

Formers/Moulders/ Pan Setters

Key Issues:

- Speed control
- Separation
- Conveyors
- Tin positioning
- Variable tin size
- Recipe control
- Tin tracking
- Waste
- Double dough detection

Equipment Used:

- Variable speed drives
- Servo systems
- PLC/Motion
- HMI
- RFID
- Sensors



Maintain consistent placement of the dough into the tin

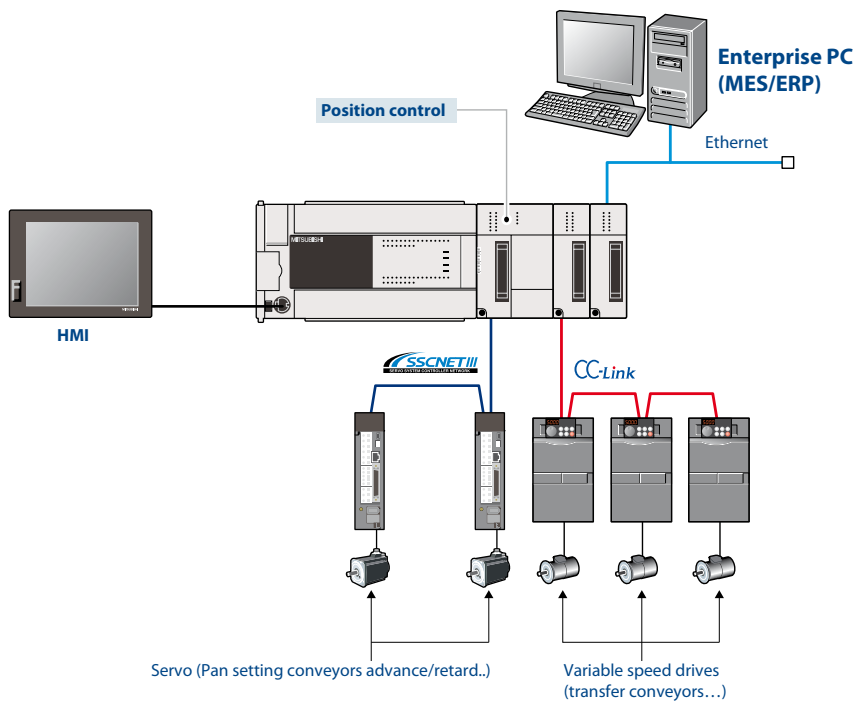
Correct shape

Once the divided dough is taken into the forming and moulding part of the process, as in the divider stage, the product needs careful handling. Demands required from the control system are accurate speed control and positioning with minimum pressure exerted onto the dough. Once formed into the correct shape the dough is placed into the tin, where synchronised axes maintain consistent placement. Increased throughput is achieved by synchronising dough speed and tin speed.

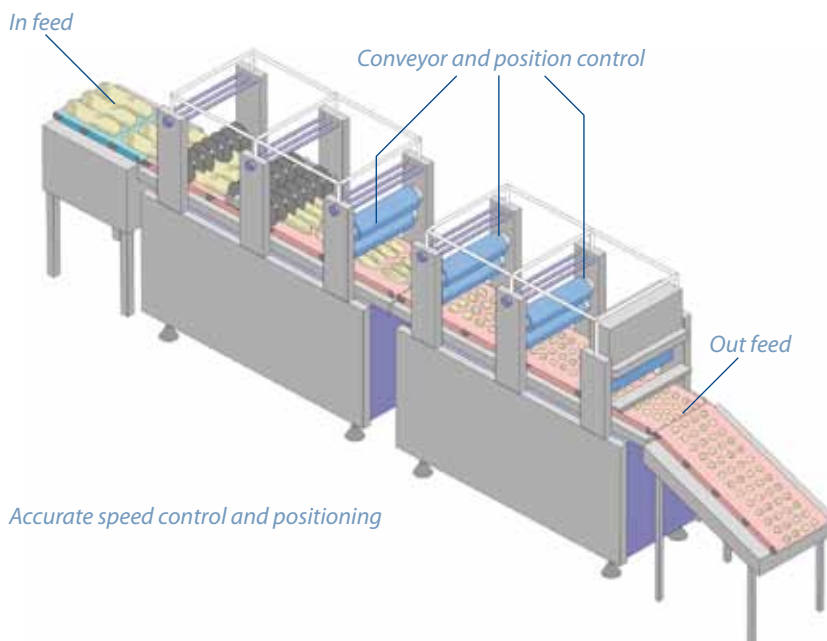
Precision control

Precision synchronicity between the various steps in the process has to be achieved and maintained, even at high throughput speeds. Sensors, can monitor every element of the process and instantly feed data back to the controller so that speed matching of conveyors and other equipment is maintained to very tight tolerances.

Our multi axis drive control systems enable dough and pan speeds to be synchronised at high speeds. Issues such as double dough detection, variable tin size and tin tracking can be also accounted for. Additionally our automation solutions can enable feedback of error detection and fine adjustment back to both the local HMI and enterprise level.



Servo control enables precision control for pan setting



Accurate speed control and positioning



High speed data management is critical to reduce downtime

Data collection

To minimise downtime and identify errors, data has to be collected instantly for production analysis and also stored to meet track and trace requirements. This means problems such as double dough and wastage can be identified and corrected.

Mitsubishi Automation System Solutions:

- Fast accurate speed/position control
- Multi axis synchronisation
- Instant data for track & trace
- Accurate speed and position control, increased throughput
- Minimum downtime with error detection