



PARCEL SINGULATOR

PARCEL SINGULATION AND GAPPING

The **Parcel Singulator** is an advanced automation solution designed for logistics hubs, warehouses, and distribution centers. It transforms bulk flows of parcels into singulated, spaced flows, preparing them for downstream processes like dimensioning, weighing, scanning and induction.

Key Benefits

Enhanced Efficiency: Processes up to 5x more parcels compared to manual sorting, ensuring faster throughput and reduced labor costs.

Superior Adaptability: Modular design simplifies integration, maintenance, and scalability.

High Precision: Proprietary algorithms ensure precise separation, even with low-profile parcels (as thin as 15mm).

Cost-Effective: Improves site utilization and offers a competitive return on investment.

Application Scenarios

Parallel package separation: Efficient separation of parcels arriving in parallel streams.

Automatic load line separation: Integration into load lines to separate parcels post-confluence.

Inbound feed for sorters: Prepares parcels for cross-belt sorters.

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Product Features

Key Feature	Description
Vision-Based Control System	Tracks and manipulates parcels with precision using high-accuracy visual algorithms
Independent Belt Operation	Modular belts adjust speeds individually for parcel positioning and spacing.
Broad Parcel Compatibility	Handles cartons, totes, sealed bags, flats and more.
Robust Construction	Built for durability, with features like deviation correction and replaceable belts.
Real-Time Monitoring	Includes SCADA for operational transparency and control.
Sorting Speed	1800 pieces/hour (without weighing) and 1500 pieces/hour (with weighing)
Accuracy	Volume measurement ± 10 mm on one side Read code rate exceeds 99.99%

Characteristics

Package type	Paper box, wooden case, nylon / poly bag, irregular objects, etc.
Package size	140 beltwidth (minimum L100mm x W100mm x H10mm) 185 beltwidth (minimum L150mm x W150mm x H10mm)
Singulating efficiency	5000~8000 PCS /h
Operating speed	Maximum 2.2 m/s
3D camera type	Maximum 2.2 m/s
Module type	Single module L500mm x W150mm x H355mm (beltwidth 140mm) L500mm x W200mm x H355mm (bandwidth 185mm)
Power	< 30 KW

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