



▶ FEEDING IN THE LATEST

▶ HIGH SPEED CAP FEEDER

▶ ROTARY FEEDER FOR SCRUBBERS

Elscint Ahead

Components for which systems are available

Feeding In The Latest . . .
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First a Happy Diwali & Prosperous New Year to all the readers of the Elscint Ahead Newsletter. Coming to this edition, the first news story is about a high speed vibratory bowl feeder for caps, feeding at a linear speed of above 15 mtrs, which is beyond the imagination of most vibratory feeder manufacturers! The second one is about a recently completed project consisting of a centrifugal / rotary feeder As usual you can download the [pdf version](#) of this newsletter as also the back copies of the [Elscint Ahead Newsletter](#).

High Speed Cap Feeder for Vision Inspection

[Elscint](#) recently manufactured a high speed cap feeder for feeding of various sizes of caps. The caps ranged from dia 15 x 8 mm ht to dia 35 x 15 mm ht. There were a total of 4 caps in this range. The requirement was to feed them in “open side up” orientation at a very high speed. Elscint used its Model 630 for this purpose with a stainless steel bowl having diameter of 1050 mm. Use of small air jets was permitted and this were used effectively to increase the speed. A speed of 1000 caps per minute was achieved for dia 15 mm caps, which translates into a linear speed of 15 meters. In case of the biggest size of dia 35, the speed achieved was 350 parts per minute, again a linear speed of more than 12 meters per minute. Regular vibratory feeders work at a maximum speed of 7 to 8 meters per minute. Most bowl feeder manufacturers find it beyond their means to exceed this speed, especially when orientation is involved. However, Elscint vibrator drives are correctly engineered with CNC machining along with properly processed spring plates and with correct coil rating, making this a distinct possibility. Model 630 in fact has 4 coils fixed at 4 places along the periphery of the vibrator. All this ensures that the vibrators can work optimally giving a very high speed with the correct orientation. [You can watch the video of the bowl feeder here.](#)

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Centrifugal Feeding System for Scrubbers

There are certain parts which cannot be properly fed in a vibratory bowl feeder at a high speed and hence a Rotary / Centrifugal Feeder (motorised feeder) is required. For a recent project, Elscint manufactured a large Rotary / Centrifugal Feeder for feeding of scrubbers having size 80 x 100 x 25 mm thickness. These were having sponge on one side and rough texture on the other side (for scrubbing of utensils). The requirement of the customer was to feed these at a high speed of 200 parts per minute with the sponge up and rough end down. This orientation too was to be done in the rotary feeder. Hence, Elscint proposed a Rotary / Centrifugal Feeder. Model RF 1500, having a diameter of almost 2 mtrs was used for this application. In case of a Rotary / Centrifugal Feeder, one cannot load more than a few components at one time, hence, Elscint proposed a large 150 ltr. Vertical Elevator. This ensured that 2000 scrubbers were stored in the hopper of the elevator. However, this too was just 10 minutes loading at the speed of 200 parts per minute! Hence, another bulk loading conveyor of size 3 Mtr x 1.5 Mtr was proposed. This further ensured loading of another 20000. scrubbers. The total foot print of the equipment thus was 8 Mtr x 2 Mtrs. The parts were loaded in the bulk loading conveyor, which worked based on a level controller inside the elevator. Once the level of parts in the elevator went down, the bulk loader started and stopped once the particular set level was reached. The Elevator too started and stopped based on a level controller inside the Rotary / Centrifugal Feeder. Inside the Rotary / Centrifugal Feeder, a colour sensor was used to identify whether the sponge or the rough part was up and in case the rough texture side was up, an air-jet threw the reverse scrubbers back into the Rotary / Centrifugal Feeder. This ensured only correct oriented parts came out of the feeder. A long gravity chute was provided to match the outlet with the belt conveyor of the customer, which took the parts further to the packing machine of the customer.

The equipment was completed at Elscint works in Bhosari, Pune and shipped and installed at the customer's site.

This resulted in a saving of 12 people for the customer. The equipment was manufactured with superior build quality which is the hallmark of Elscint products. All the product touching parts were made in stainless steel. The gear boxes used were all Elscint makes. Allen Bradley VFDs were used in the panel along with LOTO provision for the electrical as well as the pneumatic panel. As the height of the equipment was high, proper steps were provided at all locations for ease of feeding of the operator. You can watch the video of the [equipment](#).



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