



LIFTING & TRANSPORT SOLUTIONS
FOR THE GLOBAL WIND INDUSTRY



ABOUT LIFTRA

Your global solutions provider within the wind industry

At Liftra, we develop and manufacture advanced lifting and transportation solutions to optimize wind energy operations worldwide.

Our innovative and patented solutions reduce mobilization time, lower environmental impact and optimize safety, enabling cost-effective installation and maintenance operations.

With a global presence and a strong commitment to innovation, we strive to support the wind industry's continued growth.



PER ESKE FENGER
CO-FOUNDER,
OWNER & CEO



JENS MORTENSEN
CO-FOUNDER,
OWNER & CEO

FOUNDED	GLOBAL OFFICES	EMPLOYING	EQUIPMENT USED IN
2003	8+	750+	30+
	AND GROWING	SKILLED PROFESSIONALS	COUNTRIES
Industry Leader	Experts	OEM's preferred	Trusted Supplier
IN SELF-HOISTING TECHNOLOGY & BLADE YOKES	IN DEVELOPING LIGHT-WEIGHT STEEL STRUCTURES	CHOICE OF TOWER TRANSPORT SYSTEMS	TO MAJOR OEM'S, WIND FARM OWNERS AND SERVICE PROVIDERS

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OUR SOLUTIONS

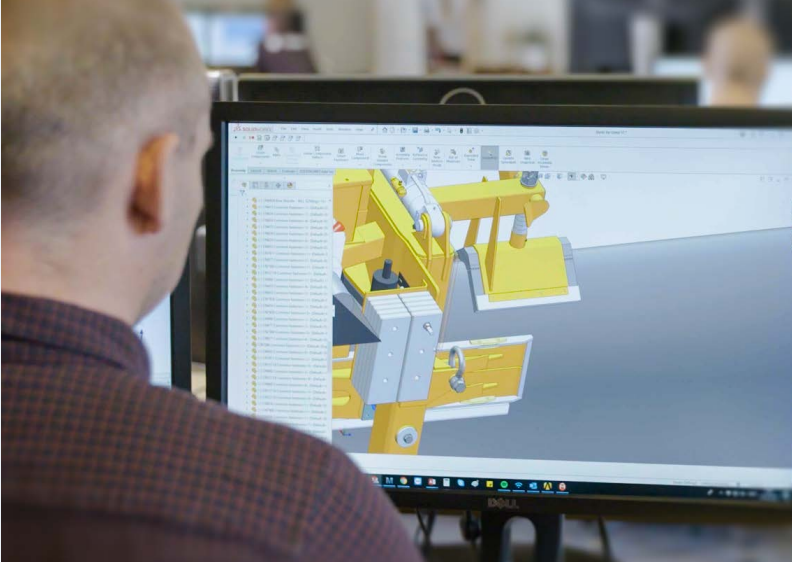
At Liftra, we offer a wide range of cost-efficient solutions providing optimized operations for the wind industry.

Backed by extensive experience, world-class engineering, and an agile approach we design our equipment to support operations on both current and next-generation wind turbines — all with a clear focus on a sustainable future.

- Engineering
- Equipment
- Manufacturing
- Product Services
- Refurbishment & Rental of Tower Transport Systems
- Load Test Facility

Engineering

We offer comprehensive engineering services, whether you need concept verification, co-development of a solution, or a completely new product designed for your specific demand. Our team of engineers is ready to deliver the best solution for your challenge.



Equipment

Developing tools for transportation, installation and maintenance of wind turbines is our specialty. Liftra tools are designed for easy mobilization to complex locations, support efficient operations at high wind speeds and reduce CO₂ emissions created during operation. Our cranes, yokes and transport frames are used globally by the largest stakeholders in the wind industry to tackle the most challenging operations.



Manufacturing

With over 20 years of production experience, Liftra operates manufacturing facilities in Denmark, China, Vietnam, Spain and Poland. Our facilities' day-to-day processes includes the production, assembly and quality assurance of Liftra tools for transportation, installation and maintenance.



Product Services

To enable the most optimal use of your Liftra equipment, we offer a variety of services, such as:

- Operator training
- Inspection and maintenance
- Operation
- Product Support

Our experts are ready to assist you, ensuring smooth and efficient operations.

Refurbishment & Rental

The Liftra Tower Transport System is one of our oldest and most widely utilized solutions. Our rental and refurbishment concept ensures efficient use of the Liftra Tower Transport System. From our refurbishment centers in China and Vietnam, we refurbish both rented and customer-owned systems, extending product lifetime and ensuring continued high-quality performance.



Load Test Facility

At the Liftra Load Test Facility in Næskov, Denmark, we offer tests in one of the largest test benches in Europe. With 2000 ton pulling force the test facility is utilized to load test lifting yokes, crane blocks and other heavy lifting and transport equipment.





WLL
120 t



Max tower height
250 m



Wind Speeds
18 m/s (14 m/s for blades)



Transport size
9 Trailer loads



Up tower Crane Weight
120 t



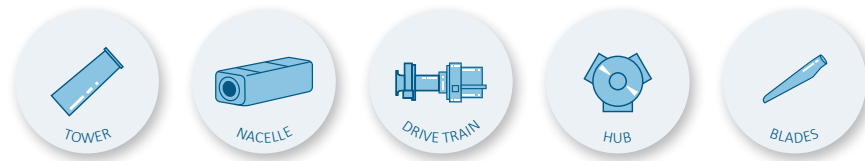
Required Crane pad area
Less than 900 m²



TURBINE INSTALLATION

LT1500 INSTALLATION CRANE

The Installation Crane is a state-of-the-art solution for cost-efficient and sustainable wind turbine installation onshore and offshore.



Build upon self-hoisting crane technology
In use since 2013.



CO₂ emission reduced by 50%
for crane work



Reduced civil work
Over 50% of crane pad area reduction
compared to conventional cranes.



Reduce installation time by 25%
The fastest road to power production.



Minimal Mobilization
All parts fit a standard truck bed, and the
crane can be relocated between turbines
on a SPMT without disassembling.



The LT1500 project is supported by the EUDP - Danish Energy Technology Development and Demonstration Program.



FOR MORE IN-DEPTH
INFORMATION CHECK
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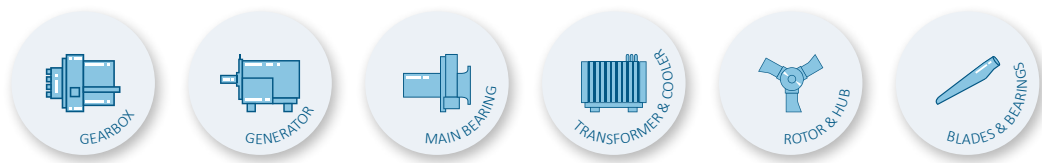
LIFTRA SELF-HOISTING TECHNOLOGY

LT1200 SELF-HOISTING CRANE

Cost-effective, universal up-tower crane solutions for all major component exchange operations, eliminating the need for large, conventional cranes.

Innovative engineering has positioned Liftra as a pioneer in the new paradigm of wind turbine maintenance without the use of conventional cranes.

The Liftra Self-Hoisting crane has been the front runner in up-tower crane technology since its launch in 2013. Today, Liftra's self-hoisting cranes facilitate low-emission major component exchange on close to half of the worlds operating MW wind turbines, with more still in development.



FOR MORE IN-DEPTH
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WLL
Up to 78 tons



Weight
24-26 tons Depending on
tower height



Max hub height
Up to 179 (210 in 2027)



Peak wind speed
18 m/s peak



Fully Electric option



Reach
Up to 7 m



Reduced mobilization costs
Transported in a single standard
40-foot container.



Minimal site footprint
Ideal for remote locations and areas
with poor infrastructure.



Multi-brand compatibility
Multi-brand system - compatible
with all the major turbine brands.



Optimized for safety
The operator is in full control right
next to the crane and gearbox.



Proven technology
More than 80 cranes operating
worldwide on 6 Continents.



MAJOR COMPONENT EXCHANGE

With the Liftra Self-Hoisting Crane (LSHC), major component replacements of any kind are possible anywhere on the globe.

Whether dealing with difficult terrain or small crane pads, the LSHC excels in versatility and practicality. Its innovative design allows for efficient operation in the most remote areas, ensuring reliable maintenance worldwide.



LIFTRA SELF-HOISTING CRANE OPERATIONS

- PREVIOUS AND ACTIVE COUNTRIES
- COMING SOON

COMPATIBLE WITH
ALL THE MAJOR
TURBINE BRANDS
CHECK OUT FULL
LIST OF COMPATIBLE
TURBINES



OFFSHORE COMPONENT EXCHANGE

Through strategic collaborations, we introduce innovative offshore maintenance solutions, powered by our Self-Hoisting Crane technology.

Key benefits of using the LSHC offshore:

- Major component replacement without jack-up solutions
- Availability of smaller barges leading to lower mobilization costs
- Allows operation at higher wind speeds by attaching to the nacelle
- Low emission solution

WATCH THE
FIRST OFFSHORE
COMPONENT
EXCHANGE
WITH THE LSHC



READ MORE
ABOUT ATOMS ON
LIFTRA.COM



 **SOLVE WIND**

DEME

DEME Offshore and Liftra joined forces

Developing a novel installation and maintenance methodology, including the Turbine Installation Crane (TIC) technology integrated on board existing DEME vessels, suitable for bottom-fixed and floating turbines.



HMH

OCX (Offshore component exchange)

This solution combines the LT1200 Liftra Self-Hoisting Crane technology with HMH Heave Compensation technology, supporting service operations from offshore supply vessels.



SOLVE WIND

Combining The LSHC with SOLVE Winds innovative, semi-submersible ATOMS barge technology creates an integrated technology solution. This enables off-shore major component exchange without the need for jack-up vessels.

The ATOMS platform is a multi-brand solution for optimizing the maintenance of fixed-bottom and floating wind turbines using the Liftra Self-Hoisting Crane. The platform was developed by SOLVE WIND, a joint venture between Liftra and Esteyco.



Reduces Costs

Self-Hoisting Crane technology eliminates hub height as a cost driver



Universal

No seabed or water depth limitations, as there is no need to jack up





LT1650 Blade Eagle

YOKES

Liftra provides a diverse range of lifting yokes designed to enhance efficiency and safety in wind turbine installation and maintenance.

With over two decades of industry experience, Liftra stands out as a leading provider of yokes for both single blade and full rotor installations in onshore and offshore environments.

Our solutions are developed in close collaboration with original blade and turbine manufacturers, offering a range of customized and standardized options for various blade handling needs. Leveraging our extensive field experience, we design solutions that streamline processes, contributing to the overall cost reduction of wind energy.

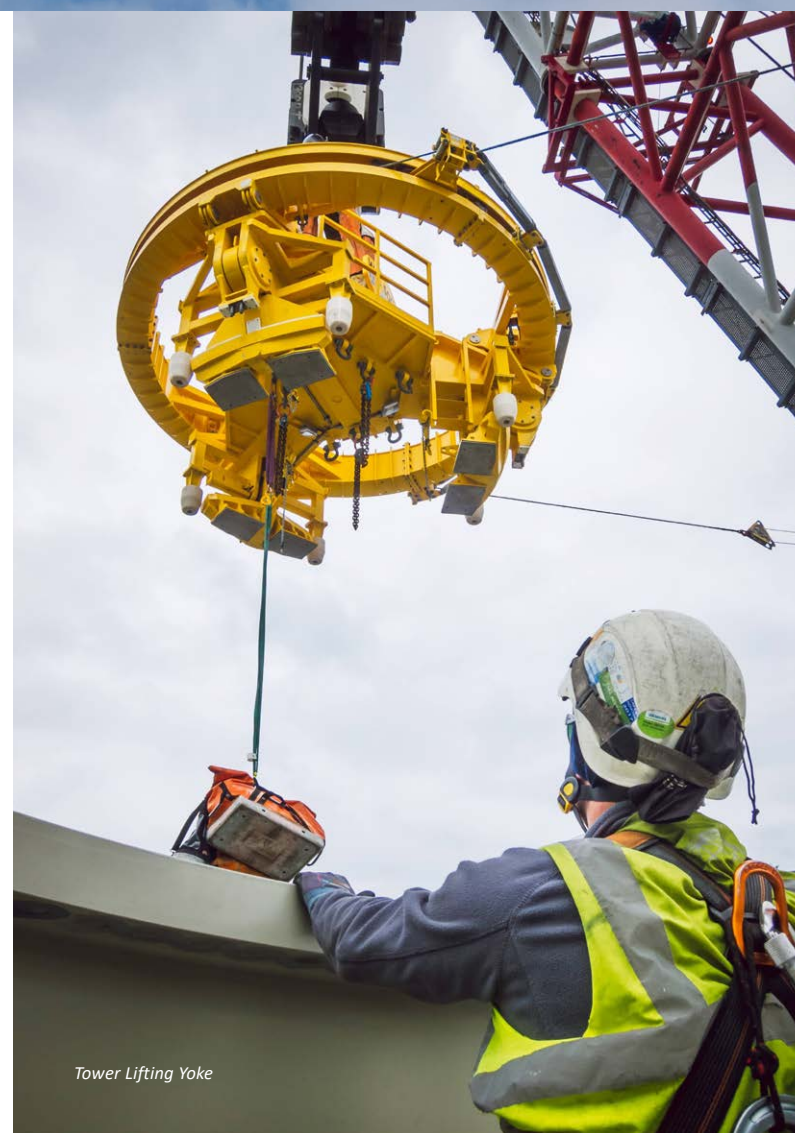
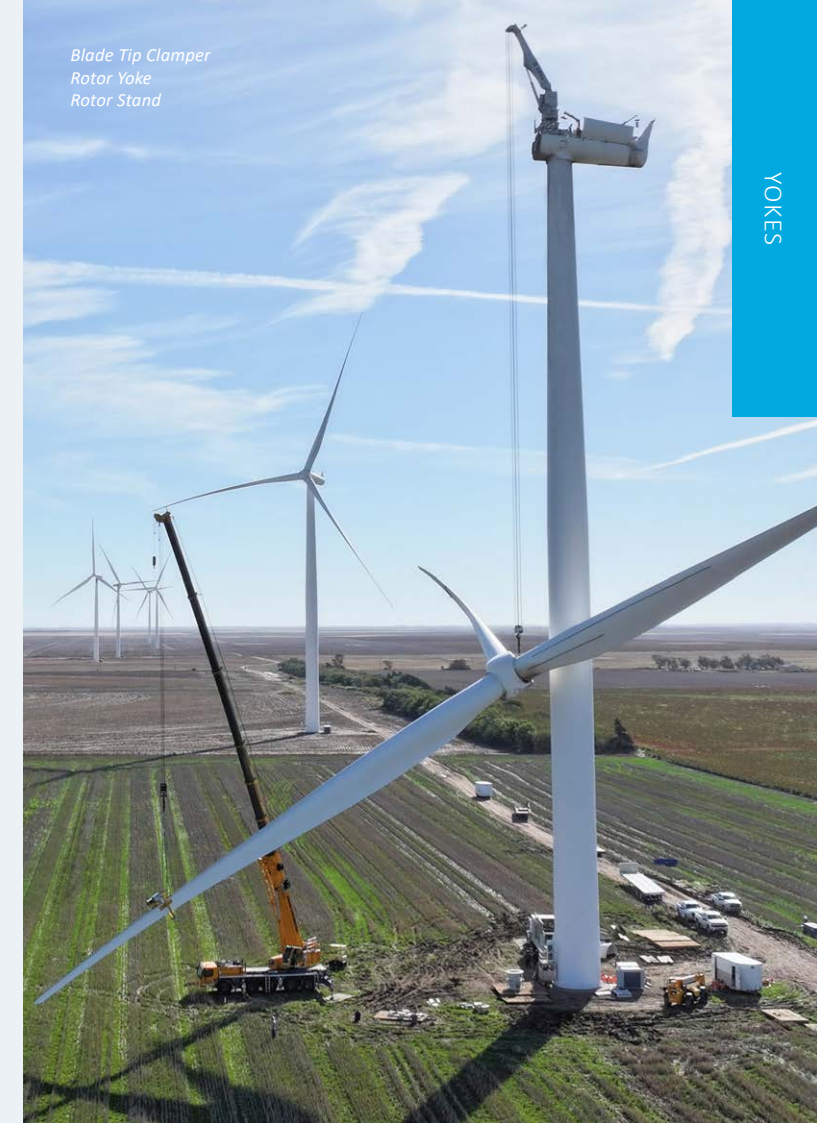
VERSATILE BLADE INSTALLATION

Liftra's blade yokes feature a versatile construction that ensures optimal stability throughout the blade installation and disassembly process.

The growing appeal of single blade installation is evident as wind turbine installations are frequently conducted in challenging environments, including remote locations such as forests, mountains, and offshore sites.

Liftra's blade yokes address these challenges with their flexible construction, ensuring optimal stability throughout the blade installation and disassembly process.

Blade Tip Clamper
Rotor Yoke
Rotor Stand



Tower Lifting Yoke



Skylark



LT890 Rotor Yoke

CHECK OUT ALL
OUR YOKES ON
LIFTRA.COM



BLADE HAWK

Installation and service in horizontal position (0°). Ideal for turbines with gearboxes or turning tools.

-  **Fast and Easy mobilization**
Collapsible yoke enables single-truck transportation and can be ready for use within an hour.
-  **Integrated tilt and pitch**
Built-in tilt and pitch ensure more efficient maneuvering process.
-  **WLL up to 32 tons**
Designed for both onshore and offshore blades.
-  **Onshore and offshore use**
Complete third-party CG3 certification.



BLADE SKYLARK

Installation and service in vertical position (-90°). Enabling blade or pitch bearing exchange using Liftra Self-Hoisting Cranes.

-  **Blade exchange with up-tower crane only**
Works with LT1000 and LT1200 Liftra Self-Hoisting Cranes.
-  **Eliminates the need for a tailing crane**
-  **Vertical handling**
Lowering required hook height to just below the nacelle for conventional crane use.
-  **Easy configuration**
A simple adapter can be changed to fit multiple blade types.



BLADE DRAGON

Installation and service in a wide range of positions (+35° to -125°). Enabling blade operations on direct drive turbines with both hydraulic and electric pitch.

-  **Wide Range Installation**
Operates in 12 m/s and 18 m/s peak winds.
-  **No need to power the turbine**
Blade Dragon requires no yawing, pitching, or rotor turning.
-  **One-point lifting**
No tailing crane required.
-  **Offshore approval**
Complete third-party CG3 certification.



BLADE WAY

Installation and service in vertical position (-90°). The Blade Way is a stand-alone system for blade and pitch bearing exchange without using cranes.

-  **Crane-less Solution**
Standalone system.
-  **Minimum transport costs**
Transported in two 40ft containers ensuring minimal preparation on site.
-  **High stability**
Works in high wind speeds, and requires no tagline assistance.
-  **Multi-brand tool**
Easily reconfigured between different turbines.



READ MORE
ABOUT OUR FIELD
EQUIPMENT ON
LIFTRA.COM:



UP-TOWER EQUIPMENT

We offer an extensive array of turbine-specific & adaptable up-tower equipment for turbine maintenance.

Our portfolio includes:

- Main shaft fixtures
- Rotor locks
- Rotor turning gears
- Ejector systems
- Auxiliary cranes
- Cabriolet systems

READ MORE ABOUT
OUR UP-TOWER
EQUIPMENT ON
LIFTRA.COM



LT5101 Rotor Turning Gear



FIELD EQUIPMENT

Liftra provides specialized field equipment designed to support safe and efficient wind turbine operations at ground level.

Our solutions support the preparation, handling and execution of installation and major component exchange activities, helping crews manage equipment and components efficiently throughout the operation.

- Multi-brand rotor stands
- Manual tagline winch
- Blade stand



LT1108 Manual Tagline Winch

LT1299 Medium Weight Crane



LT019 Main Shaft Fixture

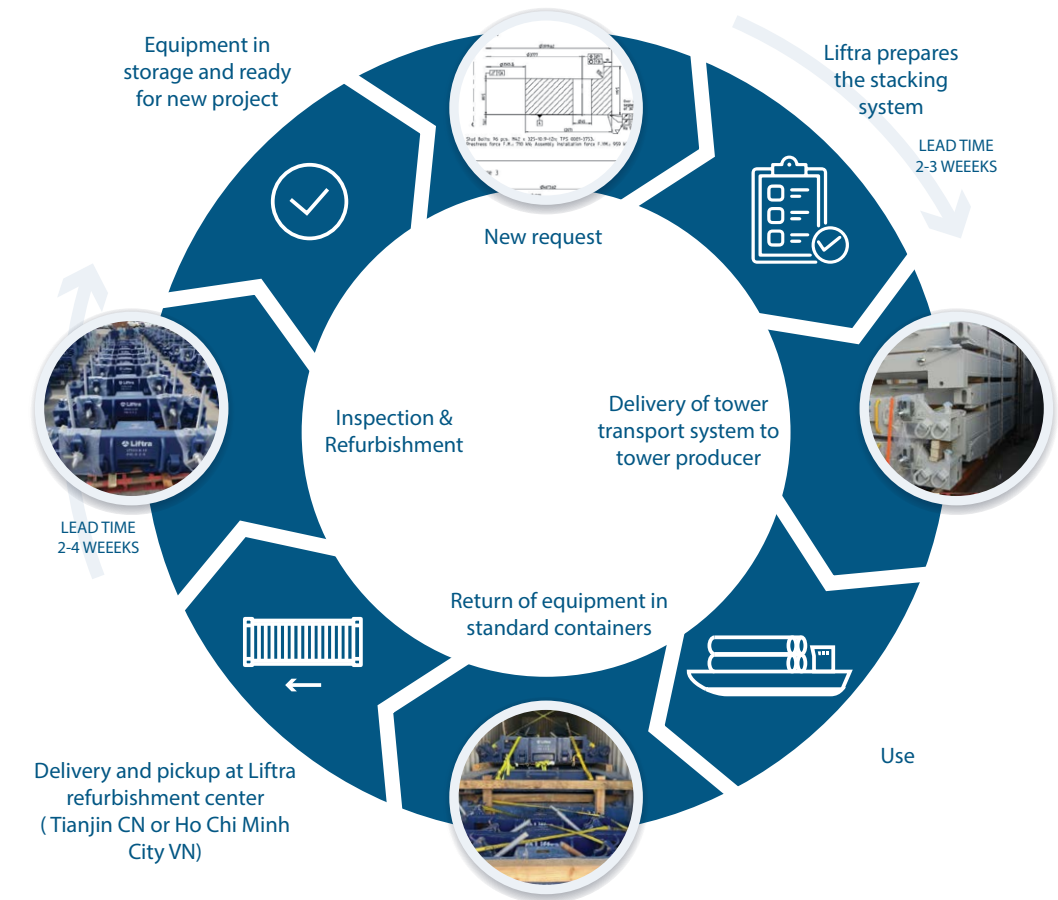
TRANSPORT EQUIPMENT

Liftra technology has supported transportation of turbine parts for more than 20 years.

We provide multi-brand solutions for onshore and offshore transportation and lifting of all turbine parts, including:

- Towers
- Blades
- Hubs
- Nacelles

The Liftra transport systems is also available for the Liftra Global refurbishment setup for both rented and purchased transport equipment.



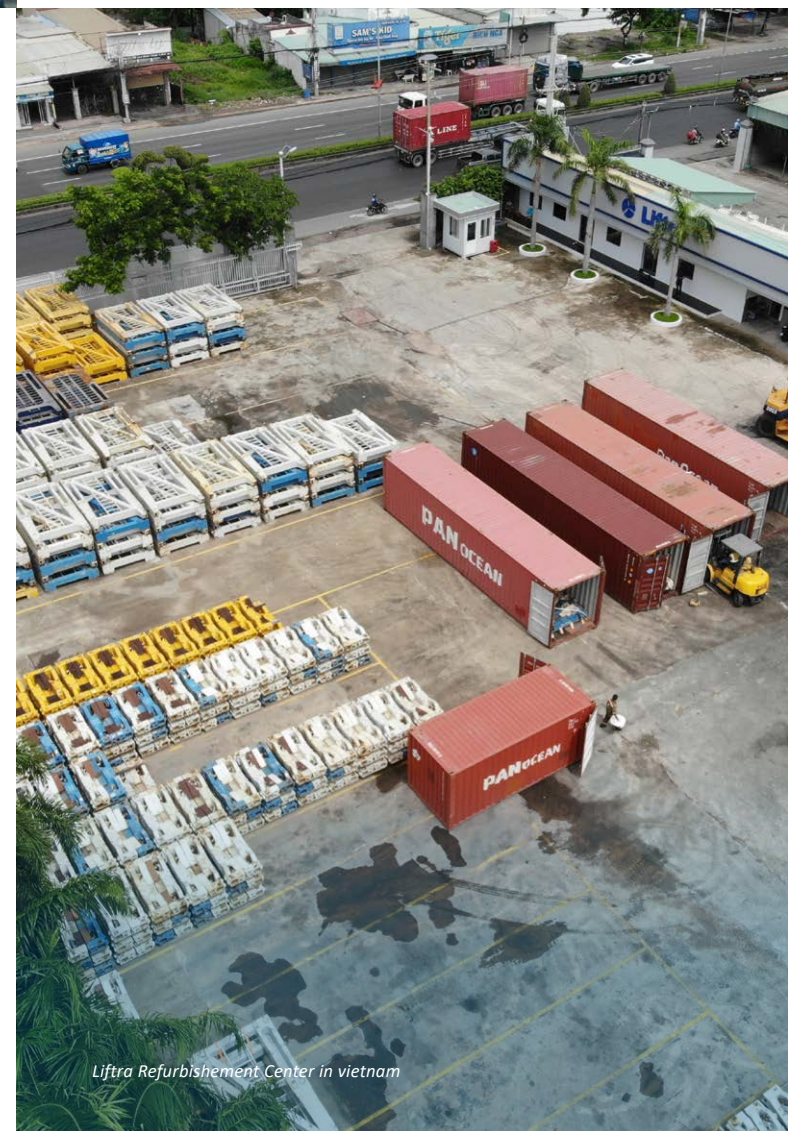
TOWER STACKING FRAMES

Tower Stacking System offers efficient sea transport and storage of towers and tower sections.

This system supports multibrand tower and tower section handling ranging from Ø2,3 m to Ø7,3 m in flange diameter. The Tower Stacking System can be packed into a standard container for compact transportation.

BLADE STACKING FRAMES

Blade Stacking frames enable secure stacking of blades in single, double or triple levels, for offshore transportation.





TRAINING

At Liftra, we provide comprehensive training with every equipment purchase.

Our training programs combine product knowledge with practical experience and can be supported by digital training solutions.

Our training services include:

- Product-specific operator training
- Practical training and testing
- Training at Liftra or customer locations
- Digital training
- Operator certification
- Development and maintenance of training materials



PRODUCT SUPPORT

Our dedicated support engineers are available throughout the entire lifetime of your Liftra equipment, providing technical support, spare parts assistance and help with urgent issues.

With Liftra locations worldwide, we provide inspection and maintenance services globally, either at a Liftra location or at a location chosen by the customer.

From spare parts and technical support to inspections and maintenance, our Product Support team helps keep your Liftra equipment ready for safe and efficient operations.

INSPECTION & MAINTENANCE

Liftra provides inspection and maintenance on Liftra equipment worldwide. Services can be carried out at a Liftra location or at a customer-selected location.

During inspections, our product specialists ensure that your Liftra equipment remains in excellent condition and complies with all specifications and requirements.

Our services include:

- Annual inspections
- Product-specific maintenance and support
- Service at Liftra or customer locations
- Support from experienced Liftra product specialists



FIELD OPERATIONS

We provide highly skilled and certified operators for both onshore and offshore operations.

Our operators combine in-depth product knowledge with extensive site experience, supporting customers with safe and efficient execution in the field.

Our operational support include:

- Liftra-certified product operators
- Onshore and offshore field operations
- Operators for customer-owned Liftra equipment
- Liftra equipment and operators available for rental where applicable
- Support for Self-Hoisting Crane and blade yoke operations



CERTIFIED QUALITY

At Liftra we take pride in our ability to provide customers with high-quality products.

Quality control is embedded in our engineering process, and we have extensive experience with third-parties like DNV and Bureau Veritas, approving products in accordance with EN, ISO, ASME and DNV standards and rules.

Liftra is actively involved in the European Crane Standardization Committee (S-353), contributing to the development and adhering to crane standards.

We operate under multi-site certified management systems (ISO 9001 and ISO 45001, with ISO 27001 and 14001 in progress) and hold EN 1090 and ISO 3834 certifications for our in-house production—ensuring consistent, high-quality, and safe delivery of our products and services.



ISO 9001:2015



ISO 45001:2018



PATENTED TECHNOLOGY

Built on decades of engineering experience.

Liftra’s solutions are built on proven technology and extensive industry experience.

Certain products and technologies described in this brochure are protected by one or more patents or patent applications.

FOR INFORMATION ON PATENTS AND PENDING PATENT APPLICATIONS, PLEASE CONTACT OUR LEGAL DEPARTMENT.



LT1200 Self-Hoisting Crane

YOUR BUSINESS PARTNER IN THE WIND INDUSTRY

At Liftra, we believe that collaboration drives innovation. Through joint ventures and strategic partnerships, we have developed solutions that enhance operational efficiency, improve safety, and reduce the costs of wind turbine installation and maintenance.

We are always exploring new opportunities to collaborate and innovate. Therefore, we embrace partnerships and business ventures that align with our commitment to develop high-quality, efficient and sustainable solutions for the wind industry.

Our strategic partnerships and joint ventures include:

PowerCurve

Independent service provider specializing in aerodynamic blade enhancements.

SOLVE WIND

Disrupting offshore fixed and floating wind turbine maintenance.



flucto

Smarter lifting through sensor-driven precision and safety.



Handles secure on-prem AI solutions.

DEME

Pioneering offshore wind installation with vessel-based self-hoisting cranes.

BLADECORRECT

Liftra-owned blade repair company specializing in large-scale blade repairs.

LEAP

Customized software and control solutions for the wind industry.

**CNC
ON SITE**

Customized on-site repair solutions and tooling combined with advanced lifting technologies.

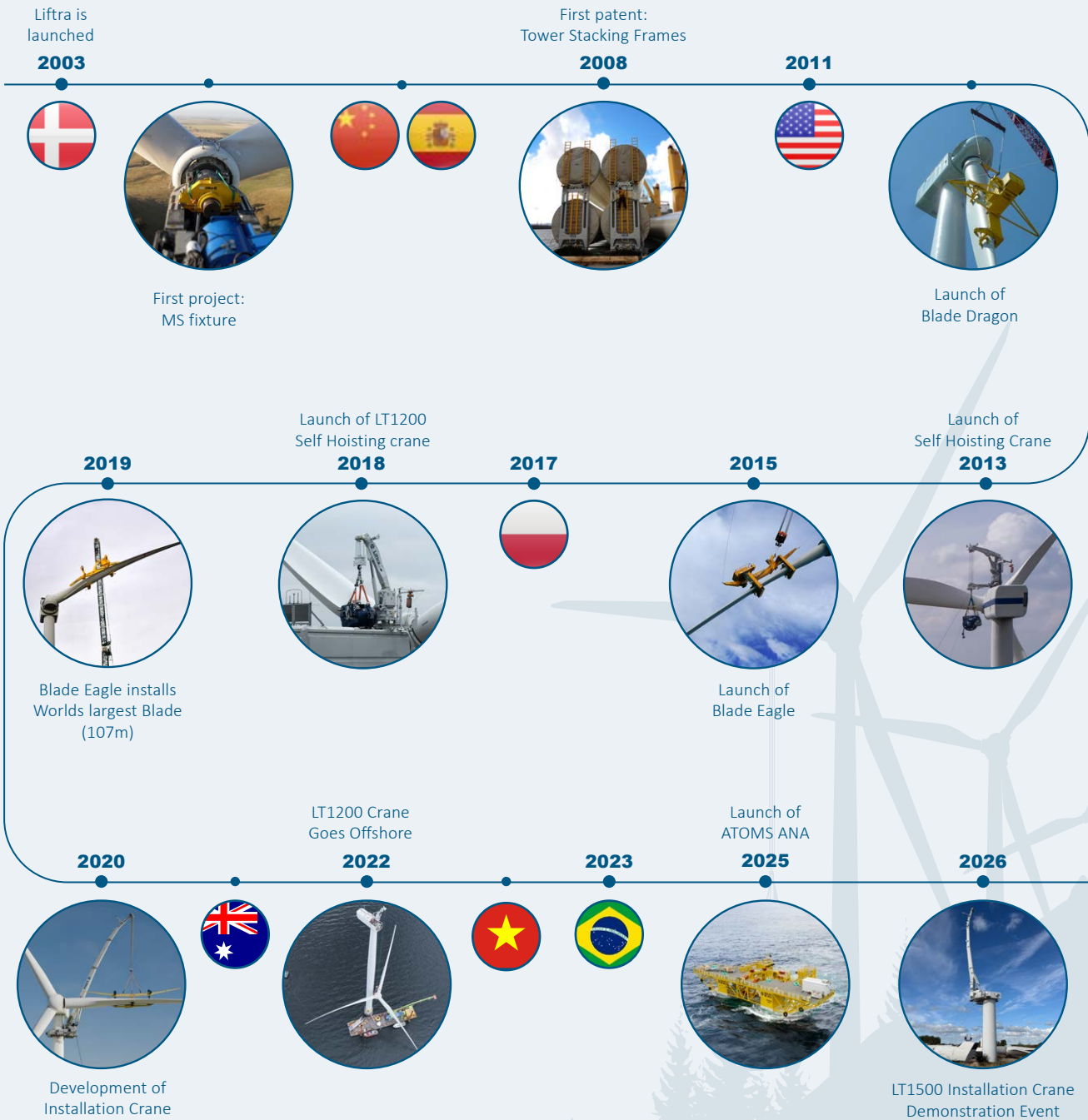
HMH

Enabling offshore major component exchange through advanced crane and vessel motion compensation.

MORE THAN 20 YEARS OF LIFTRA

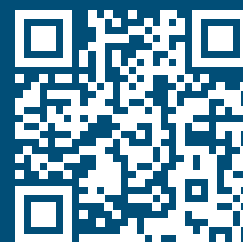
Liftra was founded in Aalborg, Denmark, in 2003 by engineers Per Eske Fenger and Jens Mortensen, initially providing engineering consultancy for lifting and transportation solutions in the wind energy industry.

As Liftra grew, the company evolved from an engineering consultancy into a global technology and solutions provider, driven by an ambition to challenge conventional practices in wind turbine installation, maintenance and transportation. Along the way, new technologies, international expansion and key milestones have shaped Liftra into the company it is today.





**DOWNLOAD
SALES MATERIAL**



Since 2003, Liftra has provided high-quality equipment and services to the wind energy sector, growing into a global company specializing in lifting and transportation. Liftra designs, engineers and manufactures tailor-made equipment to meet the specific needs of the wind industry.

Contact us directly if you're interested in our solutions. You can also learn more about our products on our website or follow us on LinkedIn to get our latest news.



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