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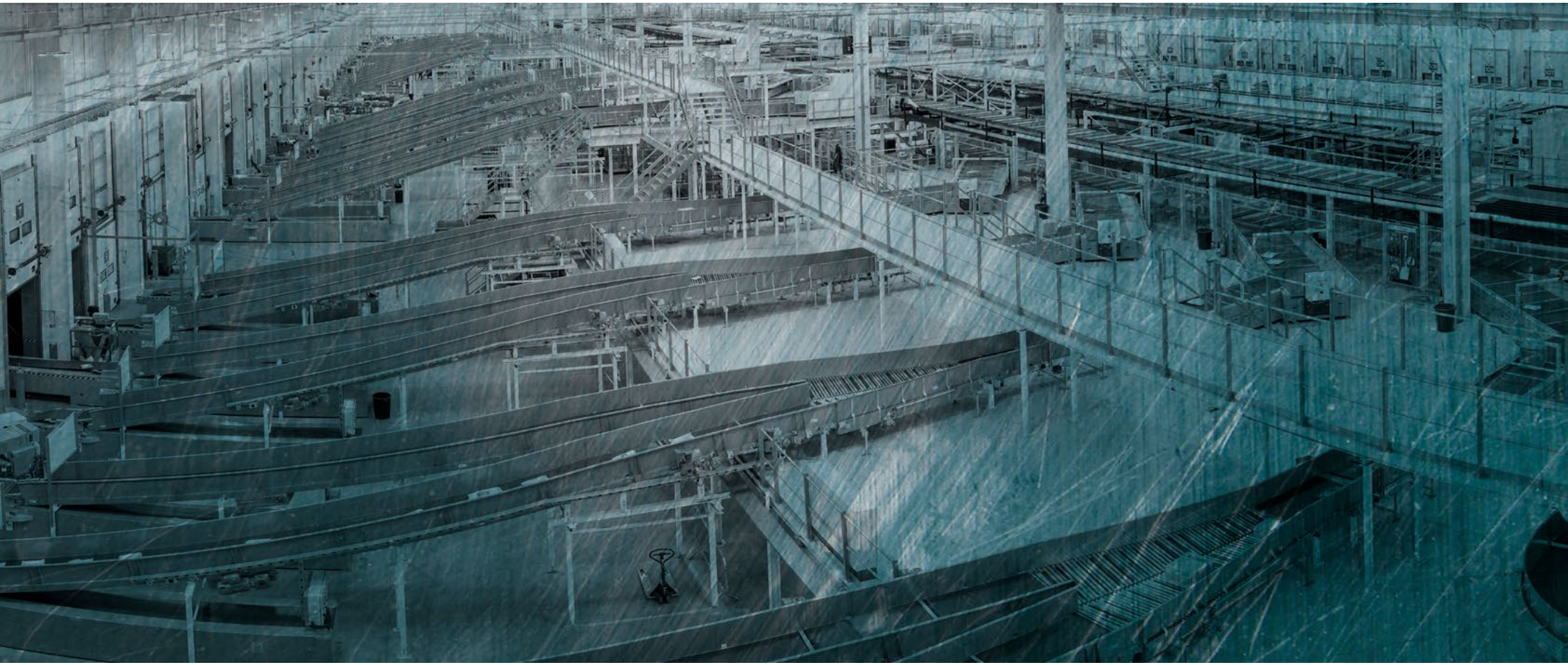


5 THINGS TO CONSIDER FOR YOUR AUTOMATED SORTATION SYSTEM

A guide for e-commerce parcel distributors

CONTENT

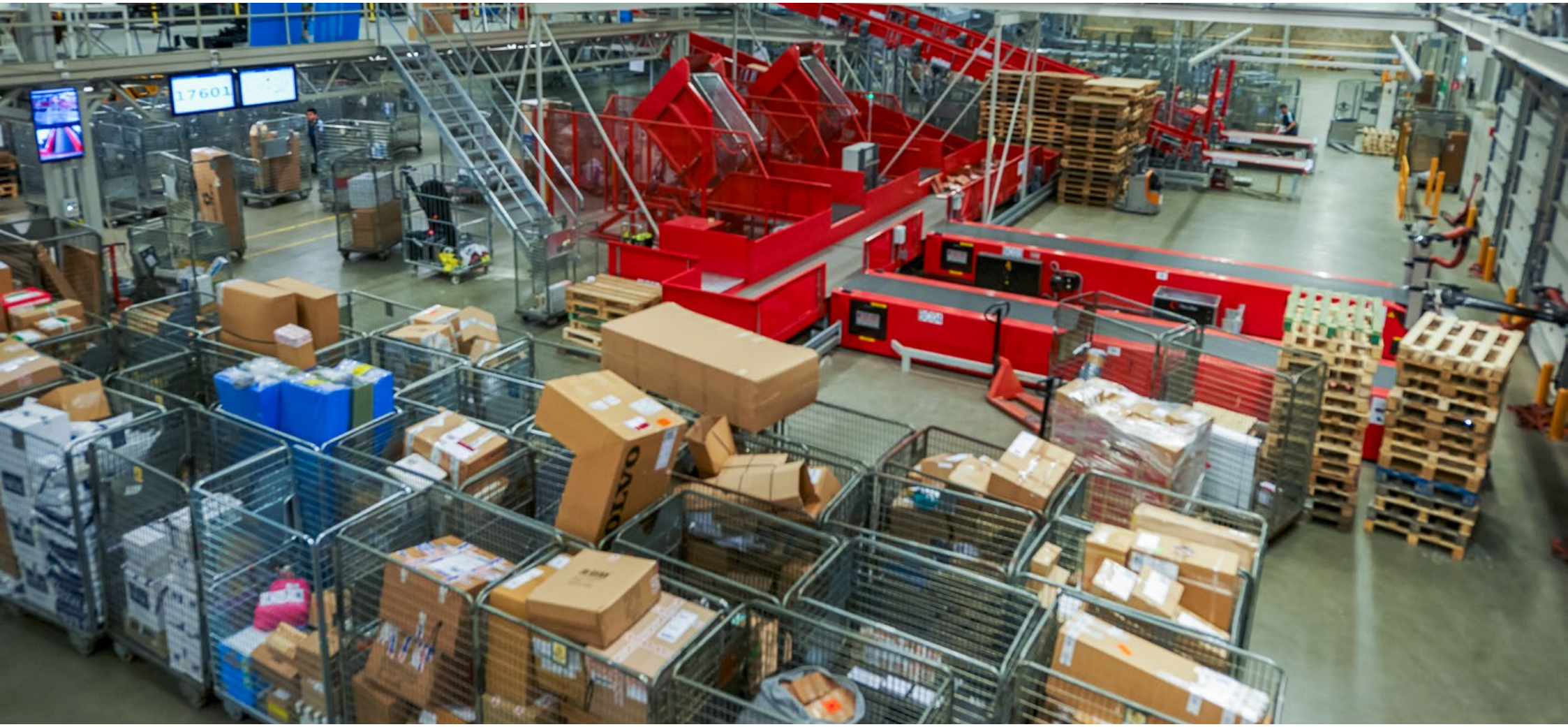
INTRODUCTION

Get your share of e-commerce distribution

In an industry undergoing such drastic changes as e-commerce distribution, it's business-critical to choose a system for automated parcel sortation that works for your hub today – and tomorrow.

Sortation is the beating heart of modern Courier, Express and Parcel (CEP) operations. As such, choosing the right solution for automated sortation at your distribution centre is a major business decision. With potentially hundreds of possible sortation designs, it's an investment that requires careful consideration in terms of both capacity, performance, and specialisation. At the same time, emerging trends and new international players in global e-commerce make it increasingly difficult to know which is the right solution now and in the long run.

To help you get started with your requirement specifications for your automated parcel sortation system, this guide outlines five very important aspects to keep in mind: Parcel profile, rest mail capacity, peak season load, ergonomics, and features for handling "no reads" or unsolvable parcels.



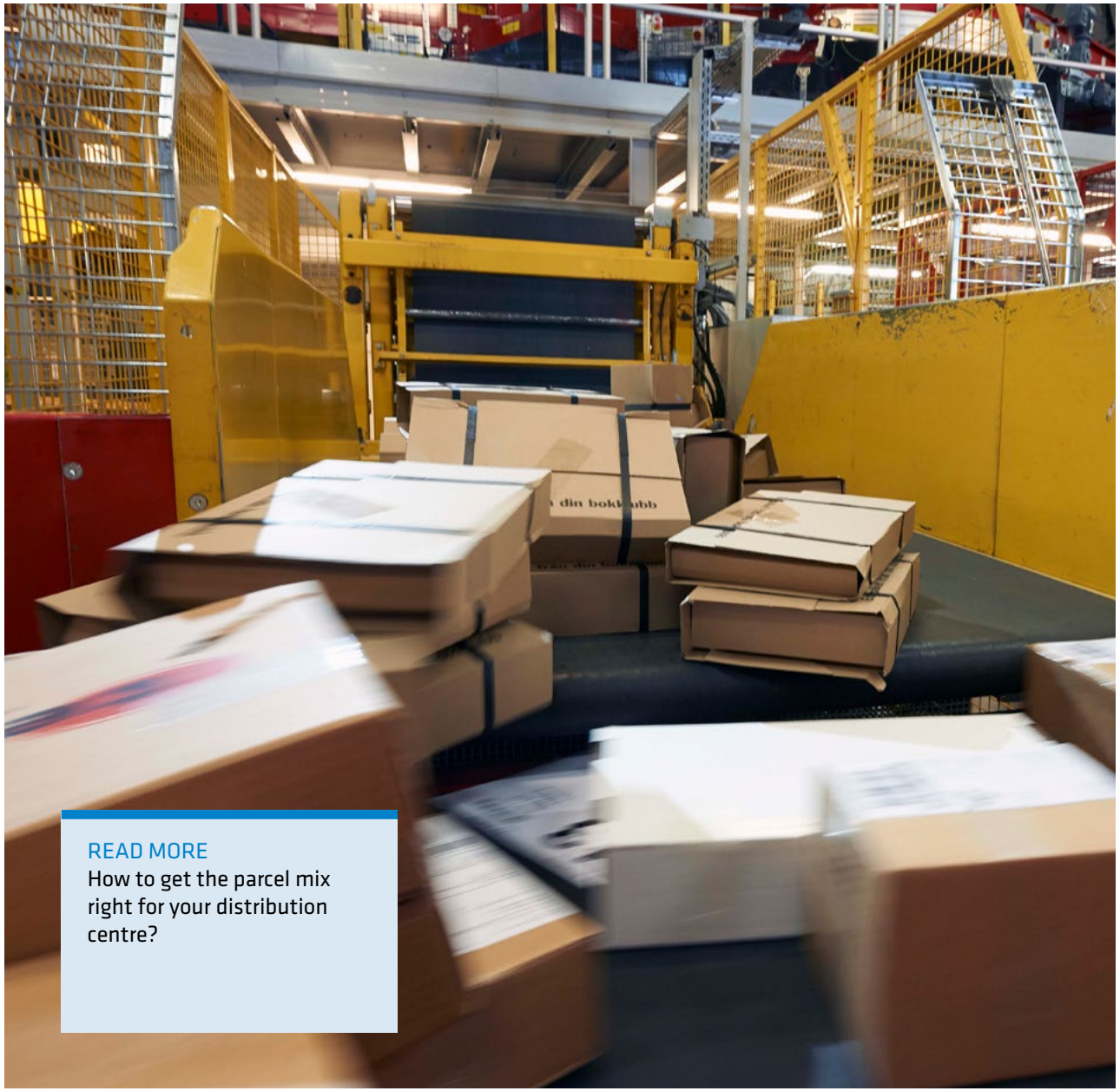
Consideration #1: Parcel Mix

The incoming flow of different parcel types and sizes is ultimately what decides which sortation system gives you the most cost-effective automation.

Consideration #1:
Parcel Mix

Rapid developments in global e-commerce make it increasingly difficult for parcel distributors to project their parcel mix based on historical data. It is possible, although uncommon, to design a single automated sortation system which can handle every item and varying parcel mixes. The more common options, in practice, are for distributors to either go for a single system that can sort the majority of the projected parcels, or a combination of two systems handling different parcel profiles. In any case, the objective is to keep the workload of manual handling to a minimum.

Best practice:
Be attentive to the details of your parcel mix data. Even a small batch of unexpected, non-machinable parcels can put your sortation capacity at risk. For a smaller parcel distributor, a single system that can handle more or less all types of items might make perfect sense, while a distributor handling high volumes of varying parcel types would probably need a more flexible solution. Either case would be a more effective solution compared to manual handling – and will give you at least the same, if not higher, sortation quality and data capture.



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How to get the parcel mix right for your distribution centre?

Consideration #2: Rest Mail Sortation

Tiny parcels, and other kinds of rest mail, have distributors working at capacity limits. Both in terms of physical space at centres, the number of operators manning sortation systems, and the amount hours delivery vehicles spend on the road.

Consideration #2:
Rest Mail Sortation

Automated sortation systems are typically designed to operate within certain size restrictions optimised for handling regular, relatively large parcels. The smallest machinable parcel on such a system would typically be book-size, not smaller than 20 x 15 x 1 cm. While it's possible to redesign an existing sortation system to be able to handle items that are outside of this range, i.e. rest mail, it's usually rather costly, and often, there's a better business case for designing a separate system.

A dedicated rest mail sortation system will typically be designed to handle every item that's smaller than A3 size. An automated sortation solution would come with 'legal for trade' software allowing for accurate weighing and measuring of even tiny parcels. With video coding technology, automated sortation enables scanning of problematic barcodes, e.g. in the case of labels wrapped around tiny parcels. This reduces the manual workload of reading inadequate barcodes.

Best practice:
Based on the volume of rest mail, distributors must consider whether there's a need for a separate system for handling these items. With a dedicated rest mail system, distribution centres can achieve a very high degree of automation. If 80 per cent of your shipments are rest mail, which used to be handled manually, these can now be automatically sorted, with the remaining 20 per cent being sorted on your established system.

READ MORE
Small parcels or large letters? How distribution centres can handle rest mail

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Consideration #3:
Options for Scanning and Reading Labels

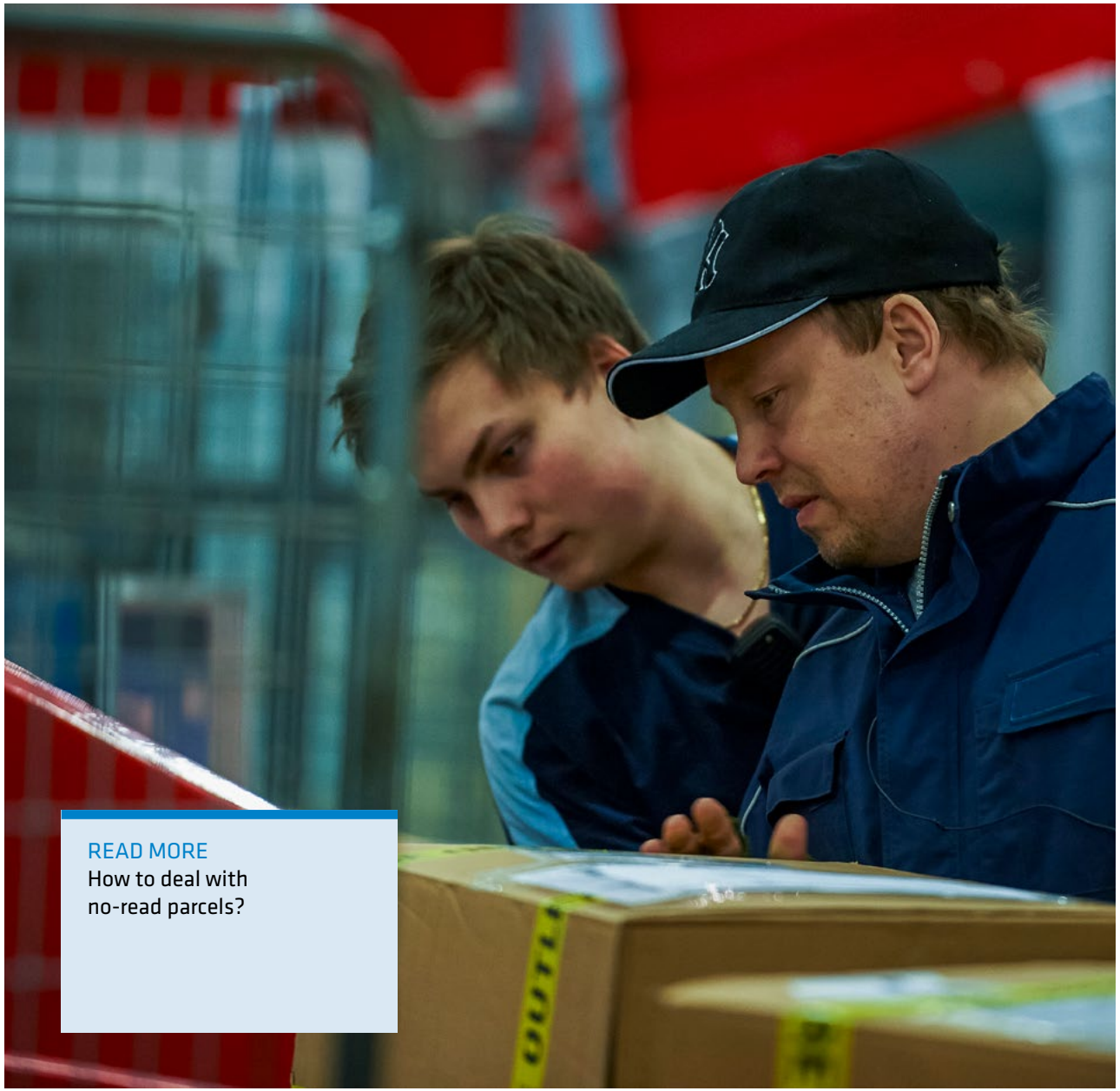
The frequency of no-reads and unsolvable parcels at your distribution centre play a part in determining which reading technologies–such as video coding and OCR–your sortation system should include.

Consideration #3:
Options for Scanning and Reading Labels

No-reads and otherwise unsolvable parcels is a major headache for distribution centres because they disrupt the ”lights out” flow of automated sortation. They require additional manning and facilities, as processing unsolvable parcels involve both physical handling on the production floor as well as re-labeling and data enrichment done in an office setting. Especially poor data exchange between CEP operators and the emergence of home-printed labels are giving rise to these processing issues.

Unsolvable or no-read parcels are caused by various issues, including: 1) parcels not having a barcode or label at all, 2) the barcode is damaged or otherwise unreadable, 3) the barcode’s data structure is not compliant, or 4) the barcode does not contain data for further processing.

Best practice:
Gathering data about the frequency and causes of unsolvable parcels can help distributors better handle unsolvable parcels. These insights can help CEP operators decide on which technologies, such as video coding and OCR (optical character recognition), would best help them reduce the manual workload related with unsolvable parcels. Other examples of such technologies include smart cameras and image handling software.



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How to deal with no-read parcels?

Consideration #4:
Peak vs. Regular Capacity

While a major business opportunity for CEP providers, without proper planning, peak seasons put operations at risk. A tricky part of choosing an automated sortation system is to plan for fluctuating demand without wasting money on overcapacity.

Consideration #4: Peak vs. Regular Capacity

Choosing the capacity level of your sortation system is a relatively permanent decision; scaling sortation systems up or down is not done overnight. As such, fluctuating activity levels in distribution throughout the year makes it difficult to decide on the scope of a sortation system. Should you design a system based on regular activity levels with the aim to working well above capacity during peak season - or go for a system with higher capacity to easily accommodate for busy times with the risk of paying for overcapacity?

Best practice:
Parcel mix projections should account for maximum load during peak seasons. If your distribution centre is heavily impacted by seasonal fluctuations, you should plan accordingly. For optimal planning, consider a sortation system that allows for regular data capture, preventive maintenance, and readily available spare parts service.

READ MORE
How to prepare your distribution centre for e-commerce peak seasons – without systems overcapacity

Consideration #5:
Ergonomics and workplace safety

Great system design accounts for both operator safety and gentle handling of parcels. Ergonomics can help optimise operations, e.g. better parcel handling, while limiting work hazards, like heavy lifting, repeated movement, and unnatural working positions.

Consideration #5: Ergonomics and workplace safety

Global trends in automated logistics point to more industry regulations favoring operator safety. At the same time, to accomodate for both competitive forces demanding ever faster handling speeds and for seasonal scarcity of skilled operators, CEP providers need to design both efficient and attractive workplaces.

Our experienced system designers and technical consultants at BEUMER Group work with clients every day to translate regulations into practical and efficient solutions that contribute to a better work environment and improve employee productivity and retention. Examples of ergonomic design features to consider: Adjustable floor height, automated cage filling, roller brakes, button accessibility, noise level, lighting at workstations.

Best practice:
Think of ergonomics as an integrated part of your sortation system. Workplace safety and sortation efficiency can go hand in hand, as ergonomic design principles enable healthy optimisation of processes performed by human operators.

READ MORE
How to improve work environment at distribution centres with ergonomic design

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Automate your sortation for successful e-commerce distribution

Prepare your hub for the growing opportunity of e-commerce parcel distribution with an automated sortation solution that fits your needs. By investing some time in the initial requirement specifications now, you are better equipped to design the sortation system that's right for your operations.

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