

Individual electric drive solutions from Ortlieb

High power density – enormous flexibility – small installation space



"Based in Baden-Württemberg, we are the people who make it possible."

For over one hundred years now, Ortlieb has been a reliable partner for those seeking precise, cost-effective clamping and drive technology. Driven by our pioneering spirit, we identify new possibilities and convert them into opportunities. We initially recognised the enormous potential of planetary roller screw and developed it for series production. Nowadays, you can benefit from an electric drive with high power density and enormous flexibility, which only requires a small installation space. We can alter any standard solution to suit your individual requirements. You will then receive a tailor-made solution with the reliability and at the price of a standard product.

Thanks to our first-class engineering expertise, we have developed product innovations but have also become sparring partners for our customers. Our employees are easily reachable, guaranteeing an uncomplicated and unbureaucratic exchange, and resulting in some unconventional solutions. Customers value our speed and flexibility as well as the consistently high quality of our products.





**"We speak
our customers'
language."**

Dipl.-Wirt.-Ing. (FH) Dirk Laubengeiger
Managing Director





"We speak our customers' language. We understand our customers and give tailored advice."

Whether a buyer, designer, product manager or Business Development Project Manager: From our body of experts, your experts will always find the perfect contact to meet their needs and will receive an individual and optimally tailored solution. After all, we speak our customers' language.

Success factors for excellent collaboration



Pioneering spirit and innovation

Many of our customers regard us in particular as **the driving force behind new solutions** or product improvements in the field of electric drive technology. If technical requirements in system engineering or automation have changed, we will work with our customers to find or develop a suitable solution. You will only achieve effective and efficient production if the machines and systems employed are used to their full potential.



Rapid customer-specific and cost-effective solution thanks to standardised technology

Thanks to our proven spindle technology and the option to resort to modular systems, we can **develop individual, customised solutions** for our customers quickly and flexibly. Advantage: You will receive **personalised solutions** based on sophisticated technology **at the standard price** and with **standard delivery times**.



Electric drive technology appeals thanks to impressive performance features

Our products are essential components for systems or machines and will impress you with **high power density, precise control, high dynamics and minimal installation space**. Compared with hydraulic drive technology, electric drive technology has particular advantages as regards total costs and productivity, in addition to environmental aspects.



Direct link and good accessibility

For a successful, target-oriented project schedule, your contact partners within our Group are easy to reach and quick to react. Our experts are helpful and genuinely care.



Flexible, fast and uncomplicated

Our strength as a medium-sized company is the **un-bureaucratic and flexible handling** of customer matters. Thanks to established processes and our motivation to cater specifically to your needs, we can create better, tailored solutions quickly and easily.



Obligation, reliability and consistently high quality

We strive for long-standing customer relationships. Therefore, **the commitment in our statements**, reliable delivery and consistent quality are **part of our identity**.

Maximum power density, enormous flexibility, small installation space: Drives with PWG bring the extremes together

Creating a new drive for use in the Spacelab D-2 space mission was a huge undertaking at the time. The requirements were comparable with the creation of an all-singing, all-dancing multi-tool: High forces, high flexibility and small installation space. Three features which are actually mutually exclusive. With transport costs at the time of over 10,000 deutschmarks per kilogram (today over €10,000 per kilogram), the weight was of course the top priority.

Build on the tried-and-tested, rearrange and create something revolutionary – that was the approach at the time. The result was an extremely compact and powerful linear drive, combining the characteristics of a planetary gear with those of a linear guide. Ortlieb continued to optimise this spindle and made it ready for series production.

Today, the planetary roller screw (PWG) is the core component of Ortlieb's electric drive technology.



Industry expertise



Pressing industry



Automation solutions



Punching applications



Forming technology



Automotive industry



Railway engineering



Machine tools



Steel industry



Aviation and aerospace



Testing technology



Medicine



Plastics engineering



Energy production



Building services engineering



Solar industry



Paper industry



Packing industry



Food industry

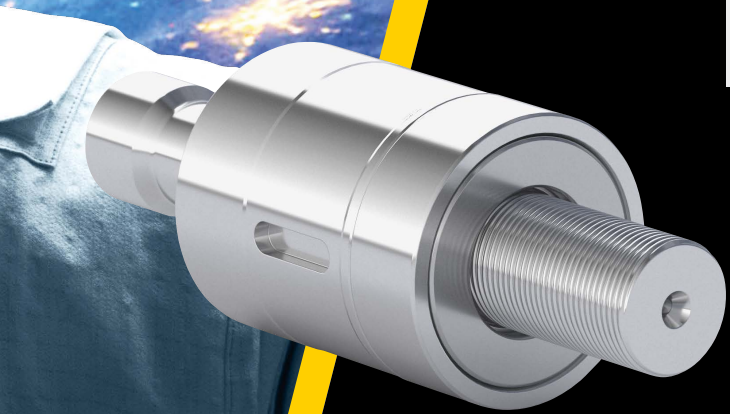


Custom machine and system construction



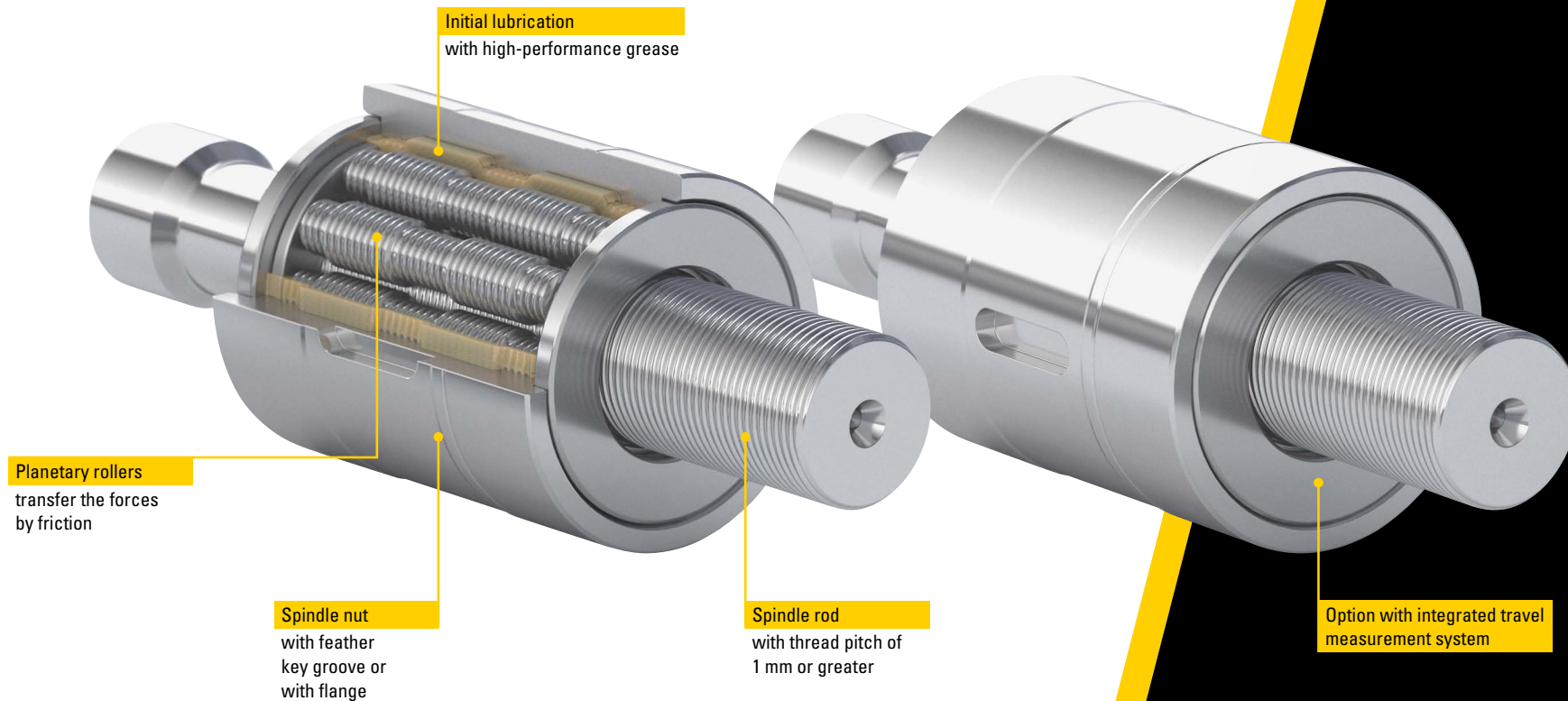
Electronics industry

The planetary roller screw (PWG) is impressive thanks to its remarkable performance data. It has been tried and tested a thousand times and can be found in a wide variety of sectors and in many different areas of application.



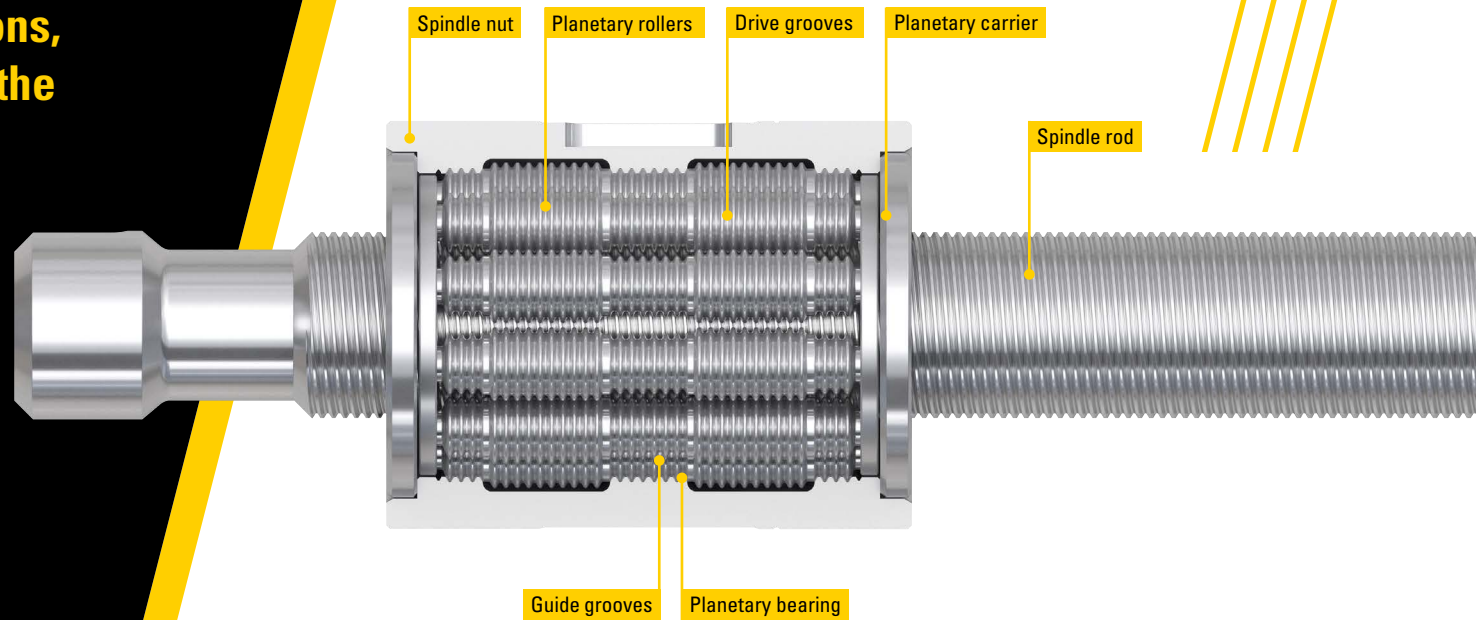
The planetary roller screw (PWG): At the heart of drive technology

The PWG from Ortlieb is characterised by the highest possible level of technology in as compact a space as possible. The reduction in the number of components also creates maximum flexibility as regards the design and areas of application. As well as standard products, we can also offer special solutions with maximum product customisation, while offering the security of an approved standard solution. **As we manufacture all component parts ourselves, we always live up to our high quality standards.**



For the most diverse applications, the ASCA servo spindle offers the basis for a solution:

- Substitution of hydraulic and pneumatic cylinders
- Maximum accuracy
- Short cycle time
- Suitable for limited space
- High power requirement
- High stroke speeds
- Full creep mode
- Highly dynamic
- Quiet running – without roller resetting
- Lightweight construction
- Short strokes
- Manufacture based on customer drawing with minimum order quantity of one
- Large-scale production



The advantages of the planetary roller screw (PWG):

- The planetary roller screw (PWG) achieves a unique power density in the smallest of installation spaces. It is therefore predestined for applications in automation.
- Due to the reduction function between the spindle rod and lock nut, the spindle rod can be driven directly; additional gearing is not required. This gives a favourable price-performance ratio.
- With suitable selection of the spindle pitch of up to 1 mm, both high travel speeds and high accuracies are possible.
- The construction ensures a robust, powerful, quiet and clean drive.
- The slip, due to technical reasons, increases the robustness of the whole system, as the contact points are constantly changing. This prevents parts from getting caught, even with short strokes, and increases service life.
- An (optional) integrated travel measurement system compensates for the effects of the slip.

SERAC® – the complete system: Install, connect, get started

SERAC® is the combination of an ASCA servo spindle based on PWG and an electric motor. This complete system requires no additional gearing and can be used immediately. You can choose components to construct your own solution according to your performance requirements. Starting with the spindle pitch via the mounting method, anti-rotation element and sensors through to the optimally designed electric motor, you will find the exact drive solution you need.

The right SERAC® range for any application:



SERAC® XH

The SERAC® XH is comparable with a hydraulic cylinder in terms of dimensions. It is even possible to switch to an electric cylinder with very little engineering effort.



SERAC® XHM

The SERAC® XHM can be connected to any servomotor.



SERAC® KH

The SERAC® KH is designed to be extremely compact and is therefore predestined for use in cramped conditions with minimum installation space. It can be fitted either on the face or on the side.

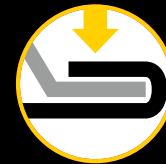


SERAC® LH

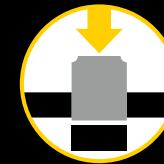
The SERAC® LH is completely modular in design and freely configurable. Depending on the design, this series can reach stroke lengths of up to 450 mm.



Typical areas of application:



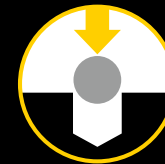
Folding



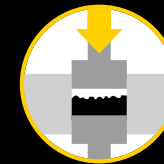
Punching



Bending



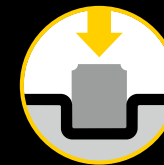
Joining



Powder pressing



Dynamic adjustment



Forming



Plastic moulding

SERAC® XH: For highly dynamic applications

With accelerations of up to 29.4 m/s^2 , the SERAC® XH is the perfect choice for highly dynamic applications. The torque motor has particularly high torque, allowing high speeds and the shortest cycle times. The SERAC® XH is also equipped with an integrated anti-rotation element.



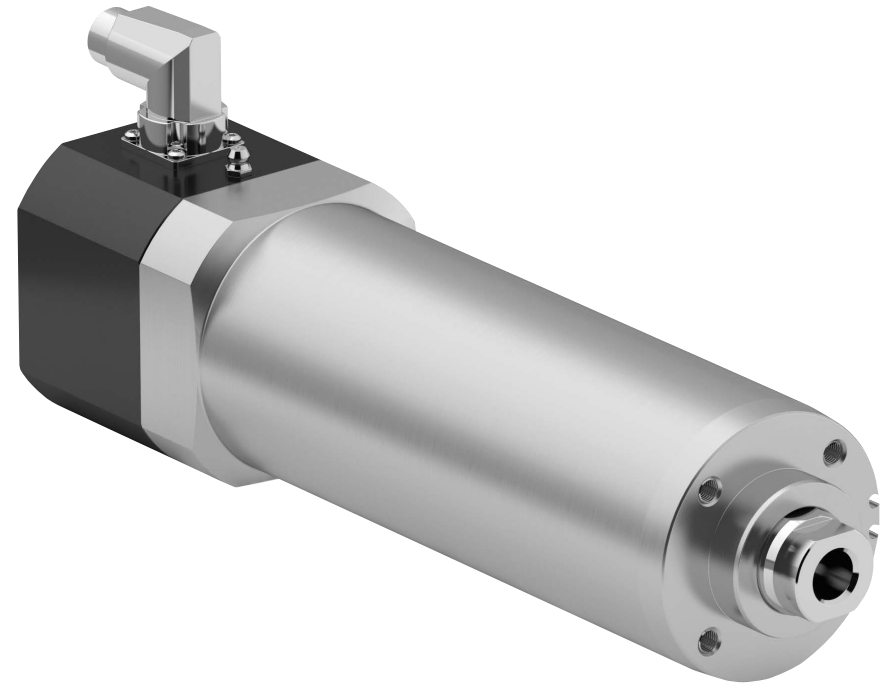
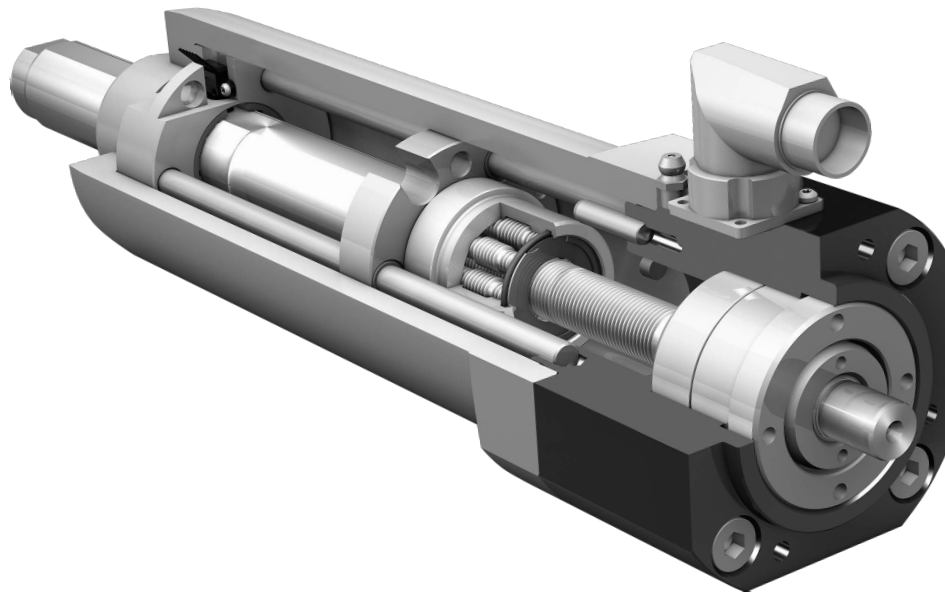
Technical data

Force:	Up to 12 kN
Speed:	Up to 300 mm/s
Pitch:	1–4 mm
Total stroke:	50–250 mm
Square dimension:	55 100 mm
Options:	Travel measurement, holding brake, pivot bearings



SERAC® XHM: The high-rigidity spindle unit

The SERAC® XHM is suitable for most industry-standard servomotors and designed for forces of up to 600 kN. With a minimum pitch of 1 mm, even small motors can achieve large forces. A direct travel measurement system and an anti-rotation element are already integrated.



Technical data

Force:	5–600 kN
Speed:	Up to 300 mm/s (depending on customer motor)
Pitch:	1–38 mm
Total stroke:	50–250 mm
Options:	Travel measurement, motor flange, holding brake, clutch

SERAC® KH: The ultra-compact electric cylinder

The two lateral guides on the SERAC® KH construct a highly rigid structure with integrated anti-rotation element. The cylinder can either be mounted on the side or using a flange. It is also possible to attach heat sinks for liquid cooling. With forces up to 30 kN and direct travel measurement for maximum positioning accuracy even under load, the SERAC® KH is predestined for use in punching machines or for sheet metal working.



Technical data

Force:	4.5–30 kN
Speed:	80–230 mm/s
Pitch:	1–5 mm
Total stroke:	45–90 mm
Design:	Extremely compact



SERAC® LH: For a modular construction



The SERAC® LH is equipped with a powerful hollow shaft torque motor and offers maximum flexibility in terms of structure. With the various options, from the integrated measuring system via the motor rotary encoder through to the increased protection class, you can create your own individual drive.

Technical data

Force: 30 kN | 60 kN | 100 kN

Speed: Max. 425 mm/s

Pitch: 1–9 mm

Total stroke: Max. 450 mm

Square dimension: 97 mm | 142 mm | 190 mm

Options: Anti-rotation element, holding brake, travel measurement using rotary encoder or linear encoder, mounting, water cooling, protection class IP 65 on request.

Electric drive technology: The smart alternative to hydraulics

Good for the environment and production

- No leaks
- No need to dispose of hydraulic oil
- Lower energy consumption than hydraulics (up to 80%)
- Precise control (force, position)
- Shorter set-up times
- Reduced cycle time (up to 50%)
- Greater flexibility thanks to intermediate positioning
- Faster commissioning
- Slim, compact design
- Low noise generation



www.strom-statt-oel.de



ServoOne: Communication in high speed

To benefit from the full capability of your drives, we recommend the parametrised KEBA servo controller from KEBA Industrial Automation Germany GmbH. The hardware and software of the ServoOne servo controller range is specially designed and optimised for the specific dynamics of the SERAC® electric cylinder.

The current bus interfaces guarantee high speed communication between all components. Commissioning and parametrisation are very simple thanks to intuitive user software and functional safety is already integrated as standard.

EtherCAT®

PI
PROFIBUS · PROFINET

PROFI
BUS

CANopen®



Our service package for Ortlieb drive technology products

Our drives are particularly robust, low-maintenance and low-wear. Should you still have an issue, our Service department will certainly be able to help. We keep over 10,000 spare parts in stock at all times and can deliver within 24 hours. Of course all spare parts are tested and come with a full warranty.



Individual advice

In order to thoroughly understand your requirements, we prefer to advise you in person at your location. Objectively, competently, free of charge and with no obligation.



Hire purchase

Would you like to try before you buy? With Ortlieb, that's no problem. With our hire purchase scheme, you can pay to rent the product you'd like for four weeks.



Test centre

Before delivery and commissioning, we will test your drive once again under actual operating conditions in our test centre.



Commissioning

Based on the mechanical structure of your Ortlieb drive components, we can support you on-site with commissioning as well as fine-tuning and parametrisation.



User training courses

Thanks to our on-site user training courses, we can often establish individual application methods together with our customers and thus go above and beyond in meeting the requirements for productivity in everyday practice.



Process optimisation

We will be happy to evaluate your production processes and make proposals for optimisation. When implementing any improvement measures, we will support you based on your planned and actual figures.



Telephone support

We are available by telephone every day from 8 a.m. to 5 p.m. for any questions. Our competent service consultants will help resolve your issue as soon as possible.



Maintenance and repair

We will of course also perform all maintenance tasks on our products for you at regular intervals.

We look forward to hearing from you.
Ortlieb – the specialist for drive technology solutions.



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