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Components for which systems are available

Elscont Ahead

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Feeding In The Latest . . .

Monish Shete

This edition of the Elscint Ahead Newsletter contains two news stories, first news is about a set of recently supplied bowl feeders for plastic cups. While the second is about a recently completed innovative feeding concept for bearing cups. As usual, you can write to us with your feedback and also download the back copies of the [Elscont Ahead Newsletter](#) and the [pdf version](#) of this newsletter.

Vibratory Bowl Feeder for small plastic cups

[Elscont](#) recently manufactured and supplied two bowl feeders for a small plastic cups having diameter 16 mm x 6 mm height. The requirement was to feed the cups in rolling orientation with the open side away from the bowl centre. One bowl feeder was clockwise and the other anti-clockwise. They were mounted on a single base plate with vertical gravity tracks next to each other with a centre distance of 250 mm. The customer kept his assembly fixture in this gap for assembly of the caps. The feed rate specified by the customer was 50 parts per minute while Elscint provided 80 parts per minute in each of the bowl feeders. A sensor was mounted on the track so that once the same was full, the respective bowl feeders could be switched off, reducing the noise as well as energy consumption. The equipment was completed within 4 weeks from receipt of the order and supplied and commissioned at the customer's factory.



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Vibratory Bowl Feeder with Chain Elevator for Cup feeding

[Elscent](#) recently manufactured and supplied a vibratory bowl feeder with a double chain elevator for feeding of bearing cups having diameter ranging from dia 50 mm to dia 100 mm and having width 15 mm to 30 mm. The bearing cups were conical and hence orientation was required with the bigger side up. For feeding these, Elscint used a cylindrical bowl having diameter of 800 mm, mounted on vibratory Drive Model 630, which is a very heavy and sturdy drive with four coils with 1500 VA rating. Additionally, Elscint suggested a hopper having 75 ltr. capacity for extra loading capacity as the cups were very large and the bowl did not accommodate many cups.

The bearing cups were loaded in the hopper, below which an Elscint linear vibrator with a tray was mounted. With the help of a level controller placed inside the vibratory bowl feeder, the linear vibrator was actuated to start / stop depending upon the level of components present in the bowl. This ensured that the number of bearing cups in the bowl were always optimum for proper and fast feeding.

The vibratory bowl feeder was used only to circulate the bearing cups and ensuring that the cups which were entangled into each other, were segregated for feeding. Two parallel vertical slits were provided at the periphery of the bowl from where a double chain elevator picked up the bearing cups and took them upto a height of 2 mtrs. From there the cups were dropped onto a conveyor with the required orientation (bigger side up). Speed of between 60 parts to 80 parts per minute was achieved (two rows combined). There were no adjustments required in the hopper and the bowl as all the sizes would fit in the same without any changeover required. However, a minor adjustment was given with a knob on the elevator for the smaller and bigger sizes of cups. This ensured even an unskilled operator would be able to do the changeover and that too within 2 minutes.

The linear tray and the bowl was coated with Elscinthane PU to ensure reduced noise and easy flow of parts. As with all Elscint equipment, the build quality was very sturdy and wearable parts were screwed for easy replacement in the future, if the requirement arose. All the parts used were Elscint standard and hence, availability of spares is never an issue.



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