

POWER BECOMES MOTION

Solutions for a complete drive train with brakes, gearboxes and motors with controllers





EFFICIENT. VERSATILE. COMPREHENSIVE.

Together with ATEK Drive Solutions GmbH, we are shaping the transformation from component manufacturer to solution provider for the entire drive train. Our path to the future is built on growth and the continuous advancement of our technological expertise. For this purpose and to form ATEK Drive Solutions GmbH, ATEK Antriebstechnik Willi Glapiak GmbH and Deutsche van Rietschoten & Houwens GmbH merged, combining decades of experience in the fields of gearboxes and brakes at the Rellingen site, which has been supplemented by expertise in servomotor development.

Our goals are ambitious: we are integrating engine assembly at our modernized and expanded site in Rellingen, and by 2030, we aim to double both our revenue and the number of employees compared to the respective numbers in 2022.

Here, just outside Hamburg, we work with a dedicated team that values, digital tools, flat hierarchies, short communication channels, and high standards and quality. We are passionate about technology, encouraging of teamwork, and committed to developing tailored solutions for our customers and partners.

We have ideal conditions for the success of our transformation: For decades, ATEK and Rietschoten have successfully occupied a market niche for gearboxes and industrial brakes and developed great growth potential, which is now being unlocked by ATEK Drive Solutions GmbH.



Sebastian Sturm Managing Director

AT A GLANCE

100

The number of gearboxes we produce per day >60

The number of countries we supply with products

16,000,000

The number of product variations available

45

The number of years our longest-operating gearboxes has

450,000

The number of individual items we have in stock

2010 2022 2024 2030

22 employees 75 employees 85 employees 125 employees

1939

1961

2022

2024

2026

2030

Foundation of the Willi Glapiak turning shop, which later became ATEK

Foundation of Deutsche van Rietschoten & Houwens GmbH

Cooperation between Deutsche van Rietschoten & Houwens GmbH and ATEK Antriebstechnik

Merger of Deutsche van Rietschoten & Houwens GmbH and ATEK Antriebstechnik Willi Glapiak Willi Glapiak GmbH GmbH to form ATEK **Drive Solutions**

GmbH

The solution provider for drive trains consisting of gearboxes, brakes and motors with controllers

Doubling of sales compared to 2022



ALL-ROUND SERVICE FOR MAXIMUM VALUE RETENTION

Comprehensive service is available throughout the entire product lifecycle – from spare parts supply to professional refitting.

Our services at a glance:

Spare parts supply Fast delivery ensured by serial number traceability – even for older models

Refit & modernisation Professional refitting of older drive systems, comprehensive application consulting, and drive design

O Product lifecycle management Early involvement in innovation processes and replacement strategies to ensure you always remain at the cutting edge of technology

Repair and inspection service Fast repairs, urgent repairs, service reports, individual training, cost-effective disposal, and a collection and delivery service

Your strong partner for drive solutions:

O Short response times Personal support enables rapid responses to enquiries, quotations, and orders

Everything from a single source Having a single point of contact for consulting, delivery, and service provides advantages, with no additional suppliers and clearly defined warranty

Customized solutions In-house prototype construction and modern testing facilities to ensur innovative, technically advanced results

Express delivery times Standard products typically delivered within two weeks

O International availability Fast support is ensured worldwide by a global dealer network

WE ARE PROUD OF OUR CUSTOMERS





RELIABLE SOLUTIONS FOR EVERY INDUSTRY

Drive technology from **ATEK Drive Solutions** has proven itself millions of times across nearly all industries. Where standard solutions are not sufficient, customized concepts are created—cooperative, targeted, and efficient. The portfolio is broad and continuously evolving. Partnership is offered for:



Brake solutions - safety and robustness for demanding tasks

• Mining

Ultra-stable brakes for the toughest conditions – day and night

O Cranes & hoists

Compact high-end systems with variable designs

O Cable & wire machines

Customised, compact brakes for every machine size

Amusement parks

Maximum safety and reliability for rides

Shipbuilding

Completely assembled, individually tailored brake systems

Stainless steel

Brakes for extreme temperature and force loads

Offshore & renewable energies Saltwater-resistant, explosion-proof,

high-performance brakes

Power plants

Powerful solutions for energy control and safety

Gearbox solutions – precision, cost-effectiveness and reliability for every application

Machine tools

High-precision, high-performance gearboxes for demanding machining processes

Woodworking

Robust, overload-proof gearboxes for flexible, economical production

Automation & Robotics

Customisable gearboxes with maximum process reliability, a long service life, and efficiency

Food & medicine

Hygienic, corrosion-resistant and energy-efficient solutions – with food-grade lubricants (NSF H1) on request

O Logistics & packaging

Durable, dynamic systems for demanding, fast, and precise conveyor and packaging systems

Motor solutions - dynamism, precision and efficiency for a wide range of applications

O Automation & robotics

High-precision servomotors for fast, accurate motion sequences in automated production lines

Machine tools

Powerful motors for precise control and reliable machine processes

Medical & laboratory technology Reliable servo drives for the highest operational safety and

Packaging & logistics

hygiene standards

Energy-efficient servomotors for dynamic, low-maintenance conveyor and packaging systems

Renewable energies

Robust drives to ensure efficient control in wind and solar technology



THREE COMPONENTS - ONE SOLUTION

With brakes, gearboxes, and motors with controllers, we convert power into motion.

With extensive expertise in gearboxes, brakes, and servomotors, ATEK Drive Solutions provides customized solutions for complete drive systems. The products represent German quality and are available within 14 days.

Utilizing comprehensive know-how, state-of-the-art software, and high-quality, sustainable materials, the highest technical standards and precise implementation of individual requirements are ensured. The team remains up to date with the latest technology, enabling optimal response to specific customer needs.

A key advantage is the **short delivery time.** Optimized processes, efficient warehousing, and **forward-looking production planning ensure fast and reliable availability**—so projects can be completed on schedule and waiting times are kept to a minimum.



BRAKE TECHNOLOGY

Innovative, sustainable and safe brakes and brake systems

A modular system comprising various brake types—including hydraulic, pneumatic, manual, and electric versions—is available for a wide range of applications.

Extensive expertise based on decades of experience at Deutsche van Rietschoten & Houwens GmbH in heavy industry, shipbuilding, mining, steel construction, and the mining sector forms the foundation for customized solutions.

All brakes and braking systems are assembled at the site in Germany. Upon request, braking systems can be delivered in accordance with internationally recognized standards and certifications.



GEAR TECHNOLOGY

Expertise in modular gearboxes

The gearboxes from **ATEK Drive Solutions** combine the expertise of several generations. Customer orientation, short delivery times, and a wide range of solutions are central priorities. The portfolio includes worm gearboxes, planetary gearboxes, bevel gearboxes, miniature gearboxes, servo gearboxes, and special gearboxes.



MOTOR TECHNOLOGY

Drive for performance

The development of in-house motors completes the portfolio as a full-range provider for entire drive systems. Electric motors, including controllers, are developed in a wide variety of configurations—some so compact and powerful that direct integration into gearboxes is possible. This approach saves installation space and increases efficiency.



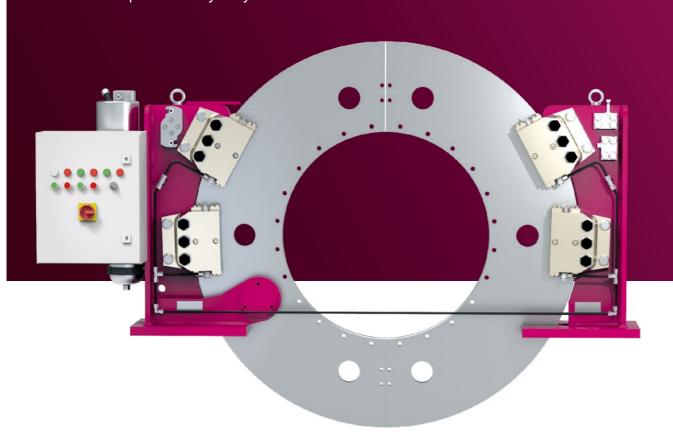
Products may differ from the image shown.

atek.de/en/home-en

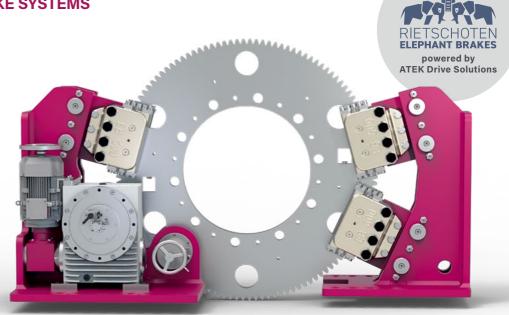
OUR ELEPHANT BRAKES

OUR HIGHLIGHT: CUSTOMISED SHAFT BRAKE SYSTEMS

The customized shaft brake systems are optionally equipped with split brake discs and remain fully functional even after flooding with a water column of up to five meters (higher values available on request). The systems are designed for submersion durations of up to 72 hours and continue to operate reliably afterward. They can withstand shock loads of up to 150g. The analytical verification of shock resistance as well as complete ILS documentation will be provided for you by **ATEK Drive Solutions.**







Shaft brake system

Turning, Locking, Braking

System solutions for customised shaft brake systems on ships, consisting of a turning gear ("turning"), a locking device ("locking") and a shaft brake ("braking"), an actuating unit (e.g. hydraulic) and a control system.

Combine according to your requirements and preferences.



Braking

- Quick shutdown of the shaft
- Support for the reversing process
- Improved manoeuvrability
- Support for braking the shaft
- Prevention of flow-induced rotation during non-operation

Turning

- Low travel speed turning,
 e.g. in port, even with the
 transmission disengaged
- Controlled shaft rotation during installation, repair and maintenance

Locking

- Shaft blocking during maintenance and servicing work
- Flow-induced rotation prevention when not in operation



BRAKING - ELEPHANT BRAKES - BRAKING SYSTEMS



Brake system 4 × Type EB500

Hydraulically operated closing, spring operated opening

Braking force*: > 400 kN



Brake system 4 × Type EB600

Hydraulically operated closing, spring operated opening

Braking force*: >750 kN





Brake system 4 × Type EB700

Hydraulically operated closing, spring operated opening

Braking force*: >1,250 kN

LOCKING - LOCKING DEVICE



Locking device

Locking bolt diameter: up to 200 mm

> Locking torque: up to 3,500 kNm

Other sizes available on request

TURNING - CRUISING GEAR



Turning gear Type S200

Size 1 (BG1)

Breakaway torque: 32kNm Continuous torque: 16kNm



Turning gear Type S250

Size 2 (BG2)

Breakaway torque: 72 kNm Continuous torque: 36 kNm



Turning gear Type S350

Size 3 (BG3)

Breakaway torque: 190 kNm Continuous torque: 95 kNm

CONTROL SYSTEM AND POWER UNIT



Control System

The entire control of the braking system is handled by a freely configurable control system. This is, among other things:

Flood-proof

ATEX-compliant

CSA/UL-compliant

With analogue or digital design



Power Unit

Electrified/electro-hydraulic

Low maintenance

Powerful

Noise level: <62 dB(A) possible











ELEPHANT BRAKES - LEVER BRAKES



Lever brake Type RH

Manually operated closing, spring operated opening

Braking force*: up to 29.3 kN



Lever brake Type RH

Pneumatically operated closing, spring operated opening

Braking force*: up to 26.8 kN



Lever brake Type RH

Hydraulically operated closing, spring operated opening

Braking force*: up to 35.3 kN



Lever brake Type RH

Electrically operated closing, spring operated opening

Screw-on dimensions identical to known RH lever brakes

Planned braking force*: up to 40 kN

OPERATION



Lever brake Type RH

Spring loaded closing, pneumatically operated opening

Braking force*: 425 N - 28,800 N



Lever brake Type RH

Spring loaded closing, hydraulically operated opening

Braking force*: 1.2 kN - 30 kN



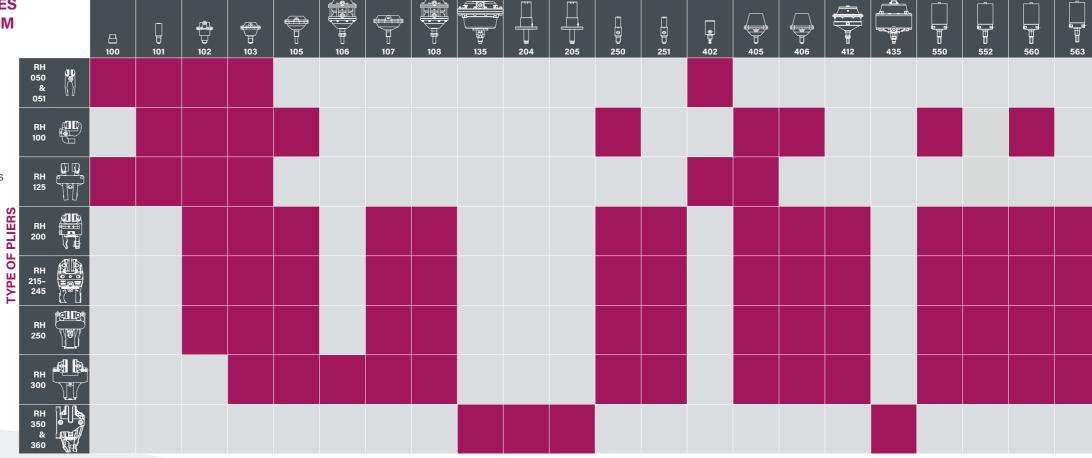
Lever brake Type EMS

Spring operated closing, electrically operated opening

Braking force*: 600 N - 2,700 N



- A wide range of combinations is possible
- Same actuation can be used for multiple brake calipers
- O More flexibility and customisation options
- O Brake forces up to 35,300 N can be achieved





ELEPHANT BRAKES - FIXED CALIPER BRAKES



Fixed caliper brakes Type EB025

Pneumatically operated closing, elastomer operated opening

Braking force*: up to 150 N



Fixed caliper brakes Type EB030

Pneumatically operated closing, elastomer operated opening

Braking force*: up to 210 N



Fixed caliper brakes Type EB108

Pneumatic or hydraulic actuated closing possible, spring actuated opening

Braking force*: up to 1.5 kN



Fixed caliper brakes Type EB115

Pneumatic or hydraulic actuated closing possible, spring actuated opening

Braking force*: up to 1.5 kN



Fixed caliper brakes Type EB240

Hydraulically operated closing, spring operated opening

Braking force*: up to 7.5 kN



Fixed caliper brakes Type EB255AR

Hydraulically operated closing, spring operated opening

Braking force*: up to 15.6 kN



Fixed caliper brakes Type EB255

Hydraulically operated closing, spring operated opening

Braking force*: up to 15.6 kN



Fixed caliper brakes Type EB285AR

Hydraulically operated closing, spring operated opening

Braking force*: up to 34kN



Fixed caliper brakes Type EB285

Hydraulically operated closing, spring operated opening

Braking force*: up to 34kN



Fixed caliper brakes Type EB470

Hydraulically operated closing, spring operated opening

Material: Aluminium

Braking force*: up to 69 kN



Fixed caliper brakes Type EB500

Hydraulically operated closing, spring operated opening

Material: Grey cast iron with increased corrosion protection (nickel-plated)

> Braking force*: up to 115 kN



Fixed caliper brakes Type EB600

Hydraulically operated closing, spring operated opening

Material: Grey cast iron with increased corrosion protection (nickel-plated)

Braking force*: up to 230 kN



ELEPHANT BRAKES - FIXED CALIPER BRAKES



Fixed caliper brakes Type EBS001

Spring loaded closing, hydraulically operated opening

Braking force*: 15 kN - 30 kN



Fixed caliper brakes Type EBS002

Spring loaded closing, hydraulically operated opening

Braking force*: 29 kN - 50 kN



Fixed caliper brakes Type EBS004

Spring loaded closing, hydraulically operated opening

Braking force*: 49 kN - 104 kN

ELEPHANT BRAKES - FLOATING CALIPER BRAKES



Floating caliper brakes Type EBS001FL

Spring loaded closing, hydraulically operated opening

Braking force*: 15 kN - 30 kN



Floating caliper brakes Type EBS002FL

Spring loaded closing, hydraulically operated opening

Braking force*: 29 kN - 47 kN





Floating caliper brakes Type EBS004FL

Spring loaded closing, hydraulically operated opening

Braking force*: 49 kN - 104 kN



Fixed caliper brakes Type EBS006

Spring loaded closing, hydraulically operated opening

Braking force*: 85 kN - 210 kN



Fixed caliper brakes Type EBS008

Spring loaded closing, hydraulically operated opening

Braking force*: 214 kN - 420 kN



Floating caliper brakes Type EBS006FL

Spring loaded closing, hydraulically operated opening

Braking force*: 80 kN - 180 kN



Floating caliper brakes Type EBS008FL

Spring loaded closing, hydraulically operated opening

Braking force*: 180 kN - 370 kN



Accessories for all types

Brake discs, brake pads, mounting stands, mounting plates, hydraulic units, controls, clutches, hubs, and much more



OUR GEARBOXES



BEVEL GEARBOXES



Bevel gearbox Type V, VS

Transmissions: i = 1:1 to 6:1

Maximum output torque: 5,400 Nm

> Backlash: <6-30 arcmin

PLANETARY GEAROXES



Miniature bevel gearbox Type L

Material: Aluminium

Transmissions: i = 1:1 to 4:1

Maximum output torque: 16 Nm

> Backlash: <10-30 arcmin



Stainless steel gearbox in hygienic design Type HDV, HDVS

Material: Stainless steel

Transmissions: i = 1:1 to 6:1

Maximum output torque: 430 Nm

> Backlash: <6-30 arcmin



Planetary gearbox Type PCE

Transmissions: i = 3:1 to 100:1

Maximum output torque: 135 Nm

> Backlash: <10-22 arcmin



Angular planetary gearox Type BPCE

Transmissions: i = 3:1 to 100:1

Maximum output torque: 216 Nm

> Backlash: <15-25 arcmin



WORM GEAROX



Worm gearbox Type S

Transmissions: i = 5:1 to 83:1

Maximum output torque: 13,720 Nm

Backlash: <3 arcmin



Double worm gearbox Type SD

Transmissions: i = 25:1 to 6,889:1

Maximum output torque: 10,300 Nm

Backlash: On request

HYPOID GEAROX



Hypoid gearbox Type H

Transmissions: i = 3:1 to 15:1

Maximum output torque: 1,450 Nm

Backlash: <3 arcmin

SERVO GEARBOXES



Bevel gearbox with servomotor flange Type VC

Transmissions: i = 1:1 to 6:1

Maximum output torque: 472 Nm

Backlash: < 6 arcmin



High-ratio servo gearbox Type VCE

Transmissions: i=8:1 to 400:1 (multi stage) i=1:1 to 6:1 (single stage)

Maximum output torque: 280 Nm

Backlash: <6-30 arcmin



Servo gearbox Type HC

Transmissions: i = 3:1 to 15:1

Maximum output torque: 1,450 Nm

Backlash: < 5 arcmin

GEARBOXES OPTIMISED FOR IEC STANDARD MOTOR MOUNTING



Bevel gearbox with IEC motor flange Type VL

Transmissions: i=1:1 to 6:1

Maximum output torque: 1,750 Nm

Backlash: < 4 arcmin



Worm gearbox with IEC motor flange Type SL

Transmissions: i = 5:1 to 83:1

Maximum output torque: 13,700 Nm

Backlash: <3 arcmin



Hygienic design bevel gearbox with stainless steel motor flange Type HDVL

Material: Stainless steel

Transmissions: i = 1:1 to 6:1

Maximum output torque: 220 Nm

Backlash: <4arcmin



Servo gearbox Type LC

Transmissions: i = 1:1 to 4:1

Maximum output torque: 4Nm

Backlash: <10 arcmin



Servo gearbox Type SC

Transmissions: i = 5:1 to 83:1

Maximum output torque: 1,580 Nm

Backlash: < 3 arcmin



Wheel sets Bevel gear sets

Transmissions: i = 1:1 to 6:1

More on request

Worm gear sets

9 sizes of centre distance: A = 040 to 250 mm



OUR GEARS

OUR HIGHLIGHT: PCEM - PLANETARY GEARBOX WITH MOTOR

The gear motors combine a gearbox with a powerful motor and are particularly compact and low-maintenance. They offer high efficiency owing to their optimised design and a wide variety of gear ratios.

The PCEM motor group covers outputs from 0.15 to 4 Nm and is available in sizes 40, 60, and 80 mm. The first step is a particularly compact servomotor with a 40 mm housing diameter, 0.75 Nm, 24 VDC, 8 A, and 150 W, which (with its maximum gear ratio of 100:1) offers optimum flexibility, especially for the smallest installation spaces.

The motor gear unit is available with an encoder and a controller.

SERVO GEARBOX MOTORS



Angular planetary gearbox with servomotor Type BPCEM

Transmissions: i = 3:1 to 100:1 Spiral-toothed bevel gears

Low maintenance

Includes encoder

Optional controller and/or brake



Bevel gearbox with servomotor Type VCEM

Low holding torque

High efficiency and high power density

Transmissions: i = 1:1 to 400:1

Low-backlash design: <6 arcmin (single stage) <15 arcmin (multi stage)

Includes encoder

Optional controller and/or brake



Planetary gearbox with servomotor Type PCEM

High efficiency thanks to optimised, compact design

High gear ratio variety through combination of multiple planetary stages

Transmissions: i = 03:1 to 100:1

Low maintenance

Includes encoder

Optional controller and/or brake

IEC GEAR MOTORS



Bevel gearbox with IEC standard motor Type VLM

Bevel gearbox with spiral gearing incl. IEC standard motor

Small, lightweight and space-saving

Transmissions: i = 1:1 to 6:1

Low-backlash design with up to < 6 arcmin



Hygienic Design Bevel Gearbox with IEC Standard Motor Type HDVLM

Including motor and gearbox

Gearbox sizes HDVL 065 to HDVL 140

Power range from 0,25 to 2,2kW

Transmissions: i = 1:1 bis 6:1

Maximum output torque: 430 Nm



Worm gearbox with IEC standard motor Type SLM

Robust, powerful and low-noise worm gearbox incl. IEC standard motor

Vibration-damping properties

Axial misalignment between input and output shaft

Low-backlash design with up to <3 arcmin

SERVOMOTORS



Servomotor (PMSM) Type M

Single motor

Low cogging torque

Robust ball bearing system

High efficiency and high power density

Modular system kit

Different performance classes available

Includes encoder

Optional controller and/or brake

ACCESSORIES



Encoders for all types

Supply voltage 3.3 V and 5 V

Absolute resolution up to 12 bits (4,096 pulses per revolution)

Absolute or incremental output signals according to the industry standard

High accuracy up to ±0.5° RoHS compliant



Controller for all types

Compact 4-quadrant controller

CAN interface with DS301 protocol and DS402 device profile

Vector control (FOC) for precise commutation

Integrated digital inputs and outputs

Protective functions: overvoltage, undervoltage, and overtemperature monitoring







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