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Components for which systems are available

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Feeding In The Latest . . .

Monish Shete

Happy New Year and welcome to the first edition of the Elscint Ahead Newsletter for 2018. The first news story of this edition is about a recently supplied Vibratory Bowl Feeder while the second one is about a special high speed application which has become a standard equipment for Elscint, having manufactured more than 20 similar systems in the last one year. As usual, you can write to us with your feedback and also download the back copies of the [Elscint Ahead Newsletter](#) and the [pdf version](#) of this newsletter.

High Speed O Ring Feeding System

[Elscint](#), recently completed a project where the requirement was to feed O Rings having diameter 10 mm x 1 mm thickness at a very high speed. The requirement was to feed the O rings in “Flat” orientation at a speed of 600 parts per minute. A hopper for storing 50000 O rings was also required along with a 600 mm long linear track and a stand to mount the complete system.

The O rings were to be fed onto a revolving glass top of the customer for camera based vision inspection. Elscint used its Model 250 with an outer track stainless steel bowl. This ensured multiple tracks which could be converged into a single one, whereby a very high speed could be achieved. A 600 mm length machined track was mounted on the linear vibrator for carrying the O rings from the bowl to the revolving glass top of the customer. As the speed was very high, a bulk storage hopper having capacity to store 50000 O rings was provided. A flap type level indicator in the bowl ensured that the hopper would start / stop as per the level of components in the bowl. This whole system was mounted on a single post stand with (+/-) 100 mm ht. adjustment. The stand was mounted on PU levelling screws with grouting provision. The complete equipment was completed and supplied in less than 4 weeks from receipt of the order.



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Elscent Rotary / Centrifugal Feeder for Flat Drippers

[Elscent](#) has developed special expertise in feeding flat drippers, which are used in drip irrigation pipes at a very high speed in an oriented manner. A Rotary / Centrifugal Feeder having a unique design has been designed for feeding of the flat drippers. The size of drippers is usually around 6 mm width x 3 mm thickness x 37 mm length.

The Elscent rotary / centrifugal feeder has a rugged design with all the parts being machined on CNC for high accuracy. All the parts are planned in a manner that they provide better rigidity and extremely high build quality.

The design perfected by Elscent is a single rotating disc version. A diameter 800 mm single disc is provided inside a drum. The disc rotates at a very high rpm of 120 rpm by way of an AC Geared Motor Model DM 52 of Elscent Make. The drippers are loaded in this disc and due to the centrifugal movement they rotate and come out of the opening kept on one side of the drum. At the opening area, the orientation strip is provided by way of a separate machined part. The unique design of the dripper is such that one side is having 1 mm legs while the other is plain. The legs have to be always down. Ahead of the Rotary / Centrifugal Feeder, a small belt conveyor of 300 mm length is placed, having a very high speed of 150 metres per minute.

One disadvantage of a Rotary Feeder is that the number of components which are loaded in it have to be limited to ensure there is no jamming or blockage. Hence, a stock hopper is required in order to replenish the Rotary Feeder on a regular basis. Accordingly, Elscent has provided for a stock hopper having capacity of 50 ltrs with a level controller. This level controller ensures that the number of drippers in the rotary feeder always remains within a particular band.

Ahead of the Rotary / Centrifugal Feeder, Elscent provides a 3 mtr long belt conveyor with a top see through guide to ensure that drippers are carried forward and sufficient buffer is created. The speed of this belt conveyor is 80 metres per minute and it too works on an Elscent Geared Motor Model DM 38 of suitable RPM.

The speed achieved in this type of Rotary / Centrifugal Feeder is 2000 drippers per minute. All the motors are provided with variable drives so that this speed can be controlled according to the requirement of the customer. The complete Rotary / Centrifugal feeder is enclosed in an enclosure with a see through openable polycarbonate cover.

There are various models in this type of Rotary Feeder having various options like complete build in Al Extrusions, M.S. Square Tube, Stainless Steel enclosure, powder coated enclosure, Motor Makes, speed required etc. You can watch the [video of the Rotary / Centrifugal Feeder working at 1500 drippers per minute](#) as well as the [one working at 2000 drippers per minute](#).



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