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- FEEDING IN THE LATEST
- SEGREGATION & FEEDING OF BOLTS
- FEEDING OF URANIUM PELLETS

Components for which systems are available

Elscint Ahead

Feeding In The Latest . . .

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Welcome to the September edition of the Elscint Ahead Newsletter. The first news story of this edition is about a recently supplied bowl feeder for feeding of bolts where the requirement was additionally of sorting wrong ones, if accidently fed in the bowl. The second news story is about feeding of Uranium pellets for nuclear energy. As usual you can download the pdf version of this newsletter as also the back copies of the Elscint Ahead Newsletter.

Feeding system for filtering out wrong bolts and feeding only correct ones

Elscint recently manufactured a vibratory bowl feeding system for feeding of M6 x 35 mm hex bolts having flange in two outlets. However, a major requirement was that any other type of bolts, if mixed up should be removed and only the correct type of bolt was to be fed. The other sizes which could be mixed were from M4 x 15 mm to M8 x 40 mm. However, there were also M6 x 30 mm and M6 x 37 mm bolts where the difference for sorting was very less. This was a challenge provided by the customer which is a leading Japanese car manufacturer based in India famed for their quality and work ethic. One more requirement was that the loading height should be less than 400 mm and minimum 1000 bolts should be accommodated. There was a restriction with regard to the space not being more than 500 mm, including the enclosure required for noise reduction. Taking all this into account, Elscint designed the equipment with a small hopper elevator made of plastic slats so that the loading height would be less than 400 mm. Further, Model 250 with a cylindrical bowl was used to ensure that the width of the equipment was within the specified width of 500 mm. Additionally, as two rows of output were required, a single linear vibrator with two tracks was proposed. Model LF I was used for this purpose. The whole equipment was mounted on a small stand made of square tubes. The panel was mounted separately on a separate stand as the customer wanted it to be 5 mtrs. away from the equipment. The equipment was completed within 4 weeks and dispatched and commissioned at the customer's factory to his satisfaction. You can watch the video of the equipment.

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Completion of another order for 8 Vibratory feeding systems for feeding Uranium Pallets

Elscint recently manufactured eight vibratory feeding systems for feeding of uranium pallets to a centerless grinding machine. In fact, Elscint had already supplied 12 similar systems earlier to the same customer. The pellets were having diameter 12 mm to 16 mm and length too varied between 12 mm to 18 mm. Handling of uranium pellets is hazardous for the operator and hence the customer wanted to automate his process. The earlier systems supplied by Elscint had been working continuously to the satisfaction of the customer without any problems. In fact, the earliest supply was more than 12 years back and hence the customer was confident about ordering more repeat systems. The customer had seen that the output of his grinding machines had increased tremendously due to automatic feeding and productivity too had increased. Another advantage of feeding the pellets automatically is that the chipping percentage reduces if the vibrator bowl is optimally designed. Uranium being very brittle and heavy, has a tendency of chipping, if handled improperly. The complete equipment consisted of a vibratory bowl feeder and conveyor ahead of the same. Thereafter a linear vibrator with a V type chute was provided to take the parts upto the grinding machine work-rest. Additionally, a loading tray with a linear vibrator was provided on the top of the vibratory bowl feeder for loading the pellets through their boat. The complete vibratory bowl feeder was covered with a noise enclosure with a top polycarbonate cover to ensure that no fumes came out of the equipment. The fumes being radioactive, it was imperative that a separate suction be provided to ensure that the same are removed. Provision was made for this too. A cubical Stand with (+/-) 250 mm ht. adjustment and X – Y movement was provided for ease of adjustment.

The customer was worried about the extent of chipping of the pallets and removal of the chips and dust. For this, proper dust holes were provided with a pipe to take out the dust and chips from the equipment. They were accumulated in a separate bin. The bowl was lined with Brushlon lining to ensure that chipping was negligible and also the feed rate was improved. A total feed rate of 280 pellets per minute was achieved.

Elscint not only completed this equipment but installed and commissioned the same at the customers plant. You can have a look at the video of the same.

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