

Efficiency Through Innovation

Semi-Automated Bulk Singulator



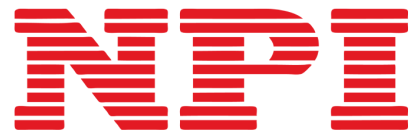
Singulation Conveyor

Dumper / Tipper

Hopper

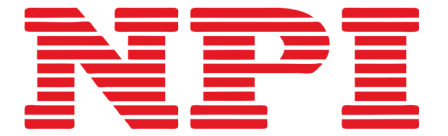
Singulation Table

Control Panel



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Convert Bulk into Singulated Flow

Converting bulk into singulated flow has always been one of the most challenging aspects for feeding automated parcel processing solutions. Historically, there have been two options; either a manual and time consuming approach or a very large footprint automated solution with an extremely high price tag.

To solve this challenge, NPI's patented Semi-Automated Bulk Singulator is capable of production flows of up to 10,000 PPH and handling a wide array of product types from polybags to boxes. The automated design also allows for the system to be operated with either one or two operators depending on work flow requirements.

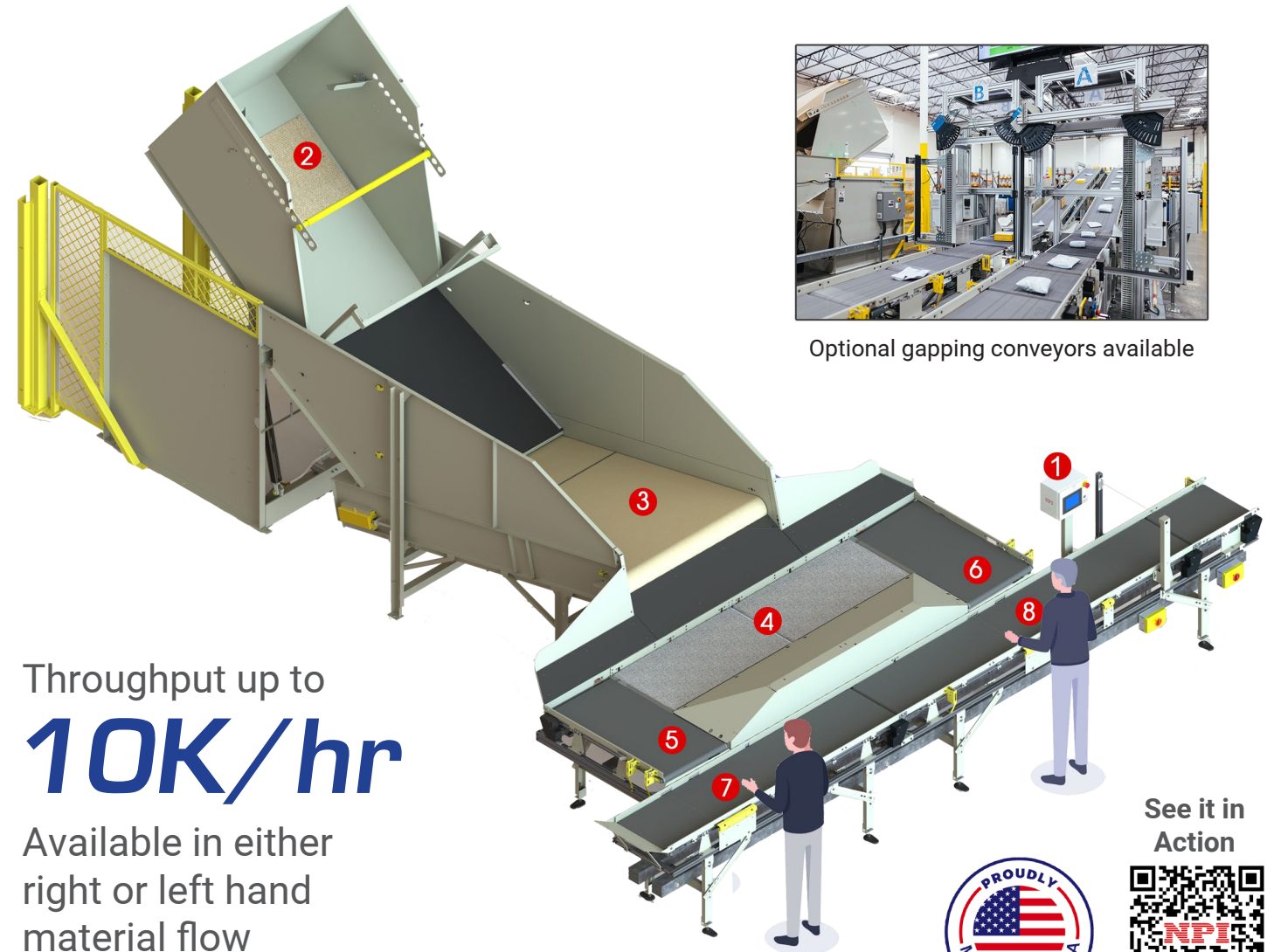
Versatile Options & Modes

The NPI Semi-Automated Bulk Singulator includes a automatic singulation table, independent power control panel, PLC and NPI's touch screen operator control panel. Additional options include a dumper to discharge gaylords, pallets, or carts. It can be used to feed to a single singulation lane or split the load between two singulation lanes by smart-sensing available space on each lane and directing product flow appropriately.

The Semi-Automated Bulk Singulator can run in a variety of different modes that allow for optimum singulation, based on product type. This can include combinations of fast automatic singulation, slow automatic singulation and a manual pull mode. Programmable options on the touch screen operator control panel allow employees to easily switch between modes based on product type to optimize flow.



- At position 1 the operator selects mode with control panel to optimize flow
- A dumper at position 2 is used to empty parcels out of a container directly into a hopper at position 3, which then feeds the parcels onto the feeder conveyor at position 4
- **Manual:** Operators reach into position 5 & 6, then manually puts parcels onto position 7 & 8
- **Poly Slow:** Positions 5 & 6 automatically inject parcels at low tempo to gaps in positions 7 & 8 prior to operator. No reaching required
- **Poly Fast:** Positions 5 & 6 automatically inject parcels at high tempo to gaps at positions 7 & 8 prior to operator. No reaching required
- **Fully Automatic:** Position 5 continuously inject packages to position 7. No reaching required



Throughput up to **10K/hr**

Available in either right or left hand material flow

See it in Action



Semi-Automated Bulk Singulator

Additional Information

- ✓ Converts parcel bulk flow into a single stream for high capacity product flow
- ✓ Provides a single system for handling flats, boxes, and poly bags
- ✓ Integration into existing warehouse solutions with efficient use of floor space
- ✓ Adjustable belt speeds means you can work at your own pace
- ✓ Can be utilized with one or two operators
- ✓ Integrated eStop system
- ✓ Runs in a variety of different modes that allows for singulation based on product type
- ✓ Cost effective solution with small footprint
- ✓ Touch screen operator control panel

Package Types



Features	Benefits
Intelligent Workload Balancing	Requires Fewer Operators
Selectable Singulation Modes	Set to Material Type
Touchscreen Operator Control Panel	Simple & Clear Operator Interface
Adjustable Belt Speeds	Define Operator Pace
Intelligent Feed Injection	Requires Less Operator Intervention
High Efficiency Servo Motors	Reliable and Accurate Processing
Programmable Logic Controller	Compatible W/ 3rd Party Equipment
Up to 10,000 Parcels Per Hour	High Throughput
Versatile Dumping Options	Dump Multiple Container Types
Patent Pending Pallet Hold Down Kit	Holds Pallets in Place While Tipping



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