

ALLER I

## Drive Technology Jack-up

gearbox

The ZOLLERN-Group With first-class products and customized solutions in the sectors drive technology, investment casting, sand casting and forging as well as steel profiles we are one of the leading manufacturers – worldwide.

As one of the oldest family-run businesses in Germany we are proud to look back on an impressive 300-year history during which we have merged tradition with innovation. Our main focus is on excellent quality and service.

Welcome to the world of ZOLLERN, where experience and progress go hand in hand to offer our customers the best solutions and products for their requirements in various industrial sectors.

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## ZOLLERN jack-up gearbox



The basis for the ZOLLERN jack-up gearbox is the modular ZOLLERN planetary gearbox, which is characterised by a high degree of efficiency and a large power density.

Our modular principle offers a great deal of flexibility in ratios, allowing for economic solutions.

ZOLLERN jack-up gearboxes are designed for use in jack-up platforms (service jack up rigs), jack-up ships (lift boats) and off-shore wind installation vessels (wind mill installation vessels).

They meet the requirements of common classification societies, such as ABS, DNV and others.

## **Technical designs**

#### Diverse possibilities for designs

#### 1. Drive

- Coaxial drive
- Spur gear drive in U-arrangement

#### 2. Motor

- Hydraulic motor drive
- Electric motor drive

#### 3. Parking brake in fail-safe design

- Hydraulically actuated, spring-loaded, multiple-disc brake
- Electromagnetic brake

## **Technical data**

// Installation sizes and drive torques		// Gear ratio	
Gearbox	Drive torque kNm		
Type ZHP 5.36	550		From 200 to 4,500
Type ZHP 5.38	950		
Type ZHP 5.40	1400		

Additional installation sizes and gear ratios are available by request

## Optional additional equipment

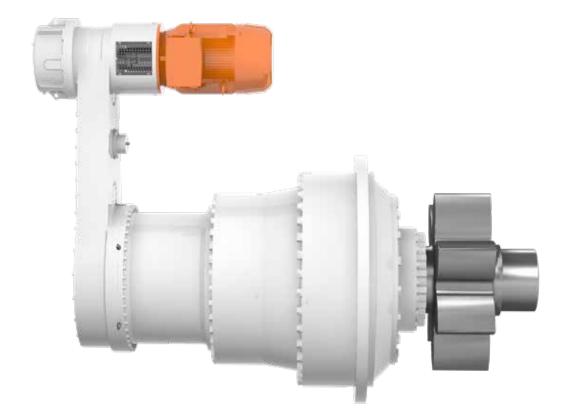
Torque measurement at the drive

- Operating data and wear monitoring by the ZOLLERN Drive Guard
- Custom-designed output pinion

Co-axial drive



#### Spur gear input drive









ZOLLERN offers comprehensive service from the first product idea to the after sales service. **«** 

## Service and Condition Monitoring

#### **Customer Service**

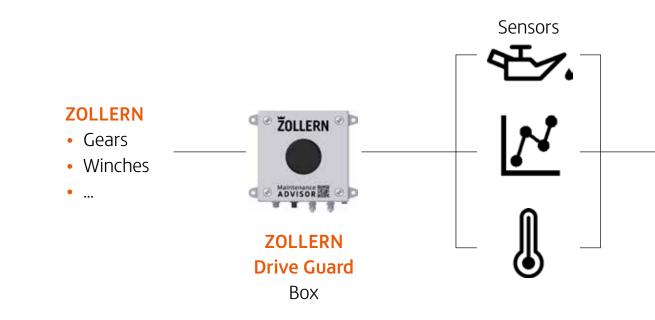
ZOLLERN offers comprehensive service from the first product idea to the after sales service.

- Development partnership
- Technical and application-specific consultation
- Individual order processing, including scheduling agreements
- Comprehensive test run and test equipment (including load test)
- Intensive cooperation with classification societies

#### After Sales Service

Maintenance and repairs are performed in the ZOLLERN Service Centre. The global service deployments and spare parts deliveries are coordinated from here.

- Commissioning on site
- Quick spare parts deliveries with original spare parts
- Technical findings with repair report
- Error analyses, repairs and assembly work worldwide
- Retrofitting, revision and repair
- Maintenance service
- ZOLLERN training centre
- Diagnostics and condition monitoring
- Service hotline



#### Condition Monitoring ZOLLERN Drive Guard

The ZOLLERN Drive Guard offers the possibility of monitoring the condition and running performance of entire systems as well as individual components from any location around the world by continuously recording specific operating data.

Minimising downtimes, optimally utilising wear components and a predictive planning of maintenance intervals make it possible to achieve a more efficient use of new and existing systems. The ZOLLERN Drive Guard can be used for new and existing systems.

- Condition monitoring
- Service interval planning Predictive Maintenance
- Gearbox diagnostics, motor diagnostics
- Calculation of remaining service life



## **ZOLLERN** Group Product areas

## Metals and shaping

### // Investment casting parts



- Turbine components Vanes / Blades/ Shrouds /
- Heat Shields
- Structural Castings Gas Turbines / Aero /
  - Engines Defense / Medical / Industrial Components
- Automotive Turbine Wheels / Waste gates / Vanes /
- Pins / Planet carriers Implants
- Knees (Femur, Tibia) / Hipps Alloys
  - Super alloys / Cobalt Chrome alloys

### // Sand casting parts



- Sand casting
- Croningguss / Maskenguss
- Ceramic casting
- Continuous casting
- Centrifugal casting

### // Special profiles and finished parts



- Special profiles, coils, bars
- Customer-specific finished parts
- Profile types hot-rolled, cold-rolled, cold-drawn, induction-hardened

### // Forgings





- Forgings made of pure copper and copper alloys
- Semi-finished products, open die forged,
- flat bars, round bar
- Drop forged parts • Rings, seamlessly rolled
- Bushings,
- seamlessly forged • Individual pieces,
  - small series, large series

## Drive technology and automation

#### // Gearboxes



- Travel drives
- Slewing gearboxes
- Winch gearboxes
- Industrial gear units
- Gearboxes for
- tunnel boring machines
- Sugar mill gearboxes
- Electric drive systems
- Condition Monitoring and
  Predictive Maintenance

#### // Winches



- Hoisting winches
- Free fall winches
- Pull winches
- Rescue boat winches
- Winch systems
- Winch gearboxes

### // Electric motors



- Torque motors kits
- Synchronous motor kits
- Synchronous motor
- modules

### // Automation, special systems





- Linear units, linear modules, gantry axes, portal units
- Telescoping axes
  - Rotary modules, rotary tables
- Line gantries, area gantries
- Robot traverse axes, jig axes
- Storey lifter and lifting columns
- Fast conveyor
- Framing tenter handling / overhead systems
- Storage systems
  - Complete systems with steel construction and control
- Special solutions
- Gripper

#### // Rotary tables systems



// Hydrostatic systems

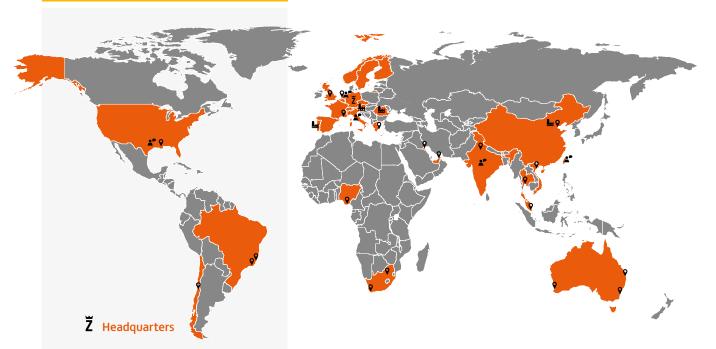


- Hydrostatic spindle units
- Hydrostatic rotary tables
- Aerostatic rotary tables
- Hydrostatic linear guidesHydrostatic center drive
- spindles • Hydrostatic bearing
- components
- Hydrostatic special applications and test benches



- Roller bearing
  rotary tables
- Hydrostatic rotary tables
- Automatic pallet changing systems and linear axes
- Swiveling tables
- After sales service for products of ZOLLERN, Rückle and Eimeldingen

# ŽOLLERN



### **Subsidiaries**

Italy and southern Europe Netherlands and Northern Europe USA India and Southeast Asia Taiwan, China

#### **Factories**

Germany Portugal Romania Slovenia China

### **9** Service partner

Australia Brazil Chile Greece Great Britain Kuwait Singapore South Africa Thailand Dubai USA Vietnam





#### ZOLLERN GmbH & Co. KG

Heustrasse 1 88518 Herbertingen Germany T +49 7586 959-0 F +49 7586 959-575 zgw@zollern.com www.zollern.com



