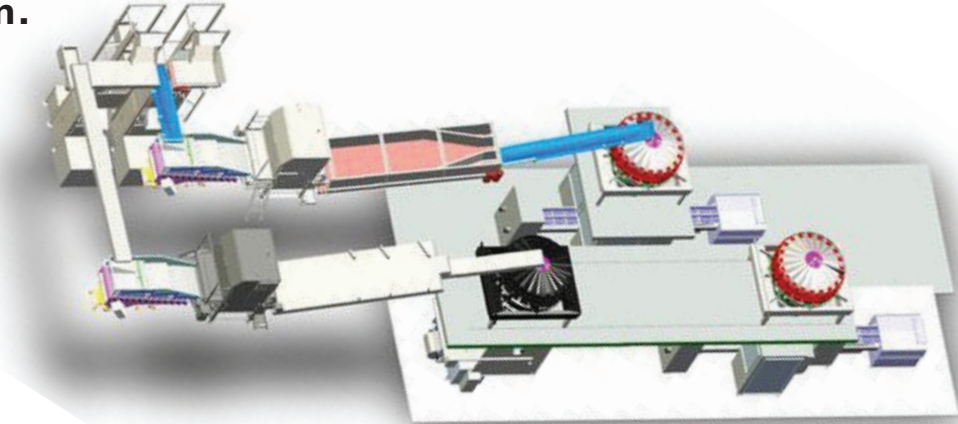


LEAFY GREEN PACKAGING LINE

The objective was to provide a fully integrated solution from unloading raw materials to packaging for leafy green production.



REQUEST

The client outgrew their existing capacity and needed a new facility to house a new packaging line. They required a solution to package baby spinach and spring mix with a targeted capacity of 1200 kg/hr.

DISCOVERY

- Due to the targeted capacity two complete production lines were required
- Lines included: unload crates, prewash, sanitize, rinse, dewatering and air drying to <3% residual moisture for immediate packaging
- Optical sorting of the product for rejection of mold and foreign bodies to ensure quality
- Ability to package the product into resealable trays (75%) or retail bags (25%)
- Due to a high level of leakers with the existing bag lines it was apparent that a different solution was required to address the leaker rate
- One line was dedicated to trays and the other had to have the ability to change between trays or bags
- Filled packages needed to be metal detected and check weighed for accuracy
- Finally, top, and bottom labels needed to be applied

SOLUTION

Turatti provided the front-end processing portion for each line which included a flume transfer conveyor, prerinse, wash sanitize, dewatering, and air-drying system.

Line 1 Product Flow:

- Urtasun Vibratory Shaker
- Raytec Vision Spray Optical Sorter
- Multipond Combination Weigher
- Tray Sealer, Top & Bottom Labeling
- Antrisu Checkweigher/Metal Detector Combination System
- Rotary Packing Table

Line 2 Product Flow:

- Included all of the above processes as well as the ability to transition the Multipond Scale 8 meters between the GEA UltraSonic SmartPacker or Tray Sealer. The GEA UltraSonic SmartPacker was used to eliminate the leaker rate issue.

SOLUTIONS USED IN THE PROJECT

CELEBRATING
30
YEARS
1990 to 2020

ABBEY
EQUIPMENT SOLUTIONS

EQUIPMENT

Turatti equipment was used for the front-end processing of the leafy greens.

- Unloading system for receiving crates of raw material from the farm
- Flume product transfer conveyor to gently move the product to the pre-wash station
- Multiple Venezia machines were used to pre-wash, wash and sanitize the produce
- Multi-Stage (MS) Dewatering System was used to remove excessive water
- ECO Dryer dried and cooled the product for immediate packaging



Urtasun Vibratory Shaker to delicately transfer the product to the Raytec Vision inspection machine.

Raytec Vision's SPRAY Optical Sorting machine removed foreign bodies, mold, and poor quality product.



Multipond 20 head combination weigher with custom tray filling distribution system compressed the product into the tray.

Anritsu Checkweigher/Metal Detector Combination System to accurately weigh and inspect the final packaged product.

GEA SmartPacker CX400 UltraSonic was used to eliminate the leaker rate issue. The GEA UltraSonic Sealing System guarantees an airtight seal even if contaminants are present in the seal area, which increased the packaging yield.



INTEGRATED MECHANICAL SOLUTIONS

- Custom rotary packing table to accommodate the product and ready it for packaging
- Custom track with rollers to move the Multipond scale 8 meters between the GEA UltraSonic SmartPacker or Tray Sealer
- Oversaw the entire integration of the project including miscellaneous conveyors, product transfers, guarding, etc.

SERVICES

- Project management
- Installation of the entire system was completed by our in-house service team
- Machine connections and synchronization
- Recipe development and testing
- Production testing and validation
- Operator/maintenance training

