FOX IV Labeling Station for Feed Blocks

Features and Benefits

• Integrated labeling station plugs in to conveyor line

• Ability to switch between label applicators or bypass both

• Environmental enclosures keeps equipment clean in dusty environment

• Adjustable equipment positioning for ideal label location and ease of maintenance

• Large label roll capacity for extended production

Industry Group:

FOX IV's ability to put together a customized labeling station allows the customer to seamlessly integrate labeling into their production line.

FOX IV designed a two unit, integrated labeling station to label the various feed block products.

Pressed Feed Block Labeling

BACKGROUND:

A large national material handling company enlisted FOX IV to supply a unique labeling station as part of a conveyor and palletizing line that they were providing to an animal feed company. The labeling station would be required to label both the top of certain feed blocks as well as wrap a label around a different sized block on the same conveyor line.

APPLICATION:

Customer needed a two unit labeling station to label their animal feed blocks. Certain blocks would receive a three-sided wrap label while others would receive a label on the top of the block. At the first labeler, a 7.75" wide x 19" long label would be wrapped around the three sides of the feed block at a maximum rate of 5 blocks per minute. The second labeler would apply three different sized labels, ranging from 6" x 6.5" to 6" x 8", to the tops of varying height blocks at a maximum of 5 per minute.

Feed blocks would be run in batches and there would be a need to switch between the labeling units depending on which product was being produced.

The entire labeling station would be integrated into a larger material handling system.

ENVIRONMENT/SPECIAL CONDITIONS:

Temperature range from 40F to 105F, RH up to 90% non-condensing, and low levels of dust.

Three sided wrap label being applied.

SOLUTION:

FOX IV designed an integrated labeling station complete with 2 x 1016 label applicators, material handling for block positioning, and a switch box to activate the appropriate labeler for the product being run or to bypass both labelers. Both 1016 label applicators have stainless steel enclosures. Custom over-the-line mounting with positioning adjustment slides is incorporated into the design.

The first 1016 is mounted in the nose-down position with a vacuum-roll applicator. The 1016 applies the label to the front, top, and trailing side of the feed block. A secondary brush ensures label adhesion on the trailing side of the block. Application is triggered via photosensor.

The second 1016 is mounted in the top-apply/vertical position with a soft tamp including random distance sensing technology. The label applicator applies the

label to the top of the feed block as it passes. It is capable of handling the three different label sizes required.

Both label printers are mounted over a section of conveyor. The company can switch between using the wrap labeler to the top labeler via the switch box, which has three settings: Wrap labeler, Top Labeler, or Bypass. Bypass takes both labeling systems off-line. Additionally, the mounting for the labelers incorporates positioning adjustment slides. By turning a handle on the mounting frame, the position of the labelers can be moved over the line to achieve perfect label placement or bring them closer to the operator for roll changes and maintenance.

The labeling station will be inserted into a new conveyor line for seamless automation of production.


Small feed block having label applied.

EQUIPMENT PROVIDED

1 x 1016L Label Applicator System with
- 16" OD label roll capacity for extended operation
- Vacuum/Roll label applicator assembly
- Trailing side wrap assembly
- Stainless steel enclosure
- Fault/Warning I/O package with light tower

1 x 1016L Label Applicator System with
- 16" OD label roll capacity for extended operation
- Extended length applicator arm
- Soft tamp for 3 label sizes
- Random stroke sensing
- Fault/warning I/O package with light tower
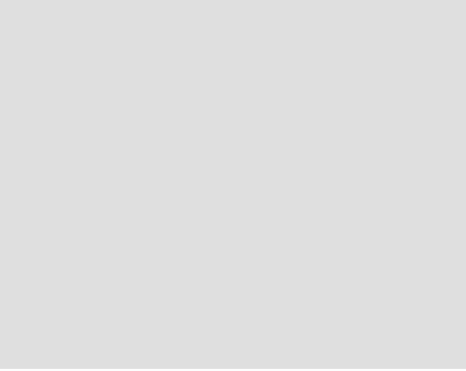
Powered roller conveyor
Gantry mounting with positioning adjustment slides
A/B/C switch box and control software
Photosensors

SERVICES PROVIDED:

Design to application
System Integration
Software/integration support

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