Automated Box Filling and Weighing System

(NTEP Automated Weighing System)

System Operation

1 – Staging Conveyor – Operator will place open boxes on the continuously running conveyor. Empty boxes will slide with no damage until they are indexed onto conveyor scale.

2 – Piston – Advances boxes to the Ball-Top Scale; 90-deg guard prevents staged boxes from catching the piston during return.

3 – Conveyor Scale – Receives indexed boxes from Piston and determines accumulated box weight. Adjustable backstop ensures boxes are centered under filler. Once box is full, conveyor will advance box to the Powered or Roller Conveyor.

4 – Proximity Sensor – Ensures a box is present before filling system is activated.

5 – Powered or Roller Conveyor (optional) - takes away filled boxes.

6 – System Controller – Controls all aspects of the system from conveyor start/stop, piston actuation, box detection on scale, weight accumulation, signal transmission to filler and storage of all weights in SQL database. (System can be programmed to emit a pulse signal to release just a few pieces to “top-off” boxes.)