

ZENROBOTICS®  
A TEREX BRAND



# Heavy Picker 4.0

The world's strongest robot in bulky waste sorting, achieving high-purity fractions with unrivaled **precision** and **efficiency**.

Overview

ZenRobotics Heavy Picker is the world's first robotic waste sorting solution designed exclusively for waste sorting.



The Heavy Picker can sort several high-purity fractions, weighing up to 40kg, simultaneously with the help of heavy-duty arms and high IQ artificial intelligence.

The Heavy Picker is a fully autonomous sorting robot that can be retrofitted to an existing capacity or set up as a standalone sorting station that only requires space on site.

Our Heavy Picker provides a simple, unmanned sorting process and

makes waste sorting safer, more accurate and profitable.

ZenRobotics Safe Sorting Robots automate waste sorting and make outdated inefficient and unsafe manual sorting a thing of the past.

Features

- ✓ As many robotic arms as required
- ✓ Advanced AI powered recognition system with deep learning algorithm
- ✓ Trained to recognise the most relevant material categories - 500 and counting!
- ✓ Online reporting tool for analysis of waste
- ✓ Feed Rate Control to optimise material flow and enable 24/7 operations
- ✓ Adjustable material purity for individual fractions

Waste Types

Heavy Picker easily adapts to a wide range of sorting needs. It can sort multiple fractions, various shapes and different sizes at the same time – and even prioritise the most valuable objects to maximise profits.



Construction & Demolition Waste (C&D)

- Wood by grade (A/B/C/D wood)
- Inert mixed and by type: bricks, concrete, stones etc.
- Rigid plastics mixed or by polymer
- Metals



Commercial and Industrial Waste (C&I)

- Rigid Plastics mixed or by type
- OCC
- Wood mixed or by type
- Metals



Rigid Plastics

- Plastics from mixed waste
- PP, PE, PVC, PET etc.
- Plastics by shape, size and or colour
- Black plastics



Mixed Inert

- Stones
- Bricks
- Asphalt
- Gypsum
- Concrete etc.



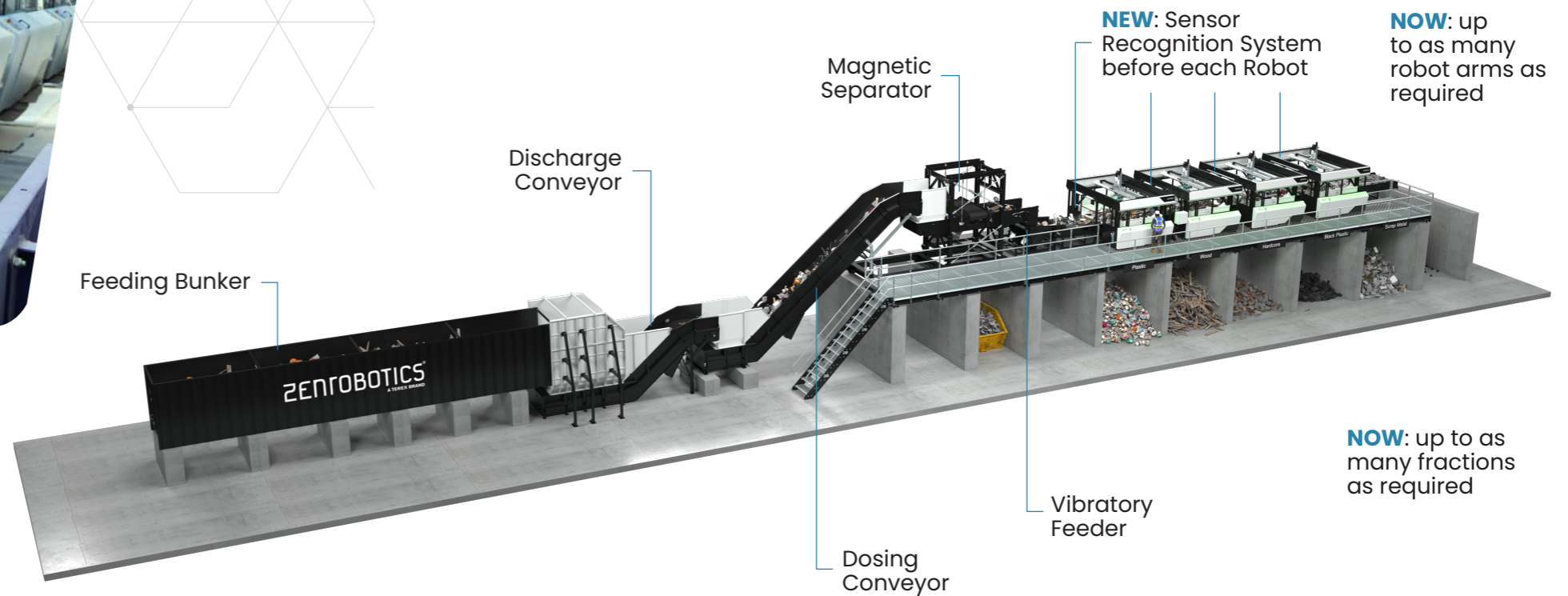
Scrap Metals

- Metals by shape, colour, brass, aluminum, zinc, copper, stainless steel etc.
- Metals by type: Iron scrap, copper wires, "meatballs" etc.
- Contaminants



MSW

- Bulky waste
- Bag sorting by colour



# ZenRobotics 4.0

Revolutionising Sorting Technology – Efficiency Perfected!

- ✓ Fully automated and independent waste sorting station

## Benefits

- ✔ Increase Recovery Rates
- ✔ Improve Sorting Quality
- ✔ Uninterrupted Sorting
- ✔ Enable 24/7 Operations
- ✔ Minimise Pre-shredding
- ✔ Reduce Human Risk to Harsh Environments
- ✔ Safe Sorting
- ✔ Digitisation of Waste

## Installation Options



# 1

### Standalone

Set up as a standalone sorting station requiring no modifications to existing facility infrastructure



# 2

### Retrofitted

Retrofitted to complement existing facility infrastructure



# 3

### Greenfield

Set up as the main sorting station for a fully robotized greenfield installation.

## Technical Specification

|                    |                               |                             |  |
|--------------------|-------------------------------|-----------------------------|--|
| Robot Arms         | As many as required           | Discharge Chutes            | Up to 4 per Arm  |
| Sensor Units       | 1 sensor unit per robotic arm | Max. Object Weight          | 40 kg (66 lb)  |
| Gripper Type       | Mechanical Gripper            | Max. Object Size            | 1500 mm x 500 mm x 400 mm (60' x 20' x 16')                    |
| Max. Speed per Arm | 2300 Picks per Hour*          | No. of Recognised Fractions | Unlimited  |
| Sorting Belt Speed | 0.1 - 0.6 m/s (20-118 fpm)    | Installed Power (1 robot)   | 8.3 kW (11.2 HP)   |
| Unit Length        | 4161 mm (13' 8")              | Air Consumption             | Pressure of air supply:<br>7 bar (100 psi)<br>60 l/min (2 CFM) |
| Unit Width         | 5265 mm (17' 3")              | Noise Level                 | < 85 dB(A)   |
| Unit Height        | 3800 mm (12' 6")              |                             |  |
| Unit Weight        | 3000 kg (6614 lbs)            |                             |  |

100% utilisation in ideal conditions. Technical specification subject to change. \*Actual picking speed depends on material feed.

**ZENROBOTICS**  
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