

Automatic Holding Position and Assembly Mechanism for Live Roller Conveyers

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Abstract: The applications of conveyer are increasing day by day in the manufacturing industries due to its flexibility and accuracy in material handling. Industries like packaging and food processing uses conveyer for the rapid production and less power utilization in material handling. In general only a single type of object like bottles or trays are monitored and controlled on a single conveyor in industries. The trays on the conveyor are to be stopped at the required station and material to be filled in the trays on conveyor. This can be done using the induction type proximity sensors and load sensors placed at different positions in the system. The IR sensor is used for safety as interlock. In given system we can do the Design & fabrication of roller conveyor used in the packaging & transportation system in industries. The number of trays/boxes to be filled can be set in the indexing sequence using pneumatics stopping arrangements & proximity sensors. Trays/boxes after reaching the desired output the system will be automatically stopped/start flow of boxes on conveyor. The output packaging fixed can be easily altered in between the process. These roller conveyer can transfer material either forward or reverse motion similarly its can be capable to hold the box as per requirement at a position by using pneumatic system at for assembly work.

Keywords: Rollers, material transport, bidirectional, pneumatic hold position

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