

PRESS RELEASE

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Qimarox introduces unique order picking system 'Collect & Sort'

Automatic order picking with Prorunner mk5

Qimarox has developed a new automated order picking system 'Collect & Sort', which can handle up to a thousand products, containers, or cartons per hour. Central to this system is the Prorunner mk5, the successful vertical transport system from the company that evolved from Nedpack in 2012. Products from conveyor channels at different levels are fed out fully automatically and placed on the correct outfeed conveyor in the direction of the forwarding department or palletising station.

Qimarox' 'Collect & Sort' automated order picking system consists of several levels of conveyor channels in which products can be stored. A short roller conveyor module moves back and forth at the front of the conveyor channels on each level. This module retrieves the items in the correct order from the conveyor channels and transports them to the Prorunner mk5, the vertical transport system of Qimarox. This system receives the products from all levels and places them in the correct order on one or more outfeed conveyors. These outfeed conveyors then send the products to a palletising station, or directly to the forwarding department. Approximately 15 channels can be served per level by a roller conveyor module; the Prorunner mk5 can reach a maximum height of 15 metres and the number of levels can thus be extended to about 20 levels. This brings the total of pick locations up to 300.

The 'Collect & Sort' system by Qimarox has a high capacity because of the use of the rapid Prorunner mk5, especially in comparison with existing shuttle systems where the traditional product elevator is often a bottleneck. The standard Prorunner mk5 can easily reach a capacity of 2000 products per hour. This system is a smart investment, particularly in situations with a relatively limited number of pick locations and can achieve a capacity of approximately 1000 products per hour.

In addition to using it as an order picking system, this innovative Qimarox product can also be used as a sequencer in mixed palletising systems. The conveyor channels are then randomly filled with products at the front. They are then fed out at the rear, in the order in which the mixed palletiser wants to receive them.

Logical development

The automated order picking system is yet another application of the Prorunner mk5, the successful Qimarox product lift using the time-tested paternoster principle. Thanks to its patented design, all products remain in an upright position during the entire circulation. The Prorunner mk5 is ideal for vertical sorting since it is possible to transport products from multiple infeed destinations to multiple outfeed destinations.

The order picking system is a logical development of the application of the Prorunner mk5 as a vertical sorting system. The short, movable roller conveyor modules in this application are used for the infeed and outfeed of products. Normally, these modules have only two positions: one position for an infeed conveyor to receive a product and one position in the circuit of the Prorunner mk5 to supply the product to the vertical sorting system. By replacing the pneumatic drive with a servomotor, Qimarox succeeded in extending the carriageway of the modules considerably. This means that the modules can now receive products at a plurality of positions, rather than in only one. In the order picking system, this principle was applied to feed out products from different conveyor channels.

Low maintenance and economical

The automatic 'Collect & Sort' system is suitable for products, containers, or boxes of at least 200 x 200 and up to 600 x 600 mm, and that weigh no more than 50 kg. A special XL model can handle products up to 900 x 900 mm.

Thanks to the minimal number of moving parts and the enclosed drive system, the Prorunner mk5 is very low maintenance, also when applied as automated order picking systems. Because the system keeps itself in balance, the motor only has to propel the product to be transported, and not the product carrier. The system can therefore be operated at a low motor capacity, resulting in considerable savings when compared to other lift systems.

The Prorunner mk5 is already being used in hundreds of production plants and warehouses. Users are located all over the world, from Sweden to Chile and Canada to South Korea and many other countries.

About Qimarox

Qimarox is a leading manufacturer of components for material handling systems that are characterised by robustness and reliability. Innovative concepts, patented technologies, and continuous development allow Qimarox (which emerged from Nedpack) to manufacture product lifts and palletisers that link flexibility and productivity to a low total cost of ownership. System integrators and original equipment manufacturers from across the globe use the machinery of Qimarox in end-of-line systems and storage and order picking systems in various industries. Please visit www.qimarox.com for more information.

Note to editors (not for publication)

For more information, please contact:

Qimarox
Nobelstraat 43
3846 CE Harderwijk

Contact person:

Jaco Hooijer
j.hooijer@qimarox.com
Tel.: +31(0)341 43 67 10
Fax: +31 (0)341 43 67 01
Mobile: +31 (0)620245494
www.qimarox.com