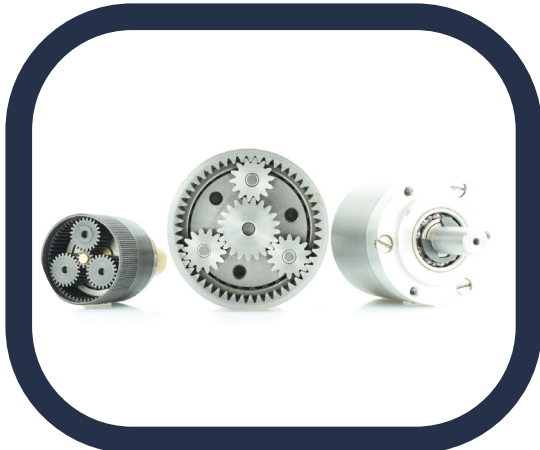




**GEARS &
GEARING PARTS**



ABP IS THE NO 1 TRUSTED PARTNER



We offer a wide range of solutions for diverse applications and industries, combined with short delivery times and high availability that ensure planning reliability and smooth processes. Our goal is clear: we improve our customers' daily operations by solving their challenges efficiently and sustainably.

abp's core competence lies in shaft couplings for a wide variety of applications. Magnetic encoder measurement systems, measuring wheels and encoder accessories, as well as precision gears and gear components, perfectly complement our portfolio. The result is a technically coordinated system solution from a single source.

In an increasingly digital world, we focus on personal contact and genuine understanding. We listen carefully, analyze requirements and deliver customized solutions that match to exact your needs.

At abp, customer service is personal and dependable. A dedicated contact person guides the entire process – from inquiry to delivery – ensuring transparency, fast response times and continuous support. With us, customer service is still personal!

**This is how we create trust with our customers.
Every day.
Everywhere.**

OUR VALUES

SAFE

As a company with personality, abp stands for safety, stability and reliability. We are and remain a reliable supplier with consistently high quality and fast delivery times.

SOLUTION ORIENTED

Thanks to the combination of our broad product range, the diverse customization options and 25 years of know-how, we at abp offer fast, economical, reliable solutions - tailored to your requirements.

DYNAMIC

At abp, we are known for our fast delivery and response times and our diverse portfolio of solutions. This means that our customers can be sure that they will receive the optimum solution in a short space of time - enabling them to complete their project

LEADING

At abp, we pave the way for new technological developments, optimized processes and new solutions for our customers - by providing high-performance support as a contract manufacturer for a wide range of industries.

EMPHATIC

abp stands for customer proximity, fast and uncomplicated order processing, competent solution consulting and a powerful team.

Our secret recipe?
We really listen to you!

PRECISION MECHANICAL GEARS

GEARS

abp-Antriebstechnik GmbH is an experienced manufacturer and developer of precision mechanical gearboxes in small and medium sizes. High-quality materials, precision, smooth running and high power density ensure a long service life. Our products are developed in close consultation with our customers, combining their requirements with our solution expertise. For this reason, we at abp see ourselves not only as consultants, but also as partners and reliable companions.

Our product range in the gear sector extends to open and closed bevel gearboxes, worm gearboxes, spur gearboxes and planetary gearboxes, the smallest differential gearboxes and customer-oriented special solutions, including assembly of components.



Where others have no solutions or long lead times, abp delivers the right solution quickly. Our wide range of products for diverse applications serve multiple industries and enable customers to execute their products without delay. Our goal is to simplify our customers' daily operations by addressing their challenges and ensuring efficiency and sustainability.

Our products are developed in close dialogue with our customers and combine their requirements with our solution expertise. For this reason, at abp we see ourselves not only as consultants, but also as partners and reliable companions.

OPEN DESIGN GEARBOXES

Precision open gearboxes are used wherever precise movements, low power and good accessibility are more important than protection against dirt or high load capacity. For example, in measuring and testing equipment, in model making, in teaching and training setups to make the function clearly visible, for fine adjustments in machines or in potentiometer drives.

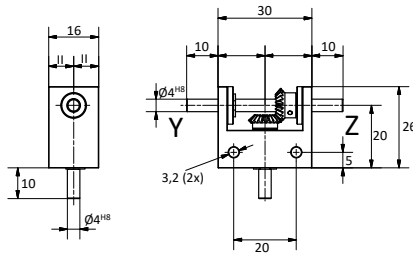
Their design ensure maintenance, lubrication and adjustment without problems.

However, open gearboxes are sensitive to dust, dirt and moisture, have limited power transmission capacity and are subject to higher wear during continuous operation. Safety must be taken into account at higher speeds.

As a rule of thumb, open precision gearboxes are suitable for clean environments, low forces and precise, slow movements.

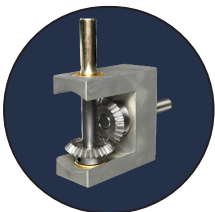


WGXO 3026

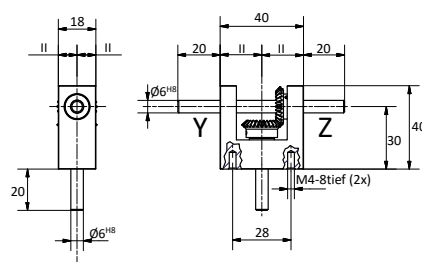


WGXO 3026/WGXOA3026

Open angle gearbox with 1:1 or 1:2 transmission ratio, available with sintered or ball bearings, bearing bracket made of anodised aluminium, shafts and gears made of steel. Maximum torque 60 Ncm.

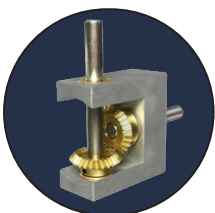


WGXO 4040

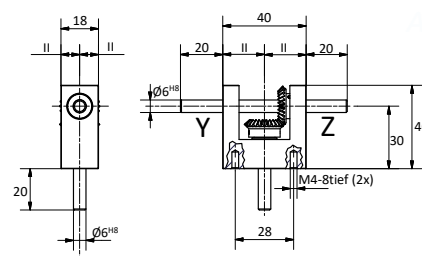


WGXO 4040

Open angle gearbox with 1:1, 2:1 or 1:2 transmission ratio, bearing angle and shafts made of stainless steel, torque 70 Ncm / 100 Ncm.



WGMO 4040



WGMO 4040

Open angle gearbox with 1:1, 2:1 or 1:2 transmission ratio, bearing angle made of die-cast zinc, brass gears, torque 60 Ncm/35 Ncm.

PRECISION MECHANICAL GEARS

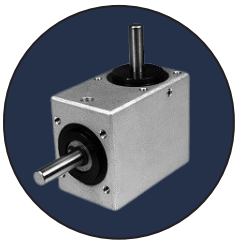
CLOSED GEARBOX DESIGN

Precision angle gears are used wherever movement needs to be transmitted precisely, in a space-saving manner and with deflection – for small forces and torques. Typical industries include precision engineering and precision equipment, optics and medical technology, robotics and automation, watches and instrument technology, control and adjustment elements, as well as in laboratories and test setups.

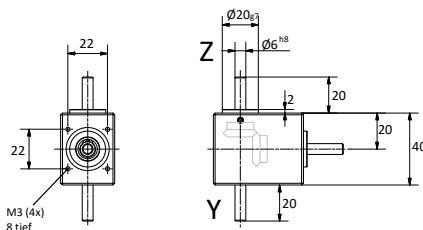
The advantages of small precision gears are the deflection of movement without a large overall length, very precise power transmission, they can be easily combined with fine drives and are ideal for compact designs.

Due to their design, these gears reach their limits when the required power and power transmission are too high.

WINKELGETRIEBE

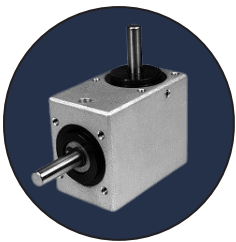


WGKG 4050

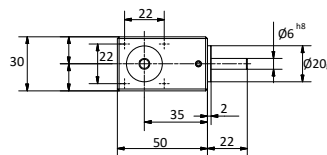


WGKG 4050

Closed angle gearbox with 1:1, 2:1 or 1:2 transmission ratio and minimised gear play. Anodised aluminium housing, stainless steel shafts and brass gears. Torque 35 Ncm / 60 Ncm

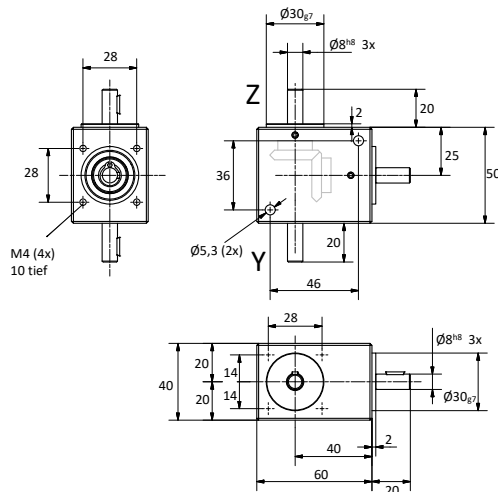
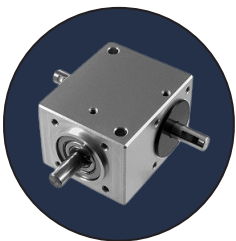


WGKG 5060



WGKG 5060

Closed angle gearbox with 1:1, 2:1, 1:2 or 3:1 transmission ratio and minimised gear play. Anodised aluminium housing, stainless steel shafts and gears. Torque 50 Ncm / 70 Ncm / 100 Ncm



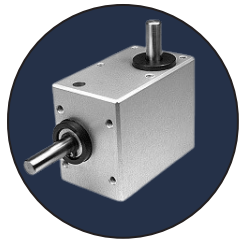
WGKG 5060

Closed angle gearbox with 1:1 or 2:1 transmission ratio and minimised gear play. Anodised aluminium housing, stainless steel shafts and gears. Torque 1.5 Nm / 6 Nm

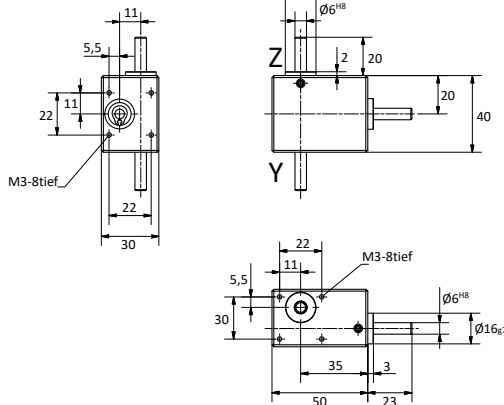
WORM GEARS

The low angle of inclination ensures that our worm gearboxes are self-locking and therefore very well suited for applications in which the gearbox must not run backwards even under load.

Worm gearboxes operate with high precision, are powerful and reliably compensate for axial misalignments. The low-noise and robust worm gearboxes from abp are used worldwide.



SGSG 4050

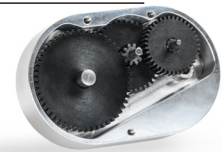


Closed self-locking worm gear available in three reduction ratios with ball bearings. Anodised aluminium housing, stainless steel shafts, right-hand worm gear made of case-hardened steel, bronze worm wheel. Torque 80 Ncm

WHEEL GEARS

A spur gear is characterised by its simple and cost-effective design, very high efficiency and precise and even power transmission. It is robust, durable and easy to maintain, can transmit high torques and, thanks to flexible gear ratios, can be used in a wide range of applications.

Customized solutions



PLANETARY GEARBOXES



Customized solutions

A planetary gearbox offers very high power and torque density in a compact design, as the load is distributed across several gears. It enables large transmission ratios in a small installation space, runs smoothly and precisely, and has a long service life and good efficiency.

We can do even more! Thanks to our vertical range of manufacture, we are able to implement a time-saving and economical solution for your application. From design to individual parts, small and medium series. Retrofit, reproduction of existing gearboxes – with and without design drawings and assembly of components.

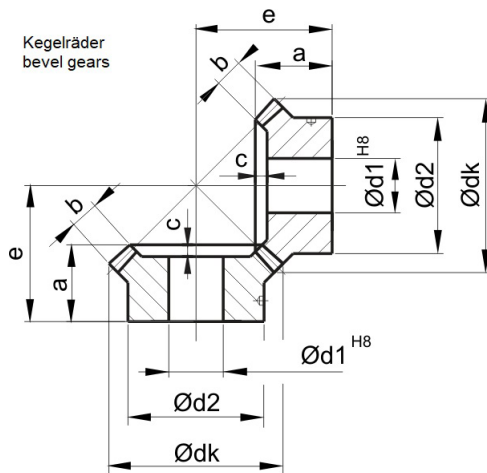
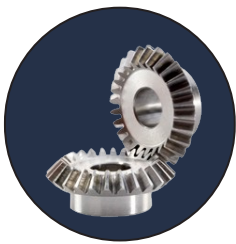
Talk to us – together we will successfully implement your project.

By email to: anfrage@abp-antrieb.de or
quickly and personally by telephone: +49 (0) 7724-580080

GEARING PARTS

High-precision gear components for your applications

abp Antriebstechnik specialises in the manufacture of gear components for bevel gears, worms, worm gears, spur gears, ring gears and internal gears in module sizes from 0.2 to 1.5 mm. This particular market has high quality requirements: it is not about mass production, but rather the development and manufacture of tailor-made special series.



BEVEL GEARS

The bevel gears are supplied in pairs with an axial angle of 90°. Available in 1.4305 stainless steel (X) or brass (M). All standard pairs can be found on our website www.abp-antrieb.de. On customer request, we design and manufacture bevel gears custom-made up to module 1.5.



SPUR GEARS

In plant and mechanical engineering, spur gears are the most commonly used gear components, characterised by their simple design .

In spur gears, the teeth run parallel to the axis of rotation. Gears can be manufactured in a wide variety of designs and sizes.

At abp Antriebstechnik, we design and manufacture spur gears and spur wheels according to customer drawings. Depending on the application, we offer these with straight or helical teeth in modules from 0.2 to 1.5.

Production from all machinable materials is possible, with a maximum outer diameter of 120 mm.



INTERNAL GEARS

Internal gears are special mechanical components in which the teeth are arranged inside a hollow cylinder. This design enables effective transmission of torque and forces while saving space.



Internal gears are often used in applications that require high precision and efficiency, such as drive systems, gearboxes and automation technology.

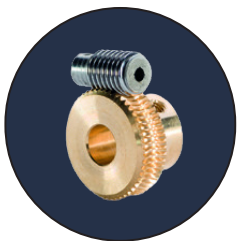
Their design allows for a reduction in size and also offers advantages in load distribution, which contributes to increased service life and reliability of the entire mechanism.

WORM AND WORM WHEEL

Worm gears consist of a worm (also known as a worm shaft) and a worm wheel, which is driven by the worm.

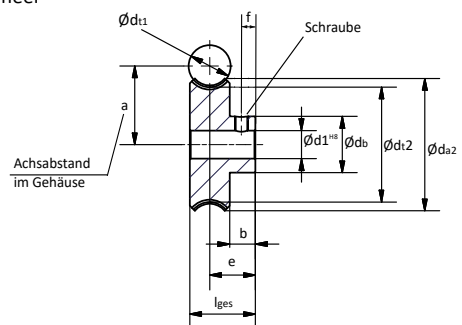
Worms and worm gears offer a particularly space-saving and powerful solution for the precise transmission of torque at high ratios. Ideal for applications that require smooth running and self-locking.

Bronze worm gears.



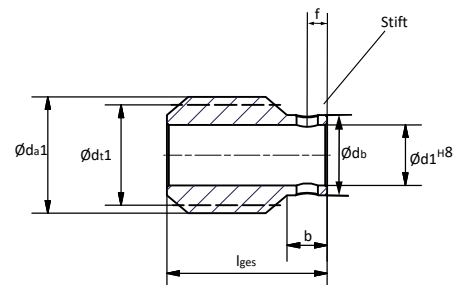
SRBS

Schneckenrad/worm wheel



SNSG

Schnecke/worm



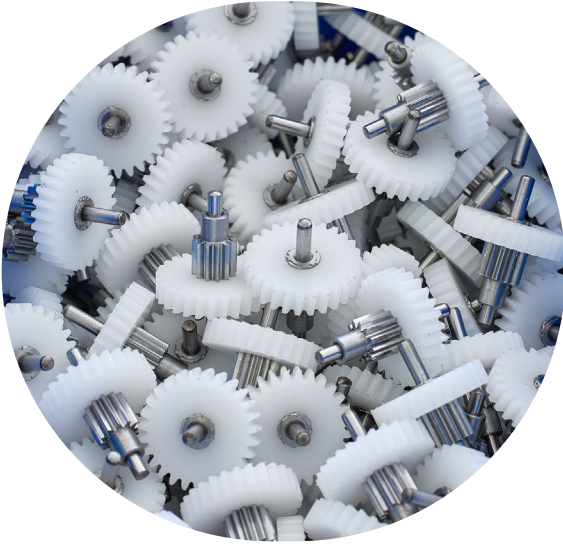
Worm gear made of 9SMnPb, single-start, right-hand thread and case-hardened.

Current details on our website
<https://www.abp-antrieb.de/en/gearing-parts/>

explanation

m=	module	standard helix angle 14°	Ød ₁ , Ød ₂ =	bore Ø
z ₁ , z ₂ =	number of teeth on worm wheel	l ₁ , l ₂ =	d _{t1} , d _{t2} =	pitch circle Ø gear wheel
i=	ratio	a=	d _{a1} , d _{a2} =	tip circle Ø
pressure angle 20°		b=	d _b =	Ø approach

CUSTOMISED SOLUTIONS



In addition to our standard gear parts, we offer many other custom-made products in the field of gearing. Over 25 years of experience, close communication with you and innovative developments ensure the smooth operation and long service life of our products in your applications.

Possible applications for gear components up to module 1.5

Gear components up to module 1.5 are classified as fine gears and are used wherever a compact design, high dimensional and profile accuracy, and smooth, low-noise operation are required. Due to their small tooth geometries, they are designed for small to medium torques and are particularly suitable for high-speed applications.

In mechanical and plant engineering, these gear components are primarily used in positioning, feed and adjustment units where precise and repeatable motion transmission is required. In drive technology, they are used in spur, planetary and worm gears for electric motors, servo drives and actuators, where they serve to reduce speed and provide defined torque transmission

Another important area of application is automation and robotics technology. Here, gear parts up to module 1.5 enable compact gear solutions with low mass inertia, high dynamics and precise positioning. They are also used in precision engineering, medical technology and measurement technology, for example in dosing, adjustment or drive systems where high reliability and tight tolerances are required.

Depending on the application, different materials, heat treatments and tooth qualities are selected to optimally meet requirements for wear resistance, service life and smooth running.

Technical expertise in gear technology, gearbox construction and component assembly

One of our main areas of focus is the development, design and manufacture of customised gear components, the technically precise reproduction of gearboxes and the assembly of complex mechanical components. In addition, we take on the entire design work, including CAD design and technical drawing creation.

We manufacture gear components such as spur gears, pinions, bevel gears, internal gears and entire precision mechanical gearboxes according to drawings, samples or functional specifications. When reproducing gearboxes, we analyse existing assemblies in terms of gear geometry, material, heat treatment and bearings, and convert them into new solutions with the same function or technically optimised solutions. In doing so, we also take into account design adjustments to improve service life, smooth running and load-bearing capacity.

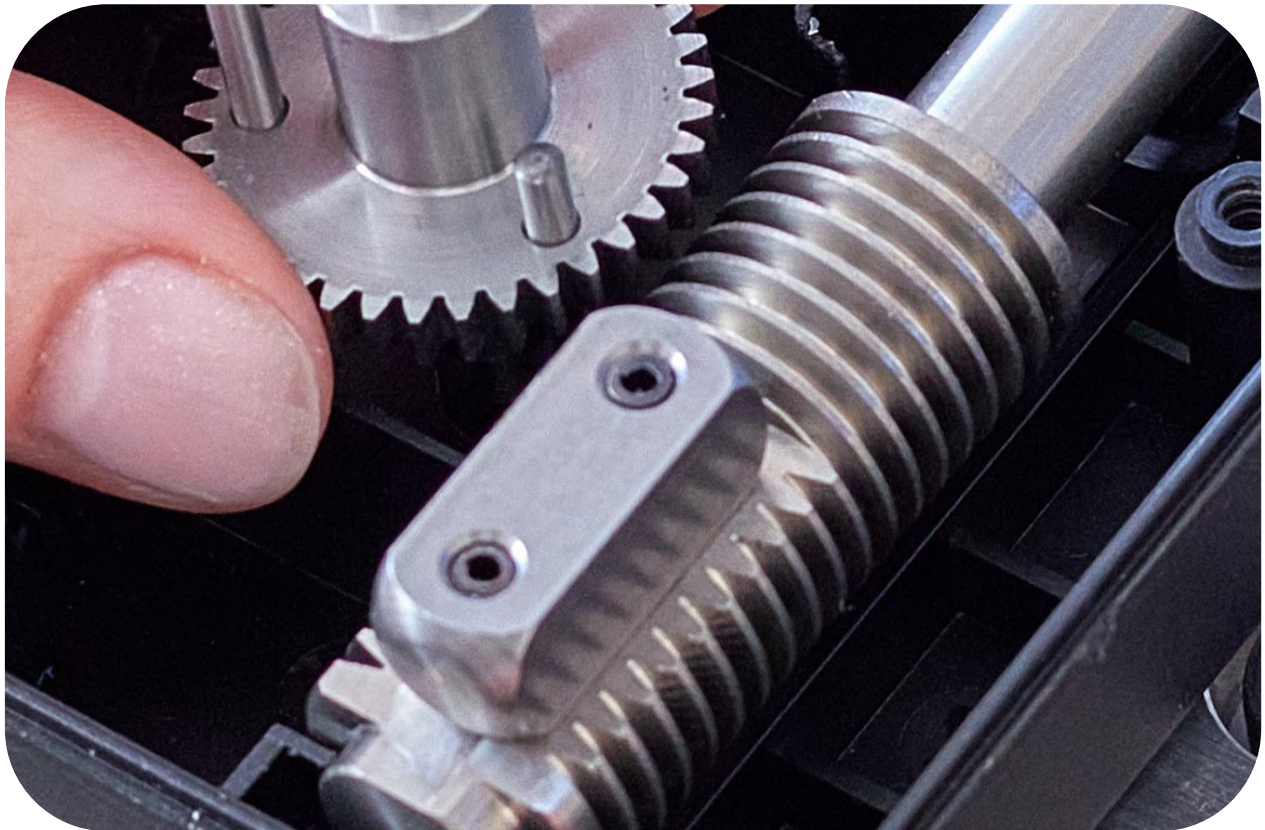
Our design team handles new developments, reconstructions and production-oriented design of individual parts and assemblies. This forms the basis for the manufacture, testing and assembly of complex assemblies, right through to fully assembled and tested gear systems. Assemblies are assembled in accordance with defined fits, tolerances and functional requirements.

Thanks to a high level of vertical integration, modern machining methods and quality-assured processes, we can economically realize demanding geometries, tight tolerances and small batch sizes. Our services are aimed at applications with high demands for precision, reliability and technical performance.





trusted worldwide



abp ANTRIEBSTECHNIK combines high and complex requirements with precise workmanship.
That is why our gears and gearing parts are indispensable components
in the field of drive technology.

trusted worldwide

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