



RE4M
PV3000
RECYCLING FOR MANUFACTURING

Recycling plants for Solar PV Panels

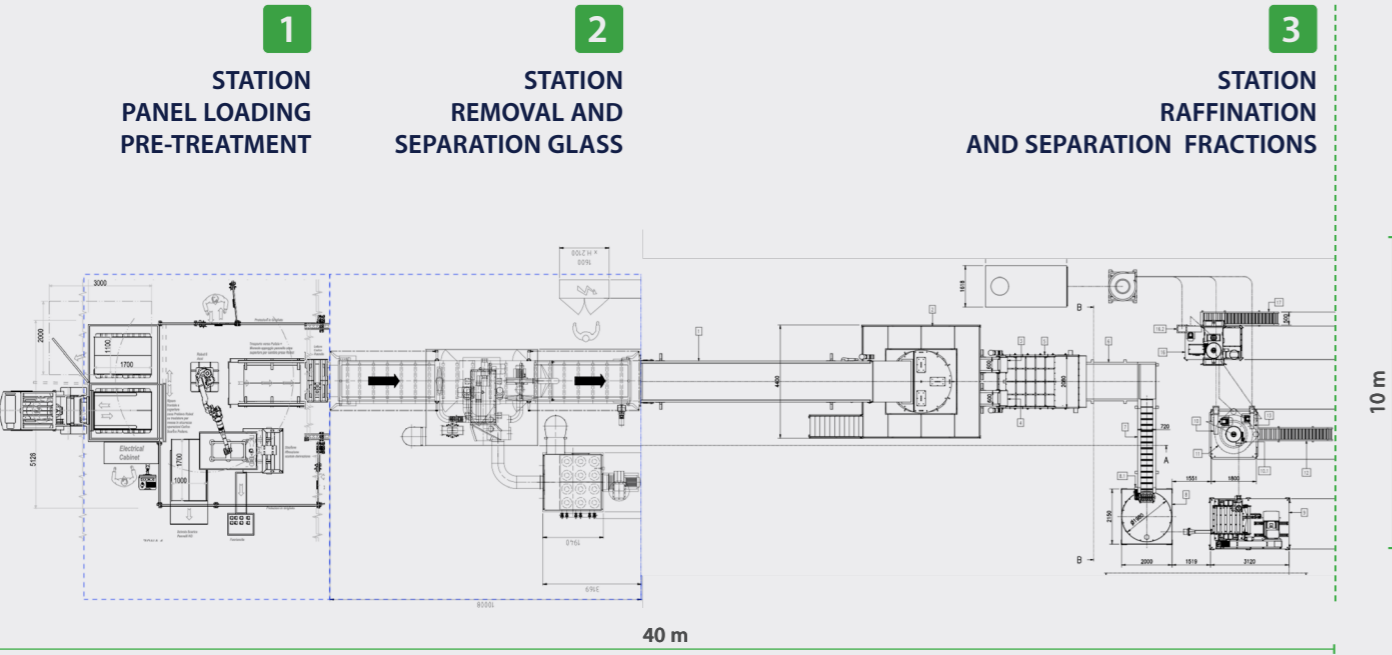


RE4M PV3000

SUSTAINABLE SOLUTIONS FOR END-OF-LIFE SOLAR PV PANELS

Innovative scalable and modular fully automated system for the treatment of end-of-life photovoltaic panels capable of processing high volumes (over 10,000 tonnes per year) for the maximisation of recovery and valorisation of secondary raw materials (EoW) such as glass, aluminium, copper and silicon using sustainable technologies with reduced operating and maintenance costs.

3 configuration, SMART, PERFORMANCE or PREMIUM offering high levels of mechanical refining to ensure high levels of silicon powder purity.



	Panel type	Variable dimensions from 900x1600 mm to 1100x2000 mm / monocrystalline or multicrystalline
	PV conditions	- Single or double glazing; - with or without junction box; - intact or damaged;
	Operators	2/4 for loading and unloading, including plant monitoring
	Capacity	> 3.100 kg/hour – over 10.600 ton/year*
	Cycle time	144 panels/hour, > 25 seconds for panel
	Autonomy working time	40 minutes
	Yields Extraction (per ton processed)	Aluminium - 130,5 kg Glass - 648 kg Silver-plated copper - 6,3 kg Silicon powder - 95 kg Junction box - 4,5 kg Electrical cables - 9 Kg
	Quality	Extra-clear, uncontaminated by silicon dust and high grain size > 3-10 mm Silicon powder (magnetic and non-magnetic) with purity higher than 60%
	Absorption	Installed power from 275 to 450 Kw/h (depending on configuration)
	Dimensions	40 x 6 x 10 m (Dimensions to be considered approximate depending on the desired configuration)

* 2 7-hour shifts and 240 working days a year

HIGHLIGHTS

- Full automatic plant with **mechanical refining**
- High **productivity, efficiency** and **quality** in fractions of extracted material
- **Reliability** thanks to **robust technologies and processes** covered by **patent**
- Flexible **handling of different size, single or double-glazed, intact or damaged panels**
- **Low energy consumption** compared to competitors and performance
- «**Industry 4.0**» e «**Transizione 5.0**» **compliant** (related tax benefits)
- **Reduced maintenance costs** through the use of innovative materials and premium components

PARTNERSHIP WITH SIEMENS

The collaboration between Siemens and Osai GreenTech is of great value to customers in terms of energy saving and optimisation, an important tool for monitoring the energy consumption of the modules that make up the system.

Thanks to **SIEMENS’ TIA Portal** (Totally Integrated Automation Portal) solution, implemented in each station of the line, all automation and electromechanical devices are programmed and managed by a single software which, through the use of a multimeter integrated within the PLC, is able to detect and measure energy consumption data within the line in a capillary manner.

3		Glass
2		Aluminium
4		Silver plated copper
5		Non-magnetic Silicon Powder
5		Magnetic Silicon Powder
6		Junction box
7		Electrical cables



Osai GreenTech: the future, today.



**30 YEARS OF INDUSTRIAL AUTOMATION
AT THE SERVICE OF URBAN MINING**

We are the technology partner, solution provider and system integrator of major national and international players engaged in the ecological transition and circular economy. We promote technological innovation and advanced industrial automation to the world of recycling, bringing efficiency, speed and reliability.

We provide the market with advanced robotics solutions for specific applications through the use of the most innovative technologies such as artificial intelligence for WEEE treatment processes. With Osai GreenTech automation becomes the vehicle for a new 'recycling era'.

OSAI Green Tech SB S.r.l.

Via Sondrio, 13 - 10144

Torino (TO)

ITALY

info@osai-gt.com

www.automation4recycling.com

Printed on recycled paper

