

Successful solutions within a short time



Your success is our drive

What counts is success – We help you achieve it. Today competitive advantages and opportunities depend on flexibility, speed, innovation and continuous improvement. We understand that time has become one of the most significant competitive factors. In clearly defined markets, we offer advanced solutions that aim at optimum customer value. With internationally recognized quality – our entire company is certified according to ISO 9001:2015 – high stock availability and maximum reliability, we aim at being a true partner for our customers. We are aware that a lasting partnership is built on mutual trust and understanding and will be further strengthened by absolute liability. Nozag employees commit themselves every day to win the confidence of clients and suppliers. Highly, above-average skilled employees and state-of-the-art facilities are the basis for that.

In-house manufacturing is supported by high-performance logistics; this going along with simple, direct and to-the-point communication with our partners. We respect and comply with all pertinent laws, especially those that protect the environment and the health and safety of our workers.

We get things moving

As a drive system specialist, we focus on the development, manufacture and sale of drive solutions. Be it standard solutions from our extensive product range available from stock, or client-specific customizations – even on short notice – be it drive systems and components individually designed according to your specifications: You always get the optimal drive solution in best Swiss quality. Our production is located at our headquarters in Pfäffikon-Zurich.

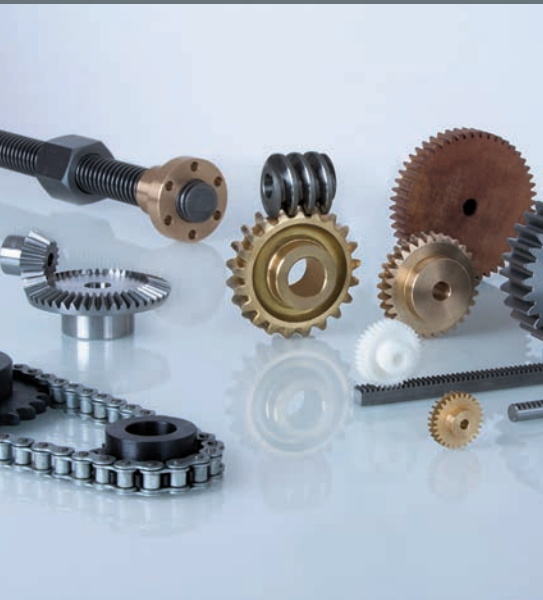
You find Nozag subsidiaries in Germany and France. In many other countries around the world we are represented by renowned sales partners.

At Nozag you will find

- > Tailor-made solutions within a short time
- > A reliable partner for everything related to drive technology
- > Own production and assembly
- > Development, technical consulting
- > Fast delivery service – many components from stock
- > Continuity: on the market since 1966
- > Over 50 years of experience in the manufacturing of gears
- > Quality according to ISO 9001:2015

Nozag AG is a company of the POLYGENA Group (www.polygena.ch), to which 5 companies belong with a total of 500 employees.

Nozag has been manufacturing gear and drive components for over 50 years. Our special know-how lies in the gearing technology, from standard gear wheels to customized drive solutions. Our carefree package: Consulting, production and logistics.



Standard components

8'000 standard gear wheels and standard chains available from stock



Tailor made

Standard components machined or fully assembled and ready to install



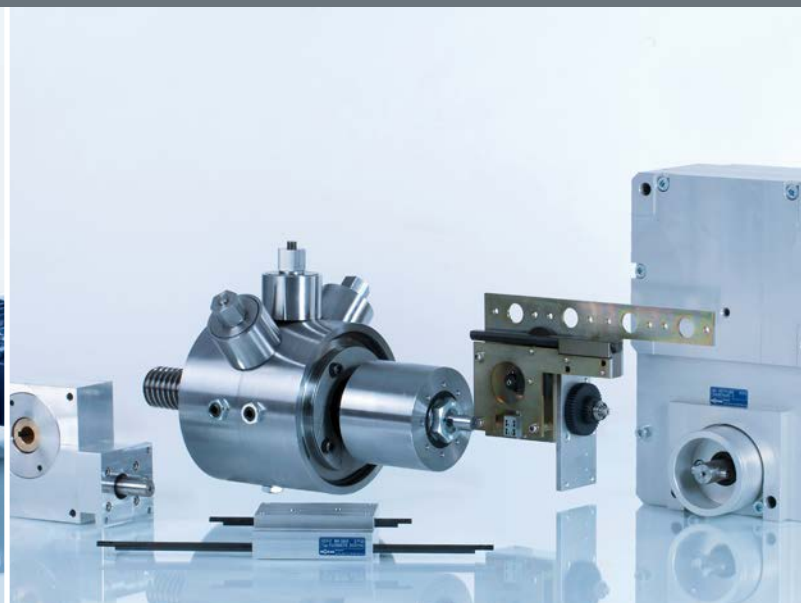
Customized components

Standard components machined according to your drawings – if required designed by Nozag!



System / Standard drives

Easy moving of loads up to 10 tons – by means of screw jacks and bevel gear boxes



Customized drives

Rotating, lifting and tilting movements by using the optimized gearing geometry, designed for you and supplied as one unit



Strong design – reliable, high-technology

Simple solutions are often the best. To execute and regulate precise driving and lifting movements, it is not always necessary to use complex proportional valve controlled pneumatic or hydraulic or even servo mechanical drives. Perfectly suitable and usually much more economical are precise custom-made electro mechanical drive units, consisting of screw jacks and motors. On one hand, screw jacks combine mechanical precision, compact design, durability, low maintenance and long life. On the other hand, without any further mechanical efforts but in combination with clutches, shafts and electric motors, comparatively simple drive solutions can be achieved for certain hub movements.

Nozag's state-of-the art screw jacks are therefore technically very interesting and, above all, an economical alternative to expensive servo drives: they provide a given torque or convert a linear push/pull force.

High quality from extensive experience

More than 40 years of experience in development, design, distribution and use of screw jacks have been incorporated in the «NSE-Series». Besides the demand for a good, attractive design, the simplicity, reliability and user friendliness of this design-protected development played a very large role.

Simple and understandable engineering from beginning to end

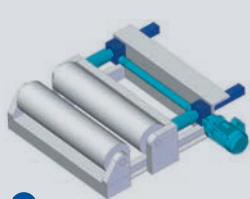
- > Simple layout design and planning
- > Durable technology manageable after little staff training

User friendly

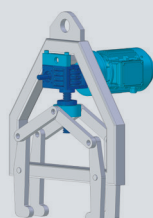
- > Spindles and gearboxes can be lubricated during operation
- > Easy to maintain

Reliable

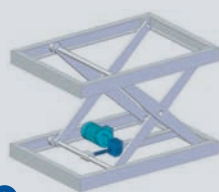
- > Long-time proven technology
- > Use of high quality components



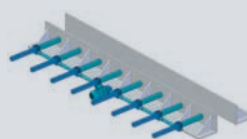
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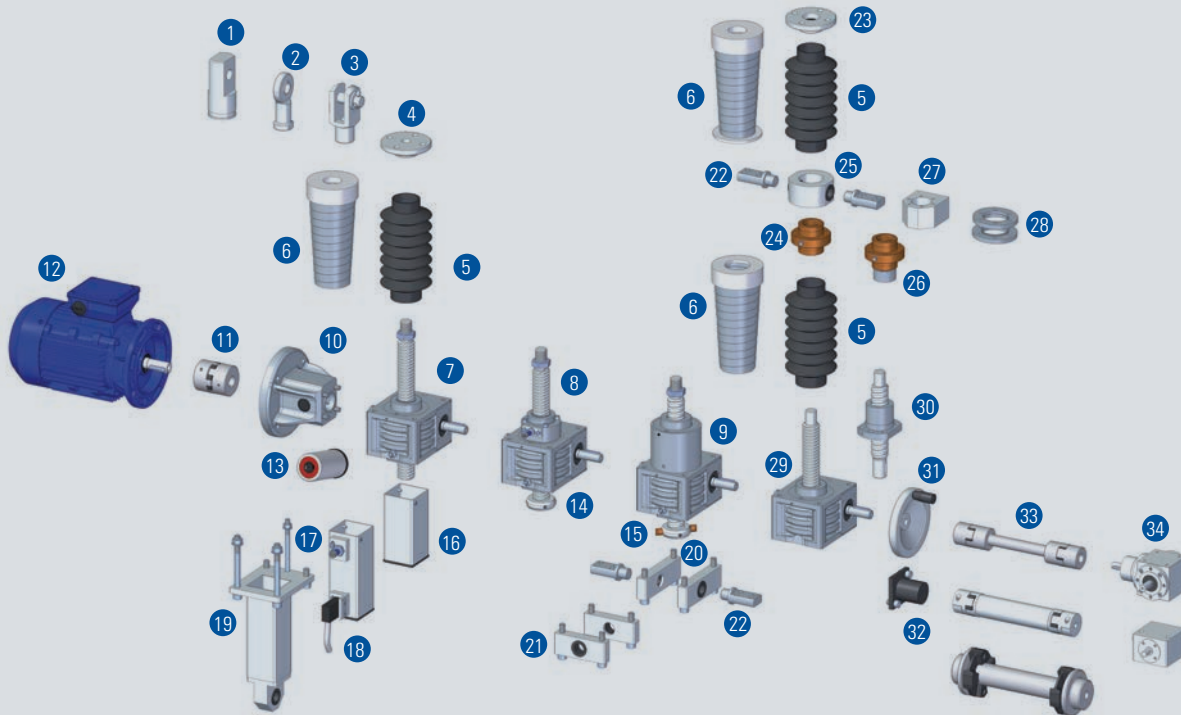


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- 1 Precise roller/cylinder adjustment
- 2 Gripper
- 3 Hub movement on scissors lift
- 4 Synchronous adjustment on concrete formwork



- 1 Swivel bearing head
- 2 Ball joint head
- 3 Fork head
- 4 Mounting flange
- 5 Bellows
- 6 Spiral spring cover
- 7 Screw jacks, non-rotating
- 8 Screw jacks, non-rotating with safety trap nut
- 9 Screw jacks, non-rotating with ball screw
- 10 Motor adapter
- 11 Flexible coupling
- 12 Motor/brake motor
- 13 Lubricant dispenser
- 14 Unscrew protection
- 15 Anti rotation lock
- 16 Protection tube
- 17 Limit switch inductive
- 18 Limit switch mechanical
- 19 Support tube
- 20 Suspension adapter long
- 21 Suspension adapter short
- 22 Suspension bolt
- 23 Flange bearing
- 24 Flange nut/Duplex nut
- 25 Suspension adapter for flange nut
- 26 Safety trap nut
- 27 Carrier flange
- 28 Calotte disks
- 29 Screw jack, rotating
- 30 Ball screw flange nut
- 31 Hand wheel
- 32 Protection cap
- 33 Connecting shafts
- 34 Bevel gearboxes

Many application possibilities thanks to modular components

The innovative flexible screw jack kit of the NSE series, in a wide performance range from 2 to 100kN or more, allows perfect drive solutions out of standard components. The kit includes not only the use of high-quality materials, innovative coatings and high-performance components, but is also subject to the highest standards of functionality, quality and design.

Your construction will be simpler and more cost effective

- > Easy assembly with standardized individual components from the kit. Saves you time.
- > Less specific designs, because of a wide range of options to choose from

Defined Loads up to 1000kN

- > Constant speed forwards and backwards, according to the speed of the drive motor
- > Same load forwards/backwards
- > Adjustable stroke
- > Precise positioning of the load even with vibrations

Simple control/monitoring

- > Cost-effective control of speed and position through frequency inverters and impulse sensors possible

- > A constant stroke per spindle rotation
- > Easy displacement measurement by rotation speed control or absolute encoder
- > Simple synchronization with the help of connecting shafts or electronically by counting the revolutions of the spindle

Secure

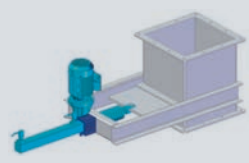
- > Easy to secure the load on the screw
- > Self-locking system
- > With optional safety trap nut, double security for little money
- > Additional security through optional brake motor

Reliable System

- > Low temperature sensitivity
- > Minimal maintenance
- > Highly ecological
- > No leakage

Complete drive systems – all from one source

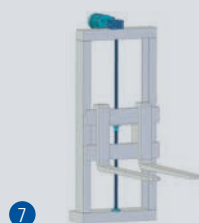
- > Whether motor, position measuring system, position switches or special requirements – you have one partner: Nozag.



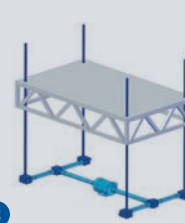
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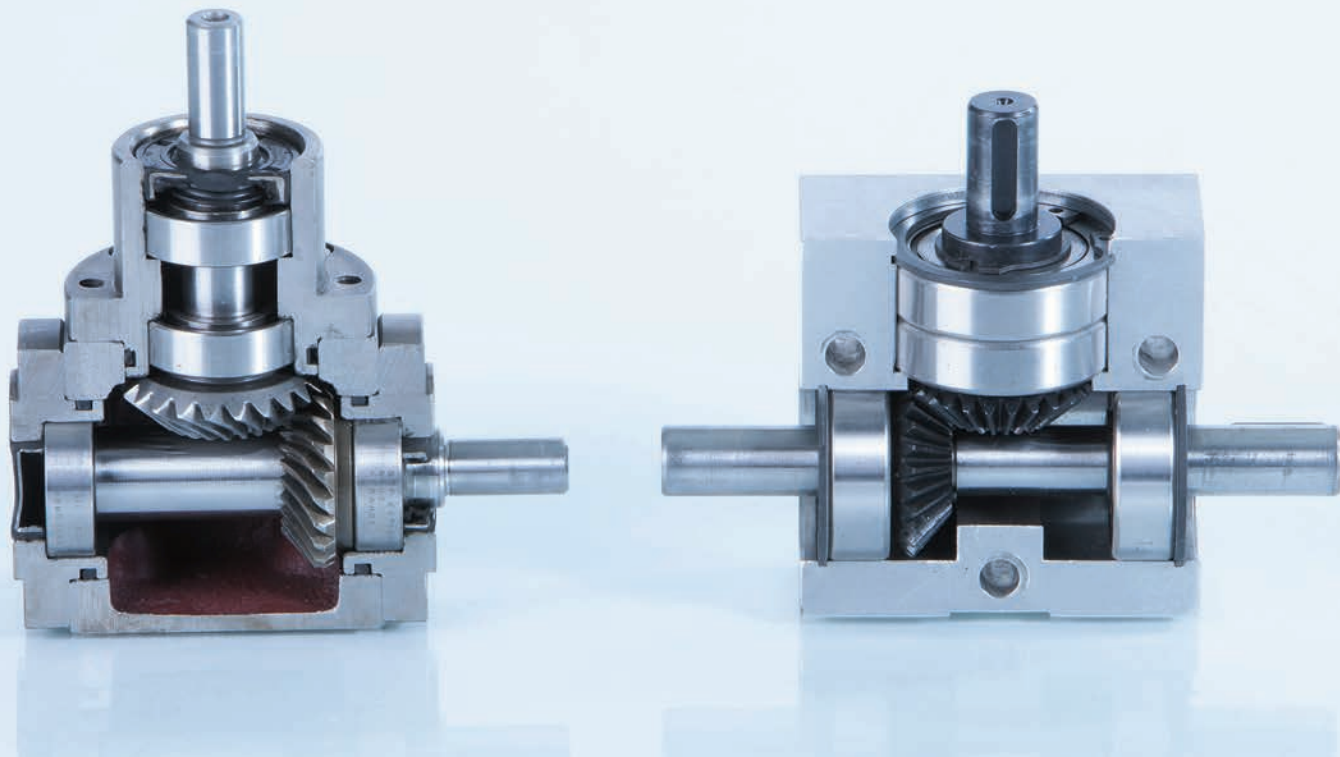


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- 5 Slide valve adjustment in silos
- 6 Conveyor belt height adjustment
- 7 Hub movement on forklift
- 8 Height adjustment of a stage



Spiral or straight geared, depending on the specifications

The light-construction bevel gearboxes LMA are suitable for the most varied applications in general mechanical engineering and jiggmaking. The RM gearboxes are made for higher demands, i.e. ratios up to 1:5 and transmit torques from 19 up to 430Nm. Thanks to their consistent modular design, they allow a wide range of assembly and combination possibilities, for example in association with screw jacks of Nozag.

Bevel gearboxes RM

- > Silent
- > Maintenance free, with a small tooth flank play (backlash) due to GLEASON spiral gearing, hardened and lapped
- > Speeds up to 2800min^{-1}
- > Torques up to 1000Nm
- > High performance density, compact design
- > Standard ratios 1:1 to 1:5, others on request
- > Continuous or high duty cycles possible
- > High rotational accuracy
- > Radial shaft sealing rings generally with dust lip
- > Lubrication: fluid grease (option: oil)
- > Housing made of cast iron, low distortion and contortion.
- > In stainless steel available on demand
- > Motor adapter available for IEC standard motor applications

Applications

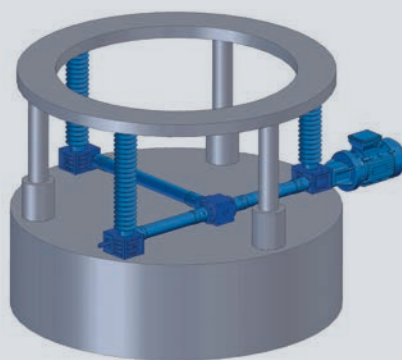
- > Suitable for high-performance requirements

Bevel gearboxes LMA

- > Lightweight series
- > Compact aluminium housing
- > Speeds up to 1000min^{-1}
- > Ratios 1:1 – others on demand
- > Torques up to 40Nm
- > Straight toothed bevel gears
- > Lifetime lubrication (6000h)

Applications

- > Hand adjustable
- > Load diversion with low performance requirements



Easy synchronization of multiple screw jacks by load diversion through bevel gearboxes and connecting shafts.

series NSG



series CHM-standard



series CHM-combinations



series CH-sizes 03-05



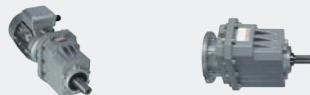
series CH-sizes 06-08



series 56



series CHC



Keep it running smoothly

Are you looking for an optimal solution that meets your technical requirements, but does not exceed your target range? The range of worm gear and worm gear motors provided by Nozag are designed for simple applications and normal performance requirements. Of course, we also provide designs «for higher goals»: higher rotation speeds, torques and duty cycles. Do not hesitate to contact our specialists, they will be happy to advise you.

Worm gearbox NSG

The special characteristics of the worm gearbox NSG: allows large axial forces acting on the worm wheels! These sophisticated gear boxes are available in five versions: each with two drive torques, in the output torque and in the ratio, whereupon the maximum axial load of both types is always the same.

Applications

- > Rotator in a transporting system
- > Turntable in a pallet conveying system

Perfect price-performance ratio: the series CHM and CH

Smart: The series CHM and CH are designed to be compatible with similar products. They are characterized by a high versatility of mounting possibilities. Thanks to various improvements and technical modifications, the application of the groups for the different assembly possibilities are even easier, which also enables perfect servicing in terms of flexibility and delivery times. The machining of the components takes place on CNC machines ensuring highest precision with minimal tolerances and therefore guaranteeing a reliable and

lasting product. A great variety of sizes and accessories are available – to keep everything running smoothly.

Application examples

- > General machinery and plant construction
- > Automation

Unshakable: Series 56

You have high demands in terms of drive power? The Series 56 is the perfect system for you. Its high efficiency rate is impressive. Smooth running in both directions of rotation and long life span characterize this high quality standard gearbox. The design of these ground, right-hand worm gear units, consisting of gear wheels made from special worm gear bronze and dip-feed lubrication, is of the highest standard.

Application examples

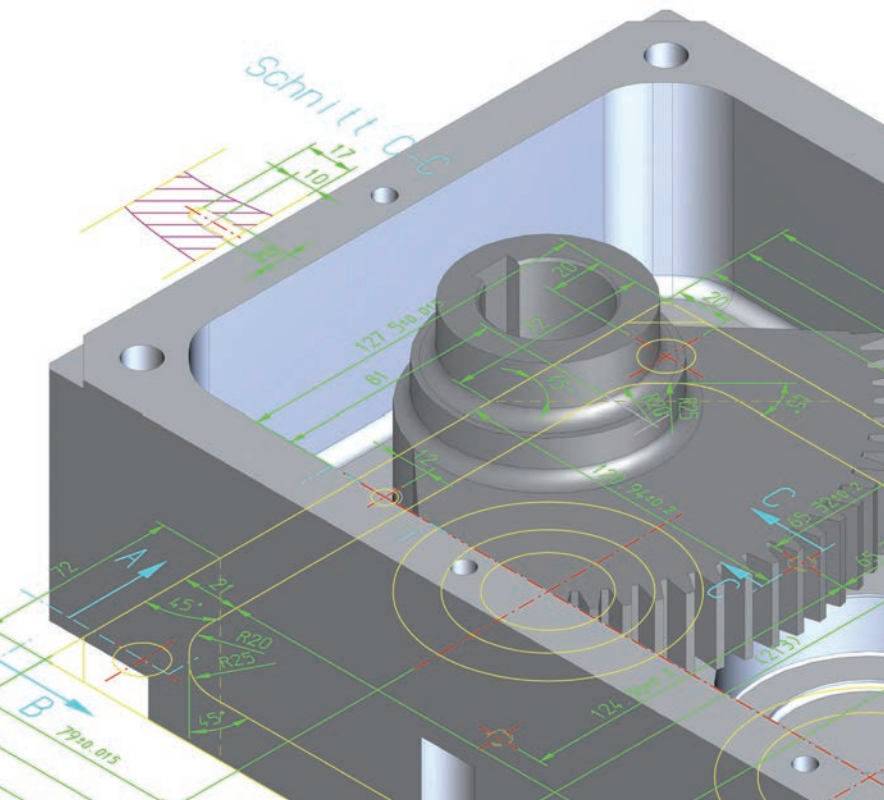
- > Applications with higher speeds and torques
- > High duty cycles

Spur gears CHC

The precision-made gear construction captivate by high efficiency. Combined with custom-designed and, supplied on request, electric motors, this leads to more energy-efficient and cost-effective drive solutions. The precision mechanics with hardened and ground gearing is characterized by low friction and low-noise operation.

Applications

- > Energy (air, water, combustion)



You are part of the process from prototype to production

Extensive experience

- > Over 50 years of experience in the development and construction in gear and transmission manufacturing

Targeted practice tests

- > Functional testing under real conditions: Let's test your prototype on our test bench for transmission – loaded with load cycles according to your specifications.

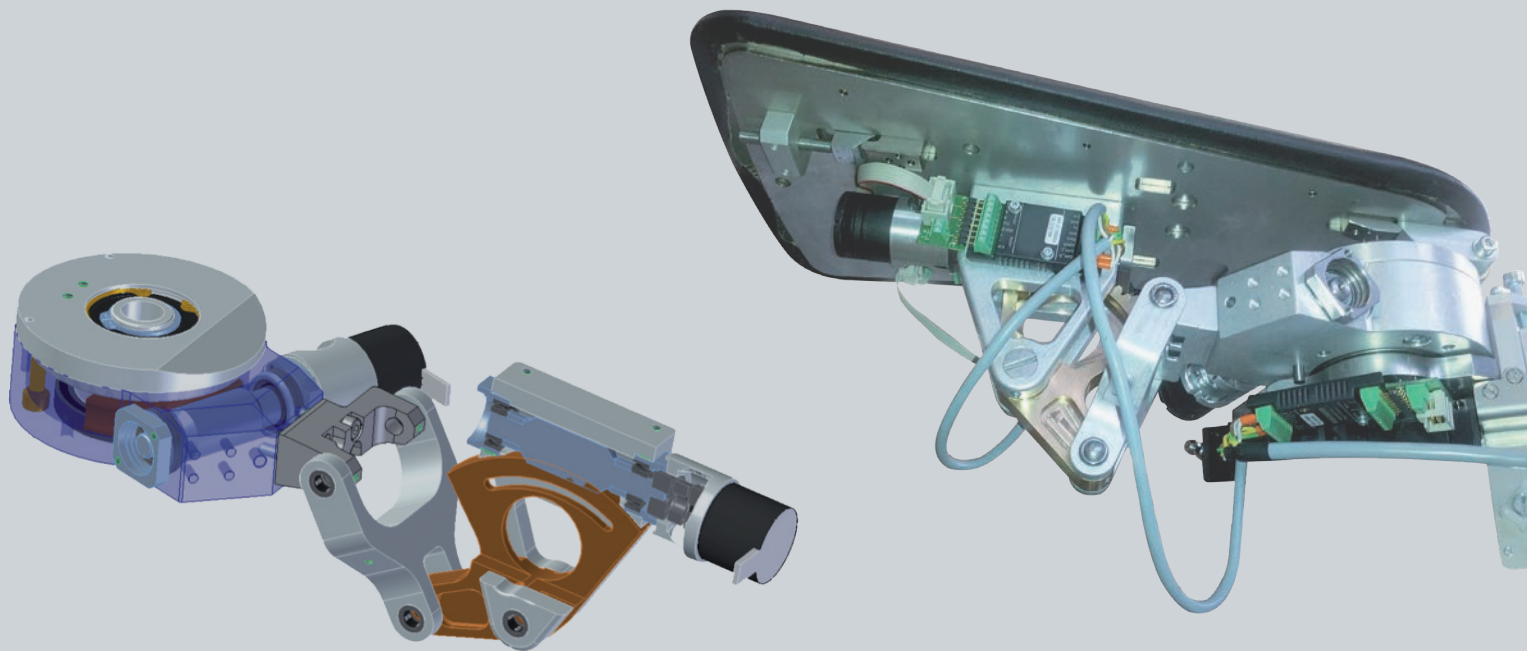
High series safety, thanks to performance tests

- > Many factors can be simulated, like different and changing torques, axial forces, radial forces, speeds and much more.

Complete logistic chain for your series product

- > Sourcing, manufacturing of individual components
- > Reliable, flexible assembling
- > Quality control
- > On schedule delivery according to your guidelines
- > Delivery in swap containers



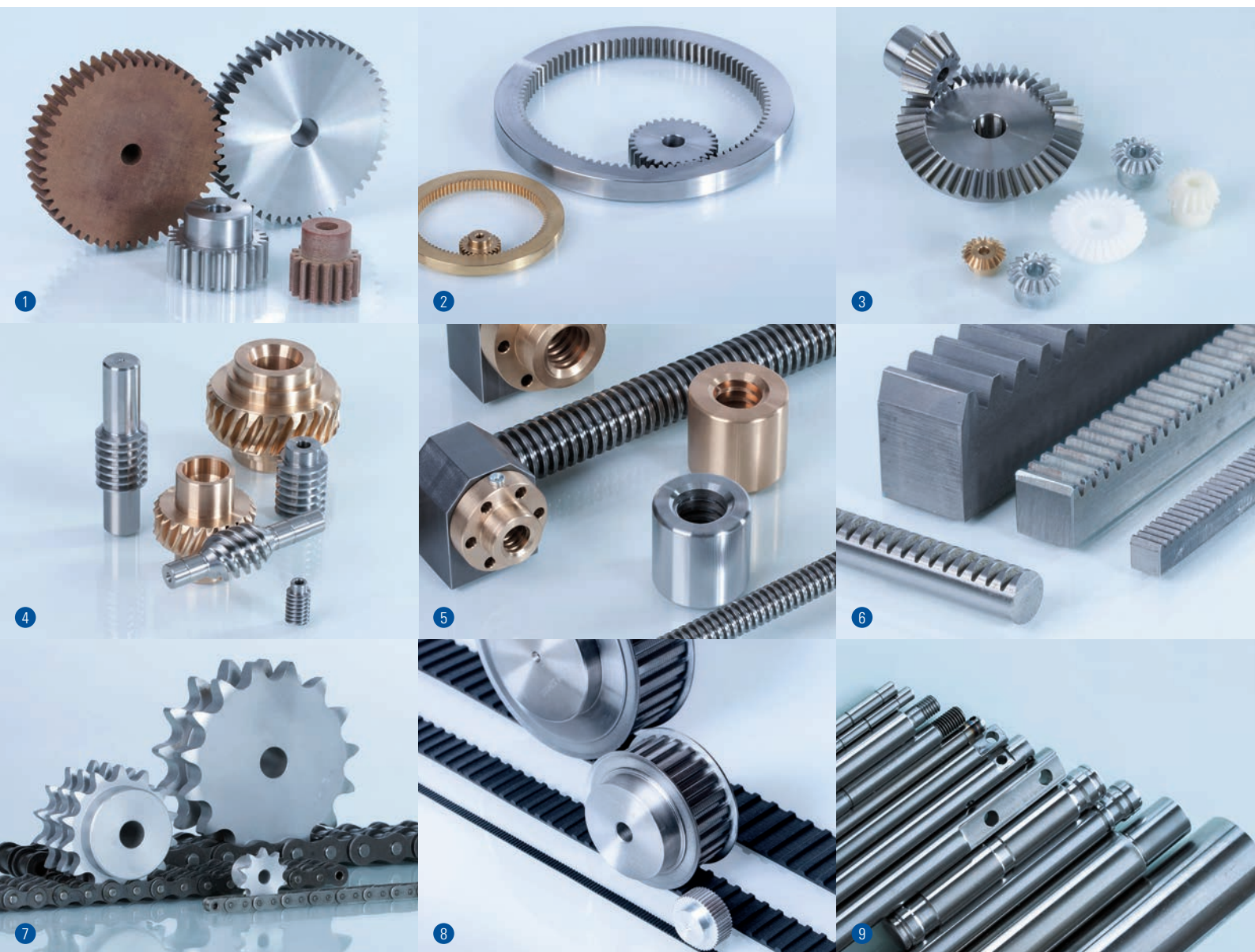


Setting standards for drives developed by customers



- 1 Spur gear drive with rack as a positioning indicator
- 2 Transmission for switch activation (energy transfer)
- 3 Bevel gearbox with combined spur gear drive for wheelchair drive mechanism
- 4 Screw jacks Gold (CuAL10Fe5Ni5) – for extreme environmental and operational conditions

- 5 Screw jack with transverse guidance (short-stroke gear)
- 6 «ALL-IN» ball screw for common lifting situations
- 7 Linear drive with cylinder for ejecting rubber parts
- 8 Bevel gear in the food industry
- 9 Worm drive with transmitter for building automation
- 10 Gearbox with customer-specific motor adapter



Standard components

- > Free 3D CAD data download from www.nozag.ch
- > Support for design and dimensioning
- > Drive systems and components from our own production
- > Most standard components available from stock
- > Flexibility and quality thanks to our own production
- > Various materials such as steel, stainless steel, bronze, brass, plastic, laminated fabric

1 Spur gears module 0.3 to 8

- > Straight toothed, helical toothed
- > Upon request, hardened and ground

2 Internal ring gear module 1 to 2

- > Straight toothed

3 Bevel gears up to module 6

- > Straight toothed, helical toothed
- > Upon request, hardened and ground

4 Worms and worm wheels

- > Left an right handed
- > Two starts right handed

5 Trapezoidal screws and nuts

- > For longer life, also available with coating

6 Standard racks

- > Straight toothed, helical toothed
- > Hardened, ground

7 Chains and sprockets

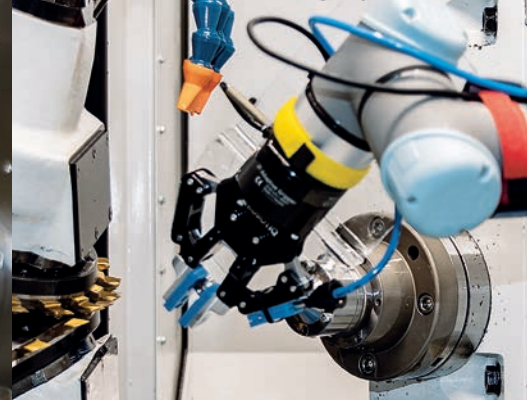
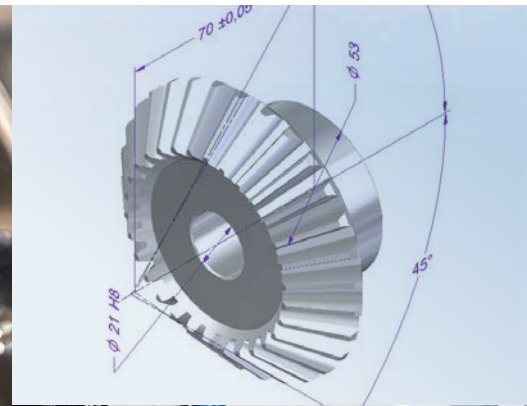
- > Standard chains
- > Special chains even for difficult applications or requirements

8 Timing belts / timing pulleys

- > T2.5 / T5 / T10 / AT5 / AT10
- > HTD M3 / HTD M5 / HTD M8 / HTD M14
- > MXL / XL / L / H

9 Hardened and ground precision shafts

- > WE Standard precision steel shaft
- > CWE Chrome plated precision steel shaft
- > XWE Precision stainless steel shaft
- > HWE Precision steel tube



Components made according to your drawing

Take advantage of our strengths and skills

- > Our own production at the headquarter
- > High flexibility
- > Swiss quality
- > Short delivery times
- > One partner for the sourcing of the finished components
- > Even small batch series
- > Thermal or galvanic treatment

Gears from our own production

- > Module from 0.3 to 8
- > Up to diameter 500mm
- > Material: steel, stainless steel, bronze, brass, plastic, plastic with steel-core, laminated fabric, etc.
- > Even helical toothed, hardened and ground

Upon request we take over the logistics for you

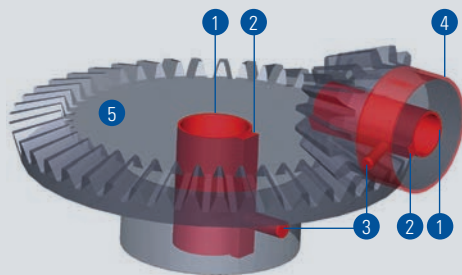
- > Call orders with duration of up to 12 months
- > Delivery in swap containers

You benefit from

- > Reasonable prices due to larger series
- > Short delivery times for each call-off
- > Smaller warehouse costs
- > No material price fluctuations

Tailor made

Ready to install processing of standard components



- 1 Bore bigger? 2 Keyway? 3 Threaded bore?
4 Lathe off hub? 5 Coating?

Customized components

Special designs to your specifications out of our own production



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