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▶ FEEDING IN THE LATEST

▶ VIBRATORY BOWL FEEDER FOR FEEDING SAFFRON

▶ ELSCINT AUTOMATIC TAPPING MACHINE

Components for which systems are available

Elscint Ahead

Feeding In The Latest . . .

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This is the last Newsletter for 2015 and as usual contains two recently completed applications, one for feeding of saffron sticks while the other is of a specially built high speed tapping machine. Hope you find these interesting. 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 feeding Saffron

[Elscint](#) recently manufactured a special and small vibratory bowl feeder for feeding of saffron pieces. Saffron is a highly costly item and needs to be packed in very minute quantities from 1 gm onwards. The end use was for weighing and packing of the saffron pieces and hence high accuracy and precise feeding was required. Saffron sticks are of various lengths and thicknesses, making their feeding difficult. Elscint used its Model 160 with a stainless steel cylindrical bowl for this application. The specially designed bowl ensured that though a very minute quantity was dispensed, the speed at which it was dispensed was very high. Additionally, a frequency controller was provided with the provision for varying the speed of the vibrator through a PLC so that the packing machine manufacturer could use various speeds to fill the required quantities of saffron at high speed. The controller had the provision for alternating between various speeds depending upon the quantity (in gms) of saffron to be packed. The feedback for this was received from the loadcell of the customer's equipment.



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Elscint Four Headed Automatic Tapping Machine for M5 Cable Clamp

[Elscint](#) recently completed an order for a four headed Automatic Tapping Machine. The part to be tapped was electrical cable clamp. The tapping required was M5 and tapping depth was 1.5 mm. The customer requirement was for tapping at a very high speed. Hence Elscint recommended a 4 headed tapping spindle giving multiple output. Elscint used a cast aluminium bowl with tooling made in stainless steel with 4 outlets for feeding to the tapping head. Gravity chutes with escapements / singulators for each of the chutes were provided.

At the tapping station, tapping took place with the help of a specially designed four head spindle tapping attachment. The tapping head was mounted on a specially designed stand which provided X-Y-Z adjustment for the tapping head to ensure proper alignment with the hole. The components were stopped with an (patented) Elscint pneumatic escapement while the tapping took place. After tapping, the tapped components were released / unloaded to fall into a bin. The bin had a provision for recirculation of the coolant / oil to be used for tapping along with a coolant tray. The machine had a Siemens make PLC with a HMI for easy operator interface. The machine had the option of running a coolant or tapping oil. Recirculation of the oil / coolant was also provided for.

Sensors were used to check the possibility of tap breakage as well as for providing indication to the operator that the components in the bowl feeder were empty. All faults as well as various information like number of tapped components, etc. were displayed on the HMI. The tapping motor has a variable drive providing flexibility to the operator. The complete machine was enclosed in a dust free polycarbonate cover. A speed of 60 parts per minute was achieved. You can watch the [video of this tapping machine](#).



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