

MICROSCAN®

Automated Pallet Tracking for Monitoring Packaging & Distribution



A major food processing company uses Microscan's MS-890s to track boxes of cereal as they are palletized and prepared for shipment from the facility.

TRACKING POST PACKAGING AND DISTRIBUTION

Located in the Midwest, a large food processing facility produces more than 200,000 boxes of one cereal-type alone. As a part of their automated production, the facility needs to monitor how many boxes of cereal are actually shipped from their facility each day. To accomplish this, three Microscan MS-890 bar code scanners are mounted onto each post-packaging line.

The first two MS-890s are mounted near a turntable at the shrinkwrap station. Each corrugated cardboard box containing cereal boxes is pre-printed with a 20 mil, 1 2 of 5 bar code on each side. After the automated system has stacked 30 boxes into a block formation, the station spins the block 360 degrees.

As the block is spinning, the first MS-890 scans the bar codes on one of the boxes on the bottom row of the block. If the bar code labels on the boxes are only visible from the top, a second MS-890, mounted above the turntable, scans the bar codes on the top of the block. The bar-coded information is sent to the host computer via RS-485 multidrop to register the block.

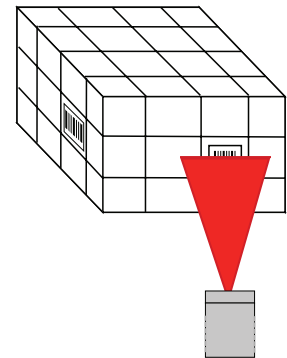
The block is then transferred to a conveyor line where it first passes an automatic print and apply machine. As the block moves by the machine, two shipping labels with 20 mil Code

128 bar codes are applied to two sides of the block. The block then passes by another MS-890 located near the conveyor. Mounted at a 45-degree pitch, the MS-890 reads both of the shipping labels at a distance between 18 and 36 inches away. The scanner verifies that the labels are identical and accurate. The information is then documented by the host system, and used to rout the block to the correct shipping dock for transport from the facility.

MS-890 OFFERS READ RANGE FLEXIBILITY

Multiple features, including a high-speed scan rate, enabled the MS-890 to meet the facility's application requirements. Capable of reading a 20-mil bar code over a distance of 20 to 90 inches, the MS-890 was able to easily scan the labels on the blocks under the read range requirements. The programmable sweeping raster enabled the MS-890 to scan both sides of the oncoming blocks, as well as the entire width of the conveyor line itself. The MS-890's auto-focus capabilities allowed the distance between the block and the scanner to shift without interrupting read performance.

Figure 1: MS-890 scanning shipping labels.



MS-890 at a Glance



- Scans/second: 400-1000
- Read range: 10 to 120" (254 to 3048 mm)
- Autofocus
- Sweeping raster, user adjustable
- Field replaceable windows
- Optional wiring box (shown)
- Embedded protocols

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