PRESS RELEASE

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ALUMINIUM 2016 in Düsseldorf

Innovative Technologies for Anode and Aluminium Sheet Production

At ALUMINIUM 2016 (hall 13, stand 13I05), Vollert is presenting innovative material handling and storage systems for smelting works, rolling and extrusion plants. The first system developed with TRIMET Aluminium SE in Hamburg for cooling green anodes using natural ventilation is unique in the world. At Hydro Rolled Products GmbH in Grevenbroich, an end-to-end fully automated intralogistics system supports rapid and damage-free production of high-quality aluminium sheets.

A pioneering new process for cooling green anodes at the Hamburg factory of TRIMET Aluminium SE is akin to a mini revolution: The pilot plant reduces resource usage and completely dispenses with active cooling. It is the first of its kind in the world, using natural ambient air for cooling instead of cooling water or sprayed water. With the support of Swiss firm R&D Carbon, TRIMET carried out a feasibility study on the idea that was developed in Hamburg. It showed that air cooling is clearly superior to all other systems in terms of investment and operating costs. At the same time, the air cooling process offers greater process reliability and quality assurance, reduces rejection rates, and protects the environment.

Hot air instead of cooling water

Having previously designed several active air cooling systems for the cooling of coils in high-bay warehouses, Vollert has the corresponding process expertise. For TRIMET, the intralogistics specialists designed and built the high-bay warehouse for storing hot anodes, including the conveyor technology, control system and ventilation system. The cooling system is based on natural heat convection, and is controlled via openings in the roof. Active ventilation systems are not required, and a cost-intensive cooling water circuit is eliminated. In addition, automated conveyor technology prevents transportation damage and reduces green anode wastage. The

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high-bay warehouse in Hamburg contains a total of 336 anodes, which are automatically placed into and removed from storage – around 35 anodes per hour. TRIMET's annual production in Hamburg is around 130,000 t.

Fully automated intralogistics solution at Hydro in Grevenbroich

"Consistent, fast and reliable," is how Lars Strobel, sales project manager at Vollert, describes the new fully automated intralogistics system at Hydro Rolled Products GmbH. At Grevenbroich, Hydro has set up a completely new third production line specifically for automotive products. The concept provides for end-to-end automated processes for aluminium coils weighing up to 15 metric tons – from truck unloading, to storage and transport to production, to shipping and the return of waste materials. The central axis consists of a 36 m high, 100 m long Vollert high-bay warehouse for 800 coils. When raw coils from a Hydro sister factory are delivered, a fully automated manipulator unloads the coils from the truck. Via the high-bay warehouse and two coil manipulators, they are then provided as needed for further processing, heat treatment and surface treatment.

"An optimal intralogistics concept was devised at this factory," Lars Strobel explains. "The fully automated systems allow high speeds, and they interact to yield a perfect production process." It took Vollert just two years to design, manufacture and build the system. Since the beginning of October 2016, automotive line 3 has been producing the first strips for customers.

About Vollert Anlagenbau

A specialist when it comes to heavy loads and large parts, Vollert Anlagenbau GmbH develops turnkey intralogistics concepts for the aluminium and metal industry. Vollert also acts as a general contractor and full-service provider whose offering includes state-of-the-art material flow, storage, and packaging systems that can be realized as stand-alone solutions or integrated in a larger logistics environment.

Whether fully automated, mega high-bay warehouses for aluminium coils, intelligent material flow systems for leading manufacturers of aluminium extrusion plants, the world's most powerful rack feeders for storing sheet metal plates, automatic crane systems rated to 50+ tons, or state-of-the-art surface treating systems – Vollert is present in many applications.

Plant and machine solutions from Vollert are used in over 80 countries, with subsidiaries in Asia and South America further increasing sales activities in those parts of the world. The company employs some 250 personnel at its headquarters in Weinsberg. **www.vollert.de**

Photographic material

Image 1: TRIMET Aluminium SE

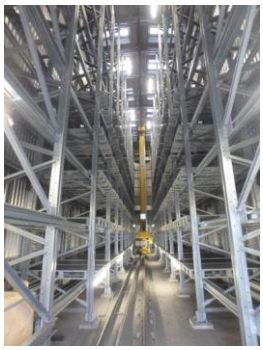

Image 2: TRIMET Aluminium SE

For TRIMET Aluminium SE, Vollert designed and built the high-bay warehouse for storing hot anodes, including the conveyor technology, control system and ventilation system. It is the first of its kind in the world, using natural ambient air for cooling. Air cooling is clearly superior to all other systems in terms of investment and operating costs. (source: TRIMET Aluminium SE).

Image 03: Vollert

On the new third automotive line at Hydro in Grevenbroich, a fully automated intralogistics solution from Vollert ensures optimal processes (source: Vollert).

This text as well as print-quality photographic material is available to download at:

http://www.sympra.de/downloads/Vollert/Bilder_PI_ALUMINIUM_2016.zip