

Automated Labeling of Tapered Bulk Feed Tubs

Animal Feed Producer



FOX IV Technologies, Inc.
6011 Enterprise Dr., Export, PA
15632
724-387-3500
sales@foxiv.com
www.foxiv.com
<https://www.youtube.com/foxiv>

FOX IV's expertise in drum and tub labeling along with their ability and experience with large label print and apply enabled FOX IV to provide the end user with a perfect solution to complete the automation of their production line.

Growth & Impact



10X
increase in
throughput
rate



Reduced
human error
and label as
well as
potential
recalls.



Reduced
label
inventory and
obsolescence

Automated Labeling of Tapered Bulk Feed Tubs

FOX IV's labeling system eliminated the customer's issue of incorrect labels being applied to products



Background

A bulk feed producer needed to incorporate label print and apply to complete the automation of their packaging line. Previously, labels were pre-printed on a desk top label printer in batches by LOT and specific formulation. The labels were then hand applied to each tub. The balance of the line incorporated robotics to seal each tub and palletize them.

Occasionally, incorrect labels were being applied to product due to the manual process. Labels were inventoried and obsoleted as necessary.

APPLICATION:

The end-user needed to have a 6"W x 10"L label applied to their tapered feed tubs as they were moving on a conveyor travelling at 60 fpm. The tubs were 19 1/4" tall with a 3.7 degree taper ranging from a 21" diameter at the top of the tub to a 19 3/4" diameter at the bottom of the tub. Labels needed to be applied at a maximum rate of 4 per minute.

The end-user required high quality print due to the amount of label information and certification symbols. They also requested Ethernet connectivity for data streaming to the labeling equipment from their system.

ENVIRONMENT/SPECIAL CONDITIONS:

Temperature controlled factory environment. Print and apply mounted along existing conveyor line prior to robotic intervention.

Solution

FOX IV provided a 6956L3 Print and Apply system with PLC applicator control system, Ethernet connectivity, and a 300 dpi print engine. The 6956L3 was mounted directly on the conveyor line upstream from two industrial robots - one that placed the lid on each tub and one that removed the tub from the conveyor line and placed it on a pallet.

The FOX IV 6956L3 printed each label as the tub entered the labeling station. Label application was triggered from a retroreflective photosensor mounted to the conveyor. The print and apply labeler featured a tilting vacuum belt applicator assembly to cleanly position and apply the large 6" x 10" label to the tapered tub. A supplemental application brush ensured the labels were adhered well.

The addition of the FOX IV 6956L3 Print and Apply system eliminated the customer hand labeling, increased efficiency, reduced label inventory and waste, and eliminated incorrect labeling on the product.

System components included the 6956L3 print and apply, roller wipe assembly, Ethernet connectivity, digital interface package, light tower, brush applicator, photosensor, and mounting stand.

VIDEO LINK: https://youtu.be/U1lhp5Cc5_E

"FOX IV's 6956L3 Print and Apply made the labeling process accurate and simple."

Ed Fox, Sales Director, FOX IV Technologies, Inc.