

Case Study

 Vestas France & TotalEnergies –
Dainville Wind Park

“The main objective was
to perform leading edge
repairs with maximum
efficiency”



Gérald Briclot

Special Tasks Supervisor at Vestas

This on-site visit is very important for us because
we can clearly see the preparation. This gives us
100% confidence in your teams.



Scan code for Case Study Showreel:
<https://youtu.be/C7PI6nTRcfQ>



Location:
Dainville, France



Turbine Model:
Vestas V110



Task:
**Leading Edge Repair (LER)
on 12 turbines**

Project Overview

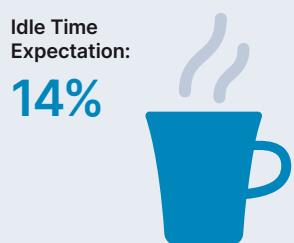


At the Dainville Wind Park in France, Aerones deployed its Leading Edge Repair (LER) robotic system to carry out repairs on 12 Vestas V110 wind turbine generators (WTGs) for client TotalEnergies.

The main objective was to perform leading edge repairs with maximum efficiency while maintaining safety and consistent quality standards. The category of erosion for all 36 blades was up to CAT 3, with no lamination required for any of the blades.

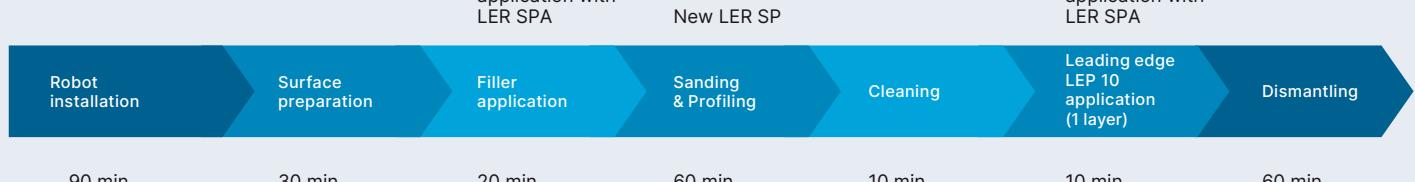


Project Parameters



Process Outline

Improved approach

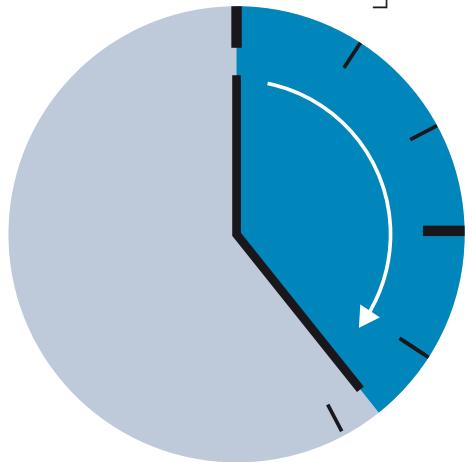
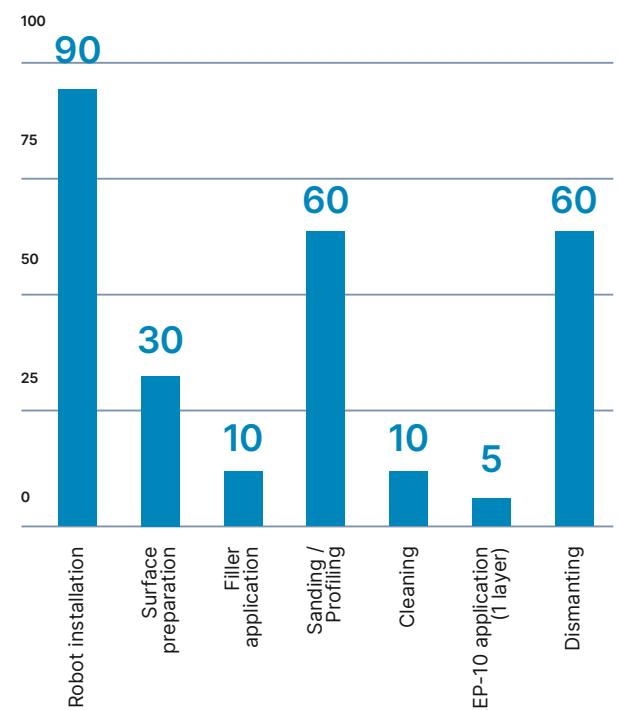


Aerones used its proprietary leading-edge repair robotic technology. After a thorough blade assessment, the blades underwent sanding and grinding, followed by cleaning and filler application. Based on performance considerations, LEP 10 was selected as the preferred leading-edge protection coating.

Results



Minutes



Average time spent on a blade during project -

4h 40* minutes

* includes curing delay idle

Compared with conventional repair methods, Aerones' robotic system demonstrated a significant reduction in repair time, particularly in the preparation and curing stages, as shown in the chart above.

Key Insights

Aerones robots achieved over 30% faster repair times compared to traditional methods.

The project exceeded KPI targets, completing more than 1.3 blades/day, surpassing the industry benchmark of 1 blade/day.

Reduced technician fatigue and risk due to remote-controlled robotic operations.

The efficiency gains directly translated to reduced downtime and optimized turbine availability for TotalEnergies.

Client Reviews



Tiphaine Logiou
QSHE Coordinator
for TotalEnergies in France

We were very interested to see this operation on site. Since it is a robot that carries out these operations, we no longer have rope access work, and under French labor law, rope work should be limited as much as possible. As soon as there is another solution, we must use it. The robot meets all these needs, and we are also much faster in setup time, faster in service time, and also safer in terms of exposure to chemicals.



Gérald Briclot
Special Tasks Supervisor
at Vestas

This on-site visit is very important for us because we can clearly see the preparation: the setup of safety markings to respect the drop zones, the marking of the various cables used to lift the machine, the seriousness of all your teams, and the fact that you are also trained by Vestas on locking the machines, which allows you to be fully autonomous. This gives us 100% confidence in your teams.

Conclusion



Ready to enhance your wind turbine performance?

Contact us today: info@aerones.com

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