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- FEEDING IN THE LATEST
- BOWL FEEDER FOR BULLET CARTRIDGES
- FEEDING OF SPOUTS

Components for which systems are available

Elscint Ahead

Feeding In The Latest . . .

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Welcome to the July edition of the Elscint Ahead Newsletter. The first news story of this edition is about a recently supplied bowl feeder for feeding bullet cartridges. The second news story is about a complete automation supplied for feeding of spouts. As usual you can download the pdf version of this newsletter as also the back copies of the Elscint Ahead Newsletter.

Vibrator Bowl Feeder for feeding Bullet Cartridges

Elscint recently completed a project which had three bowl feeders. One was Model 400 while the other two were of Model 250. The requirement was to feed bullet cartridges in multiple rows. One side of the brass cartridge was open while the other side was closed. The requirement was to feed the same with the closed side forward. The diameter was the same (dia 10 mm) for all the cartridges but the lengths varied. In case of Model 250, the lengths varied between 10 mm to 20 mm. Two outlets were required in both the bowl feeders with the closed side forward. The open end of the cartridges were uneven, making the orientation & feeding difficult. In case of Model 400, the lengths varied from 23 mm to 40 mm (total 6 sizes). The no. of rows in this case was 4. Having multiple rows with such orientation is always a challenge and Elscint provided easy changeover tooling for the same. The changeover took just 2 minutes. Outlet in all these cases was given in flexible tubes which the customer could attach to his press where the parts were fed for further operation. Elscint used its Model 400 with a cast aluminium bowl with Elscinthane polyurethane coating for this application.

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Feeding system for Spouts consisting of 4 Bowl Feeders, Linear Vibrators & Elevator

Elscint recently completed a project wherein there were four bowl feeders, two clockwise and two anti-clockwise for feeding of spouts with caps. The orientation required was cap trailing vertically down.

Mounting Arrangement with "X" Adjustment –

All four bowl feeders were mounted on a single table with easy "X" Adjustment for movement with a ball screw and wheel for each of them. As the table was to be kept on the customer's machine, 1 mtr. Extra space was kept on each side to ensure that in case of any requirement, an operator can move around on the same. Proper railing too was provided for safety.

Vibratory Bowl Feeder -

Elscint used its Model 250 with a cylindrical bowls for this application. The ht. at which the bowl feeders were kept was almost 4 metres. Correct type of tooling ensured that orientation was always correct and there was no jamming in the bowl feeders.

Linear Vibrator & Gravity chute –

A linear vibrator ahead of the bowl feeder ensured that the spouts could be easily conveyed forward. The vibratory track and the vertical gravity chute were made from stainless wires ensuring proper flow and good aesthetics.

Bulk Loading Elevator & diversion -

As the bowl feeders were kept at almost 4 metres plus height, bulk loader was required. Hence, a belt elevator with 125 ltr. capacity was provided. As the customer had space constraints, a 90 degrees vertical elevator was provided. A single elevator was used to fill all the four bowl feeders. For this a separate reversible conveyor was provided on top of the bowl feeders with level controllers in each of the four the bowl feeders. The reversible conveyor had a flap arrangement on either side to fill in the Clockwise and Anti-clockwise bowls respectively depending upon the number of spouts in the bowl.

Speed -

The customer required a speed of 75 spouts per minute per bowl feeder. Elscint could achieve more than 120 spouts per minute per bowl feeder. There being a sensor in each of the chutes, the bowl feeder, reversible conveyor and the elevator were switched on / off as and when the chute got full. As the requirement was for a food grade pouch making machine, all the touching parts were made in stainless steel 316 while all other parts were of Stainless steel 304.

Performance –

Proper design & tooling ensured that a speed of 120 to 150 spouts per minute was achieved in each of the bowl feeders.

Others -

The electrical wiring was properly concealed and all CE requirements were adhered to. Sensors and motors of reputed make were used with Elscint make gear boxes. The complete system was completed within the desired time and shipped to the customer. You can watch the video of the bowl feeders here.

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