

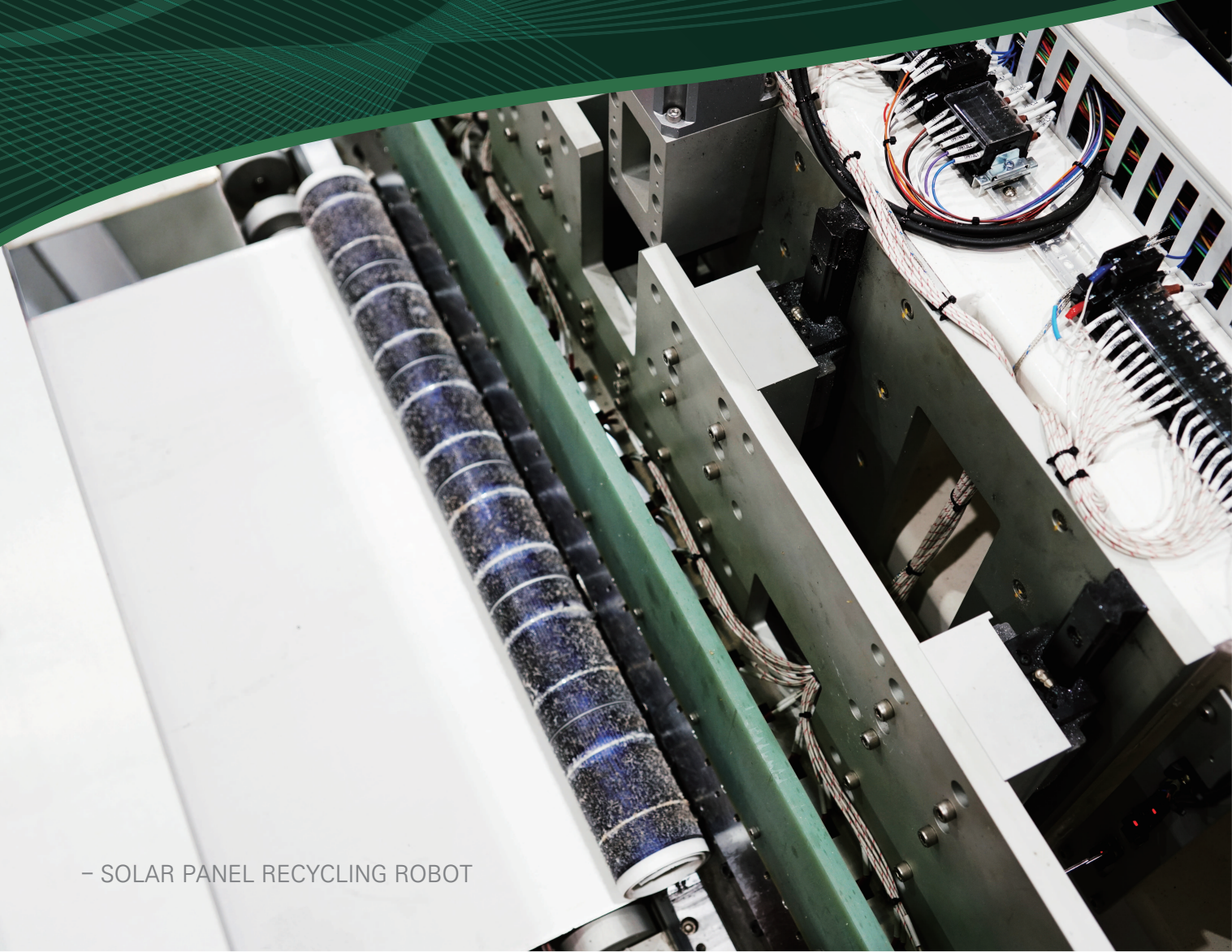
RESET MASTER 1000

Automated Solar Panel Recycling Equipment

Creating a Cleaner Future from Waste Solar Panels

A New Standard in Solar Panel Recycling

– SOLAR PANEL RECYCLING ROBOT



The Circular Flow of Energy, Creating Resources for Tomorrow.

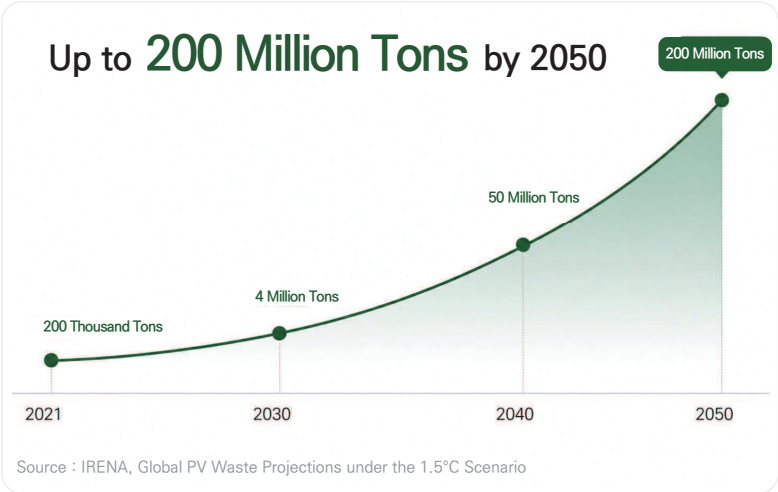
By 2050, Cumulative Solar Panel Waste Expected to Reach 200 Million Tons – A Global Challenge That Can No Longer Be Delayed

Solar energy is one of the key driving forces behind global carbon neutrality. However, the exponential growth in solar panel installations also means an exponential increase in solar panel waste generation. The global market has already entered what is now being called ‘The Era of Solar Waste’.



Source : IRENA & IEA-PVPS: End-of-Life Management: Solar Photovoltaic Panels

Global Cumulative Solar Panel Waste Generation Trend



Source : IRENA, Global PV Waste Projections under the 1.5°C Scenario



Solar Panels Require Proper Recycling and Treatment.

Solar panels are a symbol of clean energy, but improper disposal and uncontrolled landfilling can lead to serious resource waste and increased environmental burden, creating another environmental challenge.

→ True Carbon Neutrality Begins with Responsible End-of-Life Treatment and Recycling.



Soil Contamination



Water Pollution



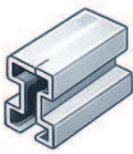
Increased Carbon Emissions

Waste solar panels are not waste, but the starting point for high-purity resource recovery.



Glass(70~80%)

Utilized in High-Quality Construction Materials and Glass Manufacturing



Aluminum(8~10%)

Securing Metal Resources Through Aluminum Frame Recycling



Silicon and Silver(Ag)(3%)

Recycled into High-Value Materials



Instead of mining finite natural resources, ‘urban mining’ model recovers valuable materials from waste solar panels, creating a sustainable future for the energy industry.

Recovering Resources in Their Original Form Without Crushing

01 Aluminum Frame Separation

02 Tempered Glass & Solar Cell Sheet Separation



Frame Removal Without
Damaging the Panel



Robot-Based
Automated Processing



Compatible with
Various Panel Sizes



Cell Separation
Based on Precision
Thickness Measurement



99% Tempered
Glass Recovery Rate



99% Solar Cell Sheet
Recovery Rate

Transforming Waste Solar Panels into Valuable Industrial Resources Again

01 Aluminum

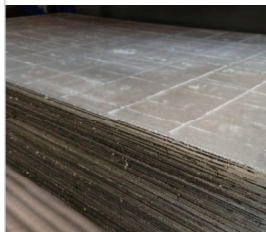


Features

Recovery of Industrial Metal
Resources Through Aluminum
Frame Recycling

Suitable for various
Industrial Applications

02 Glass



Features

Reprocessed into High-Purity
Tempered Glass

Materials, Display Glass,
Insulation Materials

03 Solar Cell Sheet

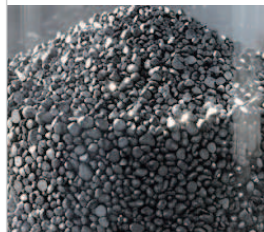


Features

Foundation for Recovering
Core Resources such as
Silver and Silicon

Semiconductor,
Solar Wafer, and more

04 Silicon



Features

High-Purity Silicon Recovered
from Solar Cells with
Purity Above 99%

Semiconductors, Electronic
Components, Solar Wafers,
and more

05 Silver(Ag)



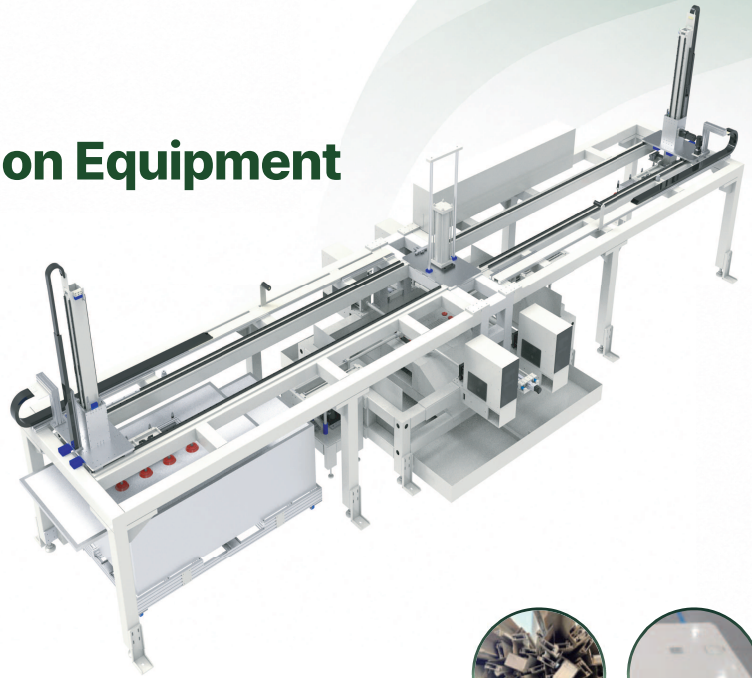
Features

Conductive Paste,
Precious Metal
Alloys, and more

Electronic Materials,
Sintering Pastes, and more

Aluminum Frame Separation Equipment for Waste Solar Panels

An automated system designed to separate aluminum frames and junction boxes from waste solar panels. Depending on panel size, the equipment can process approximately 30~60 panels per hour. The fully automated system includes panel feeding, frame separation, and automatic stacking of the separated panels, enabling efficient and continuous operation.



Frame removal without damaging the panel



Robot-Based Automation



Compatibility with various panel sizes



Aluminum



Lami-cell



Daily Processing Capacity

6Tons/Day

* Based on 8-Hour Operation



Processing Capacity

30~60 Panels/Hour



Fully automated systems

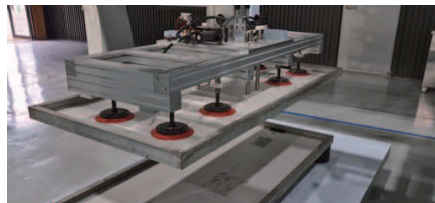
Unmanned operation from panel feeding and separating to automatic stacking

Basic Specifications		Basic Specifications	
Model Name	RT-FD400H	Minimum Panel Size (mm)	L 1,500mm x W 750mm
Required Space (mm)	11,100(W) x 3,670(D) x 3,630(H)	Maximum Panel Size (mm)	L 2,500mm x W 1,300mm
Gross Weight (kg)	7,400 +/-	Panel Frame Thickness (mm)	30 ~ 60
Operational Temperature	0 ~ 40°C	Separation Speed (sec)	~ 60
Operation Methods	Servo Motor, Pneumatic Cylinder, Vacuum Adsorption	Overall Process Speed (sec)	~ 120
Power Usage (kW)	13kW	Hydraulic Pressure Specification	0.8Mpa, 500L or more, 50Hp

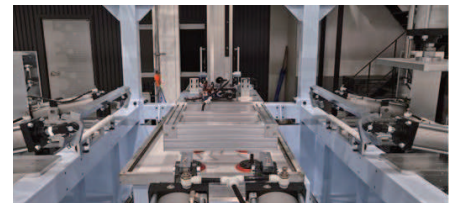
※ Tempered glass may crack or break depending on the type and condition of the solar panel.



1. Transport waste panels to the separation equipment by forklift (Max 30 Panels)



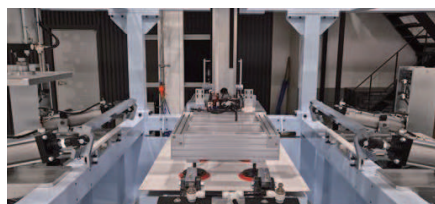
2. Automatically transfer to the separation section by vacuum adsorption



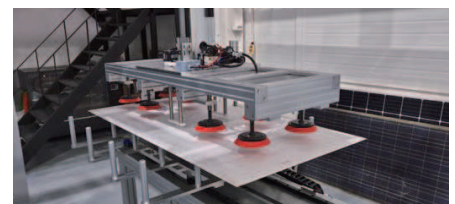
3. From supply Section→Separation Section



4. Aluminum frame removed automatically by using adjusted torque to prevent glass breakage



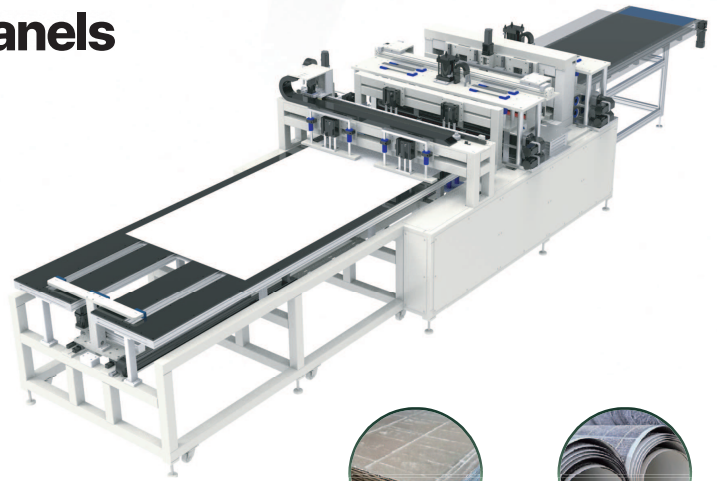
5. Separated panel is automatically transferred to the storage section by using vacuum adsorption



6. Separated panel is safely placed in the storage section

Tempered Glass & Solar Cell Sheet Separation Equipment for Waste Solar Panels

By processing waste solar panels with the aluminum frames removed, the system employs a specialized separation process to recover high-purity intact tempered glass and solar cell sheets. The recovered tempered glass is suitable for reuse as recycled material, while the solar cell sheets are utilized as feedstock for extracting critical minerals, including silver and silicon.



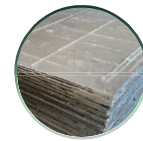
Precision Thickness
Measurement-Based
Cell Separation



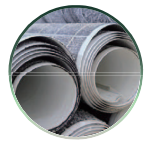
99% Tempered
Glass Recovery



99% Solar Cell
Sheet Recovery



Tempered Glass



Solar Cell Sheet



Daily Processing Capacity

3Tons/Day

* Based on 8-Hour Operation



Processing Capacity

**15~30
Panels/Hour**



High-Purity Separation Process

Separation into Intact Tempered
Glass and Solar Cell Sheets

Basic Specifications		Basic Specifications	
Model Name	RT-GD300	Power Usage (kW)	52kW
Required Space (mm)	8,608(W) x 2,104(D) x 1,730(H)	Minimum Panel Size (mm)	L 1,500mm x W 750mm
Gross Weight (kg)	5,200 +/-	Maximum Panel Size (mm)	L 2,500mm x W 1,300mm
Operational Temperature	0 ~ 40°C	Separation Speed (sec)	~ 240
Operation Methods	Pneumatic Cylinder, Hot-Knife	Hydraulic Pressure Specification	0.8Mpa, 1,000L or more, 50Hp

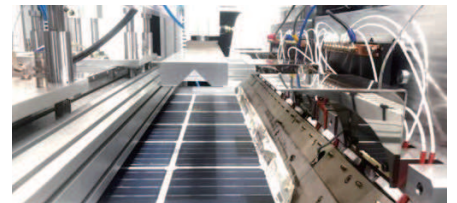
※ Depending on the type of solar panel, some residue or contaminants may remain on the recovered tempered glass



1. Automatically transfer frameless panels to the separation section



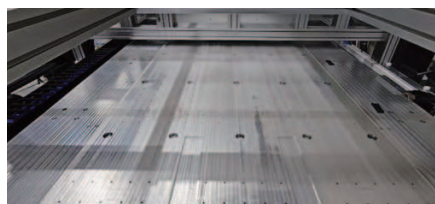
2. Panel edge trimming at the initial stage



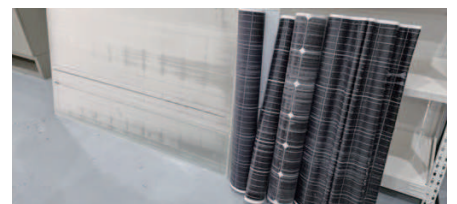
3. Separate tempered glass and solar cell sheet



4. Discharge separated solar cell sheet



5. Discharge separated tempered glass



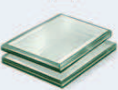
6. Collect tempered glass and solar cell sheet

A Sustainable Solution That Delivers Both Economic and Environmental Value



Material Recovery Volume

Recovering Critical Minerals from Waste Solar Panels

Estimated Material Recovery by Processing Capacity						
Waste Solar Panel Processing Capacity (Tons)	Waste Solar Panel Processing Capacity (Panels)	Aluminum (Tons) 	Tempered Glass (Tons) 	Silver (kg) 	Silicon (Tons) 	Recommended Number of Resource Circulation Recycling Robots
1,000 Tons	40,000	120	700	500	30	Frame separation equipment1 + Glass separation equipment2
3,000 Tons	120,000	360	2,100	1,500	90	Frame separation equipment3 + Glass separation equipment6
5,000 Tons	200,000	600	3,500	2,500	150	Frame separation equipment4 + Glass separation equipment8
7,000 Tons	280,000	840	4,900	3,500	210	Frame separation equipment5 + Glass separation equipment10
10,000 Tons	400,000	1,200	7,000	5,000	300	Frame separation equipment7 + Glass separation equipment14



From Waste to Resources

Zero Waste



More Processing = More Value

Scalable & Profitable



Securing a Stable Supply of Critical Resources

Secure & Sustainable



Domestic/International Installation References

Proven Through Successful Domestic and International Projects



 Republic of Korea

Ulju-gun,
Ulsan

Solar Panel Recycling Facility Construction

• Completed in 2023

• Solar panel frame separation equipment



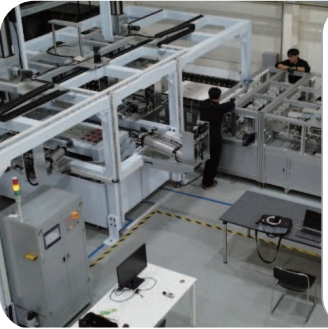
 Japan

Kurashiki City,
Okayama Prefecture

Export of Solar Panel Recycling Facility

• Completed in 2024

• Supply of Recycling Processing Line



 Republic of Korea

Cheonbuk-eup,
Pyeongtaek-si,
Gyeonggi-do

Solar Panel Recycling Facility Construction

• Completed in 2023

• 3,000 Tons/Year Processing Capacity



 Japan

Ube City,
Yamaguchi Prefecture

Export of Solar Panel Recycling Facility

• Completed in 2026

• Supply of Recycling Processing Line

COMPANY INTRODUCTION

RESET COMPANY is creating a sustainable future through resource circulation and energy technologies.



Company Name

Reset Company



Date of establishment

2016. 9. 26.



C E O

Jeong Seong Dae



Homepage

www.resetsnow.com



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Reset Factory

398-41, Sin-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do



Recycling Center

A, 67, Gojan 5-Gil, Cheongbuk-eup, Pyeongtaek-si, Gyeonggi-do



Japan Office

2F, Raise Honmach Bldg, 1-13-32, Nishihonmachi, Nishi-ku, Osaka-shi



Vision

SAVE ENERGY, SAVE NATURE

Reset is committed to creating sustainable energy

Key facilities



Gyeongnam HQ
(KICET)



Reset Factory (R&D Center /
Manufacturing Plant)



Pyeongtaek Recycling Center
(Authorized Comprehensive Recycling Center)



Japan Office (Osaka)

Proven Technology Built through Continuous R&D, Patents, Certifications, and Awards



Intellectual Property

31 Registered Patents



Awards & Certifications





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Scan for more information