

# ROTOMEA AUTOMATION SERIES



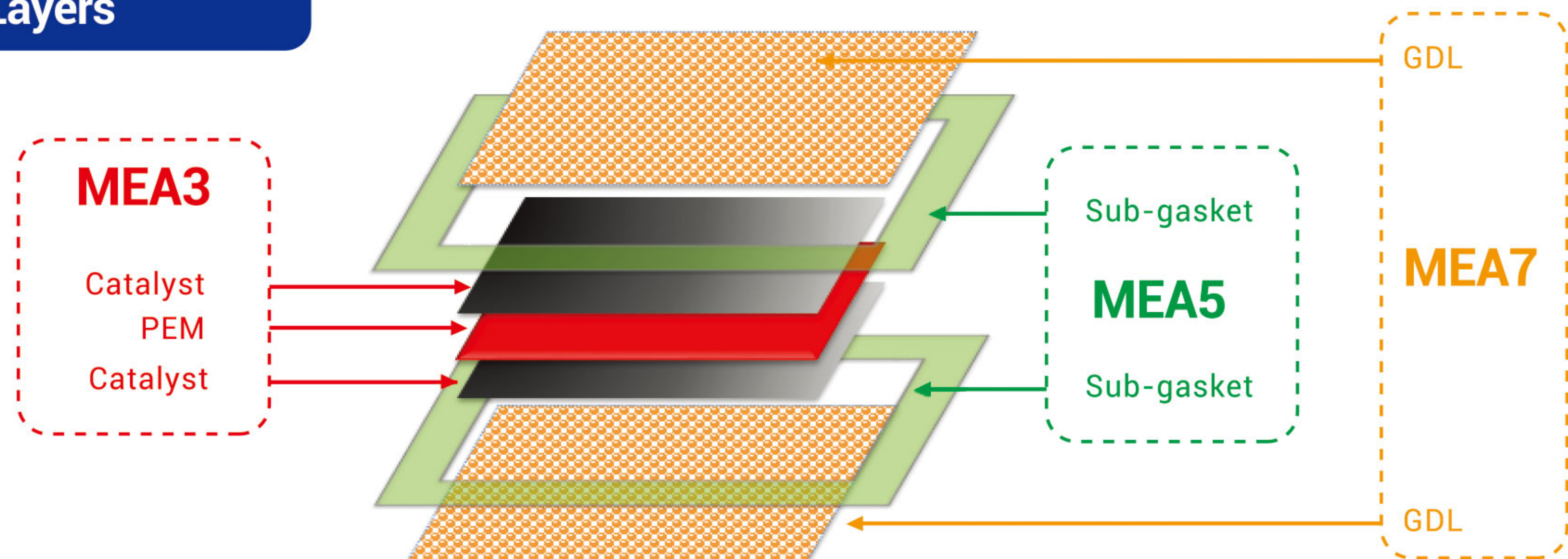
Use machine for intelligent cutting



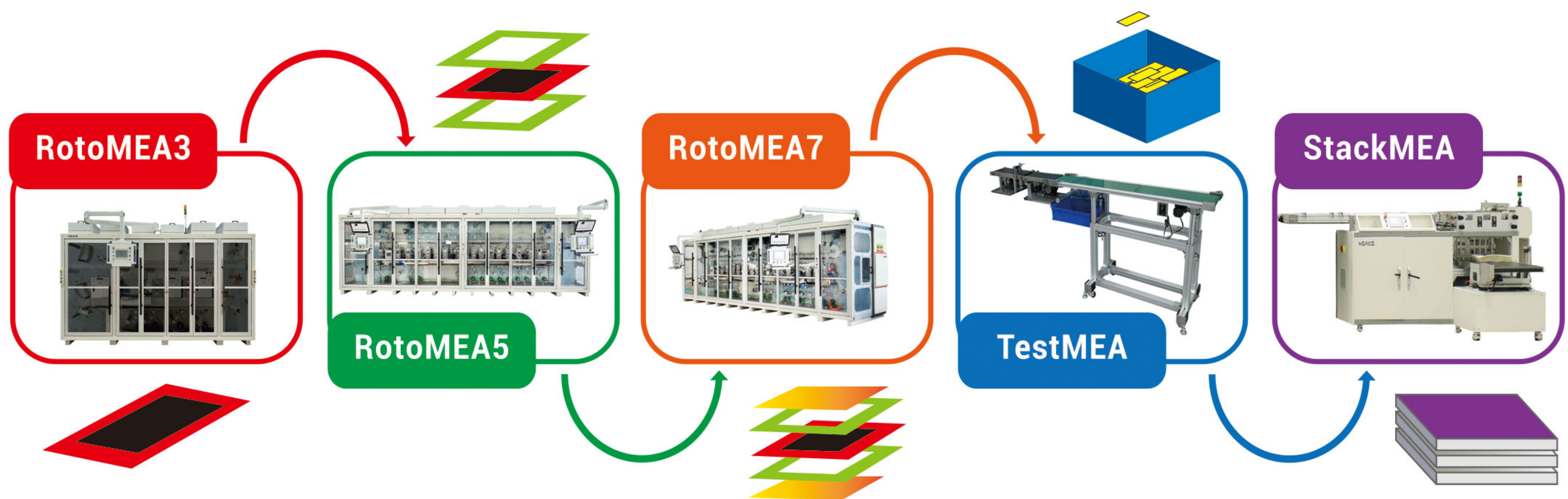


# ROTOMEA AUTOMATION SERIES FOR FUEL CELL MEA

## MEA Layers

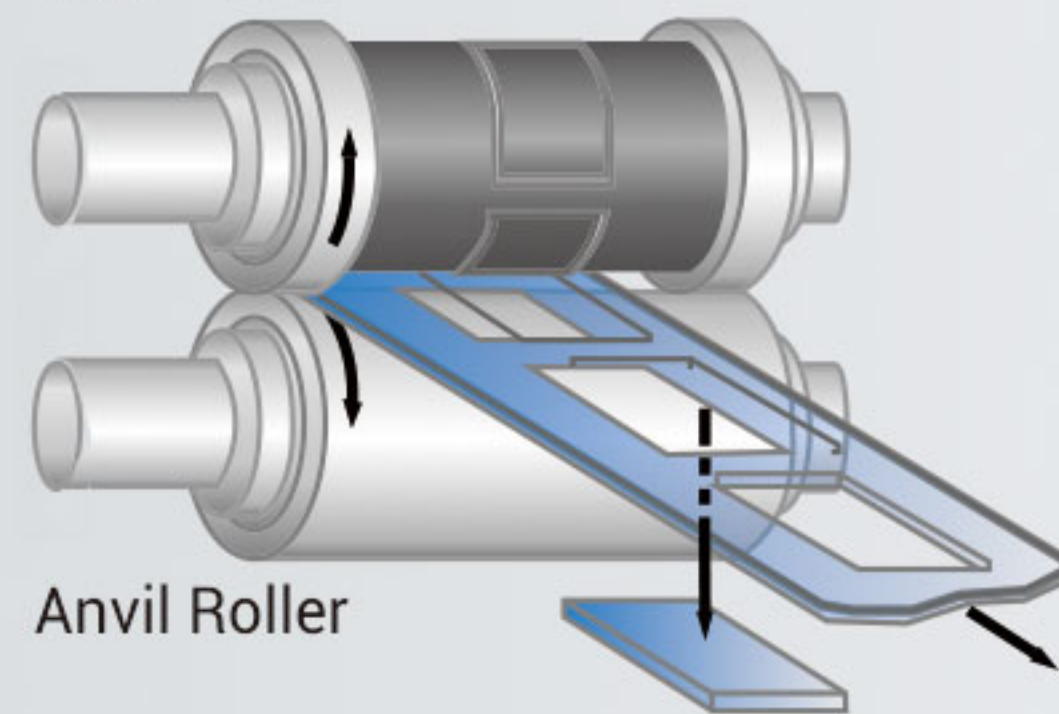


## RotoMEA Automation Series



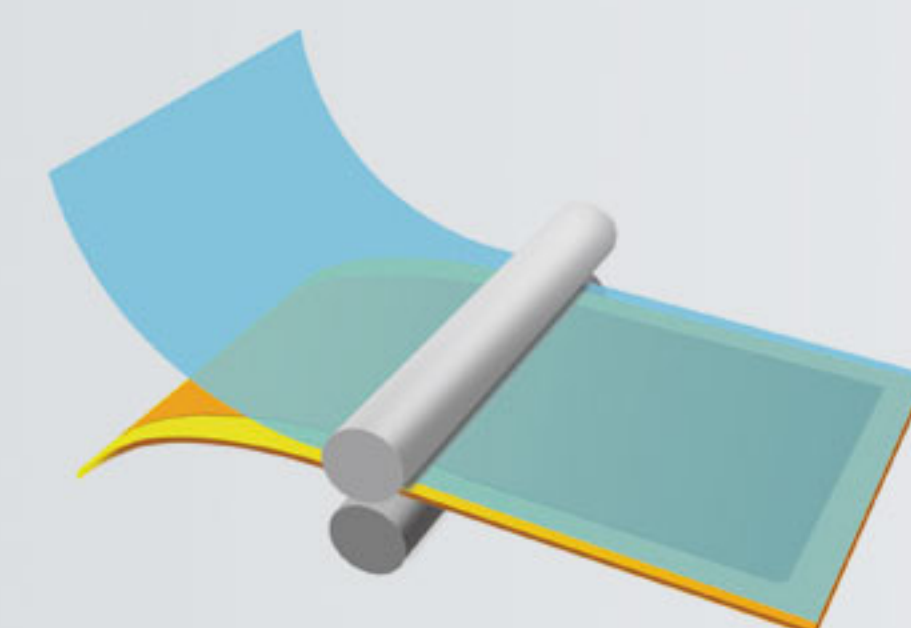
## RotoMEA Advantage

Rotary Die



### Rotary Die Cutting

- Multiple-layers in a single pass
- High speed continuous cutting
- High precision
- Clean and smooth cut edges
- Easy slug removal
- High yield, material savings



### Rolling Lamination

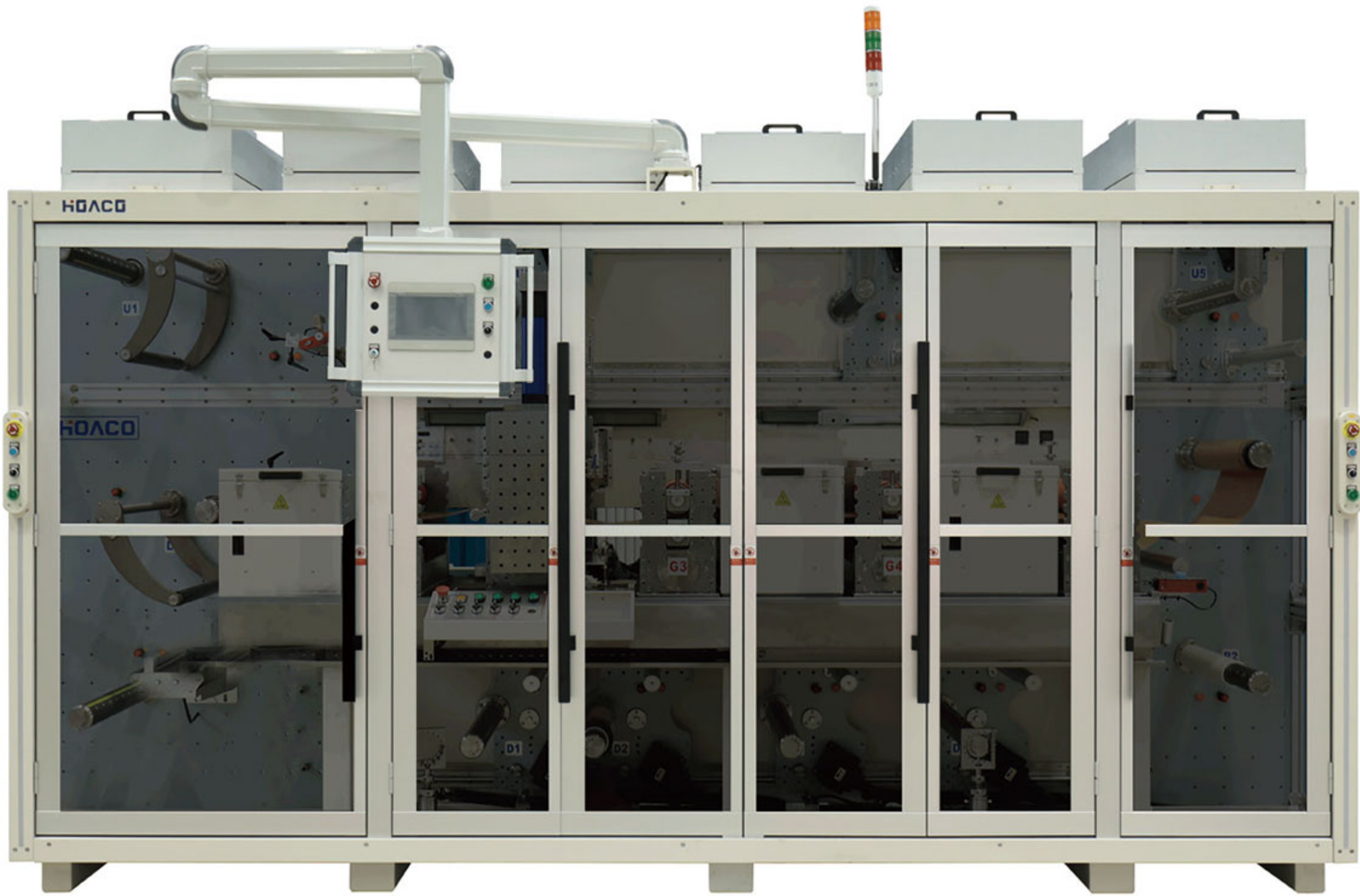
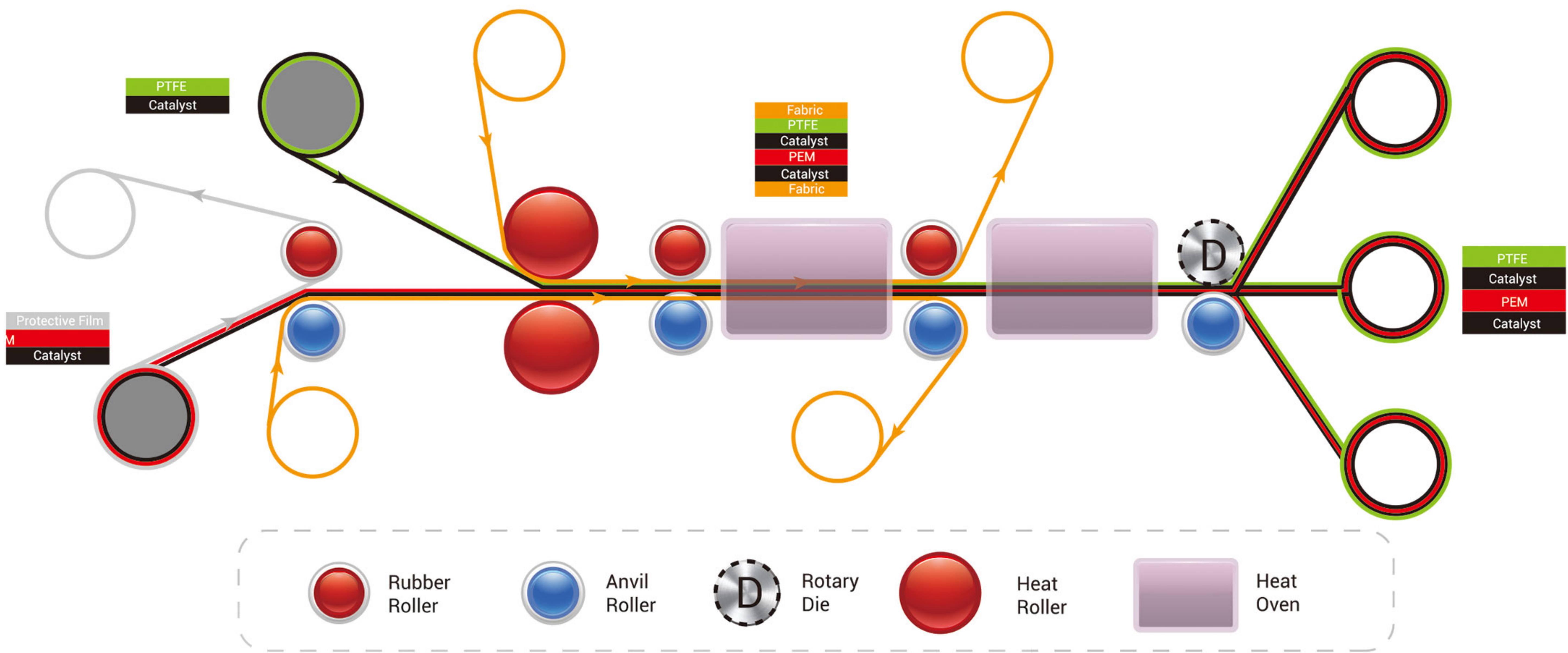
- Naturally Bubble-free
- Winkle-free
- Closed-loop tension control
- Heated lamination available



# RotoMEA3 (CCM by Decal Transfer)

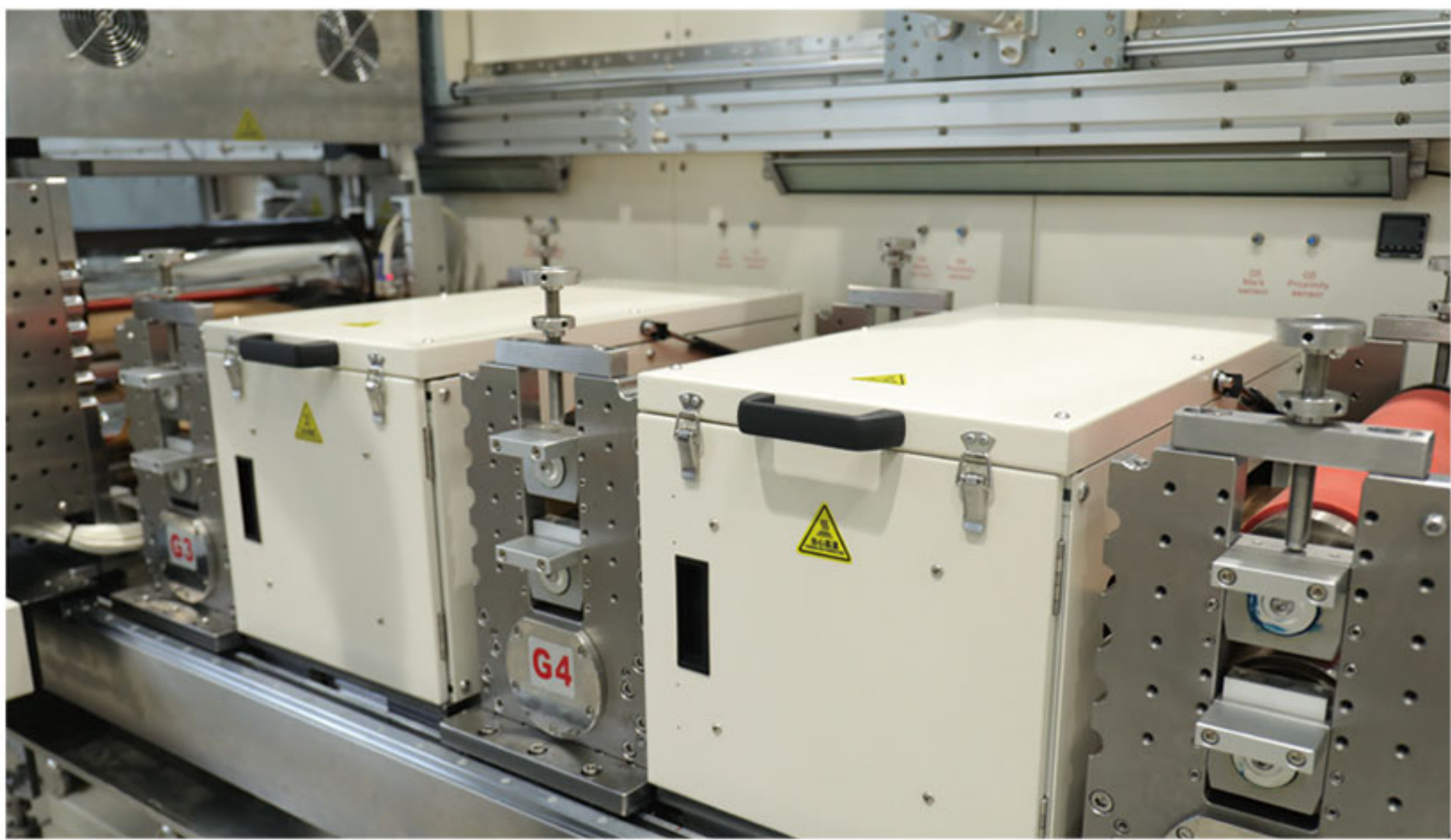
Converts two rolls of single-side-coated PTFE/PEM into a single roll of double-side-coated PEM (CCM) by heat-assisted decal transfer and lamination. Decal transfer temperature and duration can be accurately controlled to achieve optimal transfer result.

- > Web width support up to 500mm
- > Inline slitting for FG rolls



### Specification

Model	RotoMEA3
Rated Power	43kW
Dimension	L4600*W2000*H2500
Speed	≤ 1m/min
Web Width	≤ 500mm
Catalyst Layer Width	≤ 400mm
Heat Roller Temperature	≤ 250±2℃
Heat Oven Temperature	≤ 200±2℃
Web Guide Precision	±0.5mm



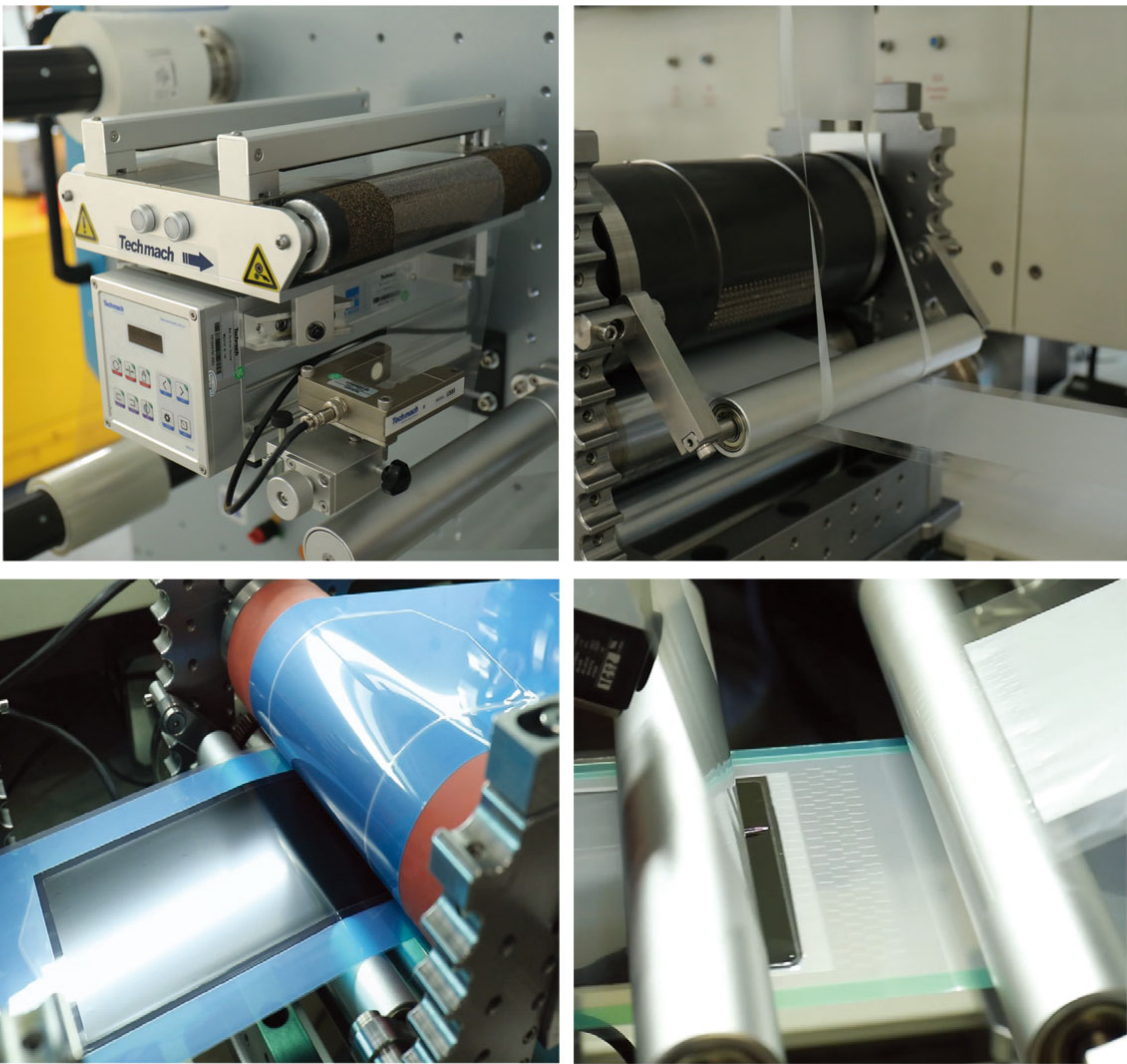


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RotoMEA5 (Subgasket Attachment)

Cutting and laminating top/bottom sub-gasket layers to MEA3 to produce MEA5, RotoMEA5 18-stations model can add double-layer gaskets (top and bottom), while its 26-station counterpart model can attach 4-layers (top 2 and bottom 2) - all in a single pass.

- > All incoming materials in rolls.
- > Superior sealing finish, no wrinkles/bubbles.



Specification

Model	RotoMEA5
Rated Power	63kW
Dimension	L7100*W1700*H2600
Speed	Up to 10m/min
Web Width	≤ 250mm
Heat Roller Temperature	≤ 250±2°C
Cutting Precision	±0.15mm
Gasket-to-Gasket Precision	±0.3mm
Gasket-to-CMM Precision	±0.4mm
Web Guide Precision	±0.5mm
Rotary Die Lifespan	2Mil Rotations



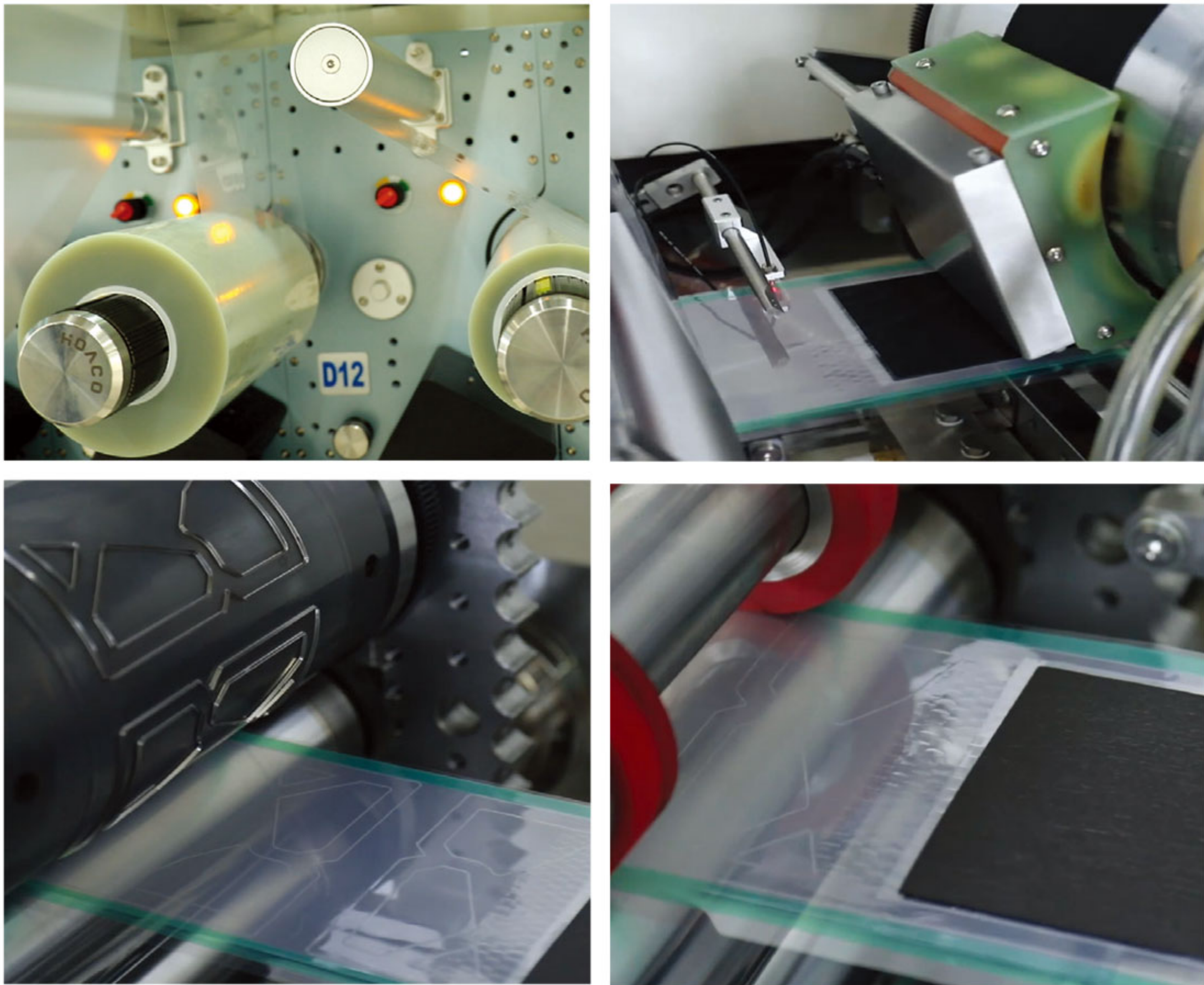
RotoMEA7 attaches top and bottom GDL layers to produce the final MEA assembly in sheets. Heat rollers are used when necessary to trigger heat-activated adhesive on GDL and improve lamination result.

- > FG in sheets
- > Supports GDL with hotmelt or PSA adhesive.



Specification

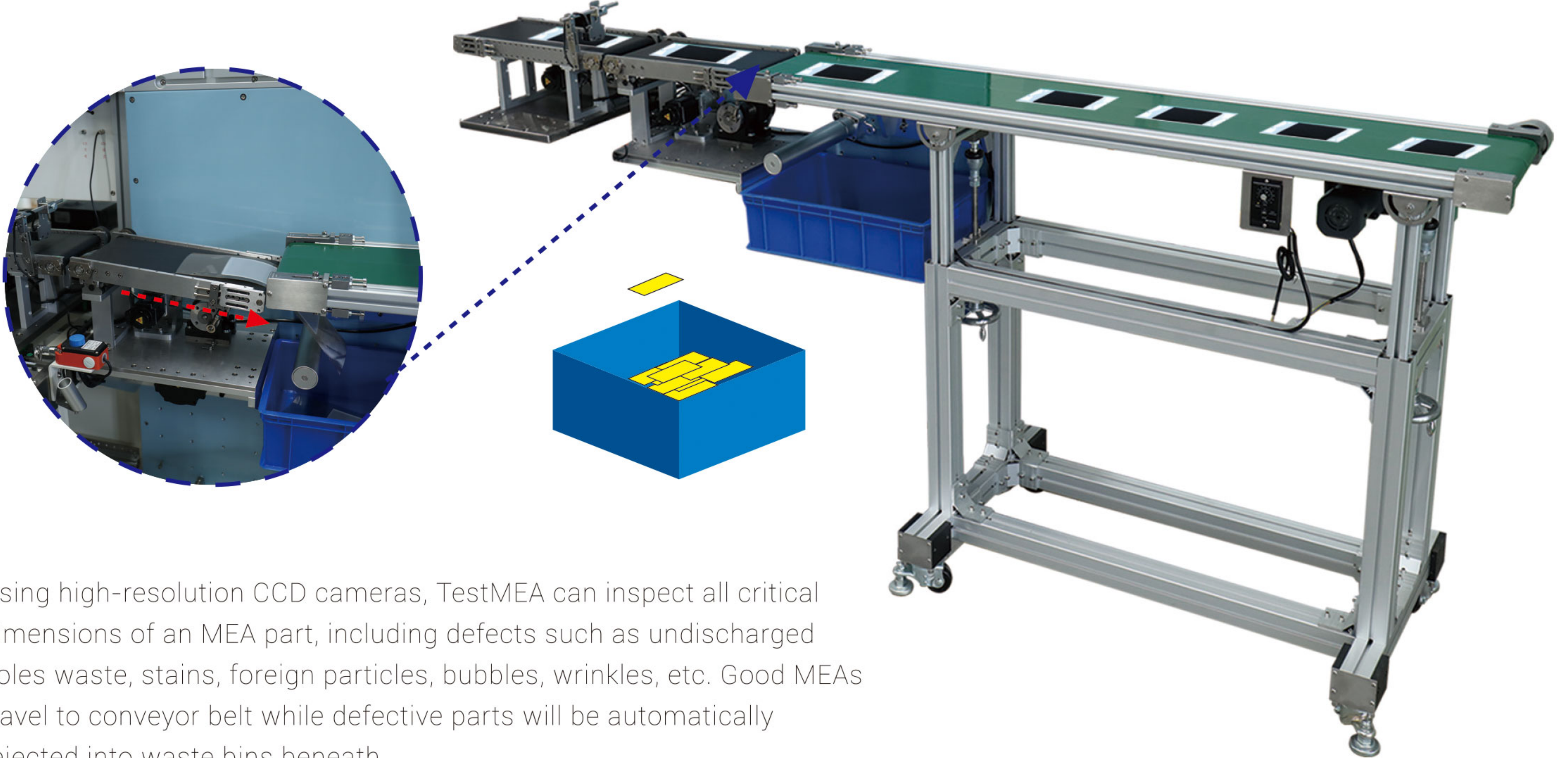
Model	RotoMEA7
Rated Power	55kW
Dimension	L7100*W1760*H2500
Speed	Up to 10m/min
Web Width	≤ 250mm
Heat Roller Pressure	1-20N
Heat Roller Temperature	≤ 250±2°C
Cutting Precision	±0.15mm
GDL-to-GDL Precision	±0.3mm
GDL-to-Gasket Precision	±0.4mm
Web Guide Precision	±0.5mm
Rotary Die Lifespan	2Mil Rotations







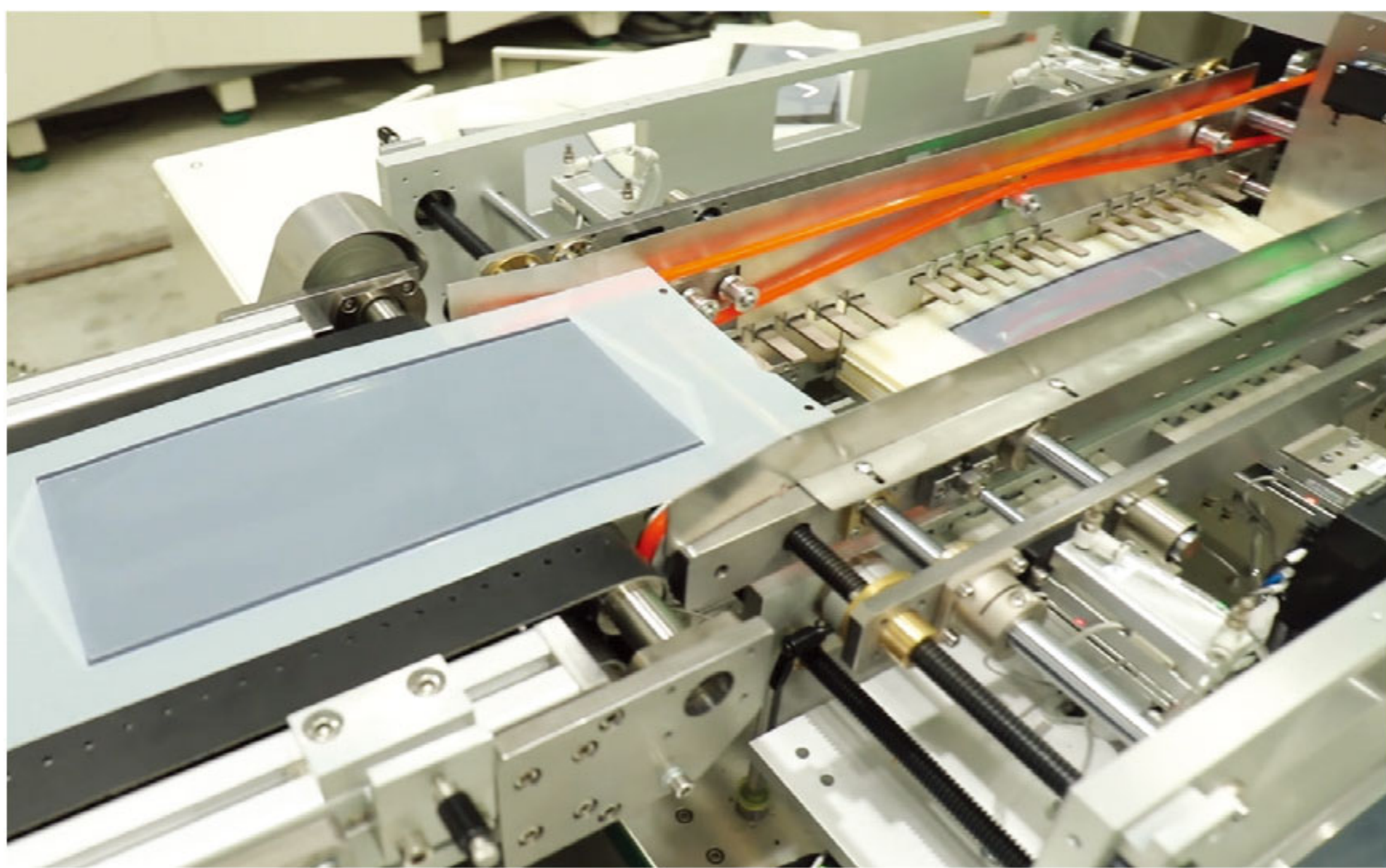
## TestMEA (Visual MEA Inspection)



Using high-resolution CCD cameras, TestMEA can inspect all critical dimensions of an MEA part, including defects such as undischarged holes waste, stains, foreign particles, bubbles, wrinkles, etc. Good MEAs travel to conveyor belt while defective parts will be automatically rejected into waste bins beneath.



## StackMEA (Stack Up MEAs for Packaging)



Good MEA7 parts travel to StackMEA machine through a conveyor belt. Sensors on StackMEA keep track of when and how many MEA parts are coming, sort and stack them up for easy packaging.

- > Number of parts in each stack is configurable.
- > Automatically handles MEAs of varying dimensions





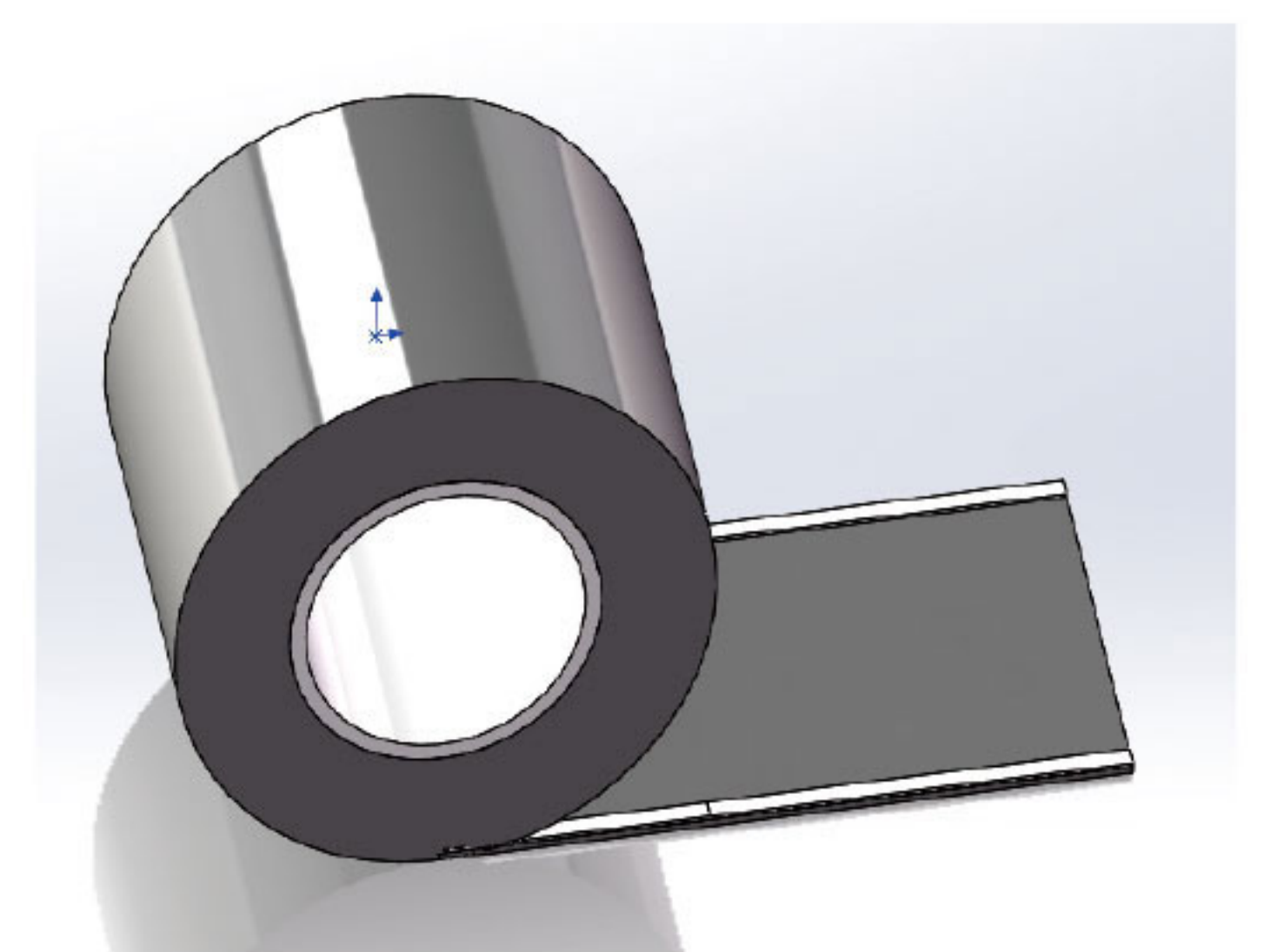
## GDL Glue Dispensing Machine

With incoming GDL in rolls, the machine can dispense non-continuous glue droplets onto the GDL first, followed by inline sheeting to produce GDL with adhesive in sheets.



## GDL Glue Coating Machine

The machine prepares the GDL roll ready for use on RotoMEA7 by coating two strips of glue along GDL edges.



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