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Components for which systems are available

Ahead

Feeding In The Latest . . .

Monish Shete

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This edition of the Elscint Ahead Newsletter contains two news stories, first news is about two recently supplied bowl feeders to South Africa, while the second one is about a a complete feeding equipment 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.

Vibratory bowl feeder for Al parts for South Africa

Elscint recently manufactured a vibratory bowl feeders for an engineering company i South Africa. It was for feeding of aluminium parts having various sizes. Mainly, types. The diameter of the parts varied from 27 mm to 30 mm and the length from 3 mm to 73 mm. One side was flat while the other was curved. The orientation require was standing with the curved side up. Elscint used its Model 630 with a bowl having diameter of approximately, 1100 mm.. The bowl was fabricated in stainless steel and coated with Elscinthane polyurethane coating in order to reduce the metal to metal contact between the tubes and the metallic bowl. A linear track of 850 mm length was provided with small adjustment for accommodating all the above sizes. A speed of between 35 parts (for the 73 mm length ones to 80 parts per minute (for the 38 mm length ones) was achieved. The bowl feeder was shipped to South Africa. In fact, this was the 5th bowl feeder supplied to the same customer for almost the same type of parts. You can watch the video of the equipment for one size and for the second size and third size..

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Vibratory bowl feeder for feeding of metal fins

Elscint has designed, manufactured and supplied a special type of vibratory bowl feeder for feeding of fins. These fins need to be welded on tubes. The requirement was for feeding of two fins at a time. There were a total of three types of fins which the customer used at different points of time. The scope of work entailed providing changeover tooling for accommodating of the three types of fins. The maximum size of the fin was 60 mm width x 120 mm length while the minimum size was 15 mm width x 30 mm length. The thickness ranging from 0.8 mm to 3.00 mm. Elscint designed a bowl with least amount of changeover which accommodated all the three fins. Two bowl feeders were supplied, one clockwise while the other being anti-clockwise, each feeding one fin each. A very long gravity chute of 3 metres was provided to take the fins from the bowl feeder to the welding fixture of the customer. A small changeover was provided in this chute to accommodate the three sizes. An escapement mechanism was provided at the end of the chute to ensure that one component is released at a time. The standard Elscint escapement was used with slight modification to suit the different types of fins. The fins being metallic and the bowl being made of stainless steel, a lot of noise was expected, however, Elscint coated the bowl with its popular Elscinthane PU coating, thus reducing the noise level drastically. Additionally, a mild steel noise enclosure was provided which was lined with acoustic foam to reduce the noise level to a very manageable 70 Db. An acrylic top cover was provided for the noise enclosure. Hinges and knobs were provided on the same at strategic locations to ensure that the operator can see the component level as well as top up the bowl feeder.

Further, a low level indicator was provided on the control panel to ensure that the operator is made aware if the level of components in the vibratory parts feeder reduces. As is the normal practice with Elscint, a poka-yoke was provided by giving an extra sensor to sense any wrongly oriented component in the chute. However, due to the intricately made orientation tooling in the bowl feeder, the chance of a wrong component coming out was negligible. The customer works in an environment where he requires to continuously switch between his own generated genset power and the power provided by the state utility. As there is always a difference between the input frequency of the two, a frequency controller was provided to maintain constant output frequency and voltage. As usual, the Elscint vibratory feeders provided were CE approved, conforming to the stringent European safety standards. Another requirement of the customer was to have the control panel at a different location while the potentiometers and emergency switches be kept near the operator.

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