



PRODUCTS AND  
SERVICES  
CATALOG

TOOLING  
SOLUTIONS



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Strategically located in one of the world's most favorable regions for wind energy generation, in the state of Ceará, Aeris Energy is the leading manufacturer of wind turbine blades in Latin America and one of the largest producers in the sector globally.

Founded in 2010 by a group of engineers from the aerospace industry, the company was created with a vision to harness the growth potential of wind energy in Brazil's energy mix and meet the increasing demand for sustainable solutions in the energy market.

In addition to its expertise in wind blade manufacturing and repair, the company also stands out through its Aeris Tooling Solutions division, which specializes in the development of advanced industrial solutions. With in-house engineering, manufacturing, and project management capabilities, Aeris Tooling designs and manufactures molds, fixtures, tooling, and custom industrial equipment to meet the complex requirements of internal and external clients in Brazil and abroad.



# Aeris Tooling Solutions

Our multidisciplinary team is widely recognized for its technical expertise in mechanical design, metal and composite tooling, industrial fixtures, and custom-built equipment, covering the entire cycle from concept through manufacturing.

We also stand out for our Three-Dimensional Metrology capabilities, using state-of-the-art Laser Trackers to perform high-precision measurements and issue detailed metrological reports based on the ASME Y14.5:2018 standard.

With engineering autonomy, manufacturing capacity, and a commitment to quality and innovation, Aeris Tooling is a strategic driver of industrial efficiency gains.



**10,000**  
items manufactured  
per year



Serving **domestic**  
and **international**  
clients



**Engineering,  
manufacturing, and  
three-dimensional  
metrology**



## Mission

Develop and deliver customized industrial solutions with high technical rigor, supporting the manufacturing, handling, and measurement of structures, tooling, and equipment safely, accurately, and efficiently.



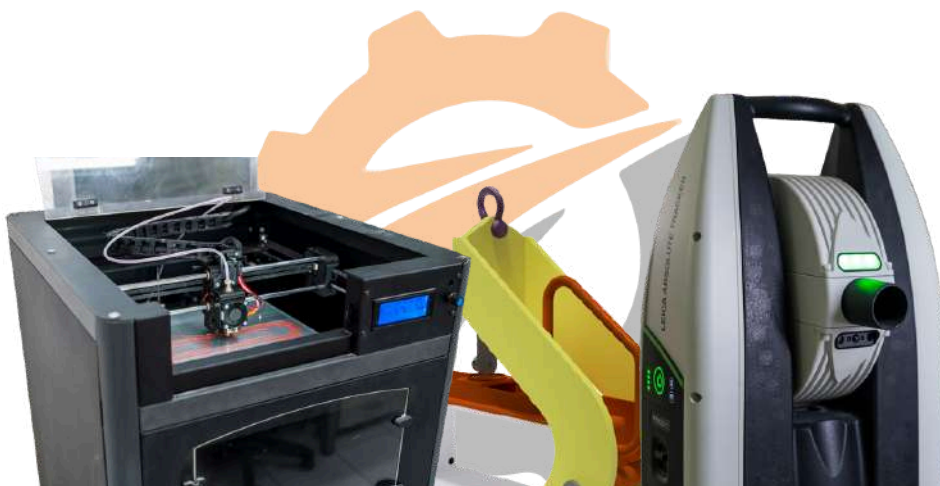
## Vision

To be a benchmark in engineering, manufacturing, and metrology solutions for large-scale industrial applications, recognized for technical reliability, execution capability, and contribution to operational efficiency.



## Values

- **Safety First:** We focus on protecting the integrity of people, equipment, and operations.
- **Ethics and Responsibility:** We conduct our activities with transparency, respect, and commitment to our clients, partners, and society.
- **Technical Rigor and Quality:** We apply engineering expertise and industrial best practices to ensure safe, reliable, and consistent solutions.
- **Results and Efficiency:** We continuously improve processes, reducing losses, rework, and variability.
- **Applied Innovation:** We develop practical solutions adapted to industrial realities, driving continuous improvement.



A large yellow industrial frame, possibly a pallet jack or a similar material handling device, is the central focus. It has two large, black, treaded tires. The frame is made of heavy-duty yellow metal. In the background, there's a large industrial warehouse with a high ceiling and steel trusses. Other equipment, like blue frames, is visible in the distance. A white line is drawn on the bottom left, pointing towards the yellow frame. An orange vertical bar is on the right side of the image, containing the text.

# OUR PRODUCTS

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LOGISTICS  
TOOLING

# Our Products

## LOGISTICS TOOLING

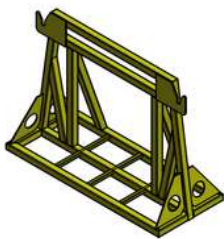
**Blade Turning Device**



**A-frame**



**Root Stand**



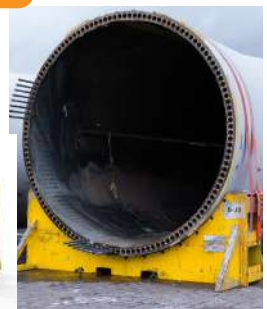
**Dolly**



**Tip Stand**



**Blade Cradles**

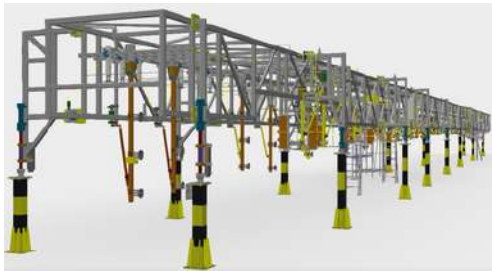


# Our Products



## LOGISTICS TOOLING

### Blade Web Bonding Fixture - DCA



### Transport Cradle



### Gantry System



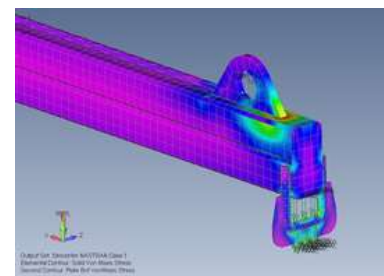
### Lifting Beam



### Application



### FEA



A person wearing a blue protective suit, a clear respirator mask, and green gloves is using a custom tool with a flexible hose to work on a metal surface in a warehouse. The background shows industrial shelving and equipment.

# OUR PRODUCTS

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CUSTOM  
TOOLING

# Our Products

## CUSTOM TOOLING

### Molds and Composite Parts



### Racks and Storage Systems



### Ladders



### Jigs



### Platforms

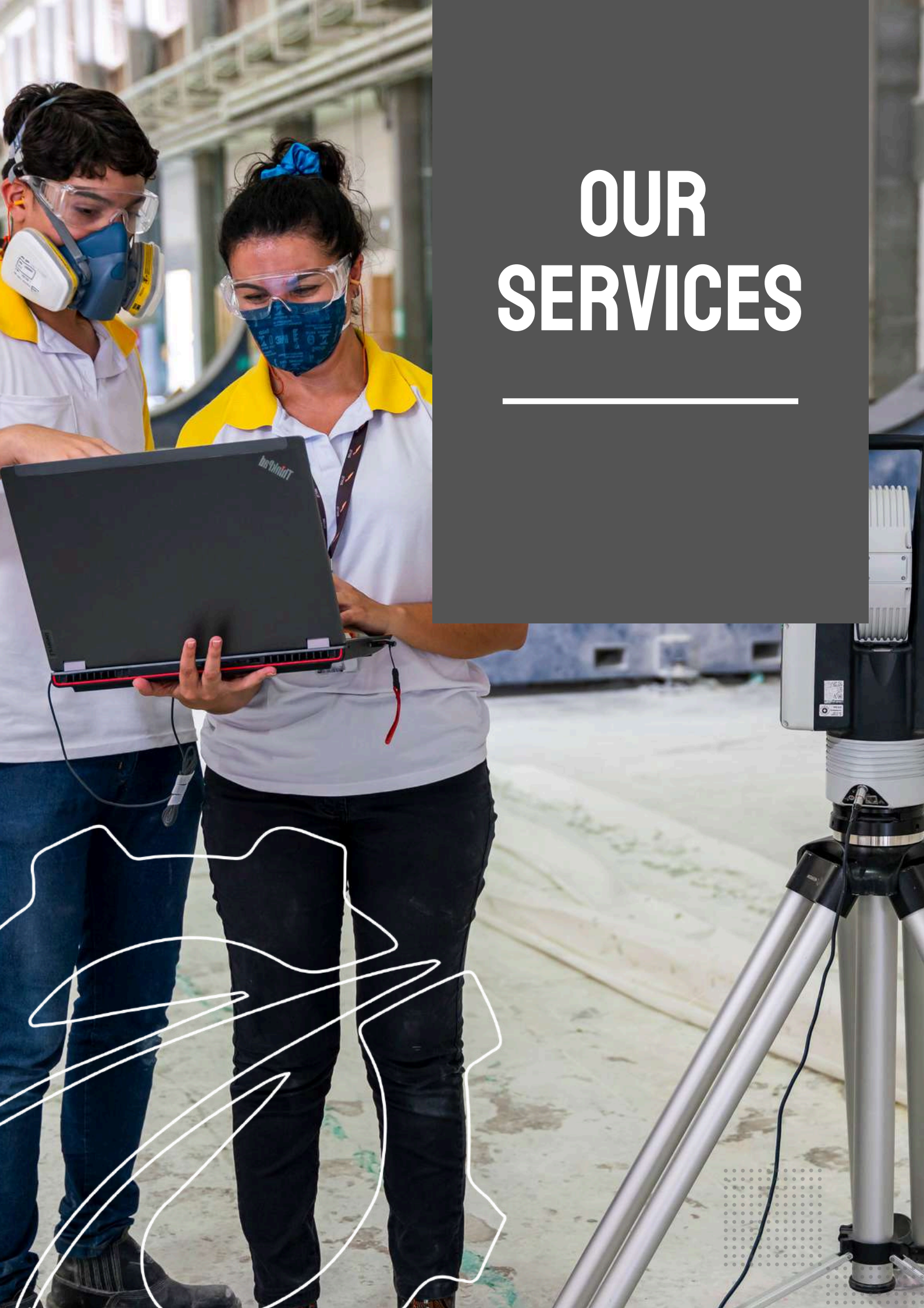


### Storage Cart



# OUR SERVICES

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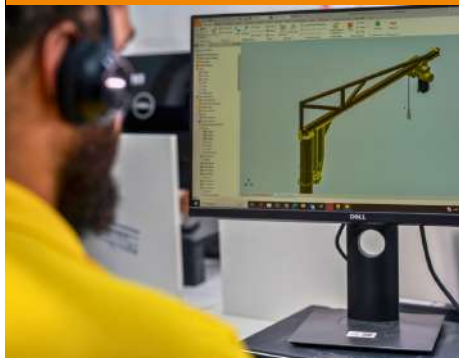


# Nossos Serviços



## CUSTOM PROJECT DEVELOPMENT

1



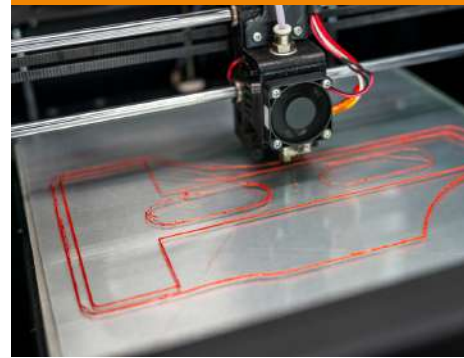
## METAL COMPONENT MANUFACTURING

2



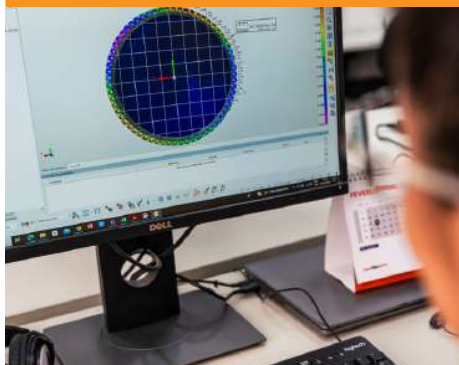
## 3D PRINTING

3



## FINITE ELEMENT ANALYSIS (FEA) AND REPORTING

4



## THREE-DIMENSIONAL METROLOGY

5



## METAL COMPONENT REPAIRS

6



## MACHINING, CUTTING, AND WELDING OF METAL COMPONENTS

7



## COMPOSITE TOOLING MANUFACTURING

8



## WIND BLADE SCRAPPING AND DISPOSAL

9



## MATERIAL STORAGE AND PACKAGING

10



# Engineering Design



The Engineering Design team is made up of specialists with extensive industry experience who work with state-of-the-art software and technologies. Our projects follow industry best practices and standards and comply with all applicable technical requirements.

We develop custom solutions for a wide range of industrial sectors, focusing on innovation, efficiency, and sustainability in every technical proposal.

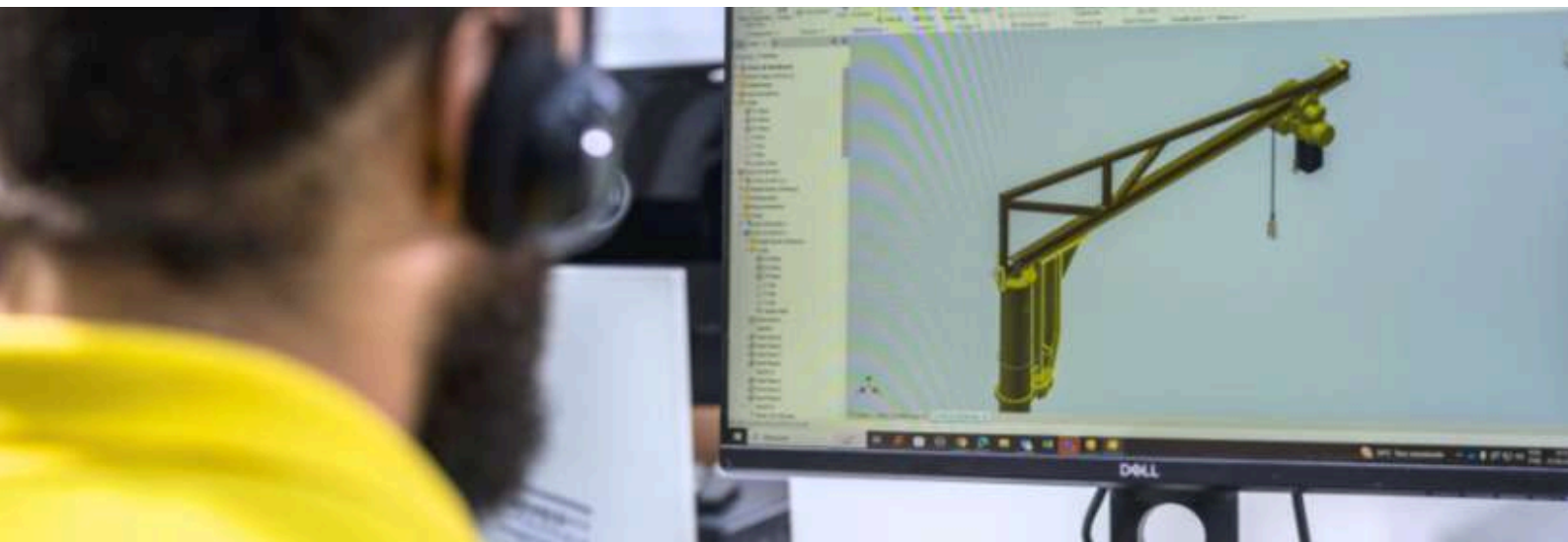
## Engineering design services offered:

**Custom Mechanical Drawings:** 3D modeling and detailed component design using state-of-the-art CAD software, ensuring high precision, quality, and manufacturing feasibility.

**Structural Analysis (FEA):** Advanced computer simulations for structural optimization under different static and dynamic load conditions, ensuring safety and performance.

**Engineering Solutions:** In-depth technical analysis and comprehensive reports that identify the root cause of the problem and present the most appropriate custom-engineered solution.

**3D Printing:** Rapid prototyping of plastic parts for functional testing and concept validation, accelerating development and reducing lead time.



 **AUTODESK® INVENTOR®**  
**NASTRAN**



 **AUTOCAD**

# Three-Dimensional Metrology

Our Three-Dimensional Metrology division is staffed by a highly qualified technical team and equipped with state-of-the-art measurement systems.

All our services follow the principles of the international ASME Y14.5:2018 - Dimensioning and Tolerancing standard, ensuring precision, reliability, and compliance with the highest industry standards.

## Key differentiators:

- High-precision equipment with a measuring range of up to 160 meters, ideal for critical applications
- State-of-the-art software such as PolyWorks Inspector, with advanced dimensional analysis and reverse engineering capabilities
- Mobility and flexibility, with portable equipment enabling reliable measurements even in complex and hard-to-reach environments

## Measurement services:

- Dimensional measurement of tooling and mechanical components
- Alignment and leveling of industrial machines and equipment
- Inspection and adjustment of molds, metal flanges, Power Hinges, and accessories
- Wind blade inspections, including length, hole patterns, and aerodynamic profile
- Issuance of technical reports and detailed dimensional analyses



Equipe certificada pela PolyWorks®  PolyWorks Inspector™

From planning to execution, we use advanced manufacturing techniques to deliver components with outstanding performance and quality, ensuring compliance with project-specific standards.

## METAL TOOLING

- Our qualified and certified technical team develops high-quality metal tooling solutions for industrial applications using welding techniques such as MIG/MAG, TIG, and shielded metal arc welding, as well as CNC plasma cutting, machining, and oxy-fuel cutting.



## COMPOSITE TOOLING

- By combining high-performance fibers with advanced polymer matrices, we manufacture lightweight components with excellent mechanical properties. We use a variety of manufacturing processes, including hand lay-up, vacuum infusion, and filament winding.



# Repairs an Maintenance

We apply advanced techniques to restore and enhance metal tooling, returning it to peak efficiency. We use welding and surface reconditioning processes to restore structural integrity and extend service life.



# Wind Blade Scrapping and Disposal

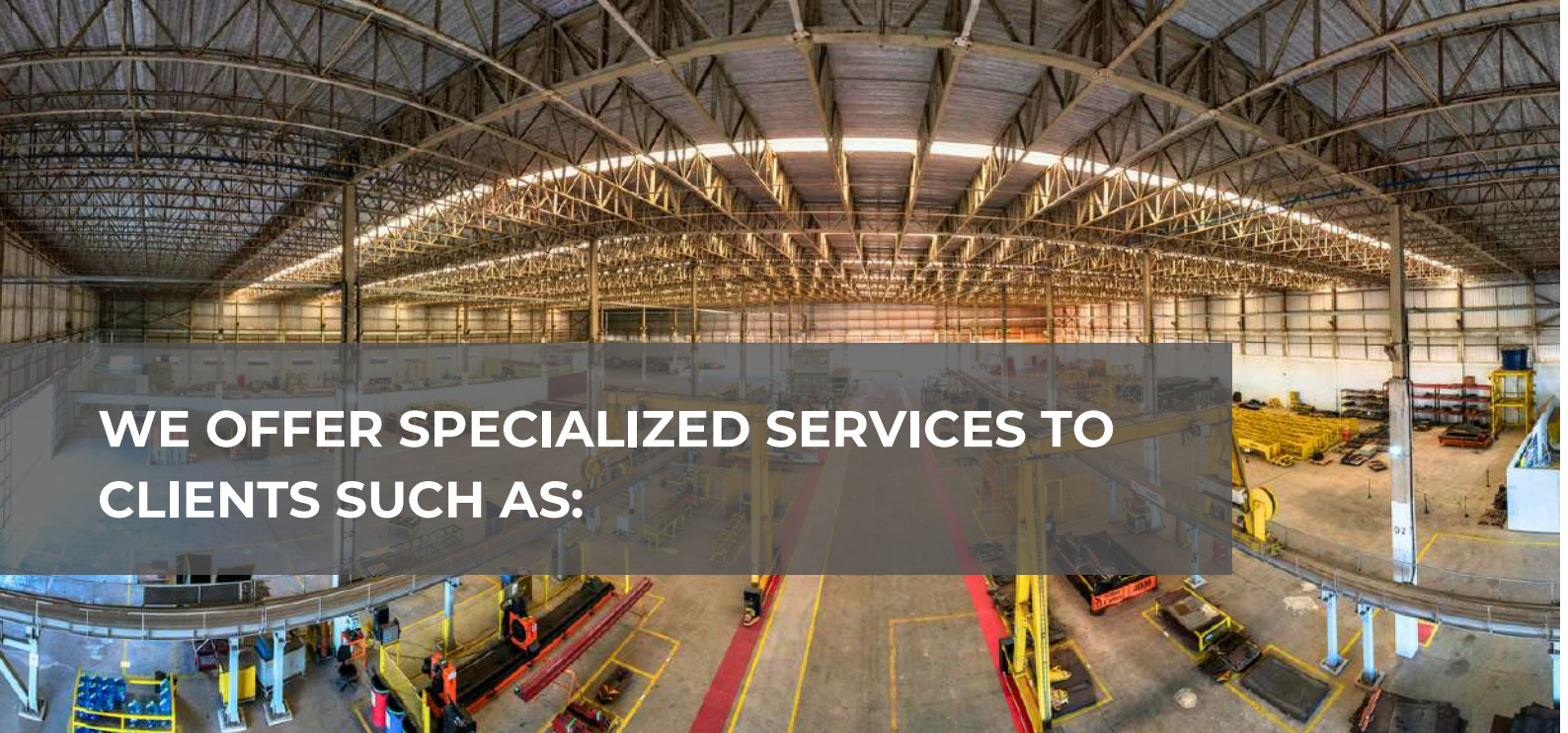


We provide specialized wind blade scrapping and disposal services, ensuring operational safety and environmental compliance at every stage.

The process includes controlled fragmentation of the blades using appropriate equipment, segregation of materials, and final disposal at licensed industrial landfills, with full traceability supported by environmental documentation.

Our trained teams strictly follow safety and sustainability standards, ensuring efficiency, responsible execution, and reduced environmental impact.





**WE OFFER SPECIALIZED SERVICES TO  
CLIENTS SUCH AS:**

**Vestas**

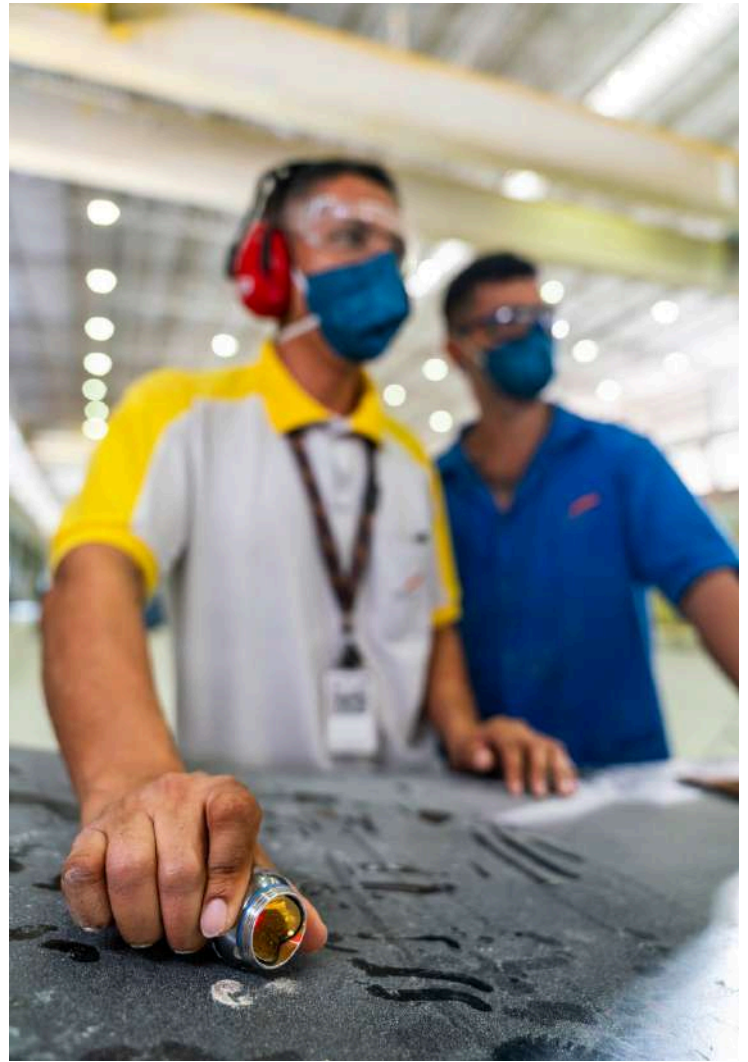


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RENEWABLE ENERGY

**renova** <sup>R</sup>  
ENERGIA



**SKYlive**



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number  
Pecém Industrial and Port  
Complex



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