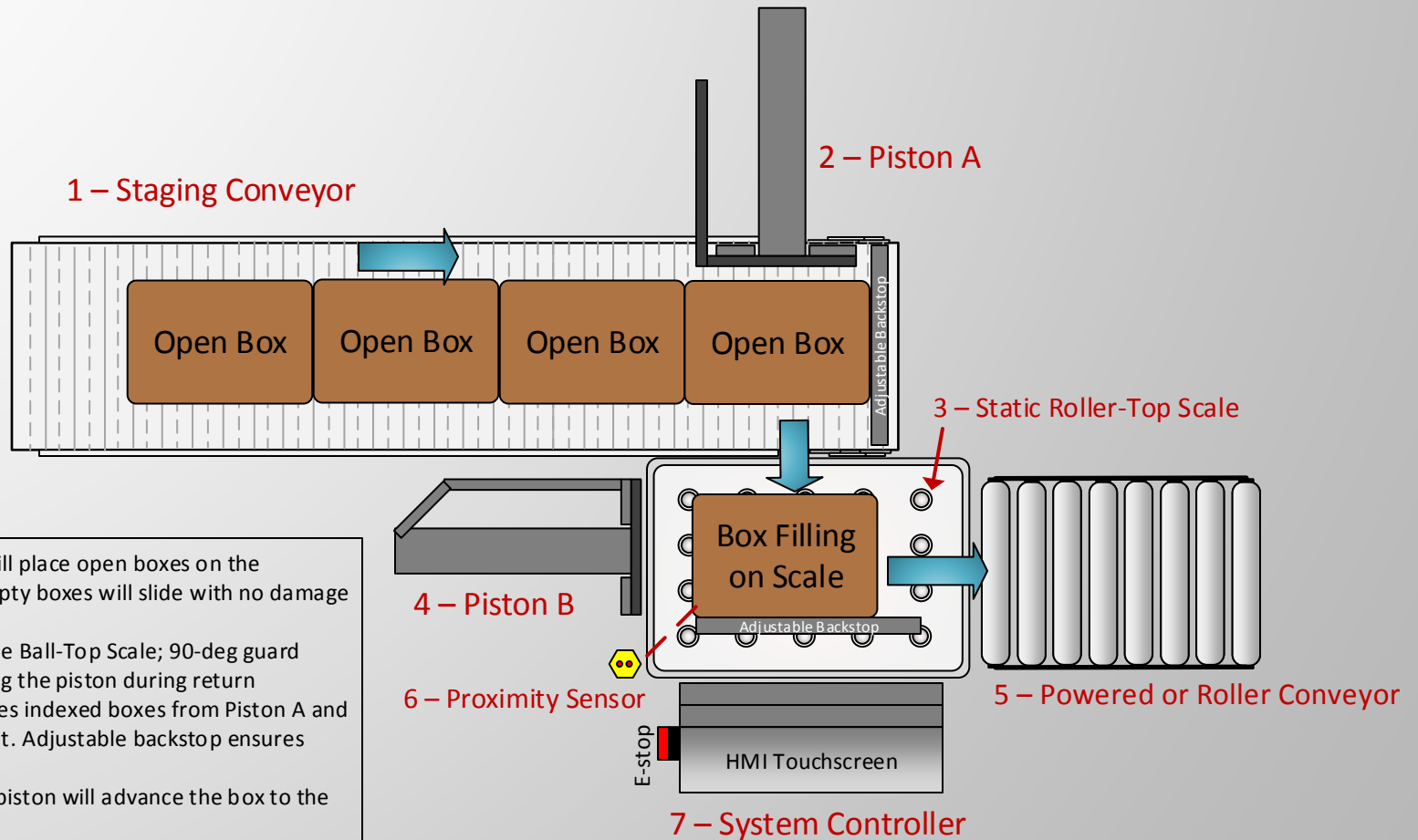# Automated Crouton Box Filling and Weighing System

(Non-NTEP Net Weight Filling)

Not to Scale

1 – Staging Conveyor

2 – Piston A

Open Box	Open Box	Open Box	Open Box

Adjustable Backstop

3 – Static Roller-Top Scale

Box Filling on Scale

4 – Piston B

Adjustable Backstop

6 – Proximity Sensor

5 – Powered or Roller Conveyor

E-stop

HMI Touchscreen

7 – System Controller

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 scale.

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

3 – **Static Roller-Top Scale** – Receives indexed boxes from Piston A and determines accumulated box weight. Adjustable backstop ensures boxes are centered under filler.

4 – **Piston B** – Once box is full, this piston will advance the box to the next stage.

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

6 – **Proximity Sensor** – Ensures a box is present before filling system is activated

7 – **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.)

VANDE BERG SCALES

www.vbssys.com • 712.722.1181