Vestas root joint hall



SHORT DESCRIPTION

In a planning and execution period of just ten months, Implenia built a 3,270 m² extension to a production hall used by VESTAS Blades Germany for the production of rotor blades.

THE PROJECT

The Buildings branch in Leipzig extended the VESTAS Blades Germany production hall for wind turbines by a further 3,270 square metres. The new model series, with its 55-metre-long rotor blades, required a high standard of production technology in the production hall because the track system of the transportation rails is sensitive to even the smallest irregularities. Steel fibre concrete, laid so as to be extremely flat, was the ideal solution to meet these requirements.

SERVICES IN DETAIL

- During the conversion of the existing hall, an additional extension to the production facilities was built. The climatic conditions in the root joint hall were extremely sensitive: the room temperature had to remain between 21 and 24°C, with humidity levels also needing to be within precise limits. This was all in order to ensure optimum

processing conditions for the resin. Huge furnaces for the subsequent curing of the wings required ‘house within a house’ solutions and made it more difficult to adjust the air temperature and humidity levels.

- Measuring in at 220 m^2, the large fan tower contains the connected ventilation, heating and cooling units. Two additional towers were also built. The expansion of the site was carried out in two-shift operation, with the teams working flat out. The site was inspected every day by an HSEQ system developed by VESTAS and designed for stationary production. This required close cooperation and daily discussions with the client.

CHALLENGES

The hall expansion site is on an area backfilled during mining activities. For this reason, four piles with a diameter of 1.2 m to 1.5 m were drilled approximately 5 m deep into the ground for each foundation structure, with the base slab being positioned on top of these. The new steel supports are positioned on the base slab. The façade made from sheet steel cassettes is suspended on the steel supports.

FACTS

Location	John-Schehr-Straße 700.00, Lauchhammer , Germany
Status	completed
Construction volume (value of our services)	14 M EUR
Start of construction	September 2010
Completion	January 2011
Contracting entity	Fuhrtivus – Grundstücks-Vermietungsgesellschaft mbH
Architect	pbr Planungsbüro Rohling AG, Magdeburg
Planning	Implenia Hochbau Engineering

SERVICES

Beraten und Planen

Schlüsselfertiges Bauen

Real Estate

Hochbau (Deutschland)