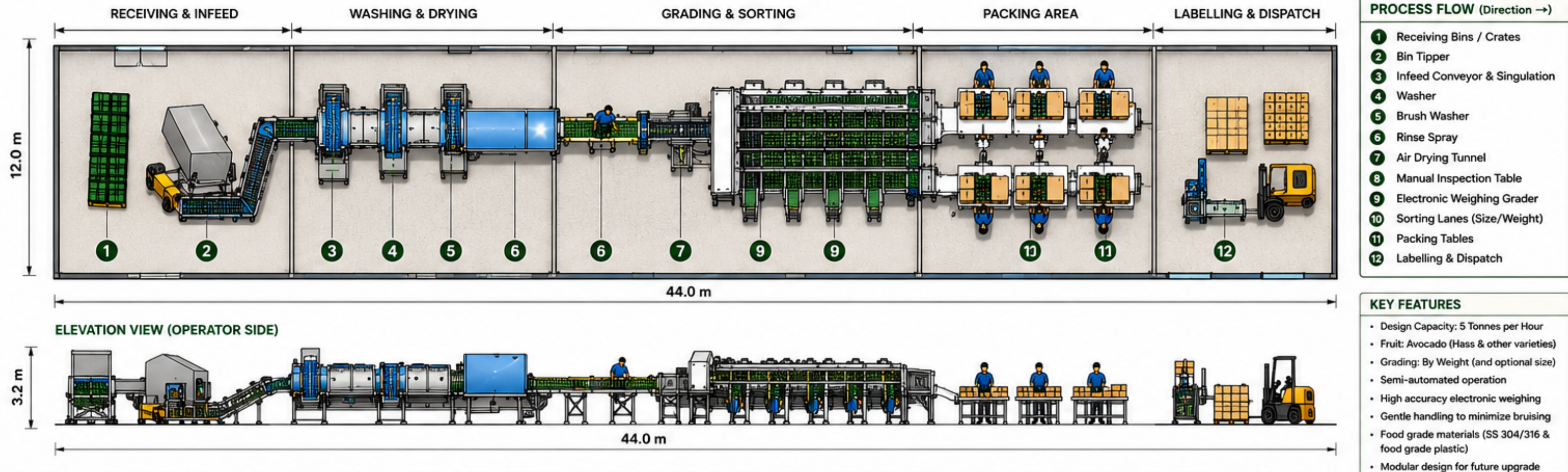


MEDIUM AUTOMATED AVOCADO GRADING & PACKING LINE – 5 TONNES PER HOUR

PLANT LAYOUT, PROCESS FLOW & TECHNICAL SPECIFICATIONS



EQUIPMENT SCHEDULE & SPECIFICATIONS

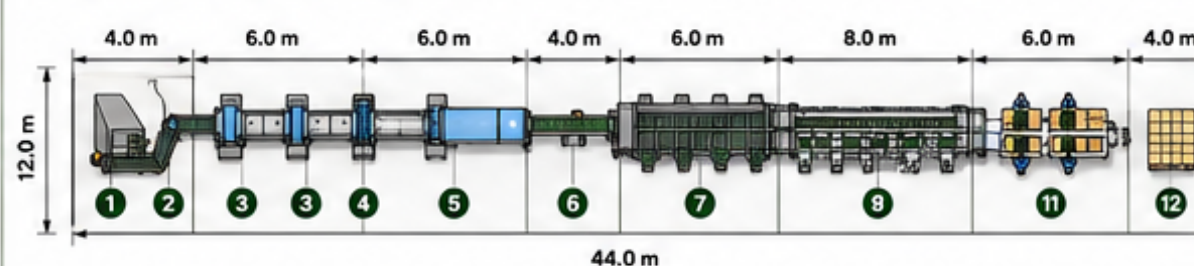
No.	Equipment	Function	Capacity	Main Specification	Power (kW)	Material	Qty
1	Receiving Bins / Crates	Receive avocados from farm	As required	Ventilated plastic crates 25 kg	–	HDPE	As req.
2	Bin Tipper	Tip bins onto infeed conveyor	5 t/h	Hydraulic tipping, 45° dump angle	2.2	MS + SS	1
3	Infeed Conveyor & Singulation	Convey and singulate fruit	5 t/h	Belt width 600 mm, variable speed, rubber belt	0.75	SS 304 + Food grade belt	1
4	Washer	Pre-wash to remove field dirt	5 t/h	Water tank with agitation, spray bar	2.2	SS 304	1
5	Brush Washer	Brush cleaning	5 t/h	Nylon brushes, 6-8 pcs	3.0	SS 304	1
6	Rinse Spray	Rinse with clean water	5 t/h	Spray nozzles, recirculation	1.1	SS 304	1
7	Air Drying Tunnel	Remove surface water	5 t/h	High pressure fans, air knives	7.5	SS 304	1
8	Manual Inspection Table	Manual quality inspection	5 t/h	Width 1,200 mm, LED lighting	–	SS 304 + PVC belt	2
9	Electronic Weighing Grader	Weigh and grade fruit	5 t/h	Dynamic weigh scale, accuracy ± 2 g	2.0	SS 304	1
10	Sorting Lanes (Size/Weight)	Sort into different grades	5 t/h	6-8 lanes (customizable), diverters	1.5	SS 304 + Food grade belt	1
11	Packing Tables	Packing into cartons	5 t/h	SS table with shelves, width 800 mm	–	SS 304	6
12	Labelling & Dispatch	Label, stack and palletize	5 t/h	Label printer, roller conveyor	1.0	SS 304	1

Note: Capacities are based on average avocado weight of 200 g. Performance may vary depending on fruit size and operating conditions.

BUILDING REQUIREMENTS

Building Size (Min.)	: 44 m (L) x 12 m (W) x 5 m (H) (528 m ³)
Floor	: Concrete, level, non-slip
Drainage	: Floor drains with trap
Doors	: Min. 3.5 m width for vehicle access
Lighting	: LED, 500 Lux
Ventilation	: Natural / Mechanical as required

LAYOUT DIMENSIONS (PLAN VIEW)



TECHNICAL SPECIFICATIONS

Design Capacity	: 5,000 kg/hour
Fruit Size	: 150 – 400 g
Weighing Accuracy	: ± 2 g
Grading Range	: 6 Grades (customizable)
Conveyor Width	: 600 – 1,200 mm
Working Height	: 850 – 950 mm
Installed Power	: ~ 35 – 45 kW
Power Supply	: 3 Phase, 380 – 415 V, 50 Hz
Water Consumption	: 3 – 5 m ³ /hour (recirculated)
Compressed Air	: 6 – 8 bar, 300 L/min
Floor Drainage	: Required
Operating Temperature	: 10 – 30 °C
Relative Humidity	: ≤ 85%
Staff Required	: 12 – 16 persons

NOTES

1. All materials in contact with fruit: SS 304 / SS 316 and food grade materials.
2. All belt conveyors: Food grade modular plastic belt.
3. All motors to be IP55, suitable for humid environment.
4. Actual layout may vary based on building structure and site conditions.
5. Training, commissioning and after-sales support included.

OPTIONS (UPGRADE)

- Color / External Defect Vision Grading
- NIR (Dry Matter / Ripeness)
- Automatic Case Erector & Sealer
- Automatic Palletizing System
- Ripening Chambers
- Cold Storage

UTILITY REQUIREMENTS

⚡ Power	3 Phase 380-415 V, 50 Hz 35 – 45 kW (Installed)
💧 Water	3 – 5 m ³ /hour (Potable water)
🌬️ Compressed Air	6 – 8 bar, 300 L/min
🚰 Drainage	Floor drain for waste water

PROJECT INFORMATION

Project	: Avocado Packhouse – 5 TPH
Location	: Kigali, Rwanda
Design By	: _____
Date	: _____