



Serena is a specialized wind-sector services company which helps its customers obtain the **maximum performance from renewable energies.** 

Our experience in this industry allows us to offer a comprehensive service which provides solutions to the needs of energy companies, manufacturers and promoters in all phases of their projects.

Serena signifies the very latest technology in the hands of specialized professionals, thus ensuring the highest quality service for our customers.

We have bases in **Spain**, the **USA and Chile.** 

Quality, environmental, and occupational health and safety certified, ISO 9001, OSHAS 18001 and ISO 14001.

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# High degree of specialisation

Serena can count or highly specialized employees, all of whom undergo continuous on-the-job training



Our field staff are responsible for the installation and maintenance of wind turbines.

These professionals are highly trained and specialized in the different processes involved, use the very latest equipment, and are qualified to perform even the most complex procedures in the turbines.





Serena is authorized by the main manufacturers in this sector

#### Preventive maintenance and wind farm operation

- > Wind farm operation and maintenance
- > Lifeline maintenance
- > Maintenance of elevators and ascension support devices

## Working wind farms

Serena's work can best be understood in the turbine maintenance and upgrade process. The company repairs faults and replaces turbine components as part of its corrective maintenance program.



#### **Corrective maintenance**

- > Replacement of major components
- >> Blades, generator, multiplier and other parts of the turbines
- > Replacement of minor components
- >> Gearbox and generator bearings
- >> Ring gear
- >> Brake reducer
- >> Calipers

#### **Predictive maintenance**

- > Inspections of elements critical to the turbine's working life with videoscope and Rollscan Barkhausen (gearbox, main axis bearings generator bearings, etc.)
- > Analysis of multiplier and hydraulic system lubricants
- > Installation of Gastops particle counter

### Study, design and in-machine modifications

- > Installation of elevators and ascension support devices
- > Installation of lifelines.
- > Installation of SKF automatic lubricator

**End-of-warranty quality audits** 























Highly qualified staff

#### **Own equipment**

- > Tensioning equipment
- > Manual and hydraulic controlled tightening equipment
- > Videoscopes and Rollscan Barkhausen
- > Load cells
- > Lubricant pumping and cleaning equipment

All equipment traceable and ENAC accredited

ISO 9001 Quality Certified, ISO 14001 Environmentally Certified and OHSAS 18001 Occupational Health Certified

Installation and maintenance of more than 2000 elevators from leading companies

Installation and maintenance of more than 4000 lifelines

Servicing of more than 3000 emergency descenders vital for the evacuation of turbines

Oversight of more than 1000 turbines

Inspection of more than 2000 gearboxes, with the capacity to provide up to 10 simultaneous inspection teams in any part of the world

Bearings changed in more than 2000 gearboxes





