

## REFERENCE

Production logistics for aluminium profiles



**COORDINATE MATERIAL FLOWS**  
*THROUGH TWO SITES*

**apt**<sup>®</sup>  
HILLER GMBH  
ALU-PROFIL-TECHNIK

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*PERFECTION AUTOMATED.*



**APT HILLER GMBH**

DAIMLERSTRASSE 10, 40789 MONHEIM, GERMANY

### Key data of the facility

#### 3 storage areas:

- 1 portal crane each stacking height max. 6 transport containers

#### Conveyor technology:

- Chain conveyors
- 3 hoists / elevators Shuttle vehicle between the sites(14 transports per hour)

#### Load transporters:

- transport containers for 8.10 m long
- profiles Max. weight 3 tons

### Intra logistics in the pressing plant

The company, apt Hiller GmbH, is a manufacturer of aluminium profiles, as are used in respect of windows and doors, football goalposts and trade fair stands. For the manufacture of these profiles a 480° C hot press bar with up to 4,000 tons of pressure is pressed into a mould. The approximately 50 m long profiles are then subsequently stretched, sawn to lengths of 8 meters and placed correspondingly into the transport containers. Depending on the requirements the transport containers run through the further operations of manufacturing: hardening ovens, anodisation, subsequent processing, packing and dispatch. These are combined flexibly through automatic conveyor technology, crane facilities and a shuttle vehicle. 3 storage spaces of different sizes serve as buffer zones in which the transport containers are stacked. A particular requirement for the transport system is the coordination between the pressing plant and the anodising plant, which are at 100 m distance from each other.

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### Scope of Unitechnik contribution

#### Control technology:

- Simatic S7-400 Profibus-DP

#### Transport management system:

- Product administration in the Storage spaces (7 transport container types)
- Handling of transport container stacks
- Coordination of all transports
- Integrated plant visualisation
- Communication with ERP system

#### Control cabinet construction, assembly, commissioning and training Service contract

#### Overall responsibility:

Vollert GmbH+Co.KG

Completion: 2006

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