

ENABL SafetyCam

Ensuring Safety at Every Stage
of the Wind Turbine Value Chain.

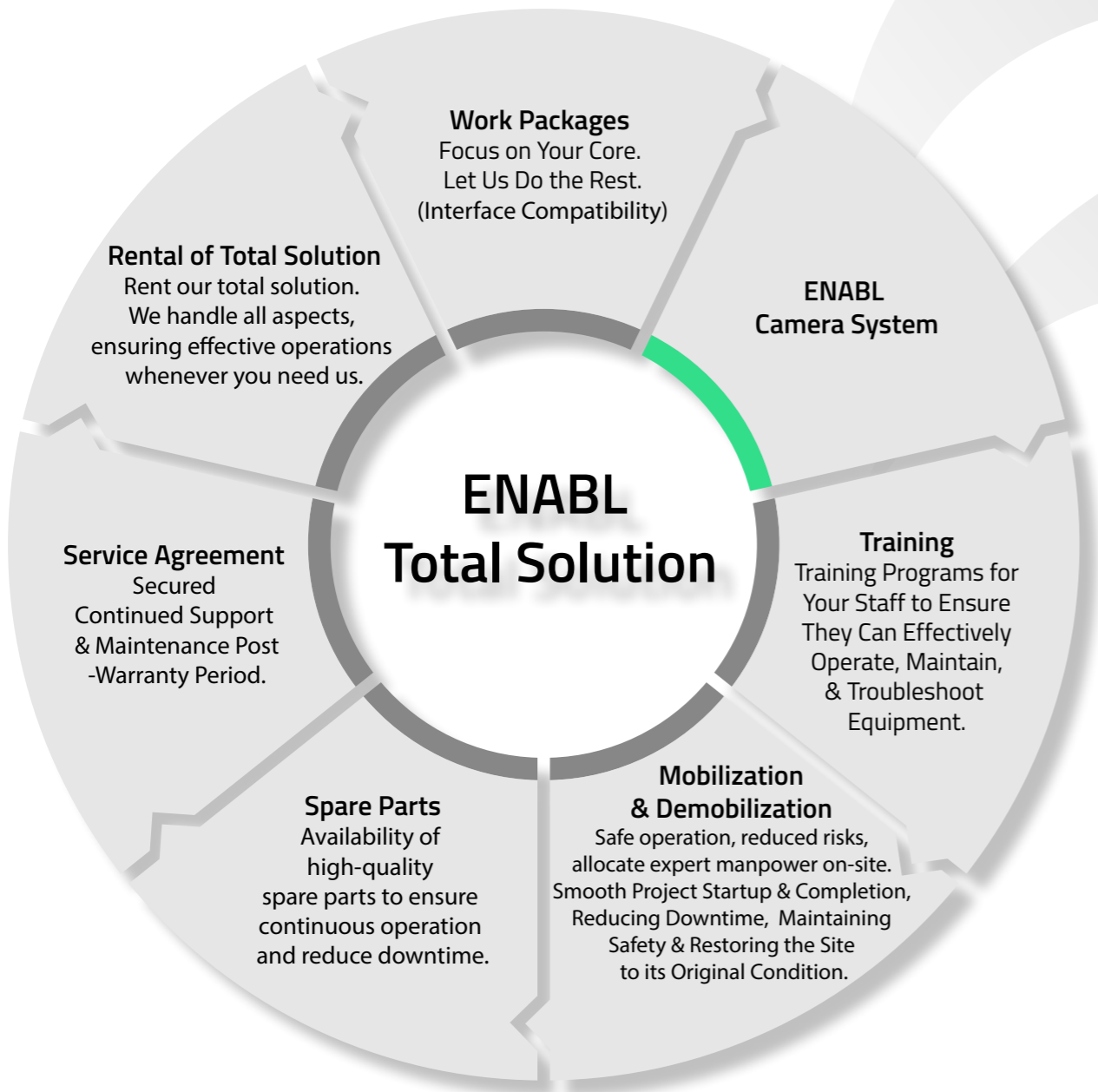


[Click here to view
ENABL Camera System in Action](#)

ENABL
Wherever Wind Is

ENABL - Your **Total** Solution Provider


Wherever You Are in The Wind Turbine Value Chain





SafetyCam – An ENABL Camera System Solution


ENABL Camera System, featuring SafetyCam and SmartCam, ensures accurate alignment and safe handling across the wind turbine value chain. Whether for towers, nacelles, hubs, or blades, it provides unmatched safety and precision onshore and offshore. Developed with a major industry player, it delivers exceptional performance to meet rigorous demands.

ENABL Camera System Overview

 No need for operators or personnel under suspended loads.

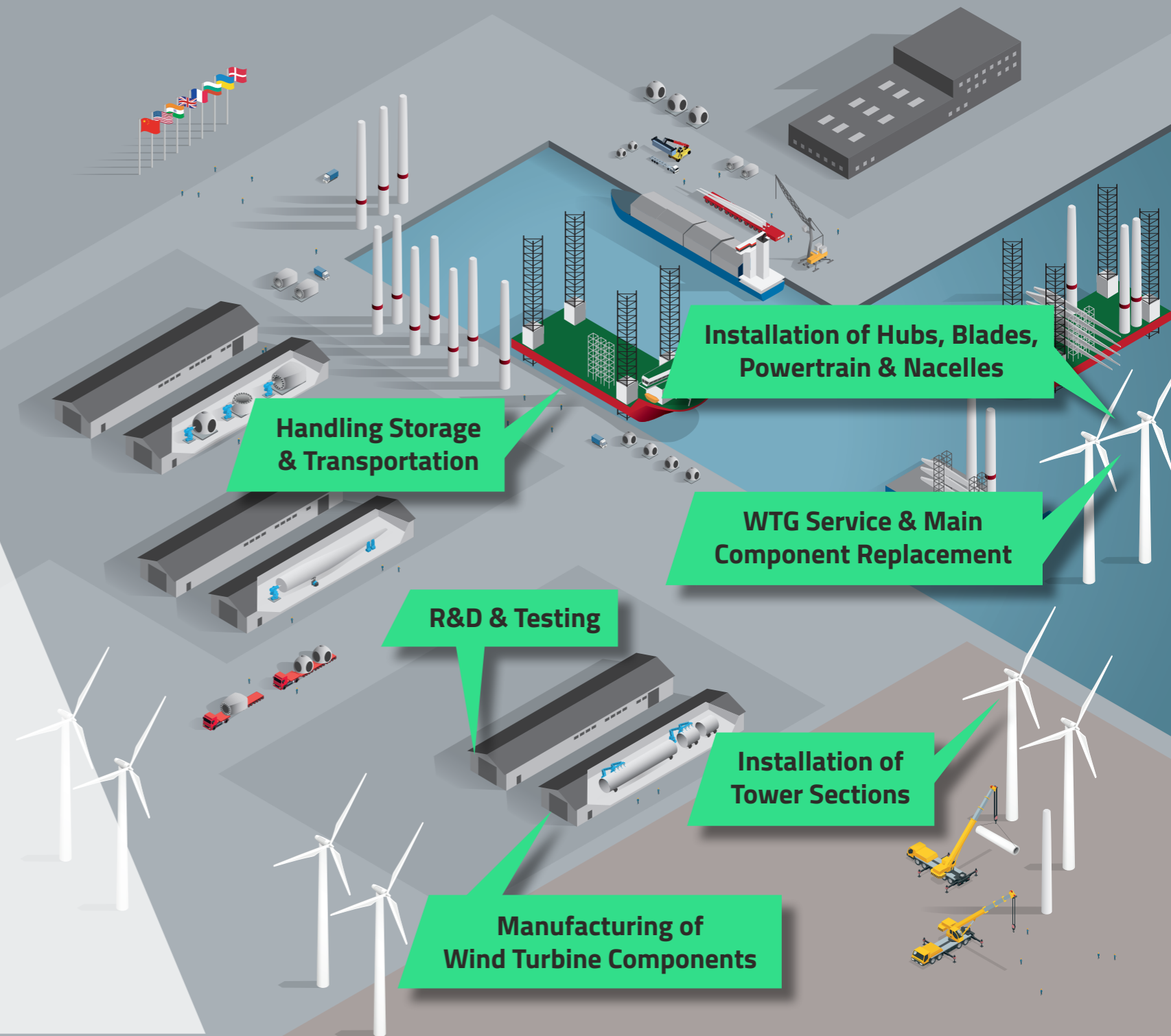
 Precise positioning of suspended parts like towers, nacelles, and winches during both onshore and offshore operations.

 Live video feed directly to the crane operator.

 Includes advanced PTZ (Pan-Tilt-Zoom) and Dome cameras.

The ENABL Camera System applications span multiple stages of the wind turbine value chain, both onshore and offshore, addressing safety requirements wherever they arise.

Applications Across the Wind Turbine Value Chain:



Exploring SafetyCam -An ENABL Camera System Solution that Ensures Safety at Every Stage of the Wind Turbine Value Chain

SafetyCam is an advanced camera system designed to enhance safety, accuracy, and productivity at every stage of the wind turbine's value chain. It broadcasts live video feeds directly to the crane operator, eliminating the need for personnel to be under suspended loads.

This ensures precise handling and efficient execution of tasks, significantly reducing risks and improving overall operational efficiency. This solution specifically addresses the unique challenges of maintaining safe and precise operations, even in areas that are inaccessible to the human eye and reach.

Why Choose SafetyCam? Better **be safe** than sorry!

- 1. An investment in safety prioritization**
No need for personnel to work under heavy, suspended loads.
- 2. Compliance with mandatory safety standards**
OSHA* mandatory requirements 1918.81(k)
EU Directive 2009/104/EC



*OSHA stands for the Occupational Safety and Health Administration, a Federal agency of the U.S. Department of Labor. OSHA's responsibility is to improve worker safety and health protection.

- 3. Alignment with Industry Best Practices**
Safety guidelines co-created by the leading players, such as Siemens Gamesa, MHI Vestas, Ørsted, etc.










Did you know?

According to OSHA (2022), "struck-by" and "caught-in/between" incidents account for 12% of all workplace fatalities, resulting in 48,000 deaths globally each year. Additionally, these hazards cause around 37 million non-fatal work injuries annually, costing the global economy 4% of GDP.



Reliability, Productivity & Other **Additional Benefits** of the SafetyCam >>

Key Features of the SafetyCam

-  Modular & Customizable Configuration
-  Selectable Viewing Options on Multiple Displays
-  Ruggedized Tablet, Cable Connectors, & Suitcases for Ultimate Reliability
-  Full-Spectrum Visual Control
-  Intuitive User Interface
-  Single Operator Usage
-  Night Vision Range
-  Long battery life
-  Secure, closed network



Reliability, Productivity & More Accurate Operations
Experience efficient, safe operations, and avoid costly retrofits and delays. With SafetyCam, your processes will be simplified, accurate, and faster, reducing errors and minimizing risks for quicker project completion.



Access to Previously Unreachable or Narrow Spaces
Overcome human reach limitations with SafetyCam. It increases visibility and accessibility in tight and dark spaces, ensuring safer and more precise operations. This allows for effective monitoring and thorough surveillance, improving overall oversight.



Reliable Operation in Extreme Conditions
Maintain uninterrupted and efficient operations even in harsh environments with SafetyCam. Its durable connectors and plug-and-play features make it scalable and easy to deploy, ensuring consistent performance, reduced downtime, and minimal maintenance.



Enhanced Overall Quality
Enjoy the quality excellence. Enhancing safety, productivity and reliability boosts your project's quality, performance, and customer satisfaction.

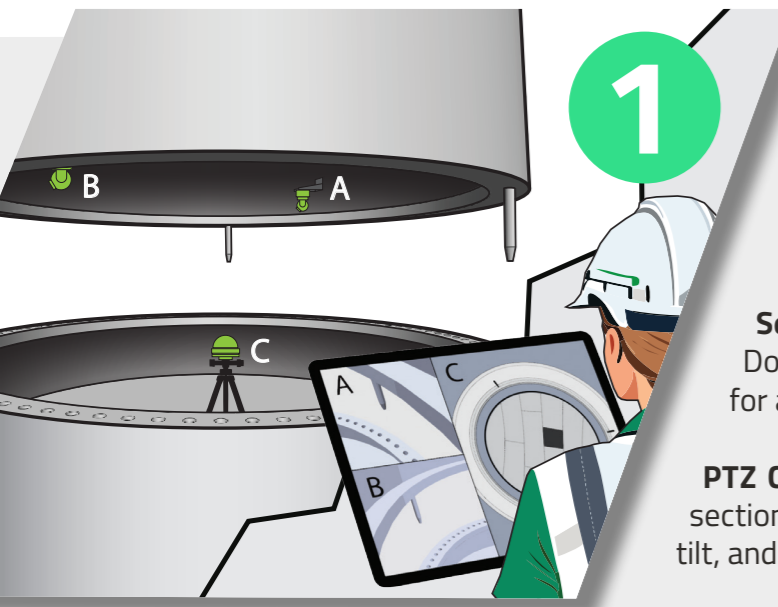


Reduced Operational Costs and Increased Efficiency
Cut day-to-day operational costs with SafetyCam by optimizing resource use and minimizing hazards:

- Lower Manpower Costs:** Requires only one crane operator, eliminating extra personnel under suspended loads.
- Error and Damage Avoidance:** Prevents component damage and errors, saving on retrofits and reducing lead times.
- Higher Productivity:** Increases efficiency with fewer crane cycles and lower takt time, leading to faster project completion.



Reduced Levelized Cost of Energy
SafetyCam enhances reliability and productivity by optimizing operations, reducing errors, and minimizing downtime. These improvements lead to smoother, faster project completion and lower operational costs, ultimately lowering the Levelized Cost of Energy (LCoE) and making energy production more affordable and sustainable.



1

Preassembly of the Tower Section

Using SafetyCam during preassembly reduces the need for extensive on-site assembly, saving valuable time, especially in areas with limited weather windows.

Setup:
Dome Camera: Place on the ground, a fixture, or a tripod for a stable, wide-angle view of the preassembly area.

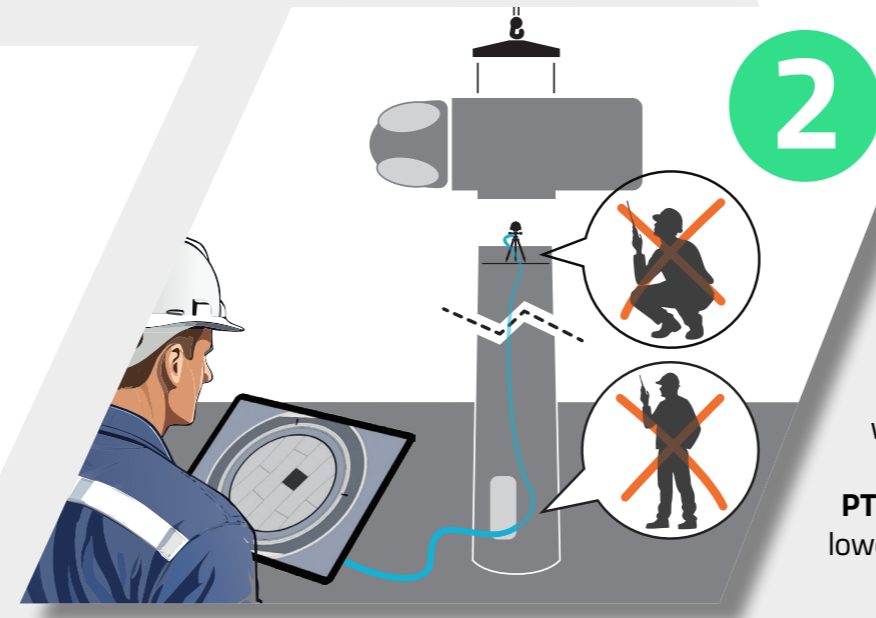
PTZ Cameras: Position near the lower tower flange of the section being lowered for detailed, real-time visuals with pan, tilt, and zoom capabilities.



Bring Your Own Case to Us

SafetyCam is a versatile solution designed to meet your unique needs. From manufacturing to installation and maintenance, it provides precise and safe support for any situation. Let Safety-Cam adapt to your challenges and enhance your operations.

**SafetyCam in Action:
A selection of
Use Cases**



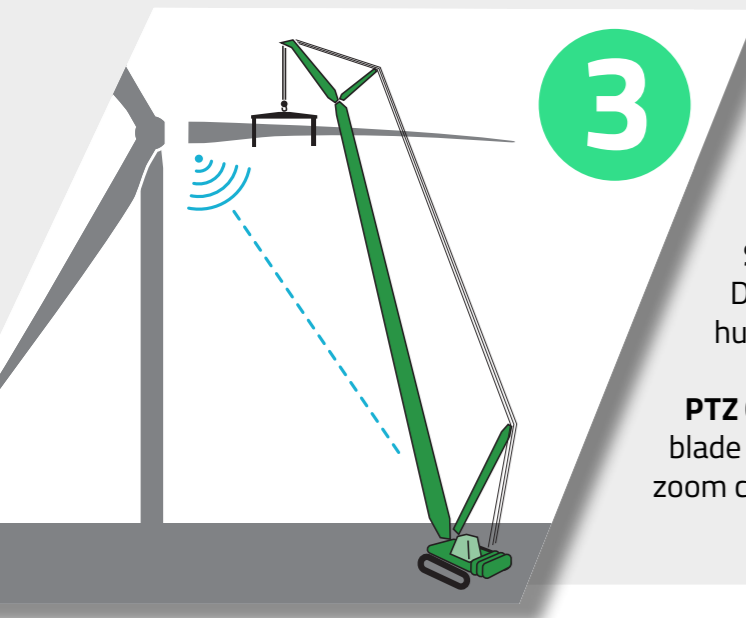
2

Nacelle Installation to Tower

Using SafetyCam during preassembly reduces the need for extensive on-site assembly, saving valuable time, especially in areas with limited weather windows.

Setup:
Dome Camera: Place on the ground, a fixture, or a tripod for a stable, wide-angle view of the preassembly area.

PTZ Cameras: Position near the lower tower flange of the section being lowered for detailed, real-time visuals with pan, tilt, and zoom capabilities.



3

Blade Installation to the Hub

Attaching turbine blades to the hub is made safer and more precise with SafetyCam, ensuring perfect alignment and secure connections.

Setup:
Dome Camera: Place the magnet bracket at the hub for an overall view of the blade installation area.

PTZ Cameras: Position near the root end flange of the blade for detailed, real-time visuals with pan, tilt, and zoom capabilities.



Win a Free Demonstration

Want to see SafetyCam in action? Share your specific requirements with us, and you could win a free demonstration. Experience firsthand how SafetyCam can improve safety and efficiency in your operations.

Contact Ricardo Cardoso at rjoo@enabl.dk for more information.

Maximize Your SafetyCam Potential With **Tailor-Made** Service and Maintenance Solutions

To ensure the optimal performance and longevity of your SafetyCam, we recommend the following service products:



Training Program:
Enhance the efficacy of your SafetyCam implementation with comprehensive training.



Spare Parts Package:
Ensure seamless operation by having essential spare parts on hand.



Service Agreement:
Secure continued support and maintenance with our service agreement, post-warranty period.

Operation, Service & Maintenance Agreement

Service Products

- Corrective Maintenance
- Daily & Regular Service
- Documentation
- Equipment Rental
- Preventive Maintenance
- Routine Service
- Upgrade & Optimization (if available)
- Scheduled Maintenance
- Service Inspection & Reporting
- Troubleshooting & Repairs

24/7 Hotline Service

- One-(1) point of contact
- Continuously development of product knowledge / experience
- Electrical & mechanical troubleshooting
- Create observation report
- Follow-up meeting to ensure successful support

Warranty

- Warranty (1-yr.)

Service Agreement

- Service Agreement (1-yr.)
- Service Agreement (2-yr.)
- Service Agreement (3-5 yrs.)

Spare Parts

- Recommended spare parts
- Critical parts
- Parts upon request
- Accessories & consumables

Education & Training

- Certified Service Training Program
- Classroom training
- Customized Training Program
- On-site training

ENABL Service offers a wide range of service products to meet customer needs. You can pick and choose specific services or options for a comprehensive service agreement.

ENABL Service – The Value of **Choice & Trust**

By choosing ENABL, you are investing in trust. Our global outlook, innovative approach, market leadership, and decades of experience converge to provide reliable, advanced service solutions.

What We Offer:



Trustworthy Solutions:
Dependable, tailored solutions.



Maximum Uptime:
Ensuring peak operational performance.



Zero Issues:
Committed to trouble-free operations.

Choose ENABL for reliable solutions and service excellence, backed by a legacy of trust.





Connect with ENABL

Contact us today to learn more about how the SafetyCam can benefit your projects and keep your teams safe.

For inquiries, please reach out to:

- Ricardo Cardoso at rjoo@enabl.dk or sales@enabl.dk
- **Service:** service@enabl.dk
- **Consulting:** consulting@enabl.dk

About ENABL

ENABL offers a comprehensive range of products and services designed to meet the demanding requirements throughout the entire lifecycle of wind turbine development. As an exclusive expert and trusted partner within the wind industry, ENABL delivers superior, innovative solutions tailored to our customers' specific needs.

What sets us apart is our ability to assist at every stage of the wind turbine value chain. With three strong areas of focus - consulting, equipment, and service - ENABL is a total solution provider. This means that no matter where you are in the value chain, we can guide you through each step, allowing you to focus on your core operations.

Choose ENABL for unmatched expertise and support in wind turbine development.