



Technical data sheet

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load carrying spar



SSP Technology component design offers optimized manufacturing processes, improved structural performance and a high level of control. The SSP spar solution is available to any manufacturer of rotor blades and can be made to existing specification, or designed by SSP for new blade designs.

In principal the spar is carrying the main load of the blade and the aerodynamic profile is laminated as a shell and glued around the spar. The critical surface between spar and shell has to be as precise as possible in order to be glued and assembled in a proper and controlled way. The spar is produced in a two element female mould. Therefore the surface of the spar is well levelled and precise at each point. A modular production process as applied reduces the risk of manufacturing errors.

The strength of a blade with the SSP spar can be varied without changing the production tools, meeting special customer requests. In case customers wish to upgrade the blades to a higher wind class this can be done, still keeping the customers' own blade shell using the spar design from SSP Technology.

Advantages of SSP load carrying spar:

- Full glue line control on the outside of the spar, due to the innovative construction process
- Can be customized to any wind class without changing the mould
- The laminate can be controlled visually from both sides
- High repeatability and minimal weight differences
- Value added material/infusion/hybrid laminates

SSP TECHNOLOGY

Catching the winds of Tomorrow

Serial production by modular approach

By setting up production lines to produce single elements and later combine them into blades, the productivity within the business of making wind turbine blades is optimized and the benefits from economies of scale are obtained. Not only are the technical results excellent, the financial results are also improved.

Recently it has been possible by implementation of the SSP spar to split blades for final assembly on site. This significantly reduces costs of transportation and handling. The concept has been proven in action with the blade mould for serial production.

Traditional spar



SSP Technology spar



Accuracy of fit



Technical excellence



Benefits from SSP load carrying spar



Smart concept	Flexible design
Reliable technical platform	Design perspective
Based on female mould	Precise and with optimal quality
Repeatable and traceable	Confidence
Scalable	Flexible product line
Controllable glue lines	Reliable quality

About SSP Technology A/S

SSP Technology develops and manufactures moulds and patented blade components for the production of cost effective, high performance and reliable blades made of composite material. We possess leading edge knowledge in the area of rotor blade technology and mould construction from drawing board to production, placing strong emphasis on aerodynamics, uniform quality, low weight and high productivity. Through the use of SSP's technology expertise, the customer's blade performance will become highly competitive especially with regard to future development.

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