



Centrotherm relies on UniCarriers forklift fleet in Brilon

Reliable production supply in three-shift operation

Centrotherm Systemtechnik GmbH's logistics centre handles items in a wide variety of sizes and dimensions under a single roof with goods ranging from small screws through to large extruded pipes, from Euro-pallets through to load carriers in special sizes. Any forklift truck must be versatile, so it can be adapted to the requirements of goods being transported. Centrotherm relies on a fleet of UniCarriers vehicles to position items efficiently and rapidly pick for production supply in their warehouse in Brilon.

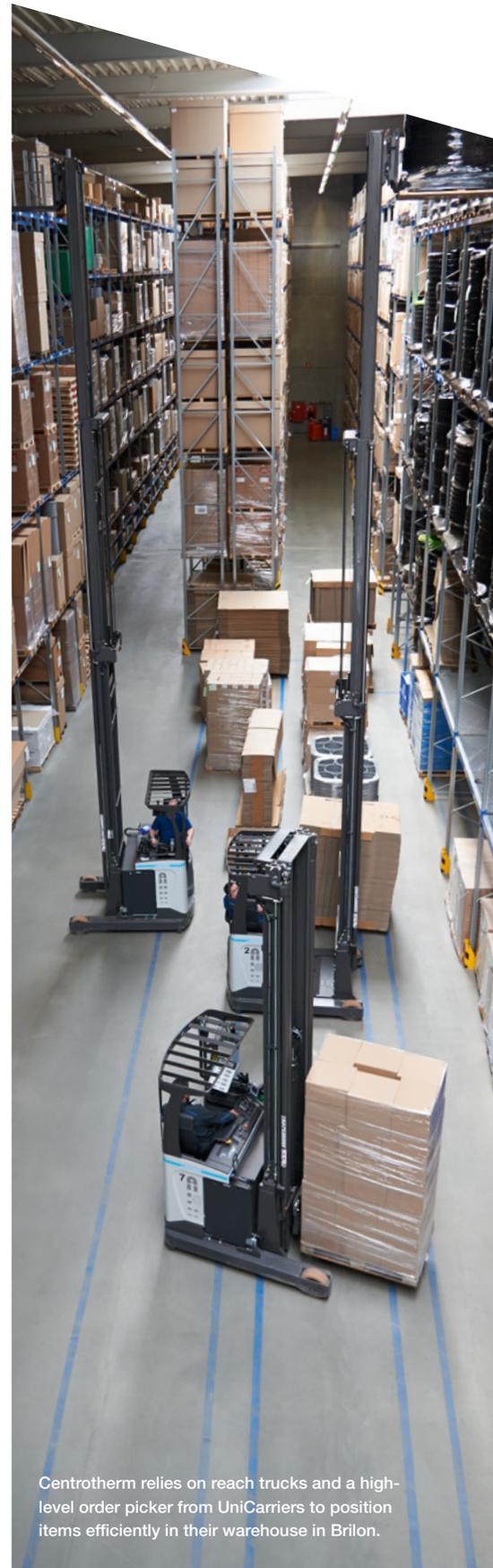
Centrotherm Systemtechnik GmbH develops and produces exhaust gas systems, ventilation ducts, and lightweight construction products for the automotive sector. It uses state-of-the-art production lines for this purpose, spread over a total area of more than 17,500 m². This ensures an optimum vertical range of manufacture, essential for Centrotherm to provide maximum product quality.

Sustainability is a common theme which runs throughout the range of services: lightweight products for automakers help to make vehicles lighter and more economical while heat recovery units and exhaust gas systems for condensing appliance technology minimise energy consumption in the exhaust gas and ventilation sector. Centrotherm sells its products to renowned OEMs in the exhaust gas and automotive sectors as a system supplier. The company guarantees short response times and a 24-hour service for its clients, delivering directly to construction sites if required.

Wanted: versatile, user friendly forklift trucks

Centrotherm operates a twelve-lane, narrow-aisle, high-bay warehouse in Brilon, Western Germany, to ensure efficient handling of production supply, logistics and shipping. The six levels, some 6,000 storage spaces and an 800 m² outdoor warehouse guarantee provisioning at short notice. In addition to purchased items, the high-bay warehouse also contains semi-finished parts from own production. The assortment ranges from tiny screws to voluminous, extruded pipes.

"In Brilon, we store several thousand products in a whole variety of dimensions. An automated warehouse is not suitable for such a wide range," states Michael Schulte, Supply Chain Manager at Centrotherm, describing the requirements



Centrotherm relies on reach trucks and a high-level order picker from UniCarriers to position items efficiently in their warehouse in Brilon.



One challenge for the reach trucks is the safe handling required from the different load carriers and bulky goods.

for the Brilon production facility. “That is why we use reach trucks and order pickers for placing and picking in the warehouse.” Easy handling for drivers was one highly important factor taken into account when deciding on forklifts. Drivers were able to try out vehicles in advance and had a say in the final choice of the forklifts. UniCarriers won the contract in the end. Centrotherm signed a lease agreement with the forklift manufacturer, the most cost-effective option for the system supplier. Valid for 48 months, the agreement also includes maintenance and repairs service. If needed, older vehicles are also replaced with new ones under the agreement. For example, UniCarriers replaced four UHD reach trucks with new models in 2016. The new models feature the UniCarriers Vehicle Operation Management (VOM) fleet management system among other things.



reach trucks position goods on the racks in the high-bay warehouse. Parts which Centrotherm needs to move less frequently are stored on the higher levels while items which are in greater demand are stocked on the ground level. Items are picked based on production orders. Orders are first prepared in the picking area, which supplies the production lines and shipping.

Found: ergonomic transport solution for bulky goods

Rapid, safe stocking and picking processes are assured with five UNS and UHD reach trucks, various pedestrian stackers, an OPS high-level order picker and a gas-powered counterbalance truck with a carrying capacity of seven tons. The vehicles’ area of use is clearly defined. While the counterbalance truck ensures production is supplied with items from the outside warehouse, the order picker and

The reach trucks are used in the high-bay warehouse only, where they face several challenges, such as the safe handling required from the different load carriers. In addition to Euro-pallets, Centrotherm uses a wide range of load carriers in different sizes and also stores products such as two-metre-long pipes in a vertical position. “You quickly develop a feel for positioning standard pallets,” explains Schulte. “Special load carriers consistently pose a new challenge. The driver needs to adapt to a different load unit height and width for each picking process. That is why we



Fleet

- five reach trucks (UNS/UHD)
- one OPS high-level order pickers
- one gas-powered counterbalance truck
- various pedestrian stackers



Facts

- User:** Centrotherm Systemtechnik GmbH
Industry: exhaust gas and ventilation systems and automotive
Established: 1994
Locations: Brilon, Germany (HQ); subsidiaries in Italy, Belgium, France, the UK, Hungary, Austria, Spain, Switzerland, the Netherlands, the Czech Republic, the US and China.
Employees: 250
Logistics: 17,500 m² production and logistics area

are pleased that our industrial trucks are operated intuitively and help our drivers in their work.”

Complete overview even at great heights
Centrotherm had another requirement for reach trucks: they needed to be able to position and remove items at great height precisely, safely and conveniently. When moving items, the driver sits at a right angle to the direction of travel in the reach truck floor-level cab. All reach trucks are equipped with a camera on the fork, allowing drivers a clear view of racks and loads when working at heights of up to 13.8 metres. Images are transmitted to a monitor in the truck cab. These vehicles also feature a side shifting device, which allow drivers to correct small deviations when positioning goods.

This function moves the fork prongs to the left or right to position the load unit correctly. A press of a button then brings the fork back into its starting position. Reach trucks are equipped with an S3 Stability Support System to ensure that the payload is moved safely and precisely at all lift heights.



All reach trucks are equipped with a camera on the fork, allowing drivers a clear view of racks and loads when working at heights of up to 15 metres.

The system measures the location of forks during positioning and adjusts the lift speed to the current lift height. The soft-stop function also ensures that the forks are brought to a gentle halt when at maximum lift height.

Swift battery replacement

Centrotherm works with a three-shift operation in Brilon, so the warehouse vehicles are in constant use. As a rechargeable battery lasts eight hours on

average, the vehicle batteries need to be replaced twice a day. UniCarriers advised its client to install a battery replacement station with tuggers to make it easier to replace the batteries weighing a ton, thus keeping the time required for replacement to a minimum. “Until now, Centrotherm had used a pallet truck to replace batteries manually. This process posed a safety risk for the employees involved, which needed to be eliminated,” explains Peter Schwarzwald, Regional Sales Manager for UniCarriers. Manual battery replacement



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Michael Schulte, Supply Chain Manager Centrotherm



The vehicle batteries need to be replaced twice a day. For a quick and safe replacement Centrotherm installed a battery replacement station with tugger.

also had the disadvantage that the pallet truck would tilt when not handled correctly. This can damage the battery – a replacement rechargeable battery costs about 3,000 euros. Help is now provided by a new replacement station where four batteries can be loaded at the same time. Batteries are placed on and removed from the forklift using a tugger fastened to a pedestrian stacker. The discharged battery is removed with the tugger using magnetic force, transported to the replacement station and replaced with a new rechargeable battery. “This process allows Centrotherm to change its batteries around 30 percent more quickly than before. The new solution is also significantly safer and a single employee can change a battery on their own,” continues Schwarzwald.

Off-peak maintenance

Just like the new battery replacement station, service intervals are also scheduled to ensure optimum use of fork lifts. Under its lease agreements, UniCarriers guarantees full service with maximum response times of 24 hours for heavily used vehicles – Centrotherm uses some of its vehicles over 2,000 hours a year. Servicing intervals are based on need in the case of forklifts which are used less. Maintenance is also scheduled on a yearly basis and includes an accident prevention inspection. Business is subject to sharp seasonal fluctuations at Centrotherm.

September, October and November are the busiest months with the most orders and heavy use of forklifts. UniCarriers services all vehicles in advance to prevent any downtimes. “There is now no stopping a trouble-free, final push at the end of the year,” concludes Schulte.

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