

PRESS RELEASE

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Tip and go: Loading by the cargo specialist Innofreight with shunting technology from Vollert

Innofreight Solutions GmbH from Austria has developed an innovative unloading station for the paper and packaging specialist, Mondi. As with voestalpine in Donawitz and at the Chvaletice power plant, Vollert's robust and energy-efficient shunting technology ensures reliable processes.

Wagon after wagon "Woody" pulls into the unloading facility and positions it exactly to + - 50 mm. The forks of the tipping facility reach into the forks on the containers, lifting them and tipping the wood chips into the silo - and it's done. The container is tilted back, placed on the wagon and "Woody" pulls the next of the up to 23 wagons to the unloading station. "Woody" is an electrically operated shunting robot from Vollert, a KR 200, designed as a tandem solution. Up to 2,100 tons of wood chips are removed from the stationary unloading plant of the paper and packaging specialist Mondi in Štětí in the Czech Republic. The Mondi Group employs over 26,000 staff worldwide, and has a turnover of more than €7 billion. Innofreight Solutions, headquartered in Bruck an der Mur in Austria, have developed volume-optimized special containers, especially for Mondi as well as efficient, reliable logistics for loading wood chips.

New unloading station for wood chips

As a cargo service provider, Innofreight specializes in transport logistics. The company develops innovative wagons, containers and unloading systems for all kinds of goods - from wood chips to building materials to lignite. This global player has been working with Vollert for many years. "With our energy-efficient, cost-effective solutions, modular concepts and flexible adaptations to the respective local requirements for shunting technology, we were able to position ourselves as a premium partner of Innofreight," says Jürgen Schiemer, division manager shunting systems at Vollert.

In 2017, Innofreight developed the new stationary unloading station for Mondi at the Štětí plant. For the shunting operation, a four-axle, electrically operated standard series KR 200 shunting robot with a drive power of 4 x 15 kW was chosen. The power is supplied via a cable drum. The wagon air system of the wood chip wagons is coupled directly to control the pneumatic brakes of the wagons. Via specially installed air tanks, the brakes of the wagons can be released for further shunting operations.

During the transport of the individual wagons to the charging station, it is all a matter of precision. While unloading the wood chips, to ensure that the fork of the tipping facility grasps the forks on the containers precisely, they must be moved to the closest centimeter. Vollert has solved this elegantly with modern information technology. "Woody" is controlled by video transmission. Cameras permanently monitor the track. The shunting concept not only enables Mondi to achieve greater occupational safety, but also to increase volume considerably. Shunting included, unloading a container takes on average only two minutes. At the same time, the low-maintenance and energy-efficient shunting operation reduces the operating costs for equipment and maintenance.

Reliable in harsh environments and in all weather conditions

Also, at voestalpine's the coke and coal unloading facility in Donawitz near Leoben in Austria, a shunting robot KR 100 from Vollert forms the heart of the operation. Up to 1,100 t of material is moved. The container tipping system is designed to reduce noise and dust and ensures process-reliable winter operation even at very low temperatures. Innofreight has developed special lightweight container wagons specially for this purpose. The payload was thereby increased by about 30 percent. The compact and robust shunting robot from Vollert, which operates reliably in all weather conditions, ensures the planned annual movement of around 800,000 tonnes of coke.

The shunting robot offers an extremely robust solution for particularly harsh everyday conditions, such as those encountered in bulk cargo loading in lignite mining. "Golem" has been operating every day at the Chvaletice power plant in Eastern Bohemia since April this year. Vollert's electrically powered shunting robot KR 100 is part of the new, energy-saving and fully automatic lignite logistics facility at the Czech power plant. Innofreight developed this in collaboration with CD Cargo. The unloading system allows a payload increase of 400 tons of lignite per block train. Every year, around 5.5 million tons of lignite are discharged at the power plant. "Golem" has a drive power of 2×18.5 kW and thus can move up to 1,260 t of lignite. The video signals are transmitted via a 400 m-long, reeling cable. Optical fiber is integrated in the cable. The line is connected in the middle of the driveway so that the trains can be moved in both directions about 400 m. "The cable transfers energy to move the shunting robot and the video and control signals to the control room," explains Jürgen Schiemer. The solution also provides a high level of security and control. "That was one of the reasons for Vollert's decision".

Be it wood chips or coke, gravel, sand or even liquids and gases - Vollert's maneuvering technology has been proven worldwide. The economic power packages ensure safe shunting and loading operation in every application. No matter the weather and in the harshest environments.

About Vollert Anlagenbau GmbH

As an innovator, Vollert Anlagenbau develops economical shunting systems for connecting and secondary railway systems. Since the 1950s, Vollert's fixed, cable-mounted shunting systems are used worldwide to shunt railroad cars and trains. Moreover Vollert delivers stand-alone shunting machines, heavy-duty transport trolleys and sliding platforms for reliable and efficient operations in refineries, mines, ports, steel and cement plants, explosion protection areas, train wash facilities and maintenance facilities.

Vollert's plant and machine solutions are deployed in more than 80 countries around the world with subsidiaries in Asia, Russia and South America supporting sales activities. 270 employees work at the company's headquarters. **www.vollert.de**

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Image 1

An electrically operated shunting KR 200 robot tilts the chips into the fully automatic unloading station for the paper and packaging specialist, Mondi.



Image 2

During unloading of the wood chips, to ensure that the forks of the tipping facility grasp the forks on the containers precisely, they must be moved to the closest millimeter.



Image 3

Also, at voestalpine's coke unloading plant in Donawitz near Leoben in Austria, a KR 100 shunting robot from Vollert forms the heart of the logistics.



Image 4

Lignite loading at the Czech power plant Chvaletice.