

WIND



 | **sarens**



NOTHING TOO HEAVY, NOTHING TOO HIGH

ABOUT US

WITH STATE OF THE ART EQUIPMENT AND VALUE ENGINEERING, WE OFFER OUR CLIENTS CREATIVE SOLUTIONS.

Sarens has been providing exceptional heavy lift and specialized transport services for over 60 years; over four Sarens family generations are intimately involved in this business. Our success lies in our entrepreneurial spirit and our continued dedication to our job.

We are able to offer our clients ready-made innovative solutions thanks to our subsidiaries around the world. With more than 100 entities over 60 locations operating without borders, we are the ideal partner for small-scale to mega-scale projects.

Safety and excellence in all we do are paramount to us. We strive daily to establish a safe space for our people, your people, and the equipment. We will continue to build our future on the foundations of our rich past, but we ensure our clients that we will always stay ahead of the game when it comes to heavy lifting and engineered transport innovation. We will keep breaking ground and securing that your projects are delivered in the fastest, safest, and smartest way.

Sarens' global presence, its large crane fleet, and its broad experience in the transportation, lifting and installation of wind turbines, makes us a valuable partner in the on-shore wind power sector.

The on-shore wind industry has been developing dynamically for decades. It all started in Europe and expanded rapidly worldwide. From the very beginning Sarens has been heavily involved in the assembly of wind turbines, providing services of the highest level. The wind industry has always been an important market segment for the Group, with mainly lattice boom cranes over 500-750T deployed for our projects globally.

In recent years, we have configured our services to cater to our global clients who have progressively centralised their intelligence. Today, with our specialised Wind Department, we offer tailor-made solutions to wind projects with the vision of being the preferred supplier in this dynamic industry of wind turbine manufacturers.

Sarens Wind is primarily focused on the implementation of activities in Europe and other locations worldwide. We believe that the key to success is to run the Wind business with experienced and specialised professionals, who are working at the construction sites as well as with experienced personnel working from the back office.



OUR SERVICES

From the beginning, Sarens has been an integral partner to the wind market. Conveniently located across the globe, our cranes provide efficient and cost-effective solutions that maximize use and minimize mobilisation.

We have the know-how and the global and local presence to undertake any size of wind project anywhere, as well as the required expertise to implement uniquely designed solutions wherever required. We have been a partner in the installation of big part of power of wind energy.

Our partners include all major producers of wind turbines. Our projects have varied from the standard provision of craning service to individually engineered lifting solutions for specific turbine designs and geographical challenges.



We provide any types of services for the onshore wind industry such as

- **Onshore wind farm installation**
- **Wind turbine maintenance**
- **Blade repair and blade change out**
- **Customised engineering solutions**
- **Wind farm decommissioning**
- **Turnkey projects**
- **Crane rental only**
- **Project management**

Our dedicated wind engineers and project managers are able to identify customer needs at an early stage and advise the best type and configuration of cranes, site lay-out, and logistic approach. Planners establish logistic sequences so that the project is executed in accordance to the client's schedule while optimizing the costs of both Sarens Wind and the client.

To optimise the workflow, we assign to each client a dedicated representative, a Global Key Account Manager (GKAM), in order to identify needs and requirements quickly, while maintaining a good cooperation and relationship.

All of our projects are fulfilled with SHEQ (Safety, Health, Environment, Quality) standards. For Sarens, safety is paramount. We aim to provide a safe and healthy working environment for our employees, contractors, and visitors.

OUR EQUIPMENT



Sarens uses the following equipment for project execution:

- **LG1750SX**, to erect wind turbines over 140 meter hub height
- **PC3800**, an innovative unit, designed in cooperation between Terex and Sarens Engineering departments
- A wide range of **SL3800, CC3800 (boom booster) TC2800-1**
- A wide range of **C2800-1**
- A wide range of **LR1600/2**
- Narrow track crawler cranes
- Large fleet of telescopic cranes, including numerous **LTM1750, AC700 and AC500 and LTM1500**

All of the above-mentioned cranes are supported by auxiliary equipment, cranes from 40 to 450T.

OUR PEOPLE

At Sarens, we play a key role in the wind-energy market and support our clients in the most efficient way. We rely on our people to ensure every project is executed in a structured, safe, and efficient manner. We employ engineers, lawyers, finance experts, field personnel, safety and quality advisors, and sales consultants.

*Operation
Manager*

*Project
Manager*

Engineers

*Field
Experts*

*HR
Manager*

*SHEQ
Manager*

*Sales
Manager*

*Country
Manager*

*Fleet
Manager*

*Maintenance
Team Fleet*

WHO DO WE EMPLOY

To secure a quality-service for our clients, our team consists of a variety of professionals. We have well-established hiring procedures that guarantees us an arsenal of dynamic and qualified experts from all around the world.



WE IMPROVE OUR TALENT

Sarens also provides constant training to employees. In this way, all of our representatives are skilled to supply Sarens with the benefits of the latest methodologies in the field both on a back-office and an on-site level. We believe in continued education and, to that end, we have our own Learning Management System, and provide SWOT analyses in our Assessment and Development centre. Through the growing opportunities we provide, our employees work in a framework of constant improvement



LOCATION: La Prevoterie, Droupt-Saint-Basle, France
EQUIPMENT: LTM11200-9.1, LTM1100, AC100-4, LTM1060-2

Sarens erected 18 wind turbine generators, type MM92 at 80 m hub height. Due to the telescopic crane LTM 11200 that can mobilise on site between wind turbines in only half a day, erection sequences of up to three turbines per week can be reached. For these projects Sarens supplied an all-in TCI service. This includes transport (T) from all WTG parts from manufacturer to site, all loading, intermediate storage, unloading and craneage (C), and complete mechanical and electrical installation (I). The complete project approach

LOCATION: Merredin, Western Australia.
EQUIPMENT: LR1350, SCX 2800, CC 2800

Stage one of the project consisted of 111 x V90 Vestas turbines, spread over a 20 by 10 km site. The turbines were being erected in two stages. The first stage, base (76T) and middle (43,5T) tower sections, were installed by an LR1350 and SCX 2800 with main boom while the main crane, a CC 2800, completed the wind turbines. The nacelle and hub were lifted in one piece and is the heaviest lift at 93T which is mounted on top of the 80m high towers.

LOCATION: Hornsdale, Australia
EQUIPMENT: GR800EX, Tadano ATF110, Tadano ATF130, Liebherr LTM1130, Liebherr LTM1500, Liebherr LG1750 config. SP SL8HS (98m main boom), 100 floats, 3 prime movers and 10 trailers

Sarens Safely Installed 67 Wind Turbines at The Hornsdale Wind Farm Phase II & III. After successfully completing the installation of 32 wind turbines at the second phase of the Hornsdale wind Farm in South Australia in record time, Sarens division in Australia was awarded the contract by Siemens Gamesa Renewable Energy to further install wind turbines at the third phase of the Hornsdale wind Farm. To reach the required installation rate of 2.5 turbines/week the team performed the main lifting of the turbines during the day and relocated the cranes during the night. This resulted in the a maximum of 5 installed turbines/week, a new record in the installation of wind turbines.

LOCATION: Akhfennir, Morocco
EQUIPMENT: LR1600-ZW, LTM1400, AC200, GMK5220

Sarens performed the erection of wind turbines in the dessert of Morocco for General Electric. 27 wind turbines were built by the Sarens team, and another 29 first tower sections were preassembled. The team did it in over 1.580 hours of working activity, or five months. The installation wasn't easy because of the strong desert winds and rain showers. The delays, because of the bad weather, were recovered by the determination of the team that worked during the night.

NOTHING TOO HEAVY, NOTHING TOO HIGH

LOCATION: Trairi, Brazil
EQUIPMENT: LR 1600/2W, AC 500-2, 100T hydraulic crane

Sarens in Brasil and its partner BSM were awarded the project "Trairi" for crane services to pre-assemble and to execute the final assembly of the first 50 units Siemens Wind Turbine Generators with concrete towers. This was the first Siemens project where these concrete towers are used.

LOCATION: Ojukula, Estonia / Pakertai, Lithuania
EQUIPMENT: TC 2800-1, GMK 5100, LTM 1400-7.1

Sarens in Poland executed the first Sarens project in Estonia: the assembly of three E82 wind turbines. The project was completed quickly and on time. Afterwards, the cranes were transported to Lithuania for a another project. On site, in Lithuania a LTM 1400-7.1 was used for preassembly and a TC 2800-1 and GK 5100 for installation. This project also finished on time and to the clients' satisfaction

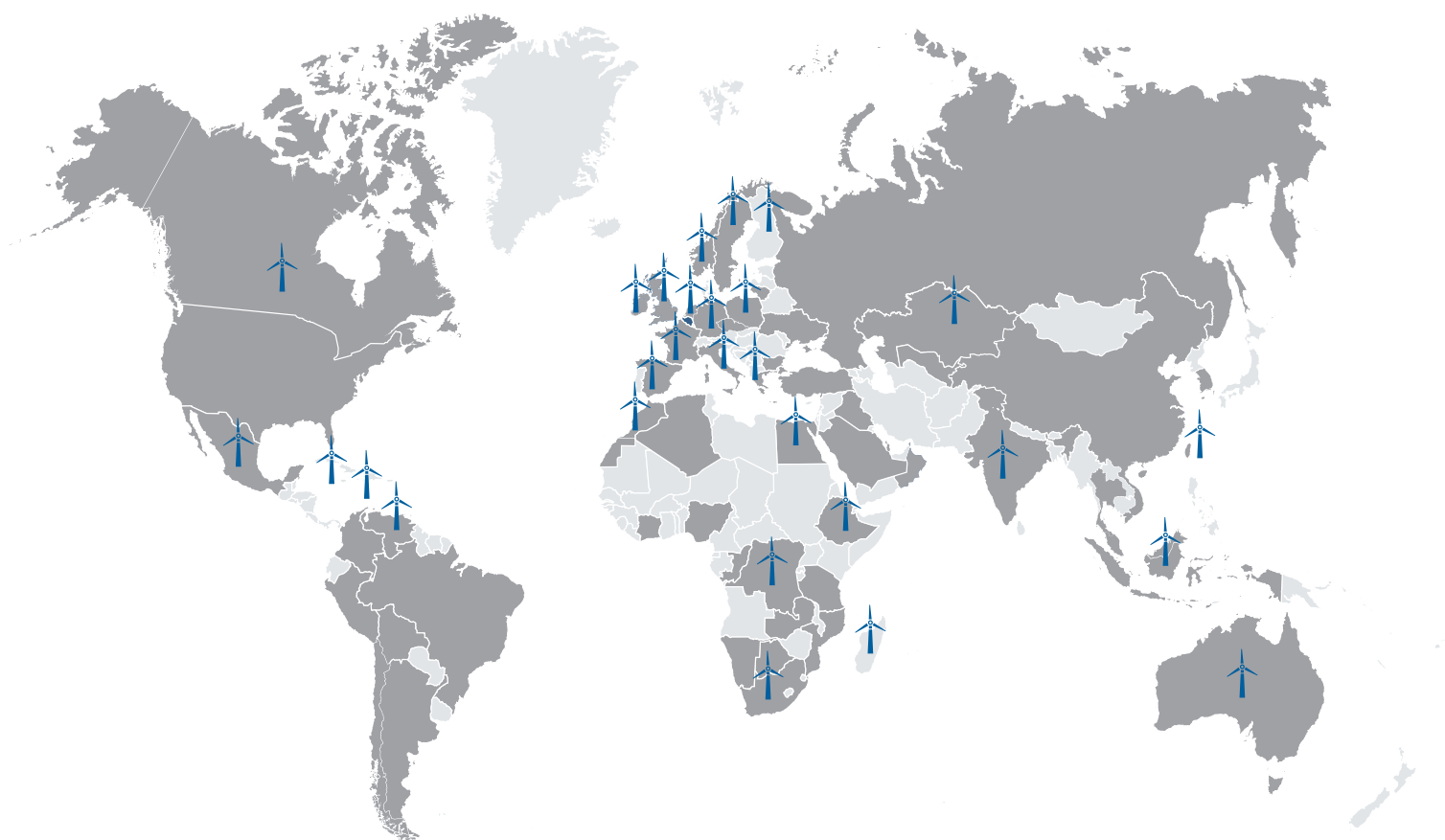
LOCATION: Bas-Saint-Laurent, Canada
EQUIPMENT: LR1600 SL4DBF 120 + 12, LR1750 SL7DHS 126 + 6

The Nicolas-Riou wind farm community project is a partnership between EDF EN Canada, the Régie intermunicipale de l'énergie du Bas-Saint-Laurent, a company wholly owned by all of the RCMs of the Bas-Saint-Laurent as well as the Viger Maliceet First Nation and Régie intermunicipale de l'énergie Gaspésie-Îles-de-la-Madeleine, composed by the RCMs of this region and Îles-de-la-Madeleine conglomeration. This 224.25 MW wind farm, is comprised of 65 Vestas V117 wind turbine generators. Sarens assisted the built with the supply of cranes, and in this way helping in completing the project prior to winter.

LOCATION: Methil, Scotland
EQUIPMENT: Demag CC9800, Demag CC8800-1 BB, 2 x Demag CC2800-1, 2 x LR1160, 1 x LTR1200, 2 x LTR1100, Various Telescopic / Lattice Boom Cranes, 60 axles of SMPTs and 6 PPU

The Beatrice Offshore Wind farm will be Scotland's largest offshore wind farm when completed and operating. Located approximately 13km from the Caithness coast, Beatrice will create around 90 full time roles for the duration of its 25 year lifespan. Offshore construction began in April 2017. Beatrice will be energised in phases and will be fully operational in 2019. Sarens is proud to be part of the erection of the Beatrice Offshore Wind farm. At several UK sites, we provide heavy lift and transport services to transport and assemble jackets together with BiFab and Smulders for the Beatrice Offshore Wind Farm. Considering the weight of the jackets (up to 1.200T) we use our heaviest equipment, like the SGC-120 and various lattice boom cranes up to 1.600T, to provide the most efficient and safe solutions.

OUR PROJECTS



KEY FACTS

SARENS IS THE RECOGNIZED WORLDWIDE LEADER IN HEAVY LIFTING AND ENGINEERED TRANSPORT.

With state of the art equipment and value engineering, Sarens offers its clients creative solutions to today's heavy lift and transport challenges. With offices in more than 65 countries and dedicated employees, we are well prepared to support your next project.



CRANES



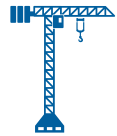
GIANT CRANE



HYDRAULIC CRANES



LATTICE BOOM CRANES



HEAVY LIFTING TOWER CRANES

TRANSPORT



CONVENTIONAL TRAILERS



MODULAR TRAILERS



SPMTs

CUSTOMISED EQUIPMENT



SKIDDING



BARGES



GANTRIES

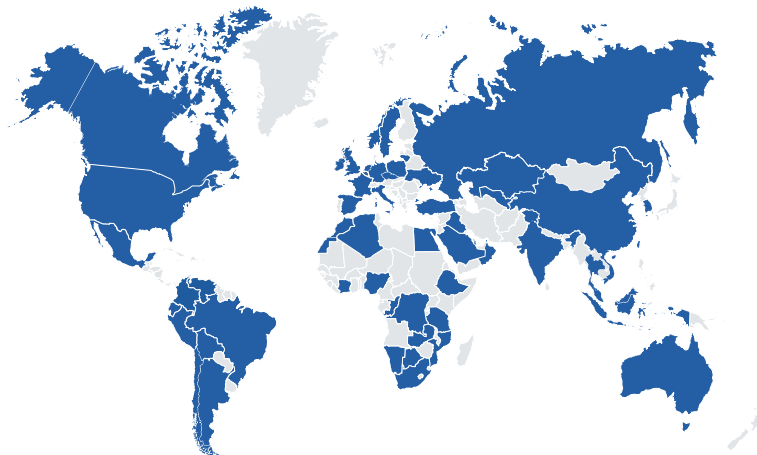


JACKING SYSTEMS



STRAND JACKS

GLOBAL PRESENCE



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Sarens Bestuur nv
Autoweg 10
1861 Wolvertem - Belgium

T +32 (0) 52 319 319
F +32 (0) 52 319 329

Wim Sarens, CEO

info@sarens.com
www.sarens.com