

**CENTRAL LUBRICATION SYSTEMS
FOR GEAR RIM LUBRICATION
AT YAW**

**FOR RETROFIT AT
VESTAS WIND POWER PLANT
V80 / V90 1,8 / 2 MW**

- reliable technology
- cost reduction
- maintenance reliable
- high operational safety also at low outside temperatures



...made by



Advantages BEKAWIND central lubrication system

Reliable technology

- reduces wear of bearings and teeth due to regular lubrication during operation
- specific lubricant application of the stressed zones
- low use of lubricant - no pollutions
- weather independent, automatic lubrication
- simple assembly

Cost reduction

- reduces system stand still for maintenance works
- production downtime costs
- service personal costs
- cleaning costs (blades, tower, nacelle)

Maintenance reliability

- no overlubrication and pollution
- no pressing out of bearing sealings (blade bearing)
- compliance of service date plan (weather independent)
- proof of lubrication via control

Functional description

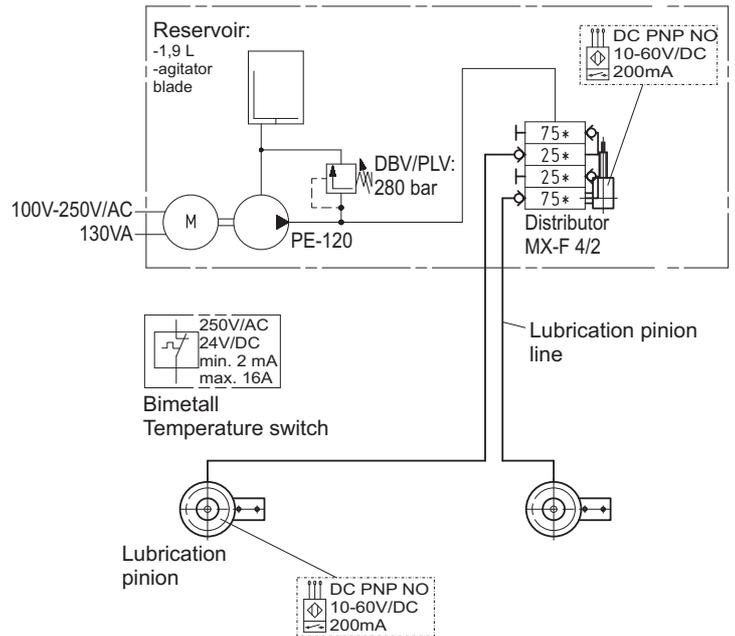
BEKAWIND PRO is a progressive central lubrication system that has been developed for the use in wind power plants. The central lubrication system consists of a lubrication pump with installed progressive distributor and two lubrication pinions.

Due to the integrated pump control the lubrication cycles that are preadjusted, can be controlled and monitored automatically.

Lubricant is delivered into the distributor during the pump operation. This distributes lubricant to the lubrication pinion in the right relation.

The pump is secured by a pressure limiting valve with reservoir feedback.

Lubrication plan

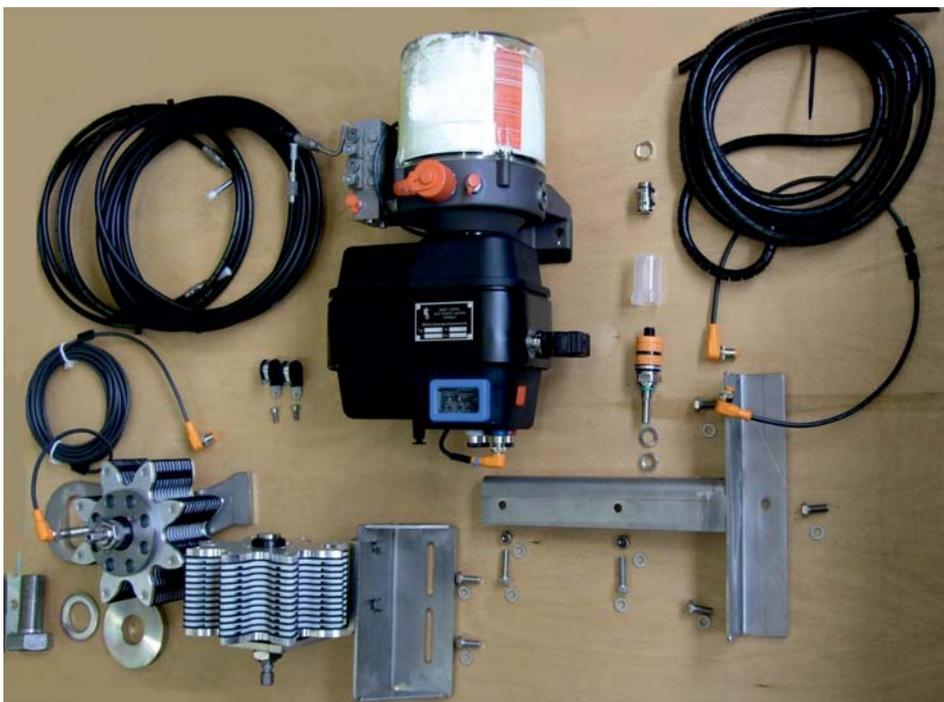


Central lubrication pump FKGGM-EP with MX-F distributor

The central lubrication pump FKGGM-EP is an electrical driven grease pump that has been designed for the use in wind power plants. The installation must be done with reservoir in vertical position.

The positively controlled metering piston of the pump element and the agitator blade ensure a perfect suction behaviour.

The central lubrication pump has an integrated control unit (monitoring the cycles at the lubrication pinion) and a temperature sensor.



BEKAWIND retrofit kit contains all fastening elements, hoses (filled with grease) and fittings.

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Lubrication plan FSZ03781_03

Grease filling:
Pump and distributor completely filled with Klüberplex AG11-462