# **REFERENCE**

Precast Concrete Plant for Solid and Double Walls







#### Key data of the facility

23,000 sqm ground floor

Pallet circulation plant for the production of solid walls, sandwich elements, element slabs and double walls

Max. element size: 12m x 4.20m

Production capacity: 110 Pallets, equates

to 3,500 sqm per day

## Plant equipment:

- Pallet circulation
- Shuttering robot
- · Reinforcing manufacture
- Concrete spreader
- Concrete compaction
- Curing chamber, stacker crane
- Turning device
- Unloading stations

## Flagship Factory for the Precast Concrete Industry of the Kingdom of Saudi Arabia

Being the official date for start of production of Alabniah Precast Concrete Buildings Factory, the 1st of January 2010 is a date not only marking a new decade but is also a date, when the Saudi Arabian precast concrete industry sees starting off the most advanced and largest factory of its kind in the Kingdom. The factory located in the Second Industrial Area of Dammam is the first of its kind in Saudi Arabia offering the combined advantages of state of the art production technology, high capacity, and a wide product range to supply the market with complete building systems and precast components.

The plant ist producing up to 3,500 sqm wall and floor elements per day. What is remarkable about it is that the plant produces individual elements. The buildings are designed with the help of a CAD-system. The CAD-data will be transmitted to the master computer of the production line. On the other hand, the master computer controls the machines the way that the needed elements are produced in exactly correct dimensions and that they are provided in the order as they are needed on site.

## **Scope of Unitechnik contribution**

- Master Computer UniCAM
- Order management
- Pallet loading
- Production control
- Plant visualization
- Work schedules
- Information management

#### Control engineering:

3 Controls for circulation, shuttering robot, concrete spreader, stacker crane, based on Simatic S7

Distributed design with Profibus Complex safety concept

Switchgear construction, installation

Commissioning and training Service contract Project team:

Design, Project management: Prilhofer Consulting

Pallet circuit, stacker crane, turning device: Vollert

Machines, Shutters, Pallets: Weckenmann

CAD: Tekla and many others

Completion: 2009

