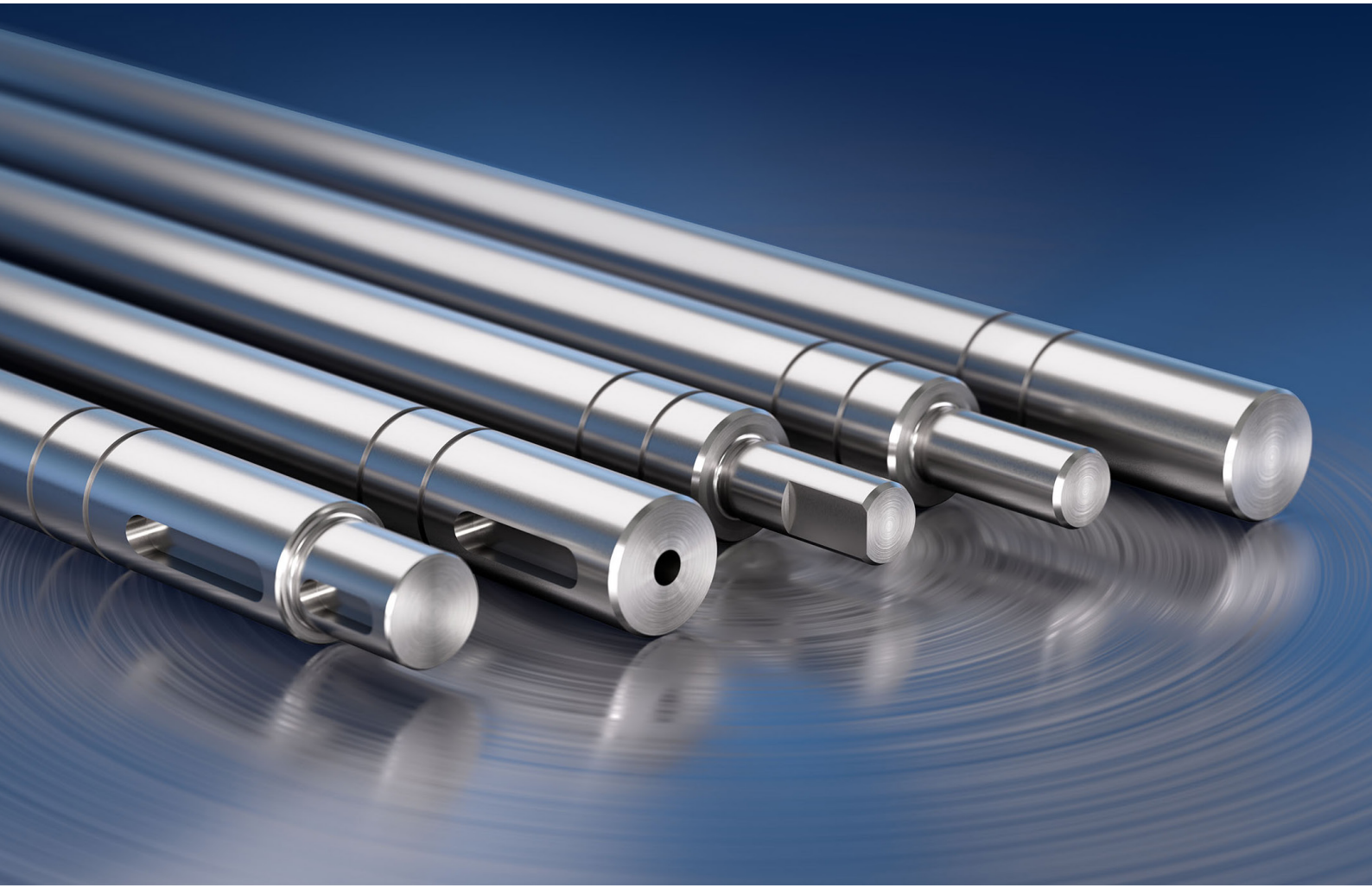
Constant tension – for perfect winding

The Uhing tension control is a precise dancer system for constant tension control when unwinding and winding materials.

In contrast to conventional systems, the tension force is not generated by the material's own weight, but by an external, controlled force. A weighted carriage ensures constant tension by automatically compensating for movements of the rewinder – faster winding leads to an upward movement, slower winding leads to a downward movement.

The Uhing tension control is suitable for both round and flat materials and can optionally be equipped with additional sensors for speed measurement or a length measuring system. It therefore offers a reliable, customisable solution for the highest winding quality.





Uhing Shaft

The supporting component for all linear drives and clamping systems from Uhing

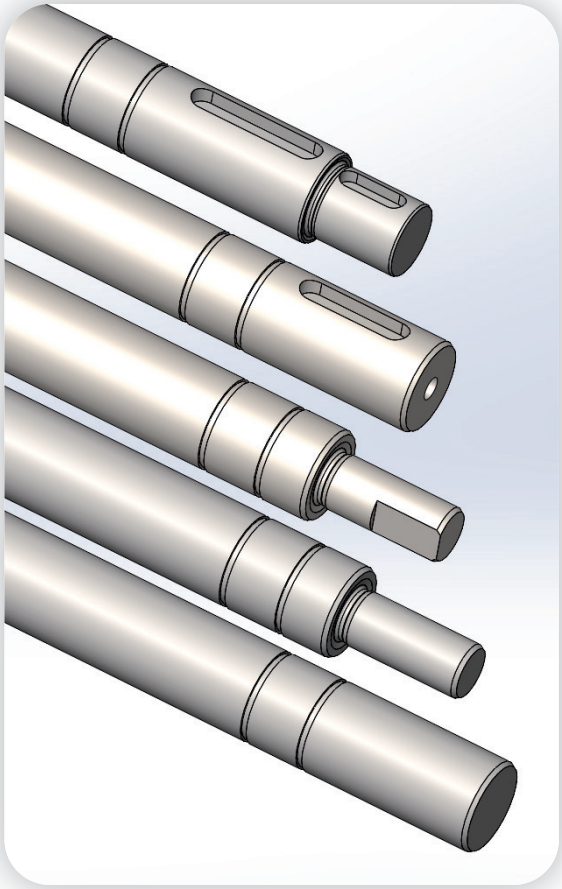
Uhing precision shafts are the mechanical centrepiece for non-positive linear systems such as Rolling Ring Drives and Linear Drive Nuts. They enable backlash-free, smooth movement – with minimum friction and maximum service life.

Manufactured from high-quality steel alloys, precision-ground, polished and induction-hardened, they offer the optimum combination of hardness, concentricity and surface quality. Whether in harsh industrial environments or in highly sensitive processes – the shaft makes the difference.

Lengths, finishing and special bores are customised.

Used in

- Rolling Ring Drives (RG/RGK/KI)
- Linear Drive Nuts (RS)
- Easylock (EL)
- U-Clip (UC)
- positioning and lifting drives
- linear guides, special machines, handling and testing technology



Uhing worldwide
Go straight to your local sales partner.

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