

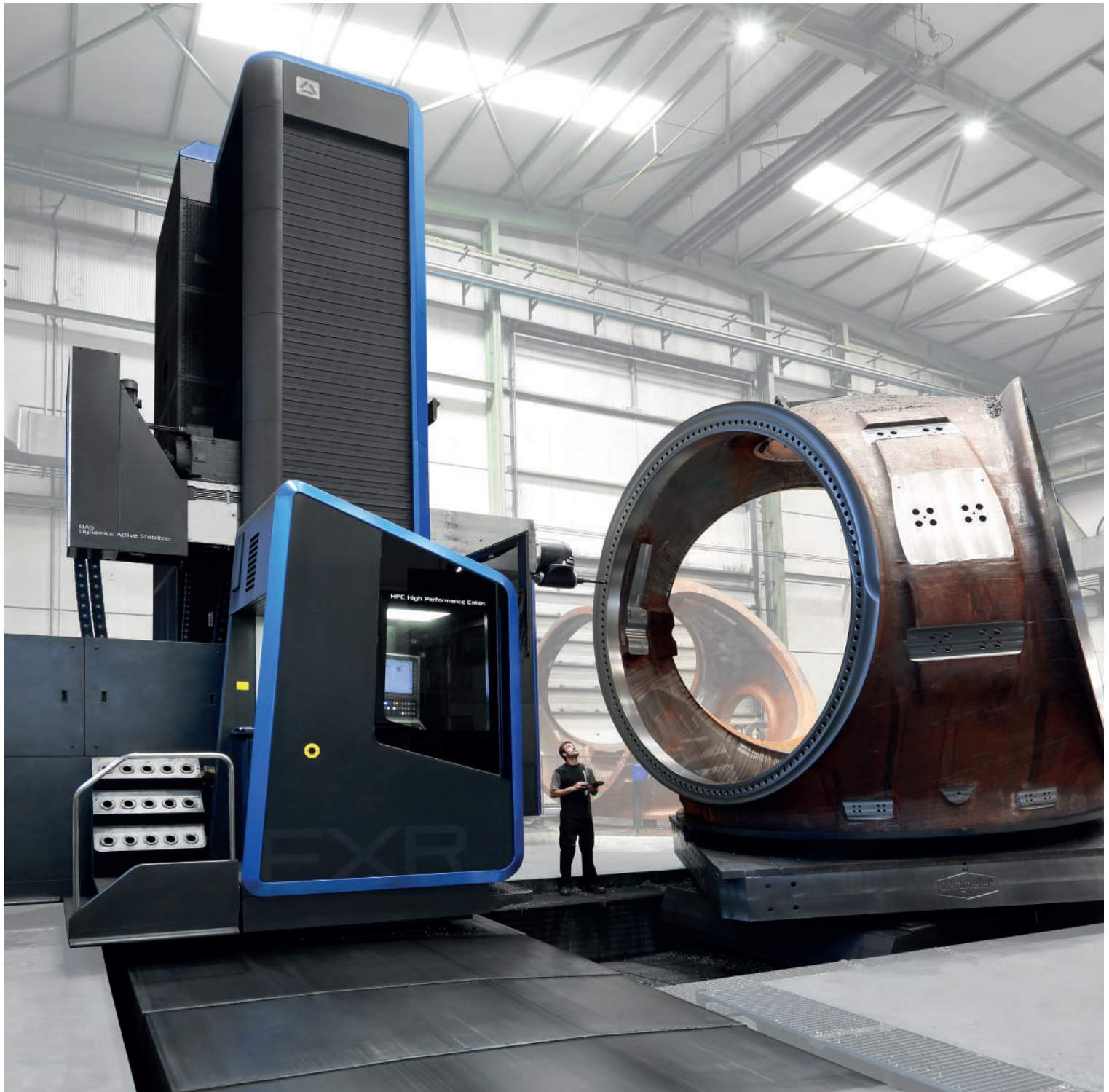


# SORALUCE

*Setting new standards*

NEW  
CHALLENGES  
NEED SOLUTIONS  
NEW

## SAKANA - LAKBER CUSTOMER EXPERIENCES





## CUSTOMER EXPERIENCES SAKANA - LAKBER

Zigor Bastida, Managing Director of Sakana - Lakber



*SORALUCE FXR multipurpose milling boring machine features state-of-the-art units with exceptional versatility, delivery high performance and high productivity with the minimum number of workpiece set-ups.*

## ARTICLE

**LAKBER, incorporated in 2008 in Lakunza (Spain), is a worldwide reference in the machining of castings for the wind power sector. It also machines large-size parts and provides high-precision machining under stringent conditions. It exports mainly to countries such as Germany, Denmark, the US and Brazil, and also supplies the domestic market.**

In addition to the mass production of parts, SAKANA - LAKBER develops part prototypes (hubs and frames) and homologates them with OEMs such as GAMESA, SIEMENS, GENERAL ELECTRIC, ACCIONA, Adwen, ALSTOM and MHI Vestas, securing exceptional levels of quality in record time. It produces its own toolings and fixturing systems, carries out its own machining processes and NDT inspections, and laser-measures finished parts.

SAKANA - LAKBER is part of SAKANA Group, which provides a complete offer on big manufacturing, including the casting process, machining, checking and surface treatment process (painting).

Since the outset, SAKANA - LAKBER has used five SORALUCE FR and FX floor type milling and boring

machines to machine large-size parts. The machines have a vertical traverse of up to 4,800 mm and a cross traverse up to 1,600 mm, with spindle power up to 46 kW.

As a result of the company's strategic reflection focusing on extending its range of products to move into new customer sectors, and due to increasing demand for the machining of large-size parts in the energy sector, shipbuilding and other areas, SAKANA - LAKBER asked SORALUCE to supply a suitable machine.

As a result, the best fitting configuration was defined as a SORALUCE FXR-12000-W milling-boring machine with a 6,500 mm vertical traverse and a 1,900 mm cross traverse, 81 kW motor and a rotary table with tilting movement 4,000 x 4,000 mm, W: 3,500 mm with capacity for 100 Tn parts.

This is a SORALUCE New Generation machine which won the Red Dot Award for an innovative design concept focusing on the needs of the operator, with much improved ergonomics and safety features as essential requisites for successful cutting-edge manufacturing. This approach fully optimises the potential of the machines' state-of-the-art technology to furnish a solution with maximum productivity

The machine has the latest SORALUCE technology developments with innovative functions and the required features for potential future needs:

- › The innovative **DAS system** consists of a device that can actively increase the dynamic rigidity of the machines, thus increasing cutting capability by up to 300% due to the reduction of the risk of chatter during the machining process. This system won the European Quality Innovation of the Year 2015 and Best of Industry 2015 awards.
- › **Modular quill**, a SORALUCE-patented system that fully automatically interchanges the modular quill spindle with the rest of the heads, maintaining the same distance from the column to the spindle nose, both for the quill and the other heads.
- › **Ram Balance**, a SORALUCE-patented Dynamic CNC Ram Balance System to guarantee the geometrical accuracy of the ram traverses
- › **Adaptive control** providing automatic adjustment of the defined cutting parameters depending on the real machining situation.
- › **SSV system** to vary the tool's speed of rotation to reduce the risk of chatter, especially during boring and turning operations. It continuously variates the spindle speed to distort chatter regeneration, especially during turning and boring operations.
- › **DHC**, a self-calibration system that increases the head positioning precision at any point in space.
- › Other developments such as calculation of the rotations of rotating/tilting tables, sleep mode, teleservice, identification and management of tools and technology cycles.

All these technologies in the New Generation of SORALUCE machines are used under the new HEIDENHAIN TNC 640 control unit. TNC 640 is a contouring control unit for 5-axis high-precision finish machining. SORALUCE deploys its know-how of technology, developments, solutions and applications to provide users with a fully accurate and reliable machining control unit. Compatibility, a workshop focus, a universal handling concept and state-of-the-art technology are the main features of the HEIDENHAIN TNC 640 control unit, with excellent integration of network manufacturing processes.

The SORALUCE FXR-12000-W milling-boring machine is also a 4.0 unit with a full cloud-computing monitoring unit that enables SAKANA - LAKBER to connect to the machine from any location and monitor the situation in real time, showing relevant information such as current



programme, tool in use, speeds of axes and heads and alarms, among other features.

SAKANA - LAKBER has placed again its trust in SORALUCE due to the reliability of its existing machines, range of power outputs, rigidity, flexibility and experience in the wind power industry. The wide range of SORALUCE milling-boring heads provides a customised solution for each application-operation and automatic changes of heads and tools, reducing idle time for head/tool changes to a bare minimum.

The SORALUCE F-series of multipurpose milling-boring machines features state-of-the-art units with exceptional versatility, delivering high performance and high productivity. They are reliable, rigid and yet flexible machines for easy and rapid adaptation to different machining operations and different types of parts.

In-production assistance by SORALUCE since the incorporation of SAKANA - LAKBER has been much appreciated, and has made it possible to homologate prototypes and mass-produce parts in record time.

