

# Reliable lubricants for main gearboxes in wind turbines

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## Reliable gear oils: the basis for long lifetimes of wind turbines

The main gearbox is the heart of each wind turbine. It converts the slow rotor movements into high generator speeds.

Damage to the main gearbox brings the entire system to a standstill, resulting in very high downtime costs. A suitable, high-performance gear oil ensures the long service life of every wind turbine.



### Highest demands on gear oils for wind turbines:

- Reliable wear and corrosion protection
- Extreme loads
- Temperature variations
- Material compatibility
- Long lifetime

FUCHS offers the right gear oil for your wind turbine for all requirements and applications, based on specially selected base oils and tailored additive technology.

## The all-rounder: RENOLIN UNISYN XT 320



### High performance even under extreme conditions

- excellent low-temperature behavior due to specially selected mPAO-base oils
- ensures a significant increase in lifetime
- outstanding load-carrying capacity and reliable wear protection (high additive reserve)
- excellent foaming behavior
- fully miscible and compatible with RENOLIN UNISYN CLP

## The reliable one: RENOLIN UNISYN CLP 320



### Outstanding performance and long lifetime

- proven longer lifetime compared to conventional mineral oil-based wind turbine gear oils
- excellent wear protection
- high thermal stability
- excellent material compatibility
- low deposit formation tendency and good foaming behavior

## The problem solver: RENOLIN PENTOGEAR 320 WT



### The perfect service oil for main gearbox lubrication

- perfect service oil (also suitable as flushing oil)
- good miscibility with other mineral oil and PAO-based gear oils
- excellent wear protection
- extremely good foaming properties
- very low tendency to deposit



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Product	Base oil	Density at 15 °C [kg/m <sup>3</sup> ]	Kinematic viscosity [mm <sup>2</sup> /s] at 40 °C	Kinematic viscosity [mm <sup>2</sup> /s] at 100 °C	VI Viscosity index	Pourpoint [°C]	Approvals (Main gearbox)
RENOLIN UNISYN XT 320	mPAO	860	320	40.2	179	-42	Flender, Gearbox by Gamesa (former GET), Moventas*, Winergy*, ZF Windpower
RENOLIN UNISYN CLP 320	PAO	860	320	35.0	155	-42	Bonfiglioli, Bosch Rexroth, Chongchi, David Brown, Echesa, Eickhoff, Gearbox by Gamesa (former GET), Hansen, Jahnel Kestermann, Liebherr, Moventas, NGC, Renk, Winergy, ZF Windpower, Zollern Dorsten
RENOLIN PENTOGEAR 320 WT	PAO-free	892	320	37.4	166	-39	Flender, Hansen

\*Technical requirements fulfilled

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# LET'S ASSEMBLE YOUR SOLUTION!



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