

# ZenRobotics Recycler

## TECHNICAL DATA 2016

Valid until further notice

ZenRobotics Recycler is the world's first robotic waste sorting system. ZenRobotics Recycler reclaims raw materials from waste with industrial robots and intelligent machine learning.

**Now available:** ZenRobotics Recycler is trainable and sorts an unlimited amount of fractions. Unique ability to learn new fractions allows the operator to quickly react to changes in the waste stream and to easily create new qualities of recyclables.

By training the system, the operator is in full control of what is sorted. Training can be used to introduce a completely new fraction, improve sorting quality of a current fraction or divide existing fractions into sub-fractions.

### Scope of Delivery

**ZenRobotics Recycler:** Sensor unit, control system, one or two robot arms and a safety cage.

**ZRR Semi-Mobile:** Includes also a 1,6 m wide sorting belt, drop-off chutes and internal electrification installed on a self supporting semi-mobile platform.

### Product Features

	ZRR1	ZRR2	Semi-Mobile
Robot arms:	one	two	two
Max. picking speed (with 5 kg objects)	2.000	4.000	4.000
Picking area / robot (length/width)	2m/1,6m	2m/1,6m	2m/1,6m
Max. object weight:	20 kg	20 kg	20 kg
Max. object size (length/width)	1,5 m/ 0,5 m	1,5 m/ 0,5 m	1,5 m/ 0,5m
ZRR Length (incl. safety cage)	6,0 m	9,5 m	14 m
Power consumption	10 kW	14 kW	16 kW

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ZRR2 Semi-Mobile

### Optional Features

- **Trainable ZRR**  
sorting unlimited number of fractions
- **Sorting Belt Speed Control**  
belt speed adapts to waste stream
- **Feed Rate Control**  
signal and sensors to control feeding
- **Reporting Tool**  
on-line analysis of waste and sorting results
- **Cold climate version**  
temperature range -10°C to +35°C
- **Hot climate version**  
temperature range +5°C to +42°C

### Specifications

- Over 90% availability
- Sorting belt speed: max. 0.5 m/s
- Operating temperature: +5°C to +35°C
- Warranty period 1 year / 2 000 h
- Shipment approx. 16 weeks from order

#### Conformance:

EMC-directive 2004/108YEY

Machinery Directive 2006/42/EC

European Standard EN ISO 10218-2:2011

European Standard EN ISO 10218-1:2011

Technical specifications subject to change.