



Gearbox Oil Change Services

Gearbox oil changes in the field, anywhere and any time

A wind turbine's gearbox is its heart. It is the center of the turbine's power to harness wind. The gearbox needs to be monitored and serviced to ensure the turbine functions properly and effectively. A healthy gearbox with proper oil changes can enhance a turbine's profitability and extend its life. Broadwind Services keeps your gearboxes healthy and efficient by performing gearbox oil changes in the field using state-of-the-art self-contained trucks and trailers. Broadwind's oil change equipment, methods and expertise make all the difference to you by maximizing time, cost and cleanliness.



Broadwind Services, LLC is a subsidiary of Broadwind Energy, Inc.

South: 300 Wall Street, Abilene, TX 79603 Midwest: 605 W. Farmer Ave., PO Box 683 Howard, SD 57349
888.449.5732 www.bwen.com

State-of-the-Art Equipment

Broadwind Services boasts unique, self-contained oil change trucks that are optimized to better serve you and the wind turbine gearbox. Broadwind has also introduced an oil change trailer, featuring all the same qualities as the trucks and well suited for smaller projects.

Features and Benefits Include:

- Self-contained mobile oil replacement system capable to change oil nation-wide, in most climate conditions
- Units feature on-board diesel generators, customized tooling, and fixtures eliminating the need for additional electricity or resources from your site to complete oil changes
- Pressurized oil system boasts Broadwind's exclusive advanced motor ratios, proven to enhance efficiency and reliability
- Single 300-foot hose reel holds three individual hoses (waste oil, flush oil, new oil), sleeved together to prevent leaks, enhance safety and minimize time spent winding and unwinding hoses
- Four segregated oil reservoirs ensure minimum downtime and low risk of contamination:
 1. Waste oil
 2. Flush oil (with heating and filtration)
 3. Rinse oil (with heating and filtration)
 4. New oil (with heating and filtration)
- On-board filtration system guarantees clean oil that meets or exceeds ISO 4406 standard
- Portable HYDAC particle counter validates cleanliness immediately on site
- Temperature control tanks optimize flow in any climate
- Integrated PLC controller that uploads customized oil change procedures to ensure repeatability and accuracy
- On-board and metering capabilities to ensure accuracy of oil fill and control costs

Trustworthy Customization, Quality and Expertise

When you select Broadwind to perform your gearbox oil changes, you not only opt for innovative equipment, but also customization, quality and expertise. We customize our oil change services based on your needs. While we mobilize our trucks for projects with more than 10 turbines, we can easily roll out a trailer for your smaller projects or complement an uptower bearing change or gearbox repair. We input your custom project specifications into our PLC controller, which guides us through an oil change process that is unique to you.

Our highly skilled technicians pay careful attention to detail as they efficiently perform two to three gearbox oil changes per day. They check and double check that all new oil meets ISO 4460 standards; they immediately respond to and solve any problems that on-site testing may reveal, beyond just the gearbox oil change; and they care for your turbines with pride. Broadwind Services is your source for a better gearbox oil change.

About Broadwind Energy

Broadwind Energy (NASDAQ: BWEN) applies decades of deep industrial expertise to innovate integrated solutions for customers in the energy and infrastructure markets. From gears to wind towers, to comprehensive remanufacturing of gearboxes and blades, to operations and maintenance services, and heavy fabrication, we have solutions for the energy needs of the future. With facilities throughout the U.S., Broadwind Energy's talented team of more than 800 employees is committed to helping customers maximize performance of their investments—quicker, easier and smarter. Find out more at www.bwen.com.



Broadwind Services, LLC is a subsidiary of Broadwind Energy, Inc.