

ZENROBOTICS®
A TEREX BRAND



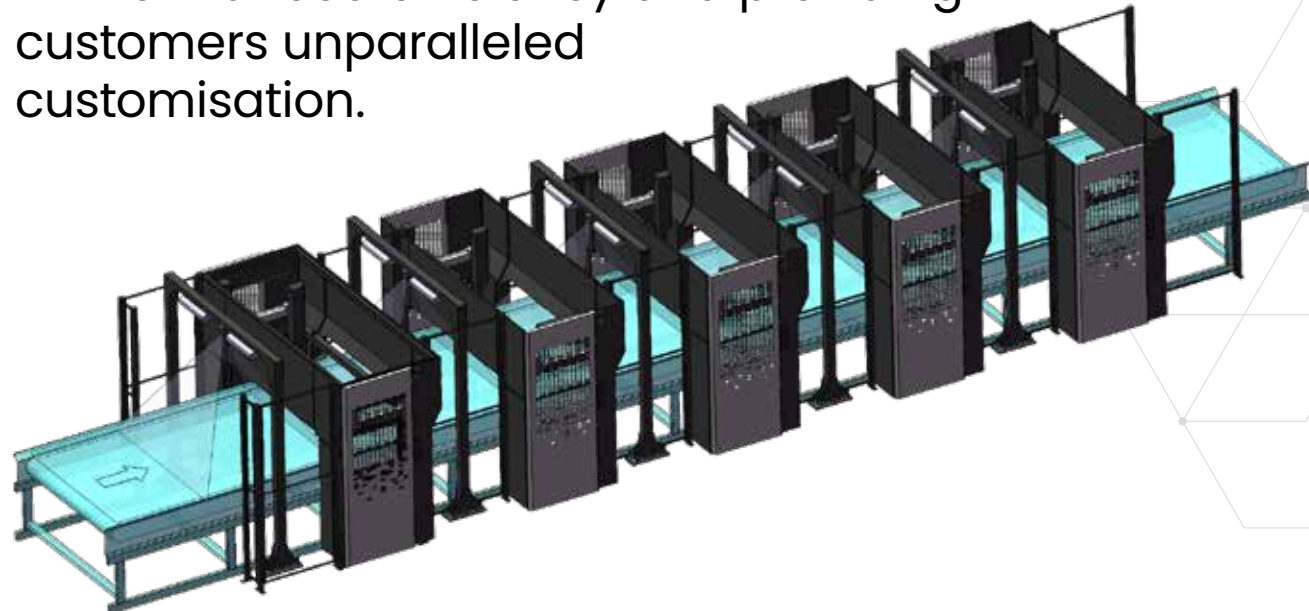
Fast Picker 4.0

Revolutionise your recycling efficiency with the **Fast Picker** - where cutting-edge AI meets unparalleled speed, achieving double the pick rate of human sorters and customisable precision for optimal waste recovery.

terex.com/zenrobotics

Overview

The Fast Picker has reached new heights, with enhanced efficiency and providing customers unparalleled customisation.



Choose the width that fits your operation, since the Fast Picker can accommodate conveyor belts up to 1850mm (6' 1"). The customisable X & Y axis allows for an adjustable picking area, ensuring seamless integration into existing processes without the need for extensive modifications.

Designed with a compact footprint, multiple Fast Picker robots can be stacked closely together, optimising your facility's space. This robot seamlessly integrates into various processes and conveyors, making it retrofittable and adaptable to your specific requirements. Its

ability to reach the full width of the conveyor belt ensures superior picking performance, maximising your sorting capabilities.

Benefit from ZenRobotics' extensive global training database through the Fast Picker's advanced recognition system.

With the ZenRobotics 4.0 system, installations come equipped with a pretrained classifier, significantly reducing commissioning times. Tap into the expertise of our AI, which has been meticulously trained on over 500 material categories, ensuring top-notch performance in quality control and residue line recovery across various materials.

- Recognition System**
- Placed before each robot
 - Sensors & LED lights

- Mechanics & Gripper**
- Gantry style robot
 - Customisable X&Y axis
 - 1850mm x 1200mm (6' 1" x 3' 11") max working area
 - Up to 80 picks per minute

- Conveyor**
- Up to 1850mm (6' 1") width
 - Can be a multi-channel conveyor
 - 0.1-1 m/s (20 - 197 fpm) sorting belt speed



- Access Door & Control Panel**
- Easy access for routine maintenance
 - Control the Fast Picker

- Digitisation of waste, dashboards and reporting:**
- Online dashboards showing waste composition and sorting results
 - Easily optimise your sorting tasks and purities of recovered materials

Sorting Tasks

The Fast Picker is ideal for lightweight material such as packaging waste (LWP), dry mixed recyclables (DMR) and municipal solid waste (MSW). It can be easily integrated to side streams, reject recovery lines, and quality control after optical sorting.

Features

- ✓ Fast Picker fits a single sorting bay and can be retrofitted for different conveyor widths and multi-lane conveyors.
- ✓ Advanced AI powered recognition system with deep learning algorithm
- ✓ Multiple robots can be stacked close together
- ✓ High picking power per area
- ✓ Up to 80 picks per minute



HDPE Quality Control

- HDPE pots & trays
- Beverage cartons
- PET bottles & flasks
- Toxic containers
- Silicon cartridges
- Foils



Fiber Line Quality Control

- Grey fiber
- Brown fiber, OCC
- Trash



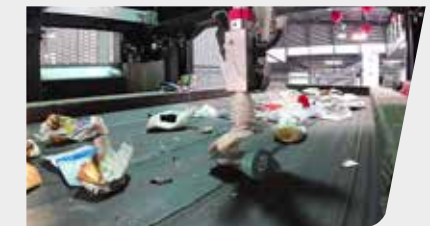
UBC Quality Control

- Used beverage cans (UBC)
- Other non-ferrous objects
- Specific contaminants
- Trash



PET

- Clear & colored PET bottles, flasks, trays and pots
- Other polymers, PP, PS objects
- Trash



Residue Line Recovery

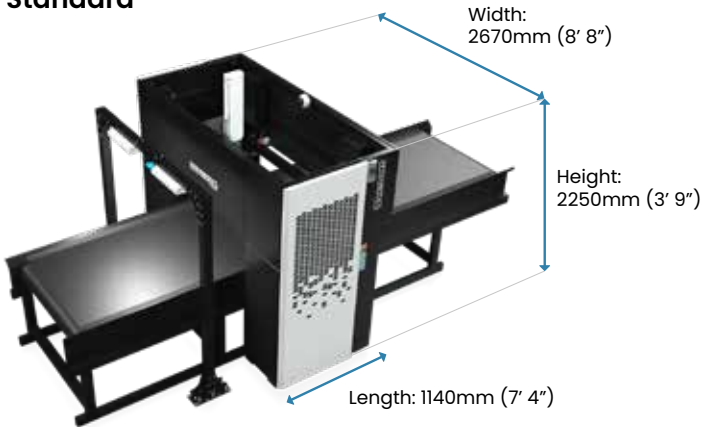
- PET
- HDPE
- PP, PS
- UBC
- TETRA etc.

Benefits

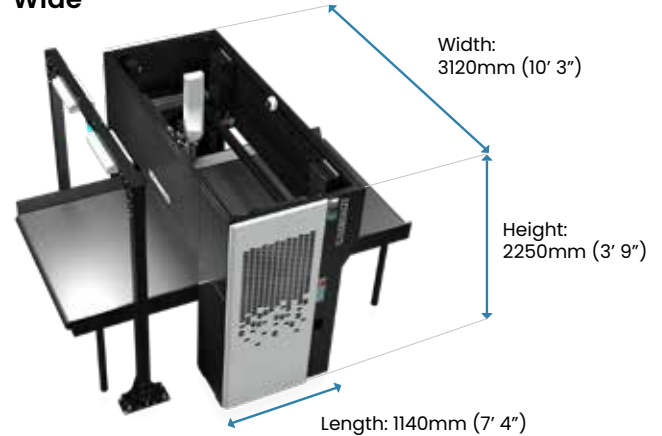
- ✓ Increase Recovery Rates
- ✓ Increase Fraction Purity
- ✓ Reduce Human Risk to Harsh Environments
- ✓ Reduce Material Losses
- ✓ Increase Productivity
- ✓ Enable 24/7 Operations
- ✓ Safe Sorting
- ✓ Digitisation of Waste

Dimensions

Standard



Wide



Technical Specification

Robot Arms	As many as required	Air Consumption	250 l/min at 8 bar (8.8cfm at 116psi)	
Sensor Units	1 sensor unit per robotic arm	Connectivity	Advanced remote access and digitisation of waste	
Max. Speed per Arm	Up to 80 picks per minute*	Weight & Dimensions		
Max. Conveyor Width	1850mm (6' 1")		Standard	Wide
Sorting Belt Speed	0.1 – 1m/s (20 – 197 fpm)	Robot Length	1950mm (6' 4")	2670mm (8' 9")
Discharge chutes	2 - 4	Robot Width	2670mm (8' 9")	3120mm (10' 3")
Max Object Weight	1 kg (2.2lb)	Robot Height	2760mm (9' 1")	2760mm (9' 1")
Max Object Size	400mm x 400mm x 400mm (1' 4" x 1' 4" x 1' 4")	Robot Weight	1350 kg (2976 lb) approx.	1350 kg (2976 lb) approx.
Installed Power	9 kw / 400 VAC 3-phase			

*100% utilisation in ideal conditions. Actual picking speed depends on material feed.
The dimensions of the Fast Picker are customisable to suit customer requirements. Technical specification subject to change.

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