Fast Picker

The high-speed robot for maximizing material recovery

🪖 Safe Sorting

Fast Picker

ZenRobotics Fast Picker combines artificial intelligence (AI) software with high-speed picking, allowing autonomous and accurate sorting without interruptions 24/7. Our AI, known as ZenBrain, helps waste processors increase their waste sorting efficiency. The more you sort, the smarter your Fast Picker robot becomes.

With Fast Picker, you can increase recovery while maintaining high purity in recyclables.

Fast Picker's robust and compact design is optimal for a demanding waste treatment environment. The robots easy-fit design, upgradable AI software and in-house support make Fast Picker a safe and attractive investment.

Optimal for material recovery facilities (MRFs), this robot replaces manual sorting and increases profits with high output purity. ZenRobotics Fast Picker helps boost recycling rates with reduced human exposure, lower operating costs and providing uninterrupted reliable sorting. Its compactness makes it easy to retrofit into existing facilities.

The Fast Picker's design makes it customisable. This paired with increased recovery rates, fraction purity and productivity make it the perfect AI-based sorting robot for light packaging materials.

Key Facts

High picking power per area

Multiple units can be stacked close together

Customisable – made to fit

Sensor bar system for recognition included

Easy to maintain at a low cost

Retrofittable

Up to 99% recovered material purity

Benefits

Increase recovery rates

Increase fraction purity

Increase productivity

Reduce material losses

Enables 24/7 operations

Reduce human risk

Safe sorting

Low operating costs

Durable and robust

Waste Types

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. Sorting tasks include HDPE/ Fibre Line/ UBC/ PET Quality Control and Residue Line Recovery.

Waste materials include: Plastics, foils, lightweight packaging, paper, OCC, aseptic carton packages, used beverage cans.

Municipal Solid

Quality control and residue recovery of MSW for higher sorting efficiency and industry high purity of recycled materials.

Light Packaging

Robotized sorting of light packaging waste to increase the quality and quantity of recycled material and reduce inefficient manual processes.

Dry Mixed Recycling

Automated sorting of DMR to boost recovery rates and reach industry high output purity without manual sorting.

How to robotize with the Fast Picker

The Fast Picker is a compact robot that can be easily installed into existing processes, optimal for demanding waste treatment environments.

ZenRobotics Fast Picker is usually retrofitted into existing facilities and sorting lines as it is customisable. Retrofitted solution brings the benefits of AI-based sorting to these existing facilities that currently manually sort waste but have the potential of becoming robotic. Our safe sorting robots reduce human risks by taking care of the hazardous sorting tasks.

If you are an operator willing to invest in modern, industrial scale recycling infrastructure to drastically increase your sorting capacity, then the Greenfield solution could be the way forward for you. Investing in a fully robotized industrial scale recycling facility takes waste operations to a new era.

You can dramatically increase your sorting capacity while skipping the rigid processes and inefficiencies of conventional facility setups altogether. ZenRobotics is your go-to partner in designing and building your processes around AI-based robotic waste sorting technologies.
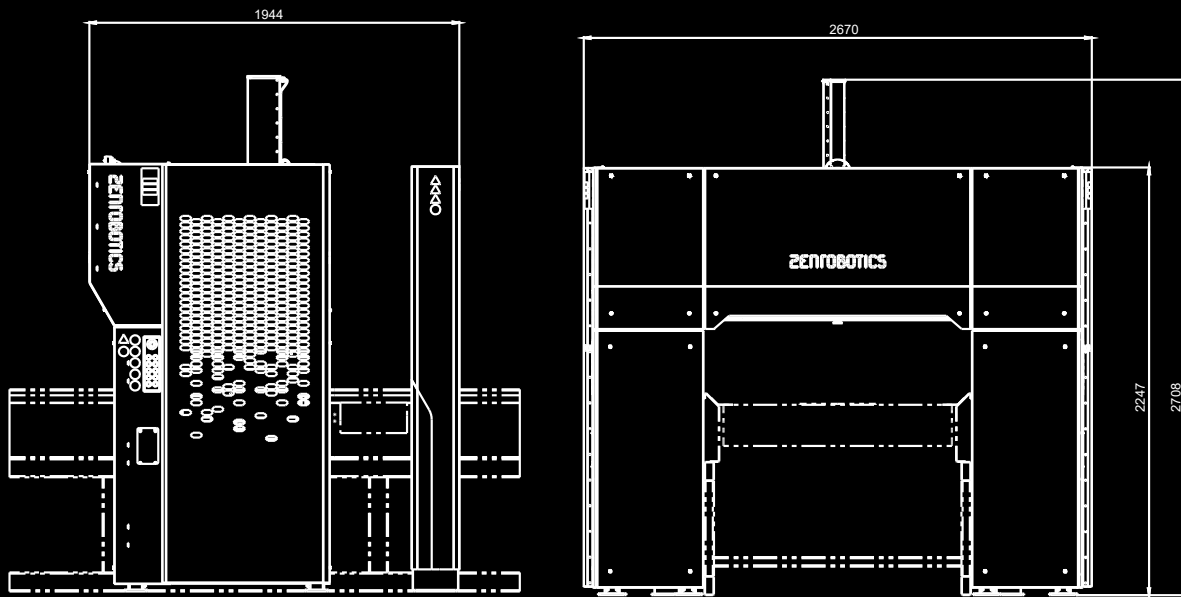
FAST PICKER
Technical Specifications:

Robot Arms	1	Purity	Up to 99%
Sensor Units	1	Unit Weight	1350 kg (2976 lb)
Gripper Type	Suction Gripper	Working Area	1200 mm x 600 mm (4' x 2')
Max. Arm Speed	>80 Picks per Minute	Discharge Chutes	2 (1 on each side)
Sorting Belt Speed	0.1 – 1m/s (20 – 197 fpm)	Max. Object Weight	1 kg (2.2 lb)
Unit Length & Width	1944 mm x 2670 mm (6' 4" x 8' 8")	Max. Object Size	400 mm x 400 mm x 240 mm (1' 4" x 1' 4" x 1' 2")
Unit Height	2750 mm (9')	Installed Power	9 kw / 400 VAC 3-phase
Air Consumption	250 I/min at 8 bar (8.8 cfm at 116 psi)		

*100% utilisation in ideal conditions

The Fast Picker design is highly modular which allows for customisations. Ask our experts about the possibilities to fit to your particular space or sorting task requirements.

The delivery of a complete Fast Picker system includes a sensor unit, control system, robot arm, suction gripper, and safety panels.

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