

**WIKOV**

**The Essence of Engineering**



**The Wikov company** has been active in mechanical engineering for over nearly 140 years. This heritage and vast experience is being passed from generation to generation. For the past 100 years Wikov has been manufacturing gears and mechanical gearboxes. A combination of the latest machine tools and gear design expertise results in the world class products with state of the art design solutions and extraordinary technical parameters.

## **Wikov – The Essence of Engineering**

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Customized individual solution

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Flexible in design and delivery

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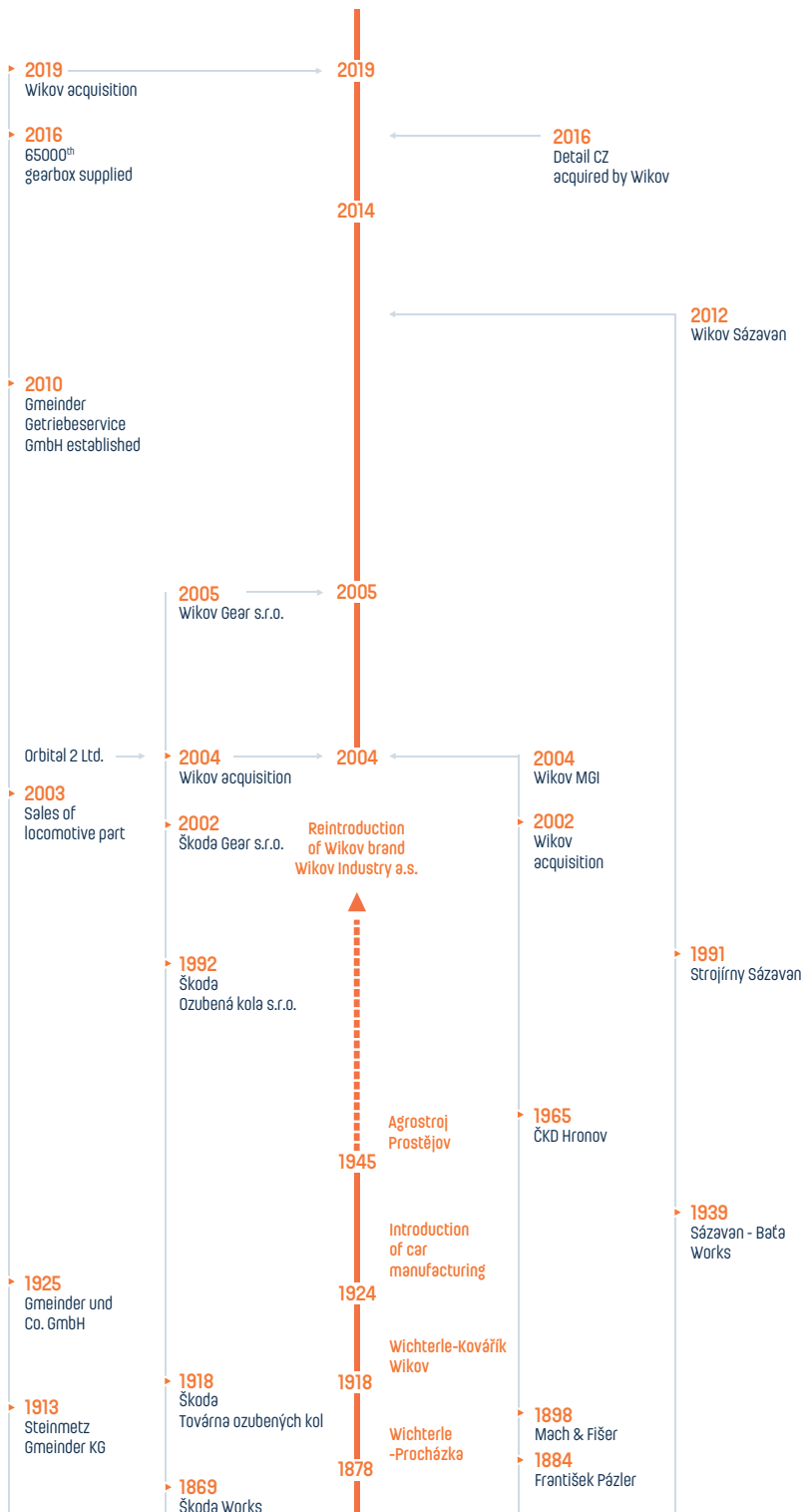
Fast gear unit prototyping

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Innovative, Efficient, Reliable

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# History





# reliability



# efficiency



# Technology

## Gearing

Production of hobbled gears with external gearing up to 3,500 in diameter, module 32; with internal gearing up to 2,400 (2,650) mm in diameter, module 25

Production of profile ground gears with external or internal gearing up to 2,800 mm in diameter, module 34

## Shafts, housings and rotating work-pieces

Production of shafts up to 940 mm in diameter and 3,800 mm of length (3,000 for grinding)

Machining of housing parts in axes  $x \times y \times z$  up to  $12,000 \times 3,600 \times 1,600$  (1,900) mm

Production of flanged parts up to 3,300 (5,000) mm in diameter and 2,900 (2,000) mm of length

## Heat treatment

Gas carburizing

– max. dimensions of HT batch  $\emptyset d \times h / 2,000 \times 2,500$  mm

Hardening / tempering / annealing (with protective atmosphere)

– max. dimensions of HT batch  $\emptyset d \times h / 2,000 \times 2,500$  mm

Sub-zero treatment – cooling up to  $-60$  °C

– max. dimensions of HT batch  $\emptyset d \times h / 2,000 \times 2,500$  mm

Annealing / tempering

– max. dimensions of HT batch  $w \times h \times d / 3,000 \times 2,000 \times 4,500$  mm

Gas nitriding

– max. dimensions of HT batch  $\emptyset d \times h / 750 \times 1,200$  mm

# Quality management and Testing

Chemical analysis – Mobile Arc Spark Spectrometer

Mechanical properties – Tensile and Impact testing, hardness, microhardness

Under-surface cracks detection – Ultrasonic test – Kräutkammer  
USM 35XS

Surface cracks detection

Dimension CMM inspection – Wenzel 3020-40 and Wenzel LH108

Teeth profile inspection – Klingelnberg P40, P100 and P300

Report of heat treatment process

- Surface hardness

- Effective case depth

- Microstructure of case depth

Post-grinding burned surface detection – Rollscan 300

Running test of gear units – temperature, pressure, noise level and vibrations measuring

Non-load and load tests up to 8MW of load

Cooling chamber test for gear units operating in extremely cold conditions

Rail vehicle gear units test with simulation of dynamic load

Inspection for acceptance of our gearboxes can also be by undertaken other third parties such as BV, DNV, LRS, GL, ABS, KR, RMR, CCS

Wikov is certified according to ISO 9001:2016 by Lloyd's Register Quality Assurance and Bureau Veritas Quality International



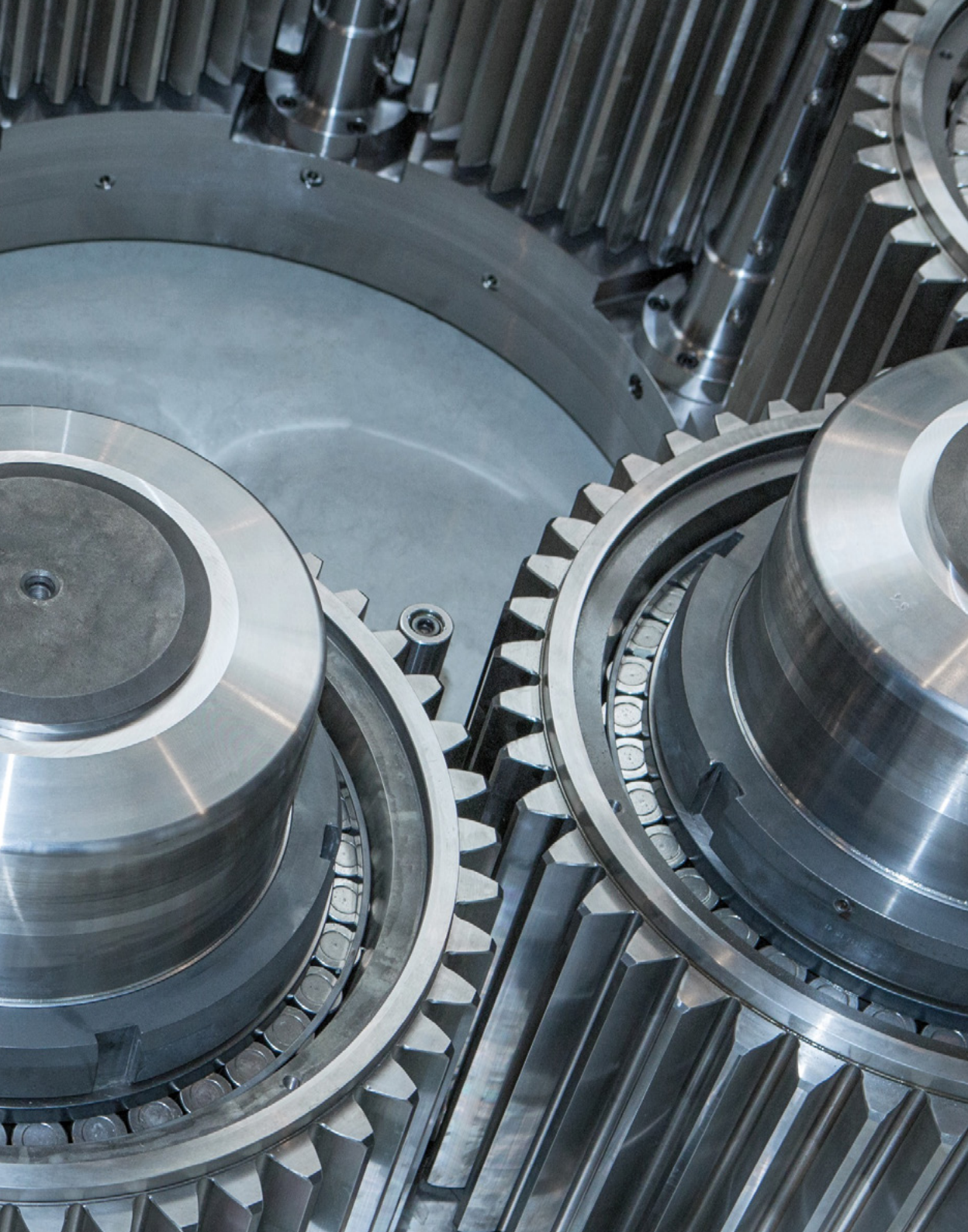


quality



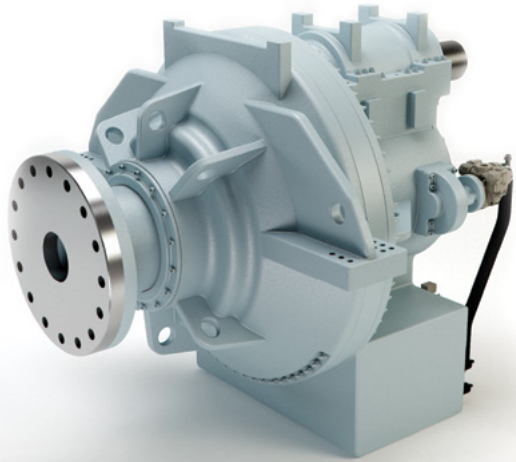
innovation





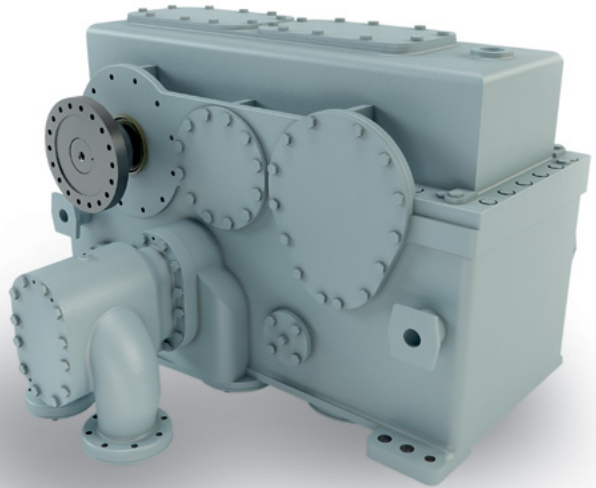
# Hydro power

Vertical Kaplan turbine drives  
Horizontal Kaplan turbine drives  
Francis turbine drives  
Banki turbine drives



# Thermal power

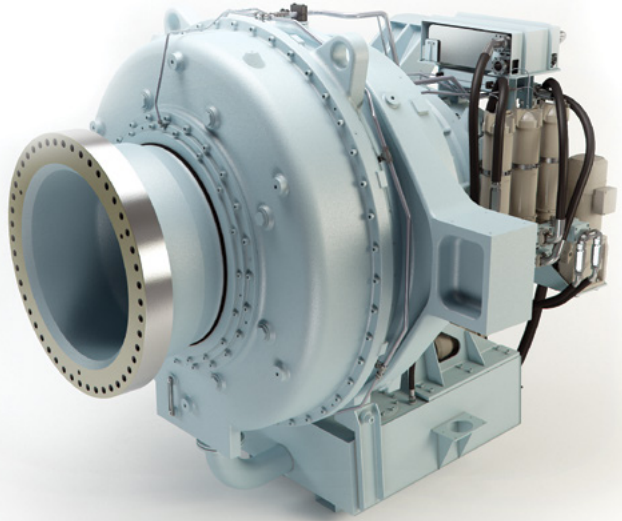
Belt conveyor drives  
Coal mill drives  
Turbo-compressor drives  
Pump drives  
High-speed drives of gas /  
steam turbines  
Cooling fan drives  
Etc.



# Wind and Tidal power

Wind turbine drives

Tidal stream turbine drives



# Cement and Mineral processing

Drives of horizontal ball mills

Drives of vertical mills

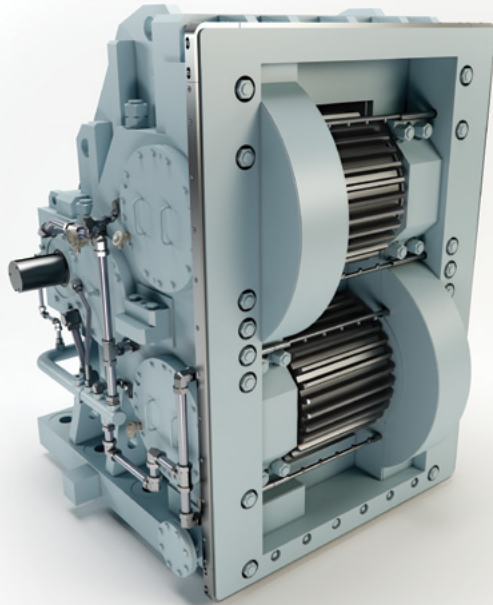
Rotary kiln drives

Cone crusher drives

Belt conveyor drives

Roller press drives

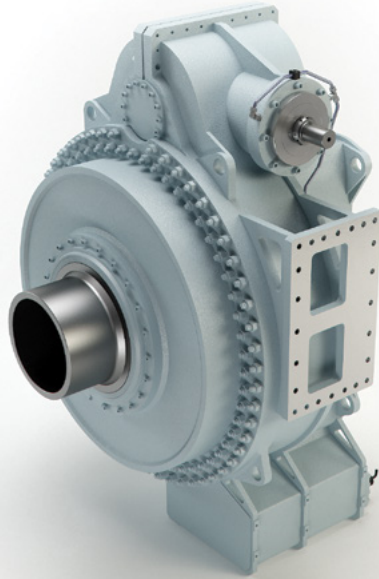
Etc.





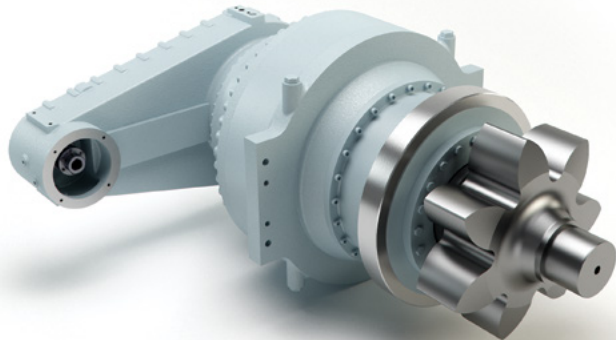
# Open-pit and Deep mines

Excavator and dredger drives  
Belt conveyor drives  
Axle drives of heavy mining trucks  
Vertical mill drives  
Drives of shearer loader heads  
Armoured face conveyor drives  
Mining hoist drives  
Etc.



# Oil and Gas industry / Shipbuilding industry

Anchoring, mooring, towing  
or combined winch drives  
Fire-fighting pump drives  
Top drives  
Jacking system drives  
Pipe tensioner drives  
Hydraulic propeller drives  
Et.



# Rubber and Chemical industry

Internal mixer drives (tangential and intermix types)

Continuous mixer drives

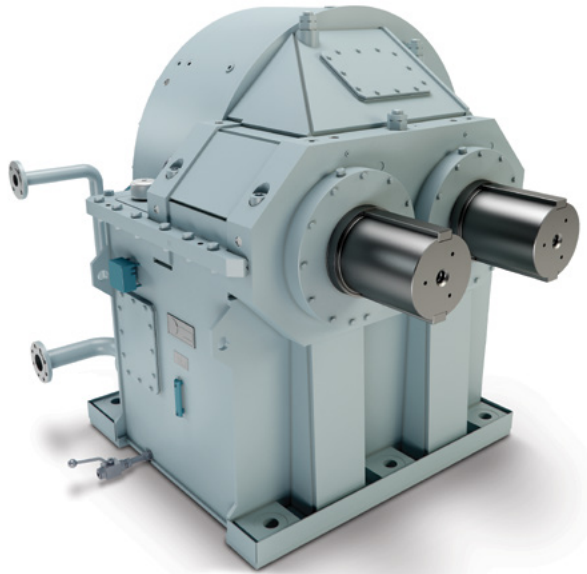
Two-roll mill drives

Calender and extruder drives

Cutting shear drives

Film stretching line drives

Etc.



# Steel and Metallurgy industry

Rolling mill drives

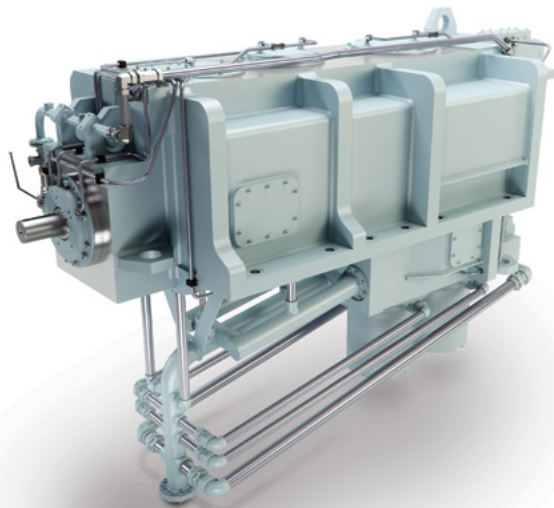
Wire-drawing machine drives

Crane drives

Drives with friction stages

Coiler and Un-coiler drives

Etc.



# Rail vehicles

Tram drives

Metro unit drives

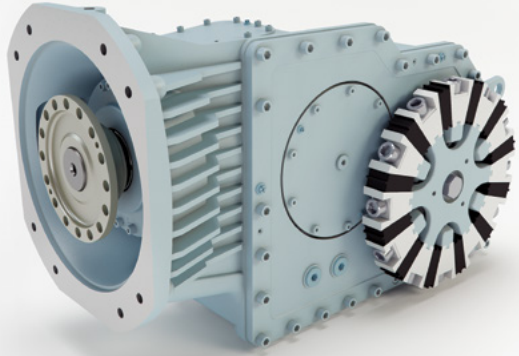
Monorail unit drives

Electric multiple unit drives

Diesel multiple unit drives

Locomotive axle drives

Drives for trolleybuses, electro-buses  
and hybrid buses



# High-speed applications

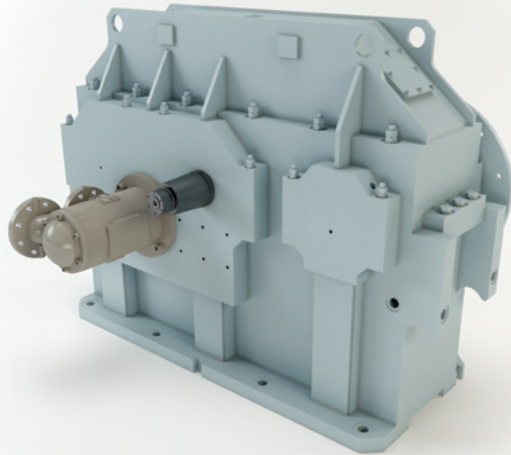
Generator and gen-set drives

Steam and gas turbine drives

Turbo-compressor drives

Pump drives

Etc.





# Flexibility

# Company structure

## Wikov Industry a. s.

Port7 – Dover  
170 00 Prague 7 – Holešovice,  
Czech Republic  
E-mail: [industry@wikov.com](mailto:industry@wikov.com)

## Wikov Gear s.r.o.

Tylova 1/57  
316 00 Pilsen, Czech Republic  
Phone: +420 377 177 110  
E-mail: [gear@wikov.com](mailto:gear@wikov.com)

## Wikov MGI a. s.

Zbečnick 356  
549 31 Hronov, Czech Republic  
Phone: +420 491 488 111  
E-mail: [mgi@wikov.com](mailto:mgi@wikov.com)

## Wikov Sázavan s. r. o.

Okružní 600  
285 22 Zruč nad Sázavou, Czech Republic  
Phone: +420 327 533 302  
E-mail: [sazavan@wikov.com](mailto:sazavan@wikov.com)

## Detail CZ s. r. o.

Žižkova 771  
394 68 Žirovnice, Czech Republic  
Phone: +420 565 428 711

## GGT GMEINDER GETRIEBE TECHNIK GmbH

Anton-Gmeinder-Str. 9-19  
74821 Mosbach, Germany  
Phone: +49 6261 806 0  
E-mail: [info@gmeinder.de](mailto:info@gmeinder.de)

## Czech ORBITAL2 s. r. o.

Port7 – Dover  
170 00 Prague 7 – Holešovice,  
Czech Republic  
E-mail: [office@orbital2.com](mailto:office@orbital2.com)



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