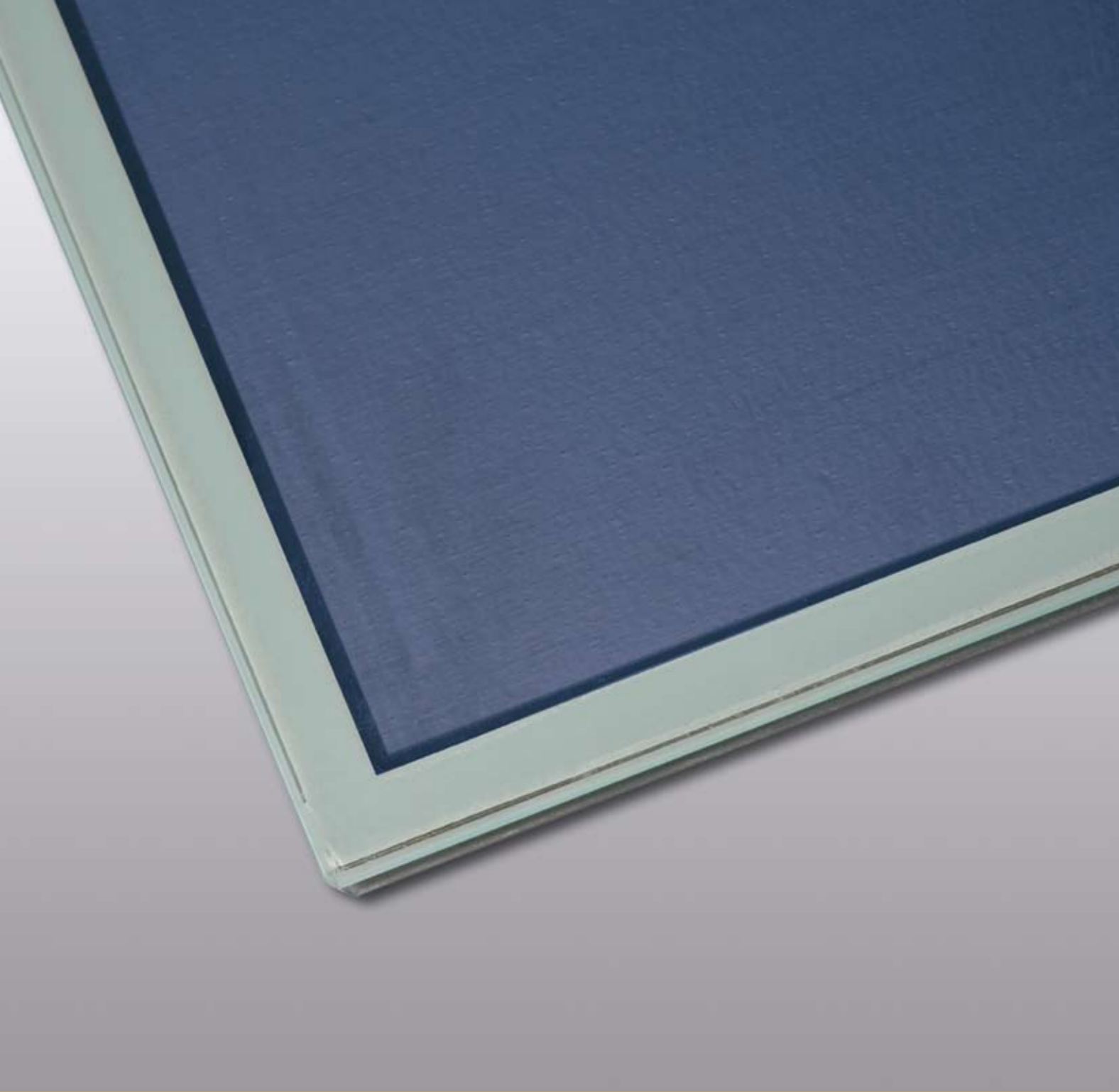




## Marriage

Ultra precise foil cutting and marriage.

**komax** SOLAR



## Marriage

The marriage system from Komax Solar offers you definite advantages: precise foil cutting, minimized material losses and precise placement of foil on substrate or cover glass.

### Area of application

To ensure a long lifetime for the solar modules, the paper-thin semiconductor is protected from the elements front and back by glass and on the side by a butyl track.

All parts are connected together in the laminator using laminating foil. Right before lamination, all parts must be precisely layered one on top of the other. This process is called marriage.

### Machine design

For CdTe and Cl(G)S modules, the lamination foil must be trimmed and laid with ultra precision because these modules are sealed along the edge. To achieve this high degree of precision, Komax Solar has combined foil cutting and marriage functions in a single machine.



### Precise foil cutting and placement

The foil is drawn out free of stress and precisely trimmed with rotating blades. Foil grippers hold the lamination foil even during trimming to minimize handling. The foil grippers then transport the trimmed lamination foil onward and lay it gently and precisely on the centered glass. Then the cover glass is laid precisely on the two parts with flippers or a portal and the marriage procedure is finished.



### User friendly

The minimal foil scrap is automatically taken by a conveyor system to an external container. The collected scrap may be able to be recycled depending on the lamination foil involved.

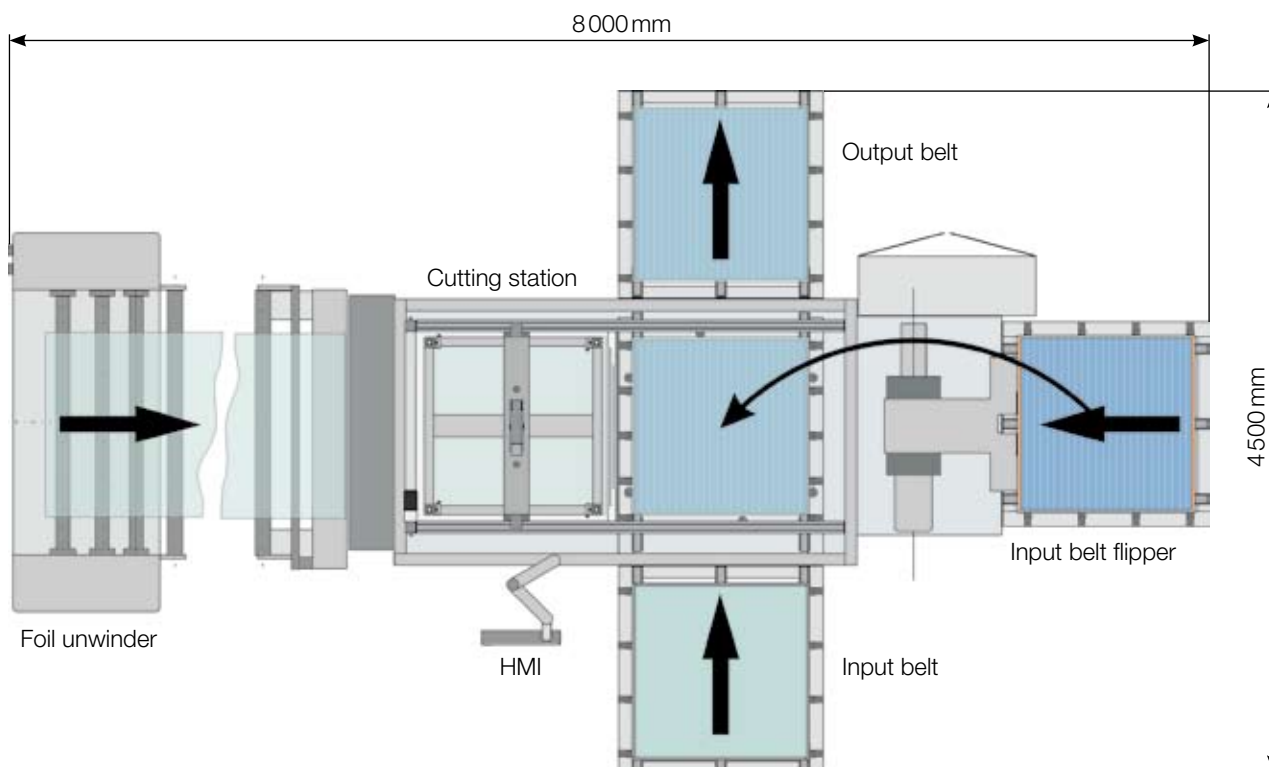


The fully automatic machine from Komax Solar can be used for processing a wide variety of foil materials (EVA, PVB, TPO, etc.) and virtually all known sizes of substrate. With its innovative and flexible design, the marriage machine can be integrated into existing lines and new lines with ease.



## Options/versions

The marriage system from Komax Solar is available in different models. For instance, the materials can be fed from different sides and the coated substrate glass can lie on top or underneath in the layered structure.



### Technical data

|                       |   |
|-----------------------|---|
| Cycle time            | <30s                                      |
| Operations            | Graphical user interface with touch panel |
| Dimensions (W×H×D)    | 8000×2500×4500mm                          |
| Electrical connection | 3×400V, 5kVA                              |

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### Your benefits:

- Minimal tolerances with foil cutting and marriage combined in a single machine
- Minimal waste
- Automatic collection of scrap in recycling container
- 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!