

ZOLLERN

Solid metals. Fine solutions.

Drive Technology

Travel drives



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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Travel drives



ZOLLERN Wheel and Track Drives

prove themselves with their high performance under use in hard and unfavourable conditions. Their most remarkable features and special characteristics are

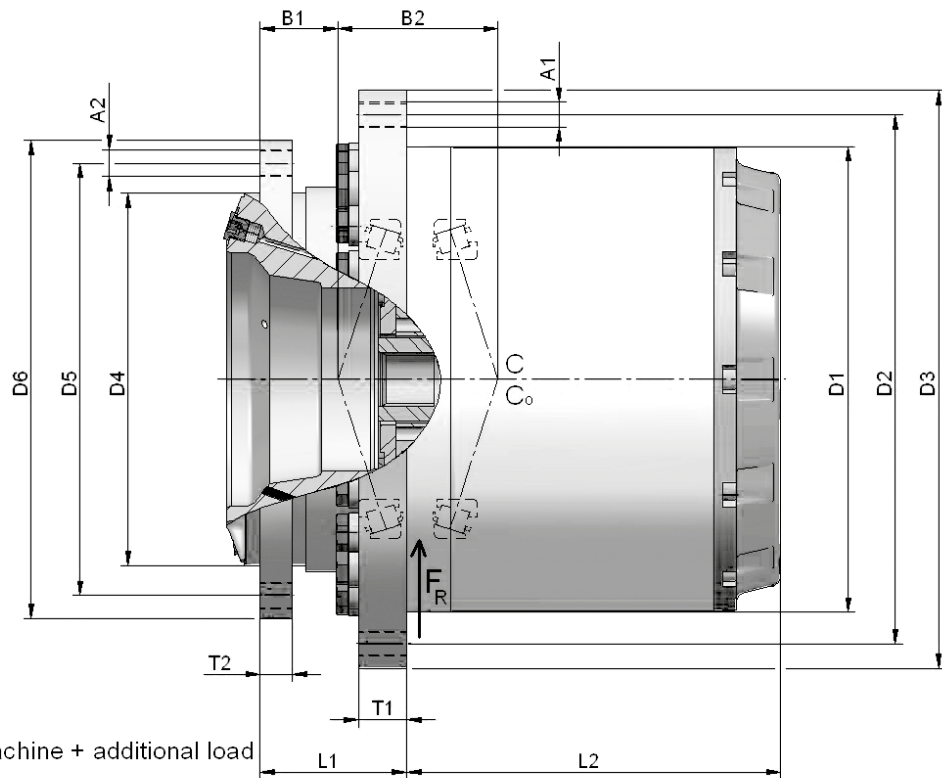
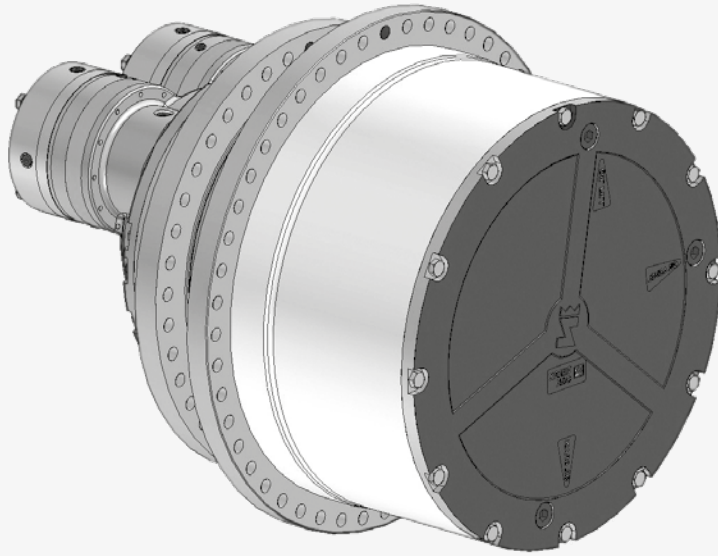
- compact construction
- high efficiency
- long operation life
- ease of maintenance

With these characteristics the machine designer will get a ready to install unit and will achieve economic solutions even in confined space conditions.

Applications

- Wheel drives for rubber-tyred vehicles
- Sprocket drives for diggers, cranes and chain-driven special equipment
- Drivetrains for railway vehicles
- Cutting wheel and rolling mill drives

Compact-Series



Gear size	Output torque Nm *1	Ratio *2	Dimensions										Capacity of bearings				Motor(s) *3 cm ³	Weight without motor kg		
			D1 mm	D2 mm	D3 mm	D4 mm	D5 mm	D6 mm	L1 mm	L2 mm	A1 mm	A2 mm	B1 mm	B2 mm	C kN	Co kN			T1	T2
ZHP 2.220	30.000	50,5	325	381	420	410	380	420	163	230	12 x M22 x 1,5	20 x D18	106	115	380	800	28	35	1 x 107	185
		60,8																		
ZHP 2.240	63.000	87,4	350	400	435	280	325	360	110	282	20 x M20 x 1,5	24 x M20 x 1,5	58	121	251	450	36	24	1 x 80	200
		144,6																		
		87,4																	1 x 107	
ZHP 2.260	100.000	102,7	400	450	490	380	425	460	165	330	24 x M24 x 2	30 x M24 x 2	35	130	300	570	37	22	1 x 125	250
		144,6																		
		72,1																	1 x 107	
ZHP 2.270	140.000	110,7	450	500	540	325	380	430	215	365	24 x D26	12 x M30	78	143	755	1.339	57	45	1 x 160	500
		159,0																		
ZHP 2.290	230.000	102,7	535	595	650	460	600	650	166,5	440	38 x M24 x 2	38 x M24 x 2	15	190	765	1.660	60	40	1 x 160 1 x 250	750
ZHP 2.310	350.000	490,3	650	700	750	450	515	569	255	540	30 x M30 x 2	30 x M30 x 2	10	215	1.040	2.450	60	40	1 x 250	1.100
		252,0																	1 x 355	
ZHP 2.320	520.000	223,0	730	795	860	710	780	850	255	610	36 x M30 x 2	36 x M30 x 2	60	215	1.040	2.450	50	50	2 x 160	1.500
ZHP 2.340	880.000	320,7	885	965	1.020	730	810	880	245	710	48 x M30 x 2	41 x M30 x 2	32	262	1.450	3.450	50	52,5	2 x 160	2.600
ZHP 2.350	975.000	283,1	920	976	1.055	830	980	1.050	229	800	48 x M30 x 2	48 x M30 x 2	160	250	2.485	5.900	58	60	2 x 250	4.000
ZHP 2.360	1.400.000	401,5	1.040	1.170	1.226	1.110	1.230	1.310	503	940	52 x M30	48 x M36	175	370	3.900	7.650	270	74	2 x 250	7.300
ZHP 2.380	2.300.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

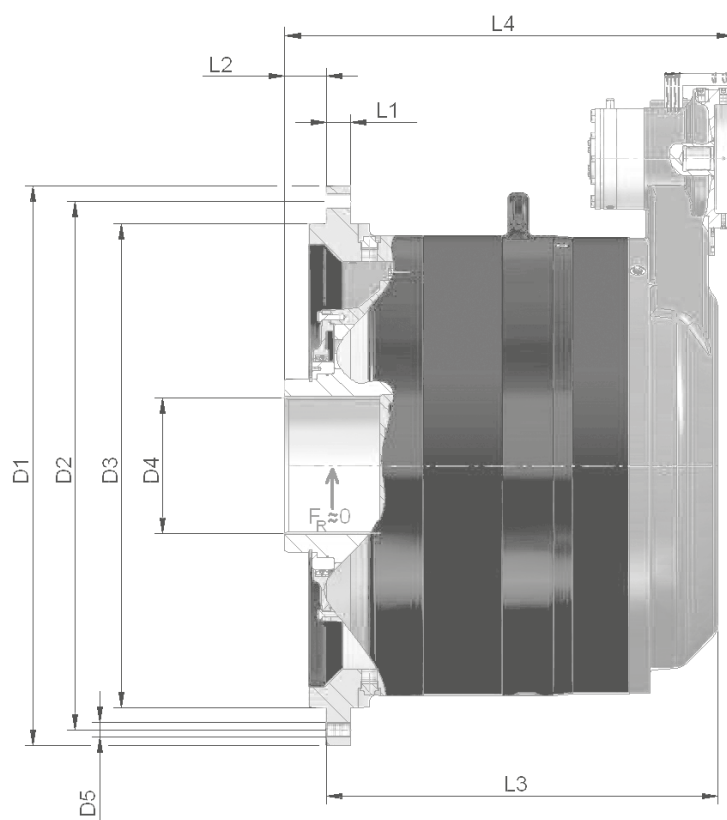
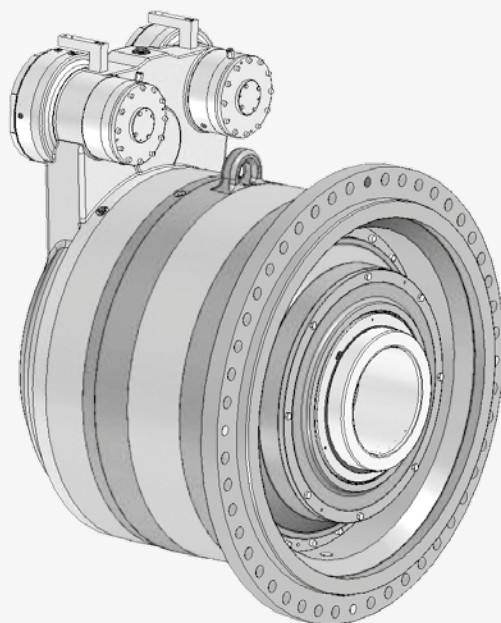
*1 = peak output torque

*2 = other ratios on request

*3 = other motor displacements possible

Data may vary due to development and improvements in design.

Hollow splined output



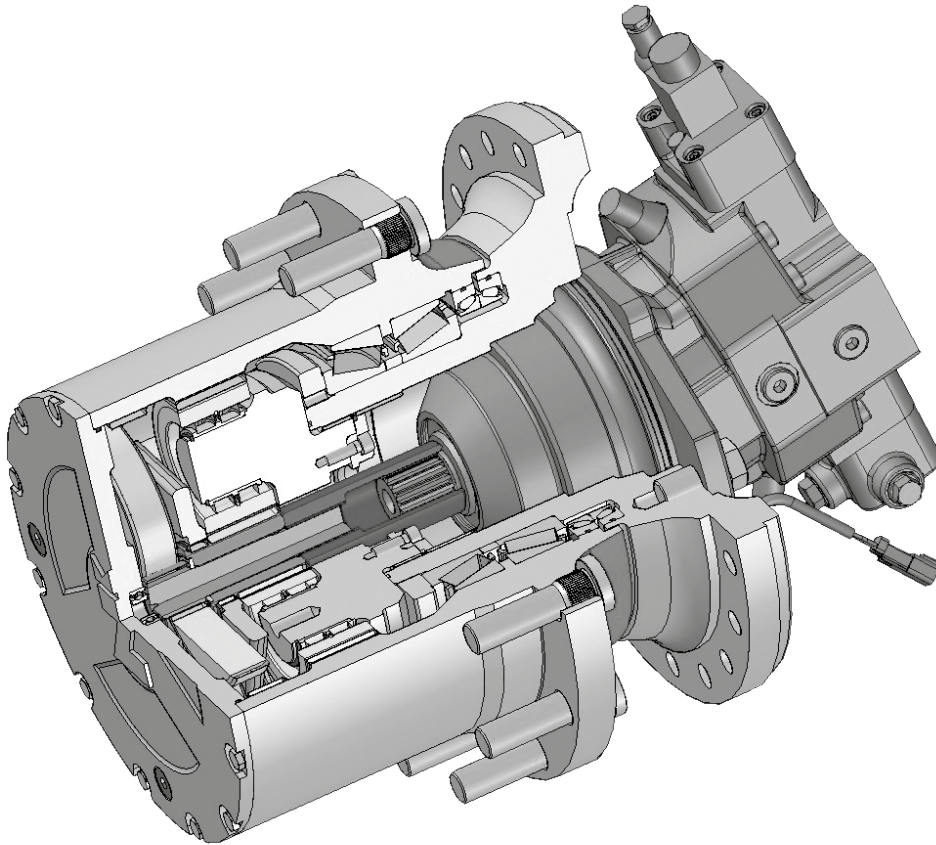
Gear size	Output torque Nm *1 *2	Ratio	Dimensions										Motor(s) cm ³	Weight without motor kg
			D1 mm	D2 mm	D3 mm	D4 (DIN 5480) mm	D5 mm	L1 mm	L2 mm	L3 mm	L4 mm			
ZHP 5.31	165.000	130	740	680	630	N180	24 x D26	50	135	800	935	1 x 250	800	
ZHP 5.32	230.000	108	820	750	680	N220	24 x D33	55	170	870	1.040	1 x 355	1.050	
ZHP 5.34	390.000	156	1.000	920	840	N280	24 x D33	65	230	950	1.180	1 x 500	2.200	
ZHP 5.36	800.000	350	1.220	1.130	1.020	N320	36 x D39	50	270	860	1.180	1 x 500	3.400	
ZHP 5.38	1.250.000	367	1.220	1.140	1.070	N380	40 x D39	315	263	750	1.325	2 x 355	5.350	
ZHP 5.40	1.800.000	369	1.620	1.530	1.400	N400	44 x D45	70	120	1.105	1.295	2 x 500	7.500	

*1 = bearing life time Lh > 5.000 h at nab = 5,0 min⁻¹

*2 = peak output torque

Data may vary due to development and improvements in design.

Features and Design



Compact Gearbox Range

11 Model sizes with maximum output torque from 30 to 2,300 kNm

Shaft-Mounted Gearbox Range

6 Model sizes with maximum output torque from 165 to 1,800 kNm

Input Options

Hydraulic motors, either fixed or adjustable, are the most usual option and are flange mounted. Electric motor input solutions are also available on request.

Multi Disc Brakes

A spring applied multi disc type brake is built in as standard with the hydraulic motor input. The braking torque brake is adjusted to correspond to the motor drive torque.

Sealing the Compact Gearbox

The seal on the Compact Gearbox range between fixed and rotating gearbox parts is of the sliding face seal design. With this the gearbox is reliably protected against any ingress of moisture or dirt.

Sealing the Shaft-Mounted Gearbox

The seal here is a radial shaft seal design with protective labyrinth seal. The gearbox is here also reliably protected from external contamination.

Travel drives application questionnaire

Company/Address		Date
Proper department	Person concerned	Number of inquiry
Phone	Fax	E-mail
Demand	Application	Used for

Operation conditions - Design criteria

// Scope of supply

Motor Parking brake

// Execution

Hollow splined Output

Flange drive output

Output torque M_{dyn} _____ (Nm)

Output speed N_{ab} _____ (min⁻¹)

Ambient temperature _____ (°C)

// Alternative rating

Laod conditions	T_{dyn} (Nm)	n_{ab} (rpm)	Time slice (%)
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
			100 %
Calculated life time			_____ (hour)

// Technical Data

Radial load ¹⁾ _____ (N)

Axial load ¹⁾ _____ (N)

ratio i _____

brake torque parking brake T_{br} _____ (Nm)

1) only applicable for flange drive version

// Hydraulic input drive

Manufacturer / Type _____

Available oil flow Q _____ (l/min)

max. pressure P _____ (bar)

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

// 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

// Special profiles and finished parts



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

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



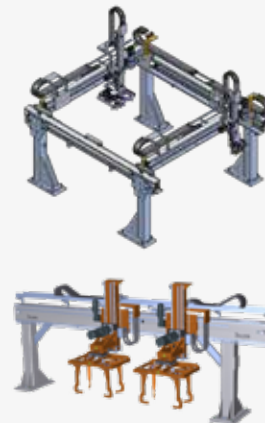
- Hoisting winches
- Free fall winches
- Pull winches
- Rescue boat winches
- Winch systems
- Winch gearboxes

// 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

// Hydrostatic systems



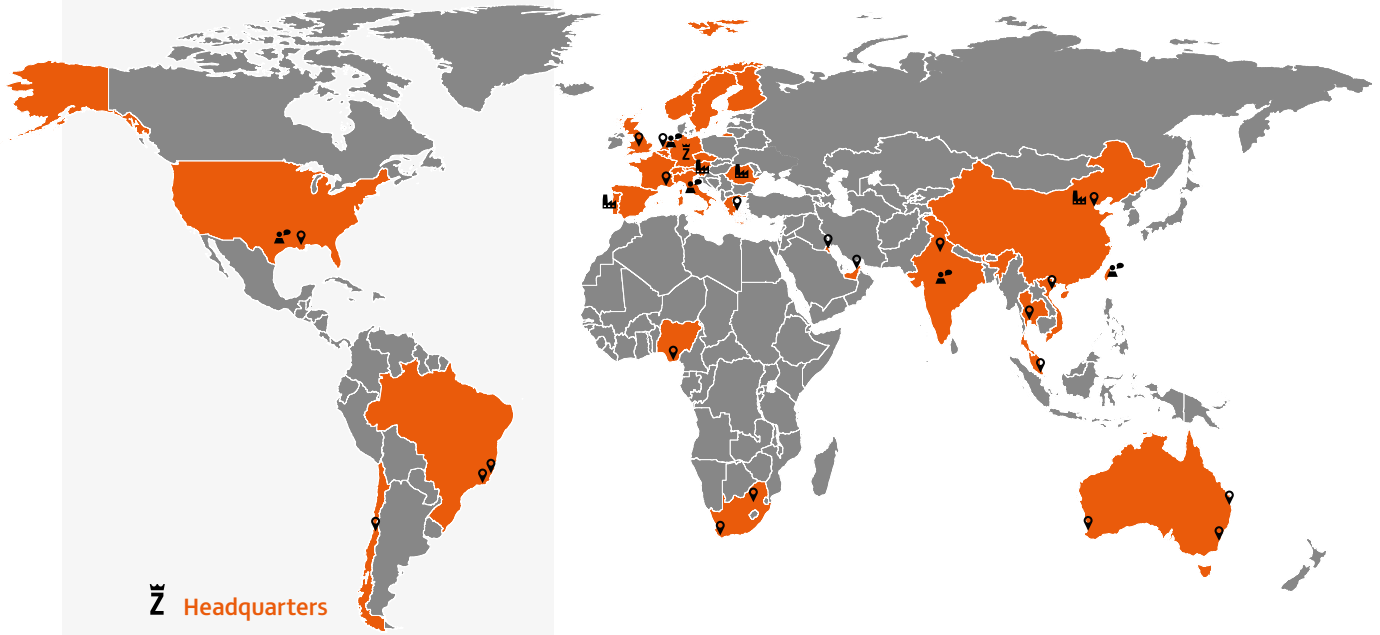
- Hydrostatic spindle units
- Hydrostatic rotary tables
- Aerostatic rotary tables
- Hydrostatic linear guides
- Hydrostatic center drive spindles
- Hydrostatic bearing components
- Hydrostatic special applications and test benches

// Rotary tables systems



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

ZOLLERN



Headquarters

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

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Germany
Portugal
Romania
Slovenia
China

Service partner

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



ZOLLERN-worldwide



ZOLLERN-Products



ZOLLERN GmbH & Co. KG

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

