

Segritech Minisort: Optical Pomegranate Grader

Product Name: Segritech Minisort Optical Pomegranate Grading Machine

Model: SPGM-2000

Version: V1.0

Release Date: 01/01/2025

Developed By: Segritech (Unit of Tikkly Agro Solution Pvt. Ltd.)

1. Product Overview

Segritech Minisort Pomegranate Grading Machine is a high-capacity, AI-powered grading solution engineered for farmers, traders and packhouses, commercial aggregators, and mandis. Designed to handle up to 2 tons per hour, it classifies pomegranates based on size, shape, color, and skin/external quality defects. This advanced solution ensures superior consistency and market readiness, boosting returns for farmers and bulk buyers alike.

2. Original Image of The Product:



2. Technical Specifications

Specification	Details
Capacity	2 Tons/Hour (2000 Kg/hour)
Grading Parameters	Size, Shape, Color, Skin Defects (External Quality)
Grading Technology	AI + Camera + Vision-Based + Roller Assist
Grading Output	5–6 Grades (Customizable)
Material of Construction	Stainless Steel (SS), Mild Steel (MS), Aluminium, Food-Grade Plastic
Machine Dimensions	10 ft (L) x 5 ft (W) x 5 ft (H)
Functionality	1. AI-based Grading 2. Sorting 3. Reporting/Documentation
Power Requirement	3.5 kW/5 HP
Voltage	440V, 50Hz (3-Phase) Or 220V (Single Phase)
Drive Mechanism	Motor & Conveyor Belt with AI Sync
Feeding Mechanism	Vibratory/Conveyor-fed
Mobility	Industrial-grade caster wheels

3. Features and Benefits

- **AI-Driven Precision:** Multi-parameter grading (size, shape, color, and defect detection) ensures uniformity and export-grade quality.
- **High Throughput:** Processes up to 2 tons/hour, suitable for Mandi, Medium Scale Farmers, Traders, packhouses and export operations.
- **Surface Defect Detection:** Identifies cracks, scarring, and fungal marks using high-resolution imaging.
- **Durable Construction:** Industrial-grade SS and MS frame for rugged use in mandi and farm environments.

4. Use Cases

- Pomegranate Export Houses
- Mandi and APMC Grading Centers
- Medium Scale Farmers, FPOs and Farmer Cooperatives
- Agro-Packhouses & Cold Chain Units
- Private Label Juice and Processing Plants

5. Compliance and Safety

- Food-Grade materials (FDA-approved) in contact zones
- CE-compliant electricals and automation system
- Emergency shut-off and safety guards over all critical moving parts
- Dust-proof camera enclosures and vibration-isolated sensors
- Electrical Overload & Short Circuit Protection: Equipped with MCBs and safety relays to protect motors and electronics.
- Emergency Stop Button: Strategically placed accessible stop mechanism for immediate shutdown in case of emergency.
- Low Voltage Controls: Operator panels operate on 24V DC to minimize shock risks and improve safety.

6. Maintenance and Support

- AMC Available: Annual Maintenance Contract with optional digital diagnostics
- Service SLA: On-site support within 24 to 48 hours (in Maharashtra & Gujarat operational zones)
- Warranty: 12 months free warranty from date of commissioning
- Remote Support: Available via WhatsApp/Video Call for diagnostics

7. Why Segritech?

- Made in India AI Grading Machine for Pomegranate: Purpose-built for Indian farm and mandi realities.
- Scalable Tech Stack: Seamless integration with traceability and ERP systems for packhouses.
- Built for Bharat: Designed in India, for the Indian agri economy—robust, serviceable, and portable.
- Trusted by Leaders: Developed under guidance from the IIT Bombay & IIIT-Hyderabad ecosystem, TiE Global network, and field validation with leading agri players.
- Committed to Excellence: Cutting edge technology provider, prompt support, and continuous R&D for evolving crop needs.

8. Contact Information

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