

# GENERATOR CONCEPT

Connected Wind Services offers a wide range of generators for wind turbines up to 3 MW for all major wind turbine brands.

Depending on your requirement and the age of your turbine we can deliver either a new, refurbished or used generator or in case you require, we can refurbish your generator.

Due to our extensive experience in the wind aftermarket business we can deliver the generators as only the generator, as a plug and play unit with cooling system, dampers etc. or as a service project where we take care of the full installation in your turbine.

Our refurbishment process includes a mechanical refurbishment with new bearings, check and if necessary refurbishment of shafts and bearing seats. The electrical refurbishment includes new windings of rotor and stator if necessary followed vacuum pressure impregnation. Final test includes a load and isolation test.



## KEY BENEFITS

- ✓ Competitive prices
- ✓ Fast delivery of a wide range of generators
- ✓ As complete project or as a component
- ✓ Both direct sales and exchange sales
- ✓ Fast refurbishment of your own defect generator
- ✓ Load test with report
- ✓ Warranty up to 24 months

### Generator availability:

NEG Micon		Nordtank , Nordex		Siemens		Vestas	
WTG Type	stock	WTG Type	stock	WTG Type	stock	WTG Type	stock
NM600/48	Stock item	NTK550	Make to order	Siemens 600	Stock item	V44	Stock item
NM750/48	Stock item	N50	Stock item	Siemens 1000	Stock item	V47	Stock item
NM900/52	Stock item					V66/80/90	Stock item
NM1000/60	Stock item						
NM1500/64	Stock item						
NM1650/72	Stock item						

\*Subject to prior sale. Stock item - delivery 1-2 days.  
Make to order item - delivery 3-5 weeks.

Other generators on request

**Scope of generator refurbishment:**

**Standard overhaul:**

**Major overhaul incl. load test**

Dismantling the motor.  
 Measuring and documentation of the isolation- and winding resistance, checking squirrel cage.  
 Measuring and dimensional inspection of the shaft ends and bearing seats on the shaft.  
 Renew the sealings for connection boxes and bearing (SKF, FAG)  
 High-pressure cleaning and oven drying of the stator winding and rotor.  
 Motor mounting with new bearings. Test run, checking the bearings, vibrations.  
 Electrical tests incl. load test.



**Additional repairs:**

**Mechanical repair**

Measuring and dimensional inspection of the shaft ends and bearing seats on the shaft.  
 Welding of the shaft ends.  
 Coating of the bearing seat in the shield using the "Cold-Metal-Spraying"-Method.  
 Deliver calibrated with correct dimensions.



**Stator rewinding**

Remove winding ends and isolation with pyrolysis.  
 Remove old stator winding and clean up the slots.  
 Magnetize bundle of laminations and check the laminations related to damage with a thermal camera, renew stator bundle lamination.  
 Manufacture new round wire with double isolation varnish and bring it into the slots.  
 Test new winding. Switch on, check direction of rotation.  
 Seal stator winding with vacuum-pressure-impregnation (VPI). New winding in isolation class F.



**Renew rotor winding or renew short-circuit-cage**

Remove old wire with pyrolysis, manufacture a new rotor winding and build in the rotor slots.  
 Cover winding's ends with a band and isolation of rotor (vacuum-pressure-impregnation).  
 New winding in isolation class F.  
 Remove short-circuit-ring and pull out the short-circuit-bars.  
 Work off the bundle of laminations, manufacture new Short-circuit-bars and short-circuit-rings.



**About us:**

Connected Wind Services is Europe's strongest independent service provider for wind turbines. For more than 25 years, our multi-brand, multi-skill approach, combined with local competencies, has been the foundation for providing wind turbine operators and owners with unrivalled reliability and service. We adapt to individual needs and are focused on the full lifecycle of wind turbines. Our reputation is built on efficiency, flexibility and safety within wind turbine Service Maintenance, Service Projects and retail of Components & Spare Parts. We deliver integrated, high-value services that help maximize yield and protect assets - providing all you need from a single point of contact.

**Contact:**

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