

Success Story

Schmalz Vacuum Lifter Optimizes Material Flow at Ronlog

RONLOG GmbH has optimized the handling of light alloy rims with innovative solutions. In collaboration with Schmalz, a new gripper was developed for damage-free rim handling and the entire material flow was taken to a new level in terms of ergonomics.



The rim gripper for JumboFlex vacuum tube lifters handles heavy rims with ease.

The Facts

Industry Segment	Logistics
Workpiece	Rims
Product Group	Vacuum Tube Lifter JumboFlex, Vacuum Tube Lifter JumboErgo
Type of Handling	Manual Handling

With Schmalz

300

kilogram
effortless handling

The Customer: RONLOG GmbH

The RONAL Group, the world's leading manufacturer of aluminum and carbon alloy rims for passenger cars and commercial vehicles, operates its distribution center under the name RONLOG GmbH in Forst near Bruchsal. RONLOG supplies tire dealers, workshops, online retailers and end customers. With 45 employees, RONLOG is an integral part of the RONAL Group's logistics and distribution strategy and has a storage capacity of 300,000 wheels. RONLOG's employees deliver up to 1 million bikes per year.

The Challenge

RONLOG wanted to optimize the internal flow of goods by using ergonomically designed handling technology. First of all, it was important to place the high-quality alloy wheels

in the shipping cartons without scratching them. Then a solution was needed to pick the heavy cardboard boxes in a safe and health-friendly, health-protective manner.

The use of vacuum lifting technology throughout the entire flow of goods pays off for us.

Peter Kuppinger, Team Leader Packaging and Quality at RONLOG GmbH

Schmalz's Solution

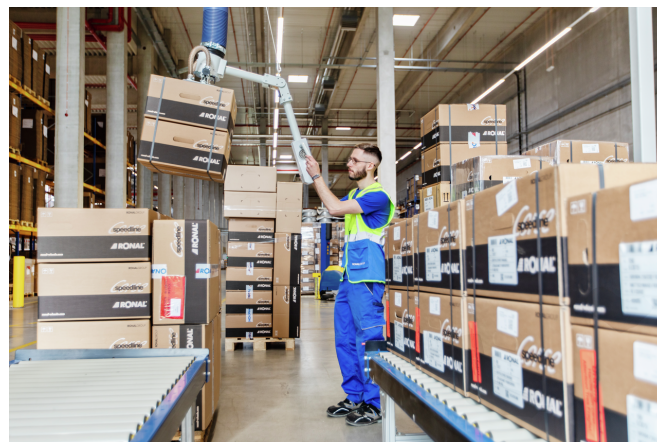
Several cranes and eight vacuum tube lifters of the JumboFlex and Jumbo Ergo type were installed to optimize the flow of goods. These are equipped with various load handling devices and make packaging and picker work easier for employees. The rims are delivered to RONLOG on pallets and stored. Depending on the customer order, five to six employees pack the individual items into cardboard boxes on protective foam inserts, whereby a single rim can weigh up to 20 kilograms. With 600 rims per day, this is an enormous physical strain. Schmalz installed a responsive column-mounted jib crane made of aluminum and a vacuum tube lifter JumboFlex. The load handling device is a rim gripper specially developed for RONLOG for damage-free and fatigue-free handling of the rims. The rim gripper is as simple as it is ingenious: it is made of robust plastics and has a very practical mechanism: when the operator inserts the gripper into the center opening of the rim and lifts it, the system locks automatically. The rim can then be moved horizontally with one hand and placed in the foam bed of the packaging box. If there is no more weight

hanging on the vacuum tube lifter, the bottom part of the gripper folds down and the operator can carefully remove it from the rim. All edges of the gripper are rounded so that polished, painted or polished rims are not damaged. Once the rims are in the cardboard box, these packages weighing up to 20 kilograms must be prepared for shipping. To ensure maximum freedom of movement, an extremely responsive aluminum crane system was installed. Two vacuum tube lifters of the Jumbo Ergo type are used as lifting aids, which are equipped with long, movable movers. This allows the cardboard boxes to be stacked up to a height of 2.30 meters, which corresponds to the maximum pallet loading height in the truck. A multi-gripper is used as the load handling device in each case. This gripper, which was manufactured using a 3D printing process, is particularly lightweight and can safely handle cardboard boxes of different sizes and qualities without the need to change the gripper. It also enables a minimum occupancy of only 75 percent of the suction area.

Schmalz's Solution



The JumboFlex tube lifter with multiple grippers picks up cardboard boxes of different sizes and qualities safely.



The JumboErgo can stack high thanks to its lengthy operator handles.

Customer Benefits



Efficiency

More efficient handling of rims and cardboard boxes



Faster order processing

Faster processing and delivery of orders



Ergonomics

Reduction of back strain on employees



Product protection

Minimization of scratches and damage to the products

Products Used in the Application

Vacuum Tube Lifters JumboFlex Generation 1



WWW.SCHMALZ.COM/JUMBOFLEX-GENERATION-1

Vacuum Tube Lifters JumboErgo



WWW.SCHMALZ.COM/JUMBOERGO