

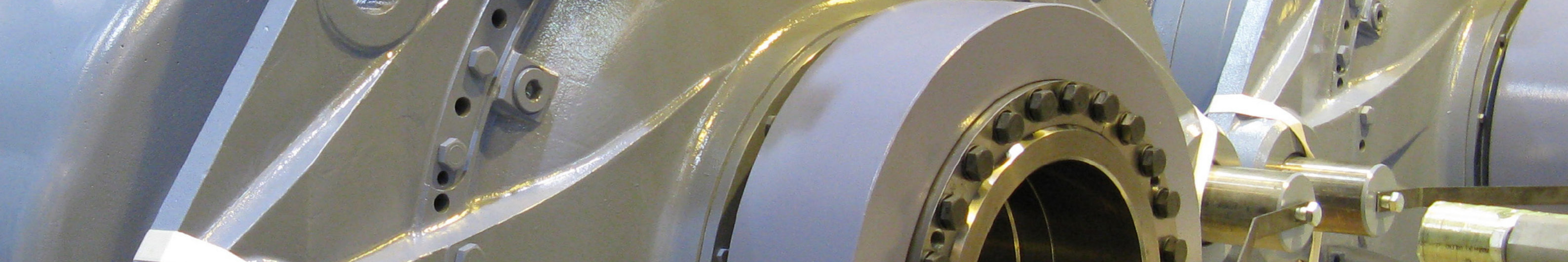
PLH-1900.1 is certified  
for all variants of  
MM82 & MM92  
wind turbines

# PLH-1900.1 GEARBOX

For Senvion MM82 & MM92 wind turbines

**moventas**

GEARED FOR  
NEW ENERGY

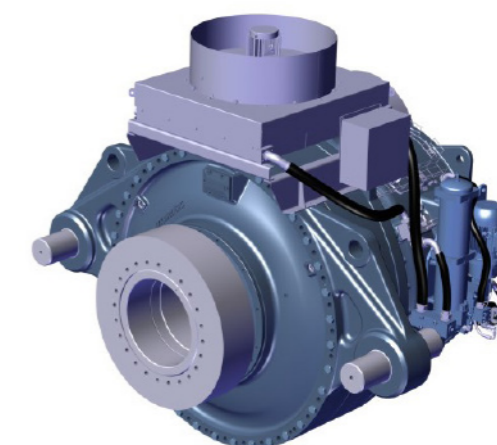


## Moventas Wind Turbine Gear

PLH-1900.1 MM82 & MM92

The Moventas PLH-1900.1 gearbox is a result of years of evolution, featuring:

- Wear-free case carburized ring gear
- Optimized casted components
- Integrated 2-row planet gear bearings, and optimized gearbox parameters ensuring a trouble-free concept that guarantees a high level of annual energy production.



**PLH-1900.1** general advantages to secure the designed life cycle

- Integrated 2-row planet bearings
- Latest and highest available material specification for gears and pinions
- State-of-the-art manufacturing, testing and quality processes used for 100% of manufactured components and gear units
- Latest available bearing technology on rolling bearings

**PLH-1900.1** available also for **MM82**

- TÜV Rheinland certification
- Improved safety factors
- High input torque rating used in design parameters leading to improved safety factors
- Improved WEC resistant bearing concepts
- Excellent track record from MM92 series

Turbine	Generator (HZ)	Ratio	Input Speed n1 (1/min)	Output Speed n2 (1/min)	Operation Power P (kW)	Weight (kg)	Oil	Oil capacity (l)
MM82	50	104,55	17,1	1787,8	2165	23 000	WG 320	440
MM92	50	119,06	15	1785,1	2165	23 000	WG 320	440
MM92	60	95,63	15	1434,6	2165	23 000	WG 320	440

The high level of reliability in Moventas gear units are achieved through careful studies of varying operating conditions. Understanding the gearbox behavior under both static and dynamic loading conditions enables reliable technical solutions. Tooth contact in all loading conditions are thoroughly analyzed and the dynamic behavior of the meshes predicted - these factor are of great importance in achieving reliability, as well as understanding extreme loads.

The technical calculations of gear units are based on conservative calculations and safety factors. The dimensioning of the bearings are made in close cooperation with the bearing supplier. Thus in-depth knowledge of the behavior of wind turbine gears is achieved by co-operation with key component suppliers. Moventas field measurements and prototype tests in modern RTD test facilities.

# moventas

Moventas is a new energy technology expert and multi-brand service provider. Moventas' technology strives to lower the cost of energy across the lifecycle of renewable energy generation, from superior gearbox design and manufacture to extensive after sales service for most gearbox brands. Moventas is part of the Clyde Blowers.

Read more at

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