Wikov designs, manufactures, supplies and services a wide range of customized gearboxes for small hydro power plants. We offer highly-efficient and reliable products for turbines from 200 kW to 10 MW+. We can offer other benefits such as: remote condition monitoring system to control the behaviour of gearbox/ drive or variable ratio system to achieve higher energy vield.

Wikov has successfully supplied more than 150 gearboxes with a total power of over 200 MW worldwide.

Our success is based on experience we gained in our 130 years history, international team of R&D specialists and state of the art production techologies. These main pillars lead to identifying the best solution for you with maximizing functional and economical parameters of your application.



### Wikov Manufacturing Facility

Wikov MGI a.s.

549 31 Hronov

www.wikov.com

## Small Hydro Turbine Gearboxes

Highly-efficient Customized Gearboxes for Small Hydro Power Plants





The Essence of Engineering

# Customized solutions for horizontal/vertical Kaplan and Francis turbines up to 10MW+

Vertical Kaplan turbines (Saxo and Compact type) Helical vertical gearboxes of type ZP-V for power range 250 kW – 3 MW

Innovative planetary gear units up to 10 MW+

Horizontal and inclined Kaplan turbines (S-type and Pit-type) Helical horizontal gear units of type ZP-H for power range 450 kW – 6 MW

Coaxial parallel gearboxes of ZP-CX up to 6.5 MW

Innovative planetary gear units up to 10 MW+

Horizontal and inclined Kaplan turbines (Bulb-type)

Bevel gearboxes of type KHVE up to 3 MW

Francis turbines

Helical vertical gearboxes of type ZP-V for power range 250 kW – 3 MW

Innovative planetary gear units up to 10 MW+



Helical vertical gearbox type ZP-V





Bevel one-stage gearbox type KHVE



Planetary 7MW gearbox



Helical horizontal gearbox type ZP-H



Helical horizontal gearbox type ZP-H



Helical coaxial gearbox type ZP-CX



VRS unit (Variable Ratio System)

### Wikov - The Essence of Engineering

Flexible in design and delivery

Extremely fast gear unit prototyping

From one prototype to large series production

Engineering competence

Gear manufacturing tradition since 1918

State of the art production technologies

Highly-efficient oriented design (gearing modifications, unique non-contact labyrinth sealing, optimized lubrication systems, and others)

Extensive test facility up to 8 MW

WiGuard - remote condition monitoring system

Aftermarket services such as repairs, preventative maintenance, inspections and overhauls

#### Variable Ratio System (VRS)

- Proven technology from extreme conditions of wind turbines
- Standard synchronous generator
- High voltage output
- Higher annual energy yield