

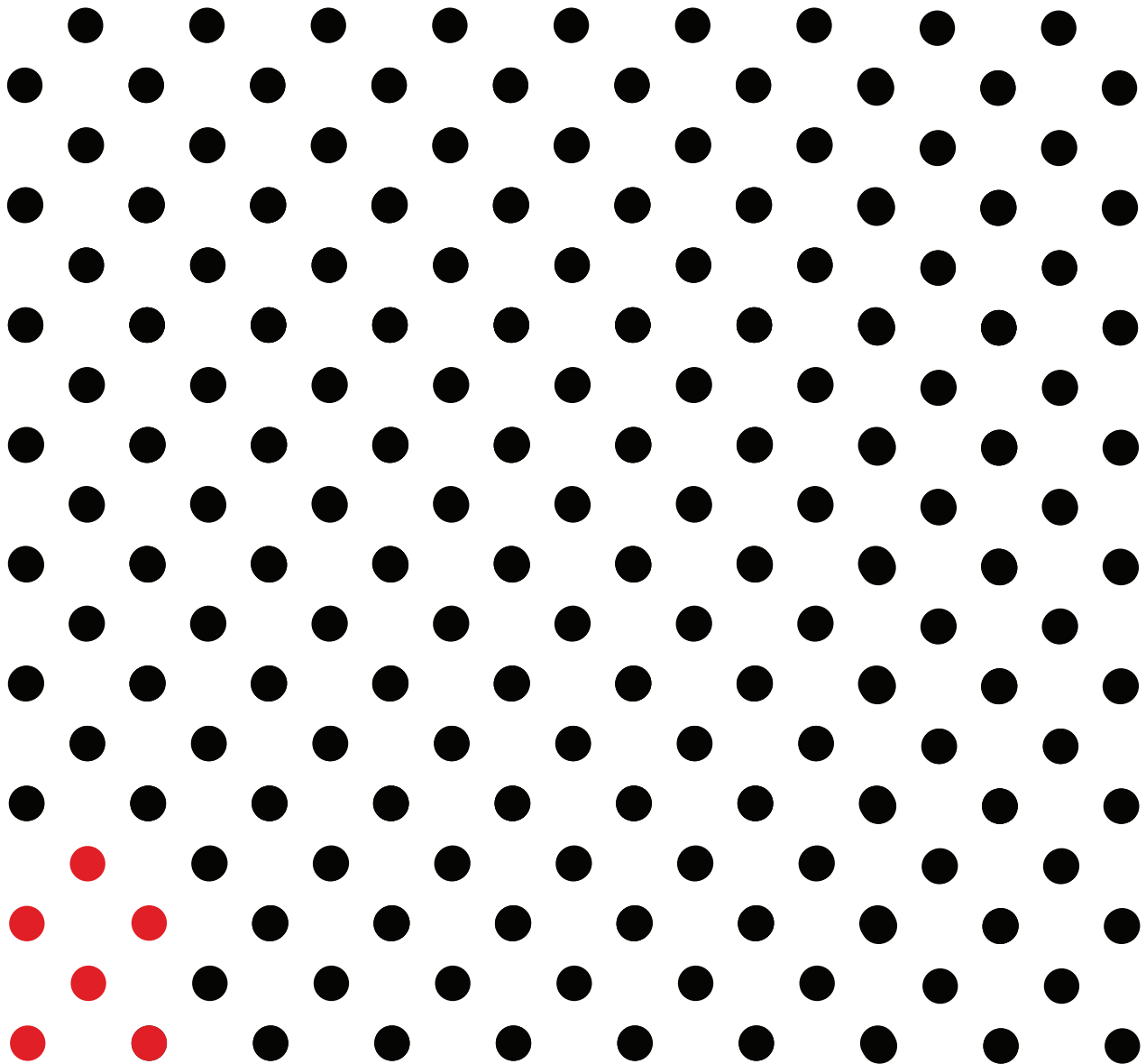
PUMA

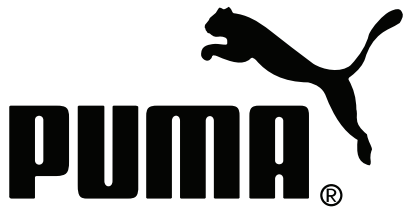
USA



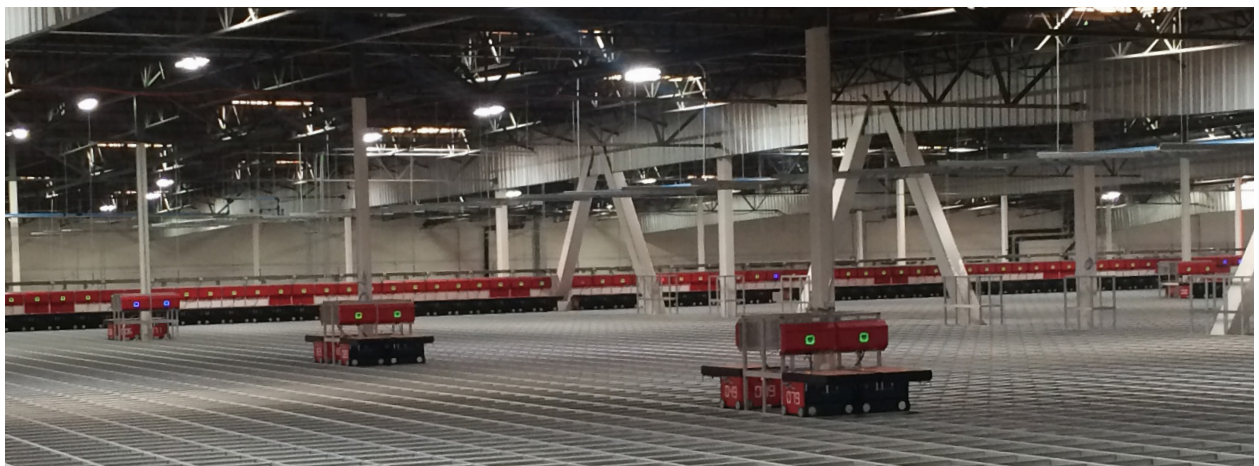
AutoStore

Case Study
Revision: 2
2017.07.24





End-User: Puma North America
Partner: Bastian Solution
Country: USA
Year: 2016
Robots: 170
Bins: 171 000
Ports: 16



Omnichannel Fulfilment: World's Largest AutoStore System Provides a Perfect Fit for Puma North America

PUMA understands speed and performance. As one of the world's leading sports brands, the company has created fast product designs for the fastest athletes on Earth for close to 70 years. Its ongoing retail success and growing e-commerce presence, however, recently left its existing fulfilment operations hard pressed to keep pace with growth.

Like other omnichannel providers tasked with managing the fulfilment demands of e-commerce growth and achieving a successful integration with retail, PUMA recognized the urgency for goods-to-person automation. Working with Bastion Solutions, an independent material handling system integrator, and Brookvale International, a third party logistics provider which PUMA contracted to operate its new distribution centre in Torrance, California, the group evaluated several automation alternatives. The priorities were clear. The omnichannel apparel, footwear and accessory provider wished to improve its service to customers, ranging from expanding its assortment of online product offerings to providing faster order delivery.

Industry Leading Storage Density for omnichannel

After exploring other automation options in the marketplace, the easily scalable AutoStore system was identified as the best solution for PUMA's needs. In particular, the group was excited about AutoStore's industry leading storage density, energy efficiency, and the ability to achieve same day shipping of dot.com orders. The key to AutoStore's storage configuration is its use of tightly stacked bins in a dense aluminium storage grid. Bins are retrieved by battery powered robots. Additionally, the group remarked on the flexibility and scalability of the solution, perfect not only for future growth, but also for seasonal spikes or promotional events such as Black Friday. Managing volume surges is as simple as engaging more robots, while longer term, the grid can be expanded to increase overall storage capacity, even while the system continues to operate.

How the AutoStore System Works at Torrance

Now in service since July 2016, the Torrance AutoStore installation features 171,000 bins, 170 robots, and 23 carousel ports. It is the largest AutoStore system in the world in terms of bin locations, although a European AutoStore system utilises more robots.

Like the more than 130 other AutoStore systems in operation globally, the 152,000 square foot Torrance system is comprised of six main modules, including a structural aluminium grid, delivery robots, durable plastic storage bins, operator ports, controller and access points. At Torrance, products are placed in bins and inducted into the system at one of six receiving stations. Filled bins are placed in available bin locations by radio operated robots.

Because any robot can go to any bin location, and any robot can go to any port, there is no single point of failure. The only moving part is the robot. As a result, the system is very reliable and flexible. When a particular product is needed to fill an order, the software system directs a robot to locate the bin containing the item. Once the correct bin has been lifted by the robot, it then takes it to the edge of the grid for delivery to a fulfilment operator. If the needed bin is buried beneath other containers in a stack, the robot repositions the other bins to access the one needed. The most active SKUs remain close to the top, thereby minimising the amount of digging required by a robot.

A central pick module runs down the centre of the AutoStore installation. Operators at the carousel ports utilise a pick to light system, placing orders in shipping containers generated by three automatic carton erectors. Smaller e-commerce items are picked to totes and sent to the polybag unit. E-commerce orders are then further sorted to bins, based on outbound freight carrier assignment. The shipping side is supported by a 6,200 feet conveyor system.

“This project marked a major push into next level e-commerce fulfillment for PUMA,”

“Having updated our fulfillment system, we are now able to provide our customers with a better service, from a wider range of online products to faster order delivery. AutoStore has not only allowed us to achieve this, but has also provided us with the opportunity to easily expand our e-commerce line as needed.”

**Helmut Leibbrandt,
Sr. Vice President Supply Chain Management and Logistics,
PUMA North America.**

Fulfilment Rates More Than Doubled

The Torrance distribution centre has achieved an order fulfilment rate of around 175 units per operator hour for e-commerce, and 650 for wholesale units. This figure marks a productivity increase in the magnitude of two to three times the prior rate realized before the switch to AutoStore. As a result, PUMA has been able to fully consolidate its Hebron, Ohio distribution centre operations into the Torrance facility.

So how does AutoStore stack up against other automated fulfilment systems? To start, AutoStore can provide more storage per square foot, typically a 40-60% space savings versus competing systems. Due to its simple, modular design, it is also easy to install in existing buildings, including irregularly shaped buildings or those with low ceilings. AutoStore also delivers on speed, reliability, improved inventory accuracy as well as labour and energy savings.

(Autostore quote) “We were proud that AutoStore was selected by PUMA North America, and for the opportunity to work collaboratively with Bastion Solutions and Brookvale International to deliver a successful result. The Torrance installation clearly demonstrates how brands such as PUMA can utilise Autostore to achieve competitive advantage in omnichannel.”



AutoStore

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