

The background image shows a large industrial facility, likely a fruit processing plant. A long, grey conveyor belt runs through the center, flanked by yellow safety railings. On the right side, there are several robotic palletizers in operation, moving boxes onto pallets. The floor is polished and reflects the overhead lights. In the top left corner, there is a red box with the Intralox logo. In the bottom left corner, there is a white play button icon.

**Washington Fruit /
R.H. Brown**
Yakima, Washington,
USA

DARB™ Sorter for gentle infeed
to robotic palletizers

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CASE STUDY

DARB SORTER ENSURES DESIRED THROUGHPUT AND PRODUCT INTEGRITY

CUSTOMER OBJECTIVES

Washington Fruit Company grows, packs, and ships premium produce to customers around the world. When the company built a new apple-processing facility more than five years ago, it turned to R.H. Brown Co.—a Seattle-based material handling integrator with more than 100 years of industry experience—to handle the design and layout of its conveyance equipment.

Recently, the two companies partnered again to develop a new facility that would handle high-volume fruit distribution in Yakima, Washington. The project presented unfamiliar challenges. The apples were to be packaged into cartons that measured 22 in x 16 in x 14 in (55.9 cm x 40.6 cm x 35.6 cm) and weighed approximately 40 lb (18.1 kg) apiece.

To achieve success, R.H. Brown knew that its solution would need to achieve Washington Fruit's desired throughput, protect product integrity, and automate carton

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Washington Fruit System Operator

sorting and palletization. The project would be on a tight deadline, so design and installation needed to be seamless and punctual.

INTRALOX EXECUTION

After seeing it work in another facility, Washington Fruit requested that R.H. Brown supply an Intralox® DARB Sorter S4500 for their new facility. Intralox helped the integrator design a layout using the DARB Sorter, an automated Intralox Activated Roller Belt™ (ARB™) solution that gently and precisely sorts and sequences a wide range of items at 90-degree angles. By developing a system centered on the DARB solution, R.H. Brown was able to win the project.

The DARB Sorter S4500 proved ideal for the system, since it could handle cartons at the desired throughput rate in the required footprint while still adhering to the project's budget parameters. The DARB solution sorts to 20 destinations, all on the same side of the sorter, which infeed to five robotic palletizing lanes without rails or confirmation photo eyes. The DARB sorter requires only one drive (regardless of the number of diverts), which significantly reduces the amount of field wiring and contributes to a lower overall project cost.

RESULTS

The new system allows the facility to process an average of 4.5 million apples per day at rates up to 50 cartons per minute. The DARB solution not only achieved Washington Fruit's desired throughput rate, but has allowed the facility to increase its overall throughput and handle additional business. The automated sorter's consistent, gentle product handling protects the integrity of the apples while enabling high-capacity automated sorting and palletizing.

“With the DARB Sorter, we can get a tighter gap between the boxes, and then more boxes through on a faster moving belt,” says Mikey Hanks, Operations Manager for Washington Fruit. **“It’s a good system.”**



up to 50
cartons per minute handled
by DARB Sorter

4.5 million
apples per day processed with
the Intralox solution

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