

Progress Maschinen & Automation AG, 39042 Brixen, Italy

Hard Precast Building Systems, UAE – mesh welding system leads to considerable savings

Hard Precast Building Systems (HPBS) is one of the leading companies for precast concrete elements in the United Arab Emirates with over 15 years of experience and currently employs a total of 1200 people. The company offers a wide range of services, including redesign, manufacturing, logistics and installation for all types of precast element applications. HPBS was founded in 2005 and is a pioneer in the market for high-quality precast elements such as insulated sandwich walls, cladding walls, prestressed hollow-core panels with a span of up to 24 metres, prefabricated and prestressed beams, as well as columns and foundations. There has been a remarkable development in the field of structural engineering over the last ten years, which has led to a significant increase in the use of prefabricated wall elements in the various projects. However, wall panels remain the main product.

HPBS recently took an important step towards automation of the circulation plant by integrating a flexible mesh welding machine from the BlueMesh® model series. This cost-efficient

machine from Progress Maschinen & Automation, a Progress Group company, is particularly suitable for plants that meet very high quality requirements with medium output.

Strengthening competitiveness in precast element applications

The new machine welds reinforcing steel meshes from the coil according to individual specifications and leads to considerable reductions in labour costs and waste. Up to now, reinforcement production still involved manual workstations for cut-outs in the meshes. With the new M-System BlueMesh, the meshes are now automatically produced with the corresponding cut-outs. HPBS produces in two shifts per day and at full capacity the daily output of the mesh welding machine is around 3,000 m² (8 to 9 tonnes). On normal days it is between 1500 and 2000 m², or 4 to 5 tonnes.

The new machine is convincing not only because of its high technological level, but also because of its economy in terms



The newly developed system is designed for maximum flexibility in mesh production.



Reinforcement meshes are produced on the M-System BlueMesh® mesh welding machine with an exact fit and just-in-time.



The EBA S 16 automatic stirrup bending machine from Progress Maschinen & Automation is successfully used for processing reinforcing steel.

of energy, space requirements and costs. It is also distinguished by a special feature - the production of meshes with a special size of 8 x 4 m. The meshes are produced just-in-time with a maximum mesh width of 4 m and fit precisely to the specified precast element moulds, including any openings. The mesh welding machine has been designed accordingly to add additional functions in the future, such as 3D meshes and other diameters.

Progress was chosen for the investment

The Progress Group is known for its high-quality products and customer satisfaction. They were able to plan the manufacture, delivery and installation of the required machines within a very short time. In addition to the mesh welding machine, an automatic stirrup bending machine from the EBA S line was commissioned. This robust and powerful machine is used for the manufacture of reinforcing steel stirrups in various shapes, which are used as spacers between wall and floor



View of Hard Precast's company site in Dubai and the stored precast concrete parts.

elements as well as for the connection between two walls. In the implementation of the project, Hard Precast attached a great deal of importance to a tailor-made complete solutions from one source.

The company is convinced that the new systems will make a significant contribution to increasing productivity in the manufacture of customised precast concrete elements and is looking positively to the future thanks to the new Progress technology. ■



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