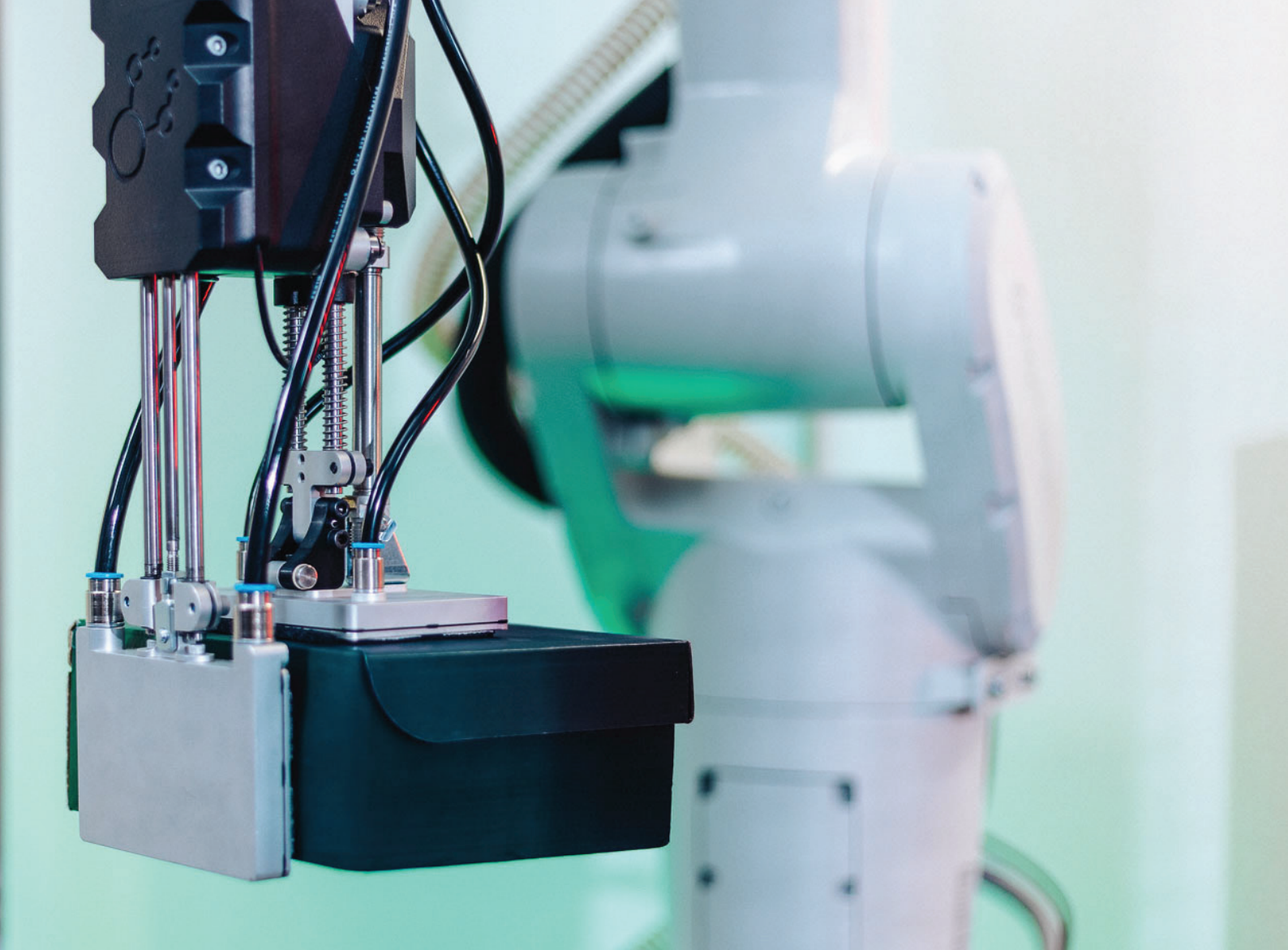




Put Your Best Foot Forward:

**Scale Intelligent
Warehouse Automation by
Solving the Unsolvable:
The Shoebox Problem**

Nomagic helps e-commerce and retail leaders accelerate their use of advanced automation technology in distribution centers.

Read on to learn more about our cutting-edge Physical AI solutions that have the intelligence and dexterity to handle the most complex single item picking tasks that have, until now, relied on manual human actions.

Getting a Grip on the Challenge

Much of the general warehouse process has already been enhanced by the introduction of robotics to handle goods-in, storage and retrieval, and the movement of items in bulk via pallet or crate.

But despite the widespread proliferation of warehouse automation, human input is still an essential part of single item picking and order fulfillment. This is particularly prevalent across the fashion and e-commerce industry where items come in highly variable shapes and packaging types. Any automation solutions must be highly adaptive and flexible to ensure throughput, cost efficiency, and availability targets are met across sorting, batch creation, order pre-picking and more.

As a result, every fulfillment center will have its own unique blend of human and automated processes, reflecting the massive range of SKUs, sometimes stretching into the millions. With a near-infinite number of combinations of items that can make up each individual customer order, single item picking is a precise and critical part of the process that is different every time.

But relying on manual labor for this task is costly and inefficient:

Cost and efficiency

Despite the use of automation for storage and retrieval, workers can still spend a significant amount of their time on the repetitive, mundane, and costly tasks of picking individual items from large bins.

Staff turnover

The physically demanding and repetitive nature of the job, tightening immigration laws, and a willingness to leave for even a few cents more elsewhere creates continual recruitment and training challenges.

Seasonality and management

Ensuring adequate staffing levels and managing shift schedules to scale the human workforce during periods of peak demand is a complex and time-consuming job for floor managers and HR teams.

Combined, these pressures make manual picking increasingly inefficient at the scale required for modern retailers to support their continued distribution network expansion, underscoring the need for smarter, more intelligent automation technology.

But what's the next step forward?



Lifting the Lid on Greater Automation Success

Solving the problem of single item picking presents a significant opportunity to drive further efficiency and precision at critical points across the order fulfillment and wider e-commerce chain.

For growing e-commerce operations, this challenge has become even more important. As part of the drive to improve service levels and provide more delivery choices with broader product availability, introducing the latest Physical AI solutions helps streamline warehouse and distribution processes.

But until now, one item in particular has so far eluded the clutches of robotics: **the shoebox.**

Footwear represents around 20% of e-commerce sales in the fashion and apparel sector. Solving the complexity of handling loose-lid shoeboxes can have a massive operational and financial impact for retailers, directly influencing throughput, labor efficiency, and order accuracy across their distribution networks.

Give Your Warehouse an Unfair Advantage: AI-Powered Robotics from Nomagic

The convergence of advanced AI, Large Language Models (LLMs), and the emerging class of Vision-Language-Action (VLA) models has introduced a fundamentally new capability to robotics.

At **Nomagic**, our Physical AI delivers uninterrupted throughput and unmatched reliability through automation and robotics. Built to handle millions of SKUs in the world's most complex warehouses, our robots have the ability to see, understand, and act with a high degree of accuracy in complex and changing environments.

The latest wave of our warehouse robotics innovation has solved one of the biggest challenges facing the fashion industry: **automated shoebox picking.**

Shoebox Picker is the first of its kind system for handling loose-lid shoeboxes. It is a synergy between a novel mechanical gripper that secures both the lid and the base of the box and an AI perception system that acts as the “eyes” and “brain” for the tool.

The AI system uses a chain of thought-reasoning to pick items in the right order, making the advanced hardware usable in a real-world, mixed-SKU environment. Our Physical AI Robotics makes it possible to pick each box from the correct angle, eliminating the need for items to be perfectly singulated or pre-oriented – a requirement that made automation for shoebox picking impractical before.

Delivering Top Performance

Reduce your labor costs

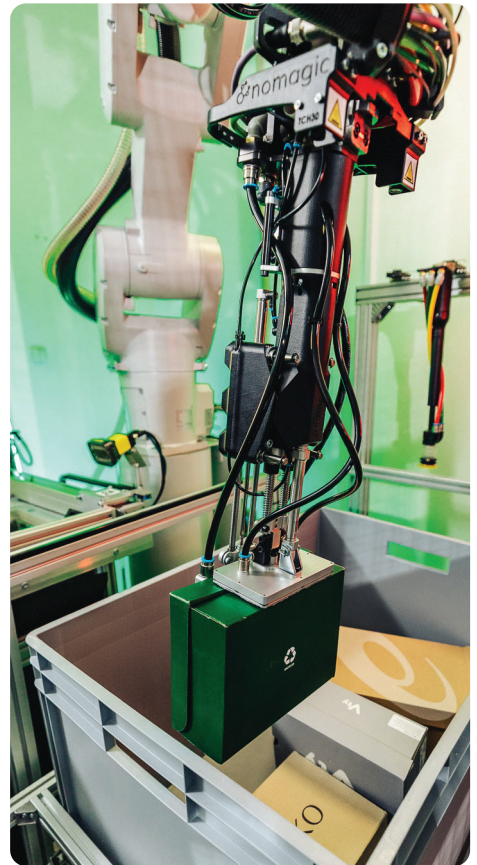
Shoebox Picker directly reduces the reliance on manual labor for picking, packing, and sorting shoeboxes, leading to immediate and substantial OpEx savings.

Unlock end-to-end automation

Shoebox Picker is the missing link that allows fully automated, 24/7 operation, maximizing the ROI of all other automation systems in the facility.

Enhance your accuracy

Shoebox Picker's robotic handling minimizes human errors, leading to better inventory accuracy and fewer miss-picks.



Up to
600
Picks per hour

98%+
SKU Coverage

98%
Operational
availability

The Nomagic Difference

From enhancing efficiency to revolutionizing fulfillment processes, our robotics solutions are helping fashion and e-commerce organizations worldwide transform their warehouses with the next generation of automation efficiency.



When European online fashion retailer Zalando was looking for ways to drive further efficiency in its fulfillment centers in 2025, they chose Nomagic robots to automate elements of both its returns received and outbound picking processes.

- Each robot averages over 10,000 picks per day
- Item-level picking, scanning, and pocket sorter induction
- 10 live robots in action with a rollout of a further 40 agreed

"Nomagic's technology has demonstrated clear, measurable value in our operations. Their AI-driven solutions allow us to scale automation quickly while maintaining the high service levels our customers expect."

Marcus Daute, VP Logistics Network at Zalando



When leading European logistics provider Fiege needed to meet rising e-commerce demands while maintaining speed and accuracy across its fulfillment centers, they partnered with Nomagic to integrate AI-driven robotic picking and pocket sorter induction into their warehouse operations.

- AutoStore picking and Pocket Sorter induction automation
- Handling of complex itemsets including garments, DIY products, and divided bin configurations
- Robotics-as-a-Service model with zero CapEx investment

"Nomagic delivered tailored solutions for AutoStore picking and Pocket Sorter induct, working closely with our team to solve our specific challenge."

Jens Veltel, Director Warehouse Automation at Fiege

Step into the Future of Automated Fulfillment with Nomagic

The last mile of warehouse automation has long been held back by one stubborn challenge: the unpredictable, precision-heavy world of single item picking – especially complex items like loose-lid shoeboxes. Nomagic has changed that.

Since 2017, we've been redefining what's possible in logistics through intelligent automation. Our AI experts and robotic engineers are a truly world leading team, dedicated to developing cutting-edge solutions that deliver measurable impact and drive long-term value for our clients.

Today, that expertise has culminated in breakthrough solutions like **Shoebox Picker**, giving leading brands the power to automate what was previously considered impossible.

And with our **Robotics-as-a-Service** model and remote updates, our robots and systems can receive bi-weekly enhancements to their visual recognition and processing capabilities. So, you'll always get the best of our capabilities in action on your warehouse floor, expanding the robot's knowledge base so it can handle new product types and edge cases more effectively over time.

Let's Win Now, Together

Our team is ready to work closely with you at every stage of your automation journey:

Define the opportunity

We'll take on board your exact operational requirements and identify the specific business benefits, process improvements, and system integrations needed.

Engineer the solution

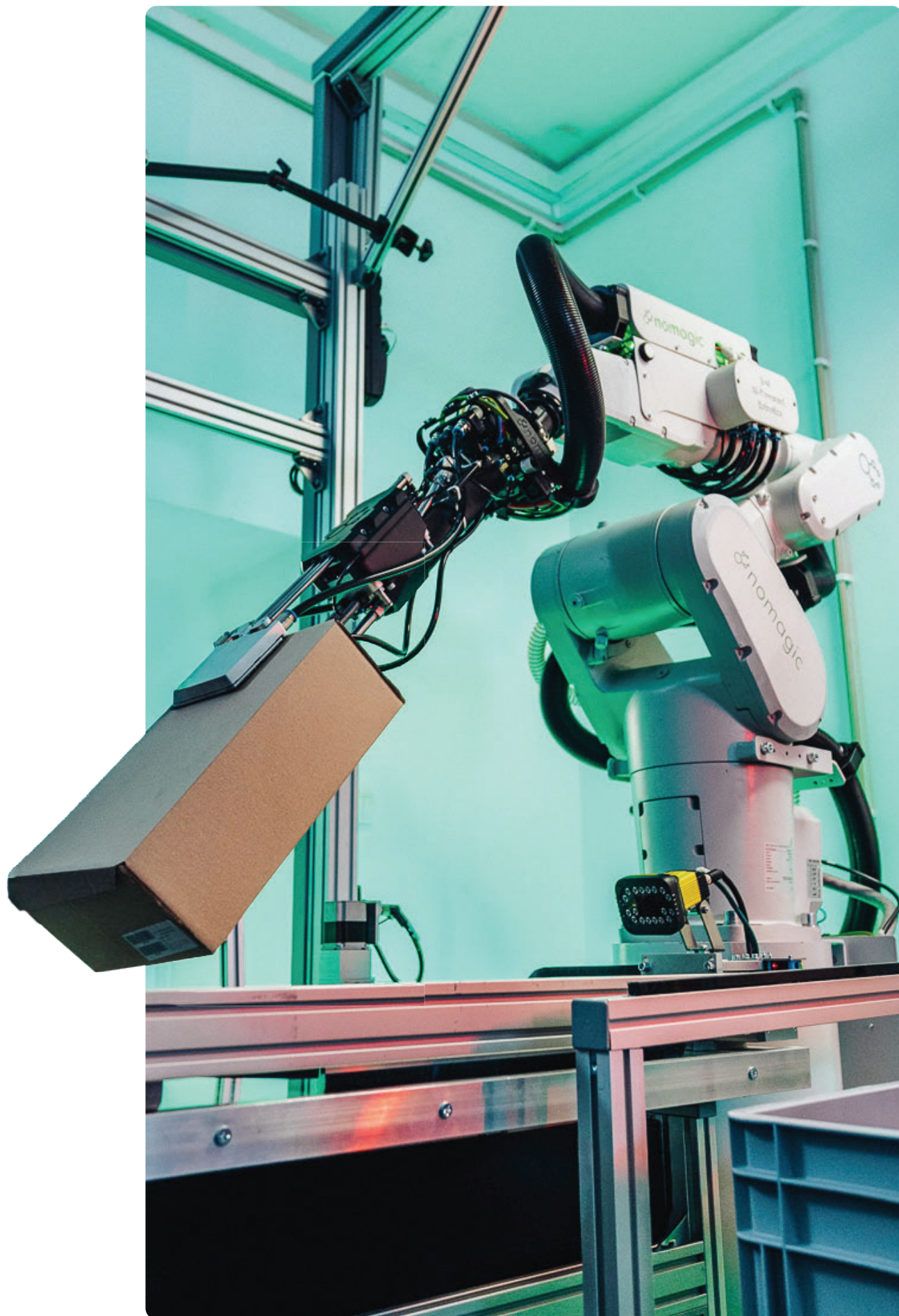
We'll model expected throughput, performance, and ROI to create a clear, data-backed business case.

Deploy with confidence

From design to on-site deployment, our experts support you until your robots are fully autonomous, stable, and hitting their KPIs.

Ready to solve the shoebox problem?
Get in touch with our team to discuss how **Shoebox Picker** can transform your fulfillment operation.

nomagic.ai/contact-us



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