

# Elscint Automation

The Elscint Newsletter

11/2007



## Topics covered in this Newsletter –

1. Elscint vibratory bowl feeder for fins
2. Elscint noise enclosures for vibratory bowl feeders

First of all, we at Elscint would like to wish you a very happy Diwali and prosperous year ahead! In this newsletter, as usual two topics are covered, one informing about a very important accessory which goes with a bowl feeder while the other is about a special application completed recently. An article of interest which recently appeared in the news was that quite a few automobile manufacturers now plan to introduce electric and fuel cell cars for sale by 2010. The year for introduction was earlier forecasted to be 2020 but with oil surging to US \$ 100 per barrel, this date has been advanced and most rightly so. It is upon us all to conserve energy. We at Elscint try our best to provide products which are energy efficient. In fact, almost all Elscint vibrator drive units are for **FULL WAVE operation** (except model 400 HD and 630) and hence the energy **consumption of Elscint vibratory drive units is 40% less** than others! Lastly, we hope you find this newsletter informative and useful and would be happy to receive feedback from your end on the same as well on making the newsletter better.

### 1. Elscint vibratory bowl feeders for fins

Elscint has recently designed, manufactured and supplied a special type of vibratory bowl feeder for feeding of fins. These fins are 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. In addition to this, 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 is 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. This too was provided.

## **2. Elscint noise enclosures for vibratory bowl feeders**

Elscint offers noise enclosures for vibratory bowl feeders. These are available in three types –

1. Square or rectangular mild steel cover with acoustic foam lined on the inside
2. Round shaped mild steel cover with acoustic foam lined on the inside
3. Acrylic enclosure fixed with aluminium extruded Sections

Depending upon the budget, type of component, model of the bowl feeder and the noise reduction requirement of the customer, application engineers from Elscint can recommend the correct type of noise enclosure for vibratory bowl feeder. In case a new vibratory bowl feeder is ordered on Elscint, noise enclosures are optionally provided to the customers. However, Elscint can also provide noise enclosures for old vibratory bowl feeders of any make. A noise reduction of between 10 Db to 20 Db can be achieved with the help of Elscint noise enclosures. In case of special applications like pharmaceutical requirements, even stainless steel noise enclosures can also be provided with special washable acoustic foam. The Elscint mild steel or stainless steel noise enclosures come with toggle clamps for easy removal and fastening. Additionally, the top cover is made of transparent acrylic with a particular thickness and hinges which not only reduces the noise but helps the operator to check whether the number of pieces in the bowl have reduced / or require replenishment. Elscint can also provide a level controller with the noise enclosure and give a ring / flash a bulb in case the levels of components in the bowl reduce. This feature is very popular with most customers as it relieves the operator from continuously checking the level of components in the bowl. Elscint maintains a stock of various sizes of noise enclosures and thus faster deliveries are possible.



For further details / information please contact us at –

## **Elscint Automation**

W-191 Bhosari MIDC

Pune 411 026, India

Tel.: +91-20-27122059

Fax: +91-20-27122994

e-mail – [sales@elscintautomation.com](mailto:sales@elscintautomation.com)

website – [www.elscintautomation.com](http://www.elscintautomation.com)