

## REFERENCE

Production logistics for intelligent sheet metal



**INCREASE OF AUTOMATION**  
*IN STEPS*



**Unitechnik**  
*PERFECTION AUTOMATED.*



## THYSSENKRUPP TAILORED BLANK GMBH

DUISBURG-HÜTTENHEIM, GERMANY

### Key data of the facility

High bay warehouse:  
120 m long, 900 spaces  
1 elevating transfer vehicle,  
also as a central distribution vehicle  
Special pallets 2,20 x 2,20 m and  
1,10 x 2,20 m up to 7,5 tons

Conveyor technology:  
Serving of presses and automatic  
laser welding equipment, chain and  
roller conveyors, turntable

Fully automatic operation,  
incl. empty pallet handling

SAP/R3 connection

### Earliest possible production start

The company, ThyssenKrupp Tailored Blanks, manufactures tailor-made sheets for the automobile industry. Different sheet strengths or steel qualities are used in these sheets. The connections through laser welding are so precise that the transformation is almost possible in the same way as with non-welded sheets.

The priority target for the new production plant was a swift start-up of the production. It was therefore decided that the production logistics should be developed in stages. First of all the cutting press and the welding machines were equipped with conveyor technology for the transfer of materials.

In the second step the materials flow became completely automatic, whereby the 120 m long high bay warehouse serves as an intermediary store. In the last phase the WMS was connected with the company's own SAP/R3 system. The development of the automation in several steps also made major requirements on security technology

### Scope of Unitechnik contribution

Control technology:  
Simatic S7-400  
Profibus-DP  
RFID: MOBY F (Siemens)  
SaftyBUS p (Pilz)

Warehouse management system:  
Warehouse administration and material flow with integrated facility visualisation on the UniWare basis, SAP/R3-connection via RTC server

Control cabinet construction, assembly, commissioning and training

Overall responsibility:  
Vollert GmbH+Co.KG  
Completion: 2005

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