



Sorting and Feeding of Pierce Depth Adjusters



Feeding Systems

Reference-No.214



Operation Description:

Sector

Pharmaceutical Industry / Medicine.

Workpiece

Pierce depth adjuster for an insulin syringe.

Performance Requirements

The task requires the positionally correct preparation of the above-named workpiece. To fulfill the requirement of the subsequent assembly process the workpieces must be radially turned outwards, for which a ball-shaped extension on the girth is available.

Discharge Position

Standing one behind the other, large opening upwards, no further sorting.

Operation Description

The workpiece runs with the above-named position into the separating station. When the workpiece presence-monitor indicates a piece has arrived, the workpiece is pushed off transversely to the direction of flow and the next workpiece runs into another cradle. In a further hub, both workpieces are arranged for the turning-out apparatus with a center to center distance of ca. 120 mm. Here, a handling takes both workpieces and transports them to the turning-out station. The turning-out process is carried out with a combination rotating-linear unit with a friction element. The turned-out workpiece then snaps into a correspondingly shaped cradle. From this position the workpieces are set into a removal cradle and raised ca. 30-40 mm into the waiting grippers (customer side). The apparatus is designed so that, depending on requirement, one or two workpieces can be extracted.

Cycle count of the apparatus: 10 cycles per minute.

Delivery Position: Standing, large opening upwards, ball-shape towards the back.

Feeding rate

2 x 10 pieces per minute, arranged turned-out for extraction.

Control

Bowl feeder, linear feeder over control box, sensors wired to Profibus.

Elements of the Feeding system

Bowl feeder, linear feeder, separation station, turning-out station, removal or delivery.

Execution

Due to the pharmaceutical requirements all product-touching pieces are made of stainless steel, the seams are thoroughly welded and the cavities are sealed.

For the sake of an optimal cleaning of the system, the sound-proof-cover is also made of stainless steel.



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