05/2022 | May | 2022

- FEEDING IN THE LATEST
- ROTARY FEEDER FOR CENTRELESS GRINDING
- MULTIPLE PARTS IN A SINGLE BOWL FEEDER

Components for which systems are available

Elscint Ahead

Feeding In The Latest . . .

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Welcome to the May edition of the Elscint Ahead Newsletter. The first news story of this edition is about a recently supplied Rotary / Centrifugal feeder for a Centreless Grinding Application. The second news story is about a special bowl feeder made for feeding of 15 different parts (4 families). As usual you can download the pdf version of this newsletter as also the back copies of the Elscint Ahead Newsletter.

Rotary Feeder for Centreless Grinding Application

Sometimes the requirement is such that the customer does not prefer a vibratory feeder and in cases, a rotary or centrifugal feeder is required. For these specific requirements, Elscint has developed a special double disc rotary feeder. It can be used for many applications, including feeding to centreless grinding machines where the operation is through feed. A dia 600 mm bowl with an internal and external circulating disc is manufactured with separate driving systems. Both the discs are provided with variable drives ensuring that the feed rate, as required can be adjusted. Additionally, a 2 mtr. Long roller belt conveyor is provided ahead of the rotary feeder to take the parts upto the grinding wheel of the customer's machine. This too is provided with a variable drive, thus ensuring that the input speed to the grinding machine is matched properly. The complete system is mounted on a stand with (+/-) 70 mm height adjustment and is completely enclosed with a mild steel enclosure on the sides along with a polycarbonate cover on the top. Optionally a X Adjustment of (+/-) 100 mm can be provided for this complete equipment to ensure that after dressing of the grinding wheel, the position can be easily aligned. This type of rotary feeder ensures that there is negligible setting change between parts when the components change and all parts are fed in the same setting. The speed which can be achieved is upto 25 mtrs per minute. However, with the variable drive, it can be adjusted as per requirement. You can watch the video of the equipment.

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Feeding of 15 Parts in a single Bowl feeder

Feeding of multiple parts in the same bowl feeder is a challenge which most bowl feeder manufacturers are reluctant to take up. The reason is that the time taken for tooling each part, especially if they are from separate families, is more and the value which a single bowl feeder generates does not justify the same. However, there are cases, where due to paucity of space the customer insists on a single bowl feeder. This is where Elscint enters the picture as few bowl feeder manufacturers have the skilled bowl toolers required to tool such complicated bowls. In a recent case, a customer in Bangalore had an USA made bowl feeder which worked for only 6 different parts. As the customer had to feed 15 different parts, the balance types of parts had to be fed manually. The feed rate or speed required was 135 parts per minute and the some parts being quite small (10 x 15 mm), it was difficult to orient and feed them manually at such an high speed. This resulted in a huge backlog for the customer and this process became the bottle neck operation in the entire factory. He approached Elscint for help. We suggested that he replace the old bowl feeder and linear vibrator completely with a new Elscint bowl feeder. As usual, the easiest solution in most cases where there is a problem with the present bowl feeder (of any other make than Elscint), is to replace the bowl feeder with an Elscint one so that it can give you complete maintenance free operation for years.

We manufactured two bowls for this application with the linear track and the vibrator remaining the same. Hence, accordingly, 6 parts were fed in a single bowl and balance 9 parts were fed in a separate bowl. There was zero change over within these two bowls.

Only, the top bowl had to be changed (once for 6 parts and once for the 9 parts). The speed achieved too was more than the required speed of 135 parts per minute. The equipment was completed and installed at the customer's factory to his satisfaction.

You can watch the videos of some of these parts –

Video 1

Video 2

Video 3

Video 4

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