nsm
technologies for functional printing

challenger 273

Discover the challenger 273, a modular, high-precision sheet-based system for R&D and prototype development in printed electronics, featuring integrated camera alignment and advanced curing technologies.

273

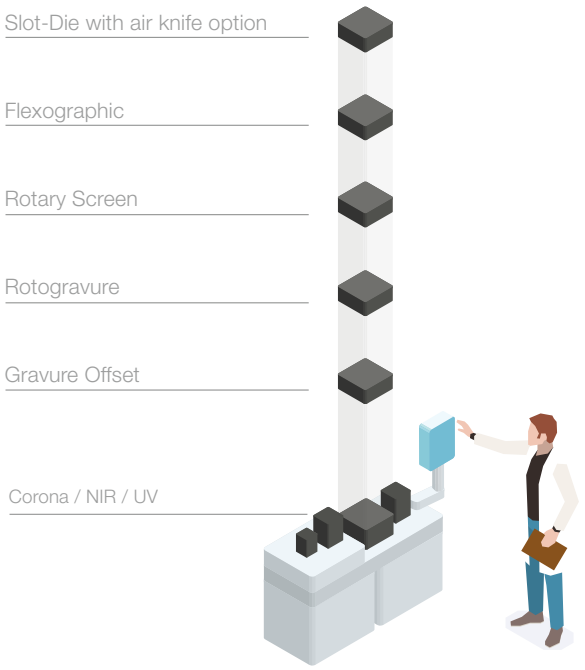
challenger

Modular Sheet-based System for High-Precision Printing and Coating

The challenger 273 offers flexible, modular printing and coating technologies, ideal for R&D and small-scale production, with integrated camera alignment and advanced UV/NIR curing options.

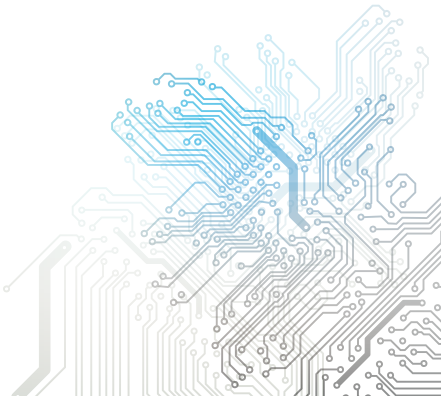
Applications

- Multilayer printing
- Research and development in printed electronics
- Prototype development



Technical Data

Printing/Coating technologies:	Slot Die, Rotary Screen, Flexo, Rotogravure, Gravure Offset
Drying methods:	UV, NIR, Air Knife, Heated Vacuum Chuck
Substrate pre-treatment:	Corona Pre-treatment
Substrate size:	Up to 210 x 148 mm (DIN A5)
Substrate compatibility:	Flexible and rigid substrates up to 3 mm thickness
Process speed:	Up to 60 m/min.
Positioning accuracy:	+/- 10µm
CSV file export/import:	Supported
Automated multiple processes:	Programmable for repeatable coating/printing followed by curing
Dimension (L x W x H):	2000 x 800 x 1820 mm
Weight:	500 kg



Technologies & Options

- **Modular Design:** The challenger 273 supports up to five printing and coating modules, including Slot-Die, Rotary Screen, Flexographic, Rotogravure, and Gravure Offset. The modular design allows for easy expansion within these technologies, ensuring flexibility for future process adjustments.
- **Quick Module Exchange:** Swap printing modules in less than 15 minutes, ensuring smooth transitions between different printing techniques.
- **Advanced Curing & Surface Treatment:** Features integrated NIR and UV dryers for inline curing, along with corona pre-treatment for optimal substrate surface preparation.
- **Precise Multilayer Printing:** The integrated camera system allows for precise alignment and overprinting on both flexible and rigid substrates, ensuring accurate multilayer printing and coating.
- **Air Knife for Rapid Film Solidification:** Ideal for sensitive materials like perovskites, ensuring fast and efficient film solidification.
- **User-Friendly Operation:** A color touch screen interface ensures intuitive control of the printing, coating, and drying processes.

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