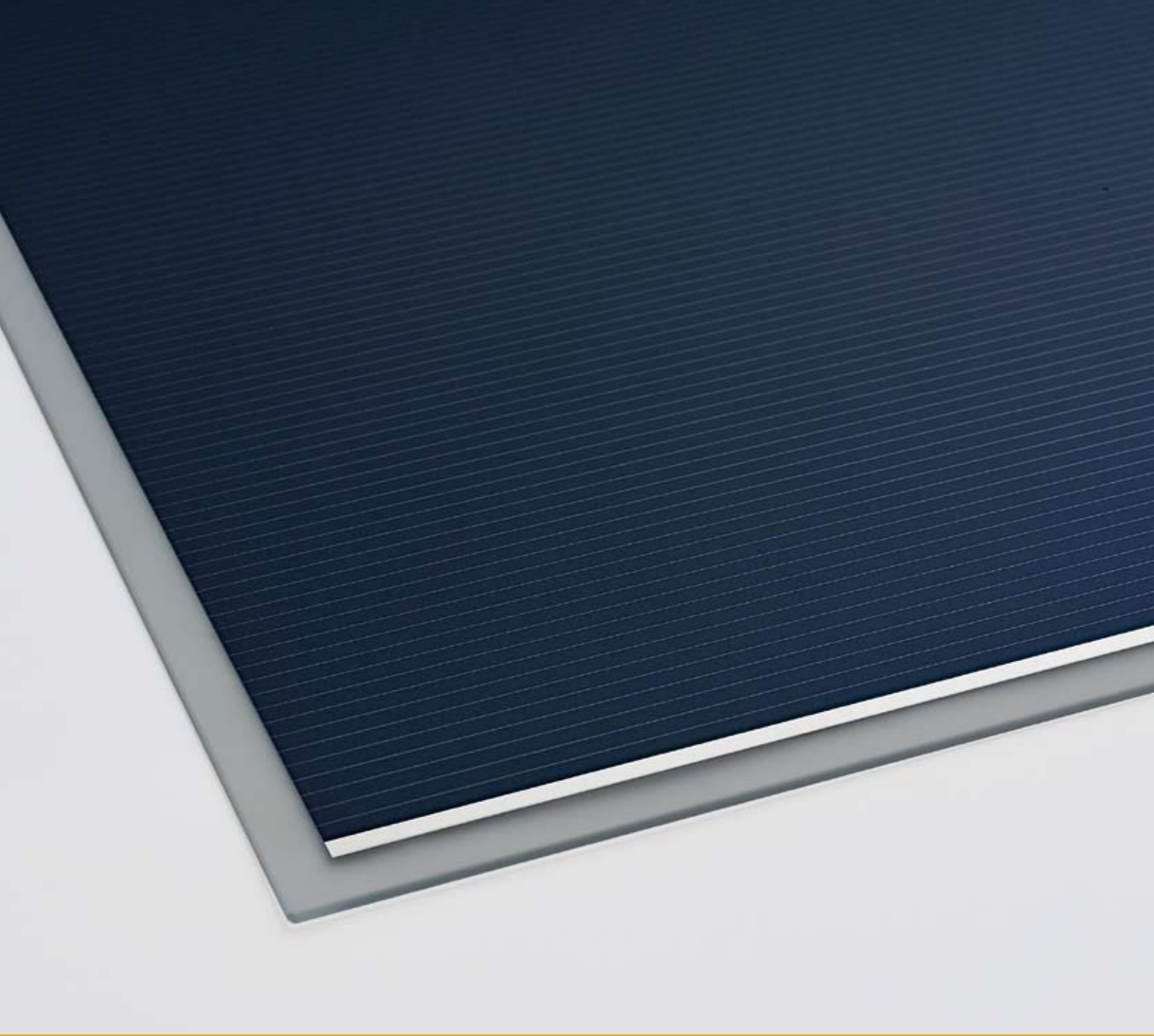


Edge Deletion and Film Edge Removal

Edge Deletion and Film Edge Removal
perfectly combined in a single machine.

komax SOLAR



Fully automatic edge deletion and film edge removal

This fully automatic machine compactly combines edge deletion and film edge removal in a single system.

Area of application

After the front end, the edge of the coated substrate is deleted. This can be done thermally (with a laser) or mechanically (using blasting methods). Komax Solar offers both processes in high Komax quality, ensuring perfect insulation of the solar modules.

The metallic back contact must also be exposed for the substrate configuration customarily used with CI(G)S. This process is known as film edge removal. Komax Solar has different techniques for these two processes and can combine both processes in a single machine.

Machine design

The vacuum sand-blasting machine from Komax Solar combines two film deletion processes in a single machine. By selecting the appropriate processing parameters, you can remove individual layers (film edge removal) and also groups of layers (edge deletion).

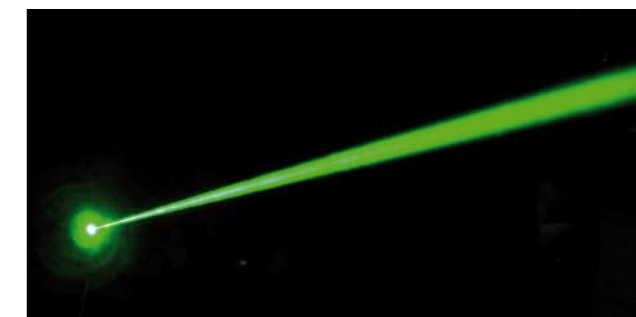
Close attention was paid to high processing quality in designing the system. The sand-blasting hoods are arranged on four high quality linear axes, so that the abrasive jet removes the layers with the utmost precision and neatness. The system is also striking for its compact design. The doors open vertically to provide good accessibility.



Edge deletion

Along with machines for abrasive edge deletion, Komax Solar likewise has fully automatic machines for laser edge deletion. The laser also removes the layers without leaving any residues behind and is gentle on the glass in the process.

Using laboratory testing, designated application engineers configure the laser optimally for meeting whatever requirements the customer has. Komax has shown skill for many years at successfully integrating high quality laser devices in a wide variety of applications. To round out its range, Komax Solar offers an extensive service package with a specified maintenance plan to ensure high availability and low operating costs.



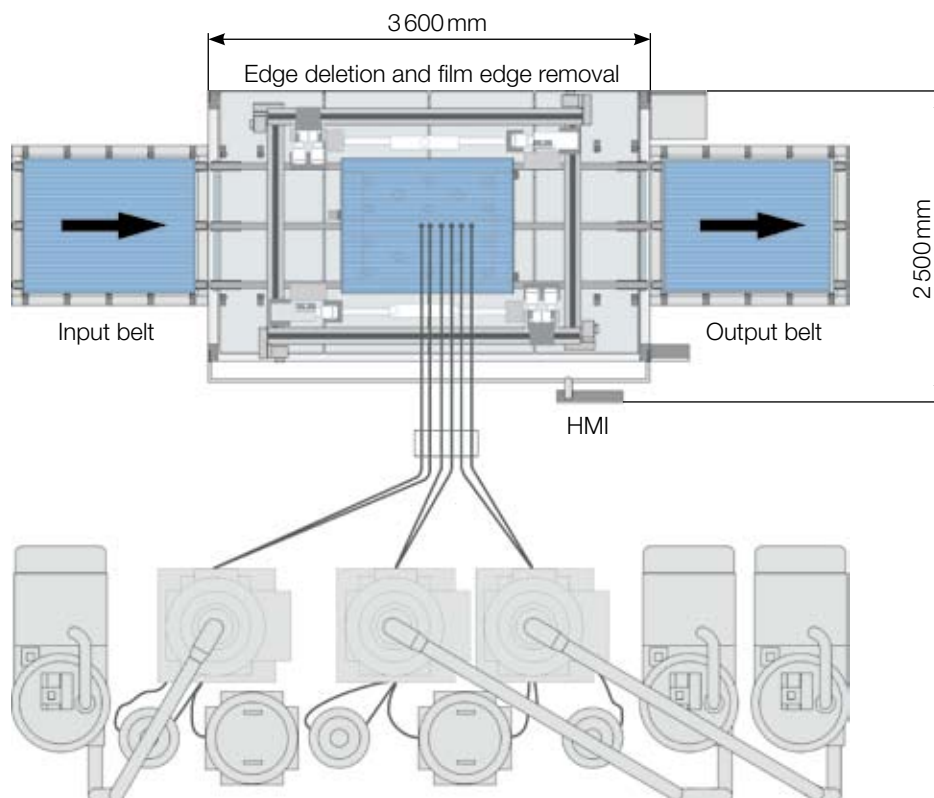
Film edge removal

Komax Solar has further improved its process for exposing the molybdenum coating. In this newly developed process featuring integrated process control, even the thinnest layers are removed free of residue so the molybdenum layer is optimally prepared for subsequent contacting. With this process, Komax Solar lays the groundwork for reliable, top quality contacting.



Options

The fully automatic machine for edge deletion and film edge removal is available with different decoating technologies. There are also extensive options from which to choose.



Technical data

Cycle time	< 30 s
Dimensions (W×H×D)	3 600 × 2 500 × 2 500 mm
Operations	Graphical user interface with touch panel
Electrical connection	3 × 400 V, 22 kVA/13 kVA
Decoating technologies	- Laser - Vacuum suction-blasting - Brushing - Scraping

Komax AG
Riedstrasse 18
6343 Rotkreuz
Switzerland
Phone +41 41 799 45 00
info.rok@komaxsolar.com
www.komaxsolar.com

Your benefits:

- Edge deletion and film edge removal combined in a single system
- Selection of different decoating technologies
- Integrated process control
- Optimally configured laser
- User friendly design
- Compact design

Komax Solar is your contact partner for all backend needs. The Photovoltaic Competence Center in Rotkreuz offers you solutions for reliable, ultra-precise thin-film technology. Please contact us!