



Product Overview

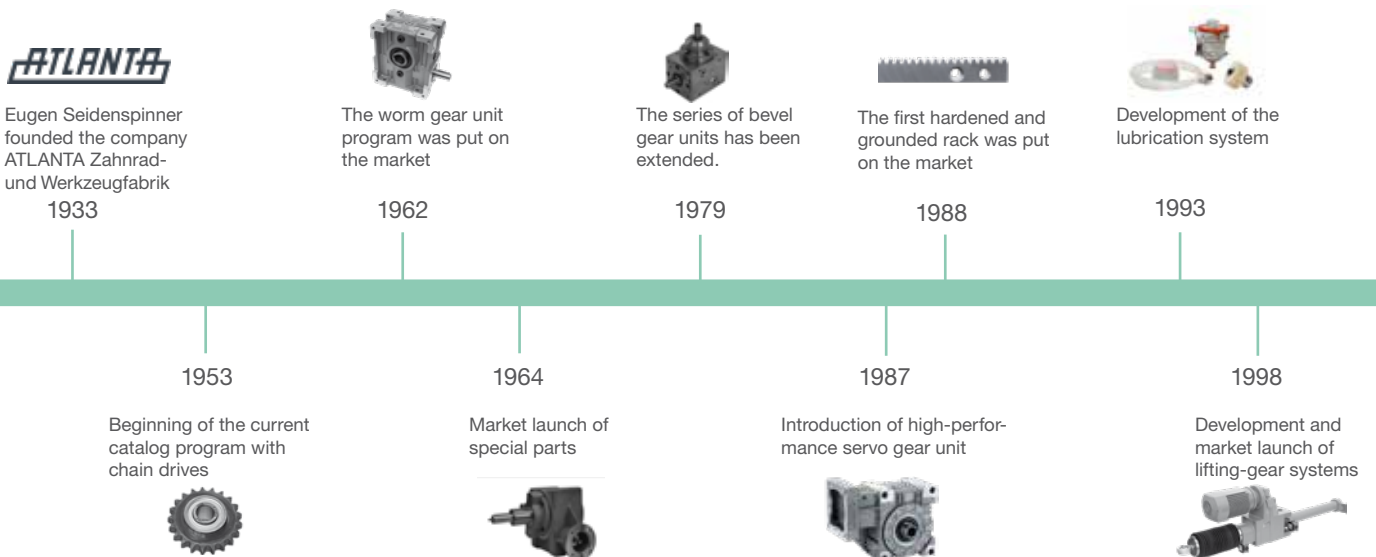


Progress and Expertise from Bietigheim-Bissingen

As a medium-sized family company which specializes in the development, construction and production of high quality drive systems, we have proved ourselves for over 80 years developing excellent solutions in the field of drive technology. New production technologies require more complex drive systems and their components must meet strict requirements in quality and performance. ATLANTA has repeatedly adopted and implemented these requirements in new and innovative products over the recent years.

We are a dependable worldwide partner and manufacturer for many different industries, including machine tool, woodworking, material handling, robotic, food packaging, special machinery and many others trust the products „Made by ATLANTA“.

Over 80 years experience in the field of Driving Elements





Drive technology at the highest level

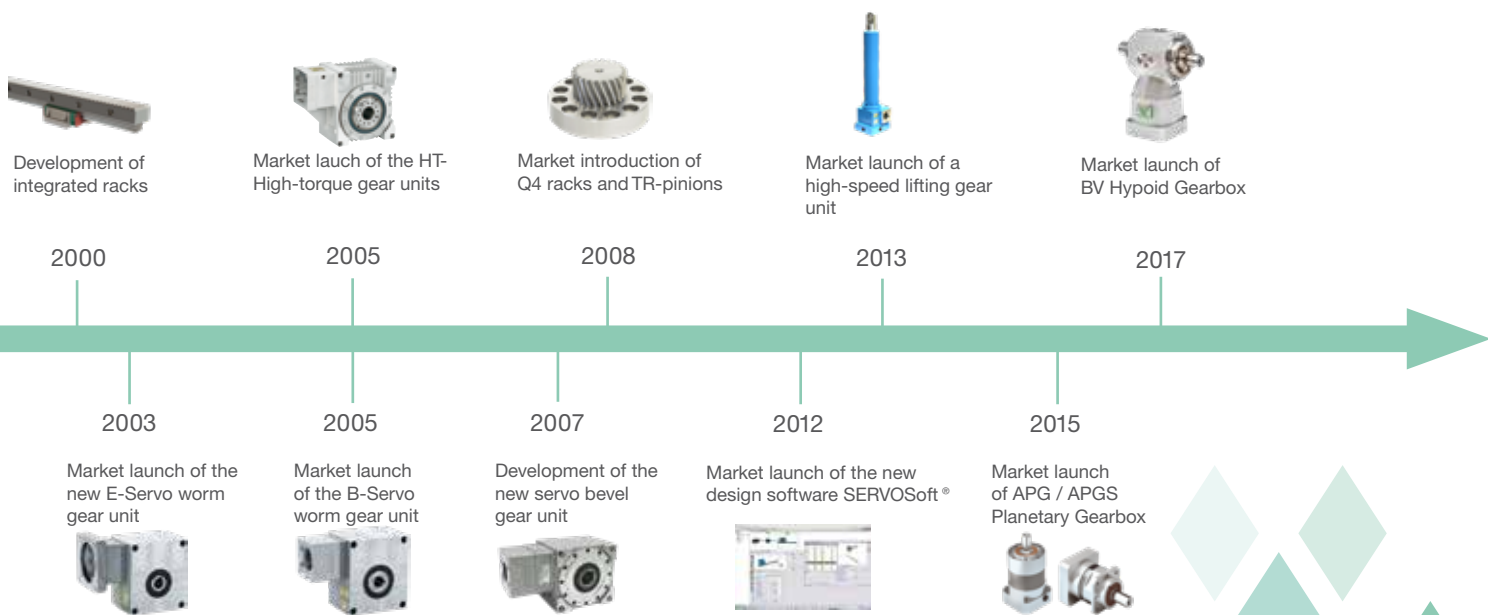
We are an established manufacturer of drive technology and produce in our three plants in Bietigheim-Bissingen (Germany) high quality products like low-backlash gearboxes, racks and gears. Constant development guarantees to us to be ready for complex challenges in drive technology. Next to our extensive catalog range, we have customized solutions for servo gearheads, linear actuators and racks as well.

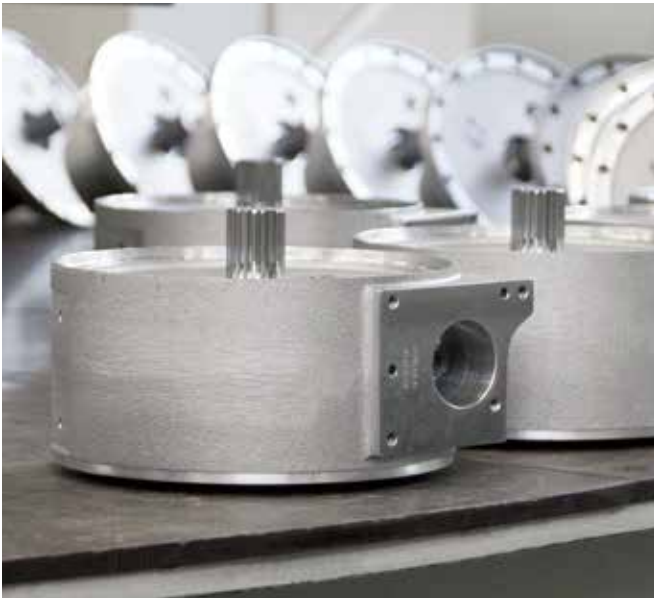
Consistent quality and innovation

The consistently high quality of all ATLANTA products has always been and is always the driving force of our work. Certification to ISO 9001: 2008 is the basis for the high standard of ATLANTA quality assurance both in the standard range as well as customized solutions.

Working together as true partners

We always work on a par with our customers: An intensive cooperation in all project phases creates the basis for our efficiency and success. Our national and international customers alike appreciate the sound and professional advice of our specialists. In addition, we offer fast and reliable support for technical questions and issues.





- 1 With over 600 different versions of high-quality racks, we are one of the largest suppliers worldwide.
- 2 A modern high-bay warehouse with more than 7000 articles ensures quick delivery to meet our customers' required transmission components.
- 3 Together with our customers we develop individual solutions in drive technology.
- 4 The longevity and reliability of our products is subjected to a continuous improvement process, so that you can trust on „Made by ATLANTA“.

ATLANTA Product World
Innovative solutions from standard to custom



APG / APGS Planetary Gearbox

Our new planetary gearbox series **APG** (ATLANTA Planetary Gearbox) and **APGS** (ATLANTA Planetary Gearbox Strong) are the in-line addition to our series of right-angle servo gearboxes.

ATLANTA planetary gearboxes are distinguished by their high power density and smooth operation. In addition, the series APGS offers increased high radial and axial force capacities. With a wide range of motor flanges available, an easy connection from the planetary gearbox to the servo motor is guaranteed. With these new series, ATLANTA has extended its range of gearboxes for servo applications to meet the demands of the market.



APG Planetary Gearbox

- 4 sizes: APG 040, 060, 080 and 120
- Ratios: 1- and 2-stage $i=5:1$ to 70:1
- Output torque: 5 to 210 Nm
- Motor connection: flange and clamp connection

Features of the APG series:

- High efficiency
- High power density in a small space
- High torsional stiffness
- High overload capacity
- High dynamics



APGS Planetary Gearbox

- 3 sizes: APGS 060, 080 and 120
- Ratios: 1- and 2-stage $i=5:1$ to 70:1
- Output torque: 16 to 210 Nm
- Motor connection: flange and clamp connection

Features of the APGS series:

- High additional loads
- High efficiency
- High power density in a small space
- High torsional stiffness
- High overload capacity
- High dynamics

BV Hypoid Gearbox

With the completely new developed series **BV** Hypoid Gearbox (BV = Bevel Gear Various) we extend the known ATLANTA servo right-angle gearbox family. Based on the extreme variability in the choice of the output and installation options of the BV gearbox, more than 1000 different designs can be assembled. The ATLANTA Servo Gearbox Family, completed by the new BV hypoid gearbox, provides the designer with an unmatched gearbox design diversity, with almost all conceivable applications can be implemented optimally.

„Over 1000 different combinations with ONE gearbox“



BV Hypoid Gearbox

- Size: BV70
- Ratios: 2,75; 4,75; 6,75; 9,25 and 14,5
- Output torque: 11 to 40 Nm
- Backlash < 4arcmin
- Max. speed 6000 U/min
- Motor connection: flange

Features of the BV Hypoid Gearbox

- Compact design
- Largest hollow shaft diameter on the market
- 5 different output possibilities on each side, in any combination
- Symmetrical design → flexible hypoid offset
- Available in design with food grade oil



YouTube Video
BV Hypoid Gearbox

Further information in the brochure:
„BV Hypoid Gearbox“

ATLANTA Servo Drive Systems

Individual solutions from the modular system

The world's most extensive range of precision racks together with the complete family of servo gear units, provides an unmatched range of combinations. With the modular system it is possible to achieve the best solution to almost all possible applications.



HT - High Torque
Servo Worm Gear Unit

Highest torque
< 1 arcmin



HP - High Performance
Servo Worm Gear Unit

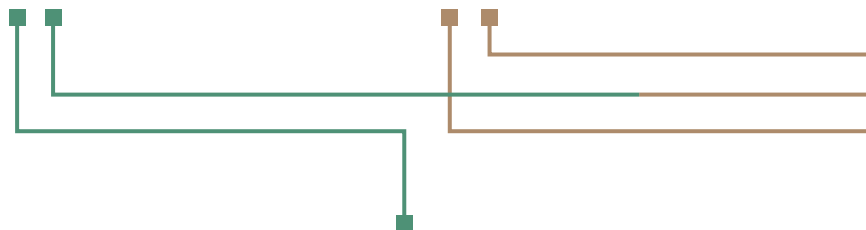
Very high torque
< 2 arcmin



Interface EN ISO 9409-1-A
Clamp Connection



Clamp Connection
Key Connection



UHPR
Ultra High Precision Rack
Quality 3 and Quality 5

Possible fields of application:

- High precision machine tools with electrical preload
- Machine tools
 - Lifting axes
 - Multiple pinion contact
 - Laser cutting machines



Photo: Vansichen Lineairtechniek Belgium



E - Economy
Servo Worm Gear Unit

Very high torque
< 5 arcmin



BG - Bevel Gear
Servo Unit

Highest torque
< 6 arcmin



B - Basic
Servo Worm Gear Unit

High torque
< 12 arcmin



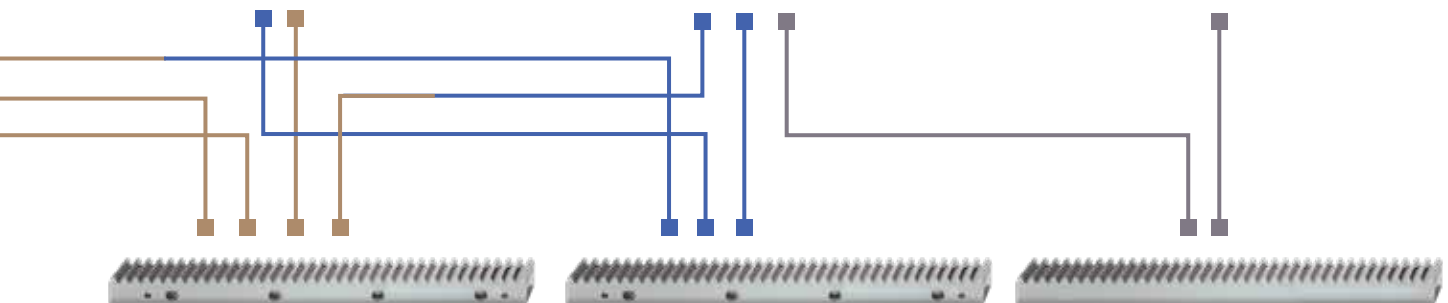
Clamp Connection
Key Connection



Clamp Connection
Key Connection



Clamp Connection
Key Connection



HPR
High Precision Rack
Quality 6 and Quality 7

PR
Precision Rack
Quality 8

BR
Basic Rack
Quality 9 and 10

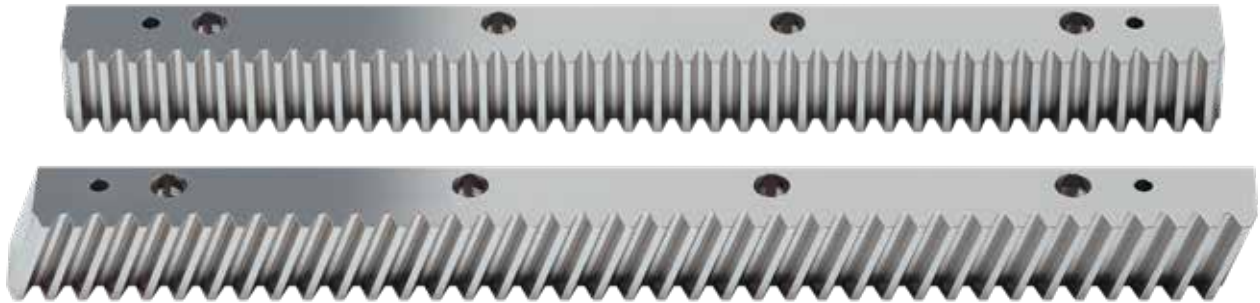
- Wood, plastic, composite, aluminium working machines
- Machine tools
Integrated racks
Water cutting machines
Tube bending systems
Plasma cutting machines
- Woodworking machines
Linear axis with high requirement for a smooth running

- Portals, handling
Lifting axis
- Linear axis

- Linear axis with low load
Feed units for adjustment
- Lifting axis
Handling
Welding robots

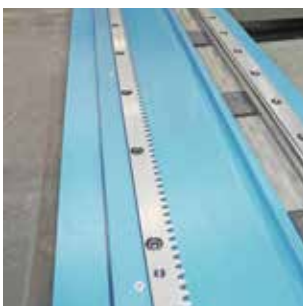
ATLANTA Racks

The widest program of high-quality racks worldwide



UHPR Ultra High Precision Rack

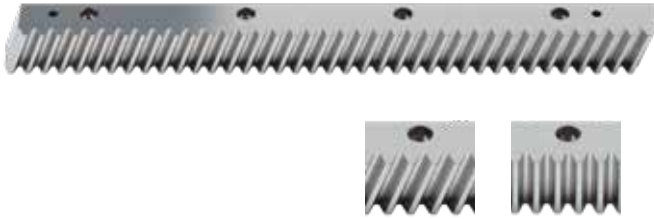
- **Q3 - Quality class 3**
Module 5 - 12 straight and helical toothed,
hardened teeth, ground on all surfaces,
length up to 1000mm
- **Q5 - Quality class 5**
StrongLine
Module 3 - 6 straight and helical toothed,
case hardened and ground teeth
length up to 1000mm



Our racks are processed for continuously mounting. For a precise assembly of our racks we offer the ATLANTA patented measuring and assembly kit.

HPR High Precision Rack

- **Q6 - Quality class 6**
Module 1,5 - 12 straight and helical toothed,
hardened teeth, ground on all surfaces,
length up to 2000mm
- **Integrated Racks**
Module 2 - 4 helical toothed,
pitch 5,10 and 13,33mm straight toothed,
for 90° and 180° assembly with rail
- **Q7 - Quality class 7**
Module 2 - 8 straight toothed
module 2 - 10 helical toothed
hardened and ground teeth,
length up to 2000mm
- **Round Racks**
Module 1 - 4 straight toothed,
quenched and tempered
length up to 2000mm



PR Precision Rack

■ Q8 - Quality class 8

Module 2 - 5 straight and helical toothed, hardened and ground teeth, length up to 2000mm

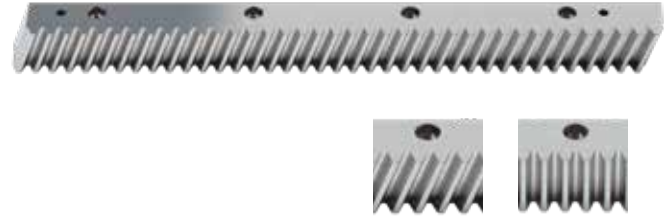
Module 2 - 4 straight and helical toothed, quenched and tempered milled teeth, length up to 2000mm

Stainless Racks

Module 1 - 3 straight toothed, milled teeth, length up to 2000mm

Stainless Round Racks

Module 1 - 3 straight toothed, milled teeth, length up to 1000mm



BR Basic Rack

■ Q9 - Quality class 9

Module 1,5 - 10 helical toothed, soft teeth, length up to 2000mm

Module 1 - 10 straight toothed soft teeth, length up to 3000mm

Pitch 5 and 10mm straight toothed, soft teeth, length up to 2000mm

Round Racks

Module 1 - 5 straight toothed, milled teeth, length up to 1000mm

Integrated Racks

Module 2 - 4 helical toothed, pitch 5, 10 and 13,33mm straight toothed, for 90° and 180° assembly with rail

■ Q10 - Quality class 10

Module 1,5 - 12 helical toothed,

Module 1 - 10 straight toothed hardened teeth, length up to 2000mm

Module 1 - 10 straight toothed, hardened teeth, length up to 2000mm

Pinion and Pinion Shaft

■ Series 24: Module 1,5 - 10 straight and helical toothed case hardened and ground teeth

■ Series 24: Module 2 - 8 straight and helical toothed hardened teeth, for rework

■ Series 21 Module 1,5 - 12 straight and helical toothed, milled teeth

■ Series 79: with spline profile according DIN 5480 module 1,5 - 4, helical toothed, case hardened and ground teeth

■ Series 78 TR-Torque Reducing: Module 2 - 8 straight and helical toothed, case hardened and ground teeth, for interface analog EN ISO 9409-1-A

Deutsches Patent Nr. 10 2008 024 070.2

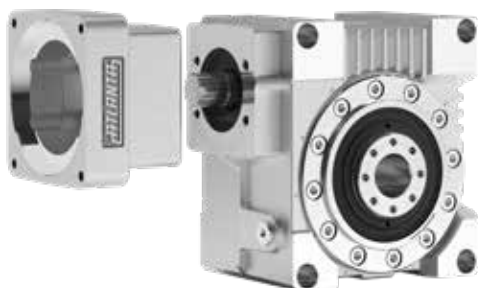
■ Series 20 pinion shaft: Module 2 - 6 straight and helical toothed, case hardened and ground teeth for hollow shaft with key and shrink-disc connection

■ Series 74: Pre-load pinion shaft for zero backlash at the rack-pinion drive, module 2 - 8 helical toothed, case hardened and ground teeth



ATLANTA Servo Angle Gear Units

One idea. Five variations. All possibilities.



HT - High Torque Servo Worm Gear Units

- Backlash < 1 arcmin, adjustable
- 4 sizes: centre distance 50, 63, 80 and 100 mm
- 8 ratios: 4.75; 6.75; 9.25; 14.5; 19.5; 29; 39; 50 and 52:1
- Output torque: from 90 to 1700 Nm
- Output hollow shaft for clamp connection or with interface according EN ISO 9409-1-A, generously dimensioned and supported for high additional forces
- Highest rigidity
- Highest precision
- ATEX design available

HP - High Performance Servo Worm Gear Units

- Backlash < 2 arcmin, adjustable
- 5 sizes: centre distance 50, 63, 80, 100 and 125 mm
- 8 ratios: 4.75; 6.75; 9.25; 14.5; 19.5; 29; 39; 50 and 52:1
- Output torque: from 60 to 2200 Nm
- Output hollow shaft with key or for clamp connection, generously dimensioned and supported for additional forces
- Very high rigidity
- Very high precision
- ATEX design available



E-Economy Servo Worm Gear Units

- Backlash < 5 arcmin
- 5 sizes: centre distance 32, 50, 63, 80 and 100 mm
- 8 ratios: 4.75; 6.75; 9.25; 14.5; 19.5; 29; 39; 50 and 52:1
- Output torque: from 11 to 1100 Nm
- Output hollow shaft with key or for clamp connection, generously dimensioned and supported for additional forces
- High rigidity
- High precision
- ATEX design available



B-Basic Servo Worm Gear Units

- Backlash < 12 arcmin
- 2 sizes: centre distance 50 and 63mm
- 8 ratios: 4.75; 6.75; 9.25; 14.5; 19.5; 29; 39 and 52:1
- Output torque: from 38 to 198 Nm
- Output hollow shaft with key or for clamp connection, sufficiently dimensioned and supported for additional forces
- Normal rigidity
- Medium precision



BG - Bevel Gear Servo Bevel Gear Units

- Backlash < 6 arcmin
- 3 sizes: centre distance 50, 63 and 80 mm
- 3 ratios: 4.75; 6.75 and 9.25:1
- Output torque: from 50 to 500 Nm
- Output hollow shaft with key or for clamp connection, generously dimensioned and supported for additional forces
- Very high rigidity
- High precision
- ATEX design available



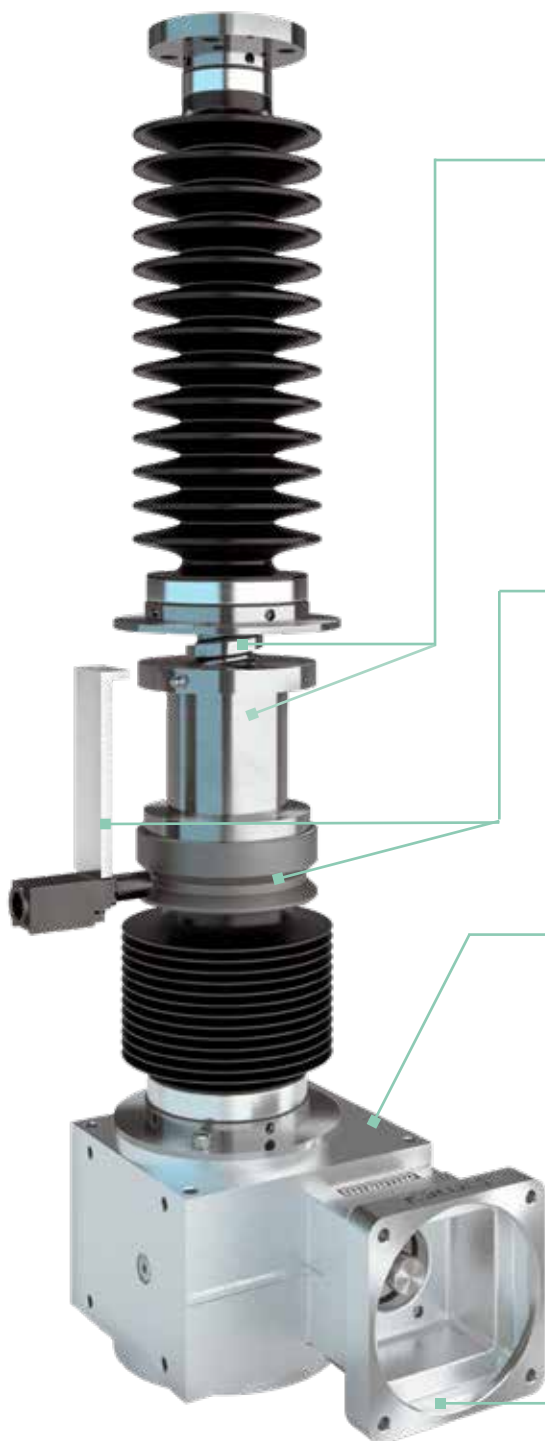
The ATLANTA family of servo gear units represents the widest range of servo-angle gear boxes with hollow shaft, which is currently available in the market. This provides the designer the ability to find the optimal solution for almost all requirements.



ATLANTA Linear Actuators

Maximum power for any situation

In addition to high-precision racks and low backlash servo worm gear units, ATLANTA product portfolio also includes linear actuators. Linear actuators as linear motion transmissions are used in all applications where infinitely variable and accurately controllable lifting, lowering, feeding, tilting, swivelling movements must be performed with the highest precision. It does not matter whether these are horizontal, vertical, pushing or pulling. With the HS-series ATLANTA provides a high performance screw jack gear unit which makes it possible to drive high feed rates even with heavy loads. In combination of power and speed make these over hydraulic lift drives high dynamics and a very accurate positioning within the applications.



Heavy duty ball screw drive with high load capacities, combine long life with highest precision

Safety grip nut with shutdown for safety-related systems

Our proven Servo Worm Gear Units with special bearings to absorb the spindle axial forces. Hardened and ground worm shaft. Worm wheel made of special heavy-duty bronze for long life under the highest loads. Compact design with <math><12</math> arcmin backlash.

Modular motor flange for three-phase AC and all common servomotors



Foto: KDM GmbH

- 1 Before shipment, all our products undergo a series of different tests. Only after all tests are passed, they are shipped to our customers.
- 2 Our lifting cylinders are painted as standard in RAL 5012. It can be seen from distance where ATLANTA linear actuators are installed and thus the highest level of precision and reliability is known.
- 3 ATLANTA show size! With a total length of 2551mm and 255kg total weight we have built for the company KDM GmbH one of our largest high performance screw jack gearboxes in lifting cylinder version.
- 4 The loading platform of a trailer is moved with four TS100 standard screw jack gearboxes.

ATLANTA Linear Actuators

Maximum power for any situation

Travelling speed up to 550 mm/s

Input speed up to 5000 rpm

Duty cycle up to 100%

Highest lifetime



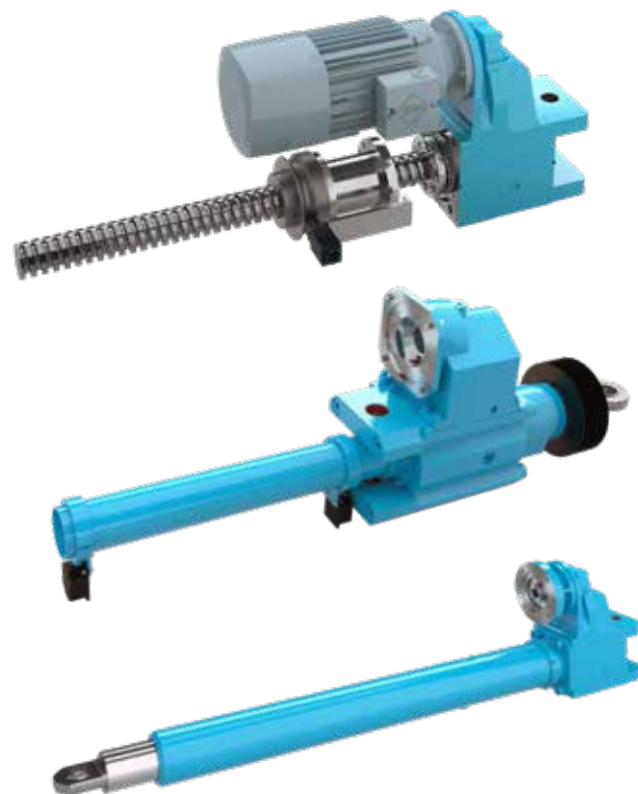
HS - High Performance Screw Jack Gearbox

- 4 sizes: HS10, HS25, HS50 and HS100
- Load capacity: 5 to 100 kN
- Design version with ball screw spindle drive, with increased load rating: rotating spindle, non-rotating spindle, lifting cylinder
- Travelling speed: up to 550 mm/s
- Duty cycle: up to 100%
- Operating with three-phase AC and servomotor



EH - High Thrust Linear Actuator

- 2 sizes: EH 4 and EH 8
- Load capacity: 30 to 160 kN
- Design version with trapezoidal spindle drive (with self braking): rotating and non-rotating spindle
- Design version with ball screw spindle drive, increased load rating: rotating spindle and lifting cylinder
- Travelling speed:
Trapezoidal spindle drive up to 42 mm/s
Ball screw spindle drive up to 230 mm/s
- Duty cycle:
Trapezoidal spindle drive up to 20%
Ball screw spindle drive up to 100%
- Operating with three-phase AC and servomotor



TS - Standard Screw Jack Gearbox

- 6 sizes: TS2, TS5, TS10, TS25, TS50 and TS100
- Load capacity: 2 to 100 kN
- Design version with trapezoidal spindle drive: rotating and non-rotating spindle
- Travelling speed: up to 25 mm/s
- Duty cycle: up to 30%
- Operating with three-phase AC motor



ATLANTA Driving Elements

Boundless precision



Lubrication System

- Lubricator, ready for mounting with accessories
- 2 sizes: 125 cm³ and 475 cm³
- Design version with and without special grease
- Lubricants: Klüber Microlube GB0 and Structovis AHD
- Operating: battery or external power supply
- Individually desired dosage, adjustable by micro-switch
- Optional with electrical detection of end position
- Extensive accessories for refilling
- Felt gear and mounting shaft module 1 to 12
- Helical and straight tooth system



Assembly Units for Racks

Assembly Kit for Integrated Racks

Deutsches Patent Nr. 10 2008 053 445.5

- For 90° and 180° version
- Available on request

Assembly Kit for Racks

Deutsches Patent Nr. 10 2006 008 461.6-52

- For racks module 2 to 12, straight and helical tooth system
- The assembly kit includes:
 - 1x Adjusting device
 - 3x Gauging roller with magnet
 - 1x Measuring bridge with dial gauge



Standard Gear Units

Standard Worm Gear Units

- 6 sizes: centre distance 40, 50, 63, 80, 100 and 125 mm
- 10 ratios: 6.75; 9; 12; 14; 19; 29; 39; 50; 52; 62 and 82:1
- Output torque: from 19 to 1300 Nm
- ATEX design available

Worm Gear Motors

- Load capacity: 0,12 to 11 kW
- 2, 4, 6 and 8-pole three-phase AC motor with and without brake

Standard Bevel Gear Units

- Heavy-duty and light version
- 5 ratios: 1; 1,5; 2; 3 and 5:1
- Output torque: from 2.3 to 400 Nm



Driving Elements

Over 7000 different articles directly available:

- Cylindrical worm gear drives
- Straight bevel gears
- Precision spindle drives
- Synchronous timing-belt drives
- Chain drives and accessories
- Slip hubs
- Connecting elements
- Stainless driving elements

Sales branch offices

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USA - Farmingdale, NJ 07727
www.atlantadrives.com

France

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www.acepillar.com.cn

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