

Coming at the start of this new financial year, this edition of the Elscint Ahead newsletter contains two news items, the first being a small bowl feeder manufactured recently while the second one is about a recently completed project. 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 oaf this newsletter.

Feeding small springs in a vibratory bowl feeder



Elscint recently manufactured a small vibratory bowl feeder for feeding of small springs having diameter 5 mm and length 11 mm. Feeding of springs is very complicated as they have a tendency of getting entangled. However, the special bowl design developed by Elscint ensured that the entangled springs did not come forward but also got disentangled. In this particular case, the requirement was to feed them in a single row, remove the entangled springs, if any and then feed them into a tubular gravity chute for hand pick up at the end of the chute. There was a space constraint and hence the customer wanted a very small and compact bowl feeder for this application. Hence, Elscint recommended its Model 100 with a cylindrical bowl having diameter120 mm having a single track. The springs which were entangled were removed from the track position and fell back into the bowl. The falling impact, ensured that most of these entangled springs got disentangled. Additionally, a sensor was fixed on the fixed tubular gravity chute so that once the chute was full, the bowl feeder could be switched off.

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Elscint Automation

W-191 Bhosari MIDC Pune 411 026. India Tel.: +91-20-27122059 Fax: +91-20-27122994 Email – <u>sales@elscintautomation.com</u> Website – www.elscintautomation.com

Feeding, Orienting, Conveying & Singulation of Valve Seat and Valve Guide

Elscint recently manufactured three bowl feeders for feeding of valve seats and valve guide. There were four valve seats (two per set to be fed simultaneously and a single valve guide. The requirement was to correctly orient the valve seats in a particular orientation. The difference was that the internal diameter had an inside chamfer of 0.5 mm on one side. This critical orientation was done in the bowl itself. However, the customer insisted that the same had to be checked not only for correct orientation but also to ensure that wrong component (different model) was not fed. This was done by placing a camera on top which checked the correct type / model of component as well as the orientation of the same. In case of incorrect valve seat or wrong orientation, the same was to be rejected at a separate place and in case of correct valve seats, they had to be carried 600 mm further to the pickup point. Elscint used a Festo make three stage rodless cylinder to ensure that this was done smoothly and with the least space as the machine had huge space constraint. The changeover between models was made easy with just loosening and locking provision to ensure that it was very fast, saving the operator valuable time. The bowl feeder for the valve guide was placed at the top of these two bowl feeders. The same was •.1 J 1 1 C 1 L

Elscint used a Model 250 EV bowl feeder for this purpose, getting the valve guides in two rows and singulating one each at a time and feeding them in tubes to the required position. Two sets of this feeding system were manufactured and supplied to the customer in record time.



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