

## PRESS RELEASE

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Compact Solution for Heavy Loads

### **Custom manipulator with three synchronous hoisters lifts aluminium profiles up to 18 metres in length**

**Schletter GmbH, the largest supplier of solar mounting systems in Europe, has commissioned Vollert Anlagenbau to design a custom manipulator with three hoisters that can work together or separately to lift profiles weighing up to 9 tons with a maximum length of 18 metres. The manipulator will be used in a new buffer warehouse and is extremely compact to ensure optimal utilisation of vertical space.**

Schletter GmbH, headquartered in Kirchdorf/Haag in northern Bavaria, has been specialising in lightweight construction for 40 years. With approximately 400 employees and a production area measuring 30,000 m<sup>2</sup>, the company manufactures components for the automotive and railway industries in addition to modular mounting systems and support structures for solar equipment. A new facility will provide space for additional presses and a thermal aging oven. Vollert Anlagenbau in Weinsberg was commissioned to link the individual production plants and handle inventory in the 140-metre long, 17-metre wide buffer warehouse using a special-purpose crane.

#### **Limited Ceiling Height and Heavy Loads**

Engineers had to take two key requirements into account. The manipulator must be able to lift profiles measuring 6, 12, and 18 metres in length using ultra-compact hoisters and running gear so that vertical storage space can be optimally used. The ceiling height of the warehouse is limited to approximately 8.7 metres on one side due to building regulations. An overhead manipulator spanning 17 metres with running gear that can move

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sideways through the facility provided the solution here. The trolley houses three hoisters, each of which can lift three tons or be combined with another or both remaining hoisters to lift a single load in unison.

"Synchronous operation is critical to prevent heavy profiles from deforming in transit," explains Henry Schulze, project manager in charge at Vollert.

"The solution also has a vertical lift height of 5.40 metres despite the low ceiling." Up to five transport buckets can be stacked on top of each other. The controller and transport guidance system from Vollert automatically ensure that all stacking operations are carried out properly and make the best use of available space. Around 50 percent of the profiles are 12 metres long; 25 percent measure 6 and the remaining 25 percent 18 metres in length.

The heavy-application specialists at Vollert need roughly one year to plan and construct the plant. The new warehouse should be ready for service at the beginning of 2010. Progress can be tracked via an Internet Web cam at [www.schletter.de](http://www.schletter.de).

**About Vollert Anlagenbau GmbH + Co. KG**

Founded in 1925, Vollert Anlagenbau GmbH and Co. KG specialises in developing made-to-order systems that move, transport, store, and handle heavy goods. The company also devises intralogistics solutions for the metal and automotive industries and engineers shunting equipment in addition to catering to the production requirements of the building materials sector. The company employs some 200 personnel at its headquarters in Weinsberg. [www.vollert.de](http://www.vollert.de)

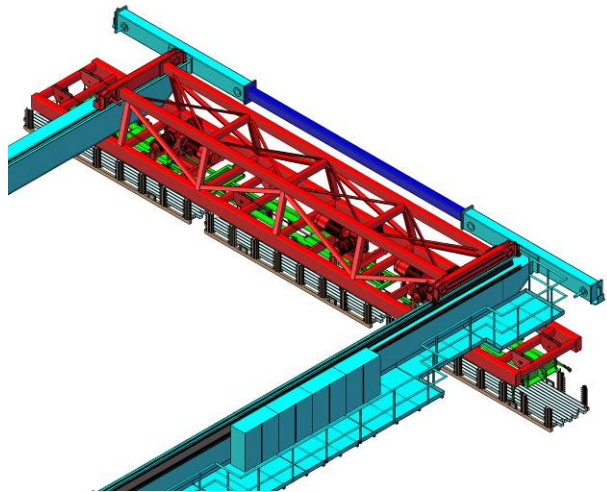
***((This article with print-quality images can be downloaded in German and English at [www.sympra.de/presse/vollert.](http://www.sympra.de/presse/vollert.))***

**Images:**

**Figure 1:**



**Figure 2:**



Schletter's new production facility is currently under construction. Aluminium profiles will be manufactured here in lengths of 6, 12, and 18 metres from 2010. A custom manipulator from Vollert provides for efficient transport and automatic storage in the 140-metre long buffer warehouse. Source: Vollert

CAD simulation of the customer manipulator: Hoisters on the trolley (red) enable synchronous lifting of up to three transport buckets containing profiles between 6 and 18 metres in length (grey). The compact design also maximizes lift height to ensure optimal use of space. Source: Vollert

**Figure 3:**



**Figure 4:**



Aluminium profiles from Schletter as used for mounting solar systems. Source: Schletter GmbH