



INTRALOGISTICS Magazine

Knowledge and Excellence in Intralogistics



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Steve Watkin, Dispatch Manager at Polypipe's Doncaster site, says:

Impact's support has been phenomenal. They helped us specify precisely the right trucks and took on board all of the modifications we needed. We trust Impact implicitly with our fleet and have done for as long as I can remember.

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IMPACT



IMPACT HANDLING
SUPPLIES POLYPIPE WITH MULTI-COLOURED FORKLIFT FLEET.

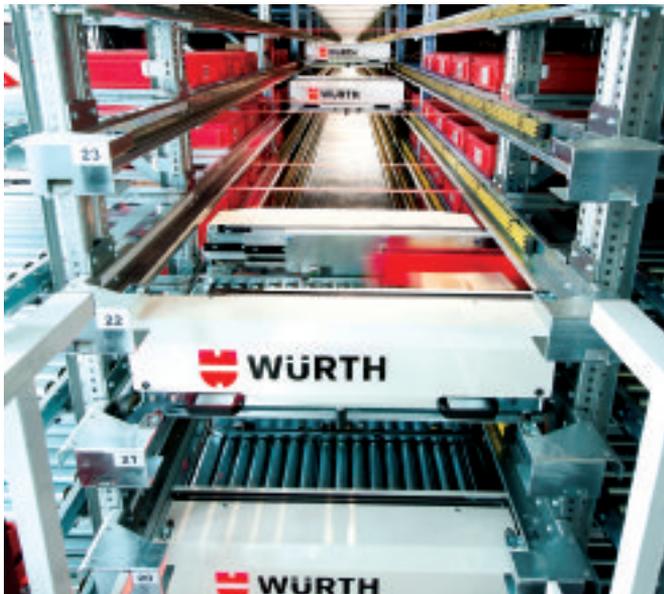
BUSINESS ON THE MOVE
THE GAME THAT'S MAKING A DIFFERENCE.

GONDOLA SKATES
DON'T MOVE THE PRODUCTS
MOVE THE RACKING?

Automation that grows with the business

When Würth Industrie Service decided to overhaul its logistics, the company chose KNAPP. The automated logistics provider designed a modular and flexible solution that could be installed in two phases – in 2011 and 2015 – with its proven OSR Shuttle™ solution at its heart.

Würth Industrie Service GmbH & Co. KG was founded in 1999 as a spin-off of the Industry Division of Adolf Würth GmbH & Co. KG, the world market leader in assembly fixings and fastening materials. Operating as an independent subsidiary within the group, Würth Industrie Service is a global player, employing over 1500 people and achieving sales of 425 million Euros in 2015.



Just-in-time goods for assembly lines

Headquartered in Bad Mergentheim – located in the middle of the triangle of Frankfurt, Stuttgart and Nuremberg – the company offers a range of more than a million items used in production environments, including many products supplied ‘just in time’ via Kanban bin systems. Würth’s customers benefit from direct deliveries to their assembly lines. At its 51,250m² warehouse in Bad Mergentheim, Würth handles the daily demand for parts for more than 20,000 customers and manages over 1.45 million Kanban bins. As the products handled are often made of metal and therefore heavy – with containers weighing up to 50kg – the requirement for ergonomic working was particularly important in order to protect Würth’s employees from injury and strain.

Dynamic supply of goods from the OSR Shuttle™

The OSR (Order Storage and Retrieval) warehouse is a small parts and buffer store. Originally comprising four aisles – two side by side and two on top – with 120 shuttles and 64,000 two-deep storage locations in 2011, the store was expanded in 2015 with four additional aisles featuring four-deep storage and more shuttles, giving a total of 151,400 rack locations served by 240 shuttles. The system is designed with redundancy to provide dynamic access to the entire product range at all times, and the provision of two lifts per aisle ensures optimal throughput. The OSR Shuttle™ not only takes care of storage but also consolidation, sequencing, picking and dispatch buffering. The system is able to handle various types of load carrier including trays, cartons and Würth’s specialist containers. In the second phase, the dispatch buffer was also expanded and now more than 20 ramps are available to sequence orders before they are shipped.

Multifunctional picking stations

The OSR Shuttle™ serves ergonomically designed workstations that fulfil various functions – picking, checking, emptying, merging and tasks for incoming/outgoing goods. KNAPP supplied 12 of its Pick-it-Easy stations – equipped with pick-to-light technology – in the first phase and a further 8 last year. Ergonomic design drastically reduces operator strain from tasks such as lifting, bending and reaching. The storage and picking areas are connected by KNAPP’s Streamline conveyor system, which is designed to minimise maintenance costs through modular design and end-to-end commonality of parts. In addition, Streamline’s revolutionary accumulation stop concept ensures minimal energy requirements combined with maximum reliability and performance.

Driverless vehicles

In the expansion phase in 2015, KNAPP added three of its Open Shuttle automated guided vehicles (AGVs) to the solution to handle the transport of trays of product from goods-in to the infeed point of the conveyor system. Featuring swarm intelligence, the free-roaming Open Shuttles communicate with each other and autonomously distribute orders among themselves. They manoeuvre through the warehouse without optical or physical aids, reacting dynamically to obstacles and autonomously planning their paths and any alternative routes required. The track-free design of the Open Shuttle system allows rapid installation and seamless integration into existing environments. An intuitive and user-friendly interface enables the customer's own staff to adapt the system, if required, quickly and easily to meet changing logistics needs. If a workstation is moved, for example, the Open Shuttles can be set up for the new target destination in less than a minute.

KNAPP's Open Shuttles react dynamically to obstacles and autonomously plan their paths

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versatile
driverless
vehicles

making complexity simple

KNAPP is a leading global supplier of warehouse automation solutions, with over 1600 active systems worldwide. The group's advanced conveying, storage and fulfilment technologies are combined in solutions that feature seamless integration and intelligent software. Successful projects in the UK recently include systems for John Lewis, Boots, M&S, Staples, Clarks, British Gas and Well.

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