nsm
technologies for functional printing

challenger 171

The challenger 171 is a high-precision, customizable laboratory printing and coating system equipped with a camera alignment system, ideal for printed electronics and functional device development.

171

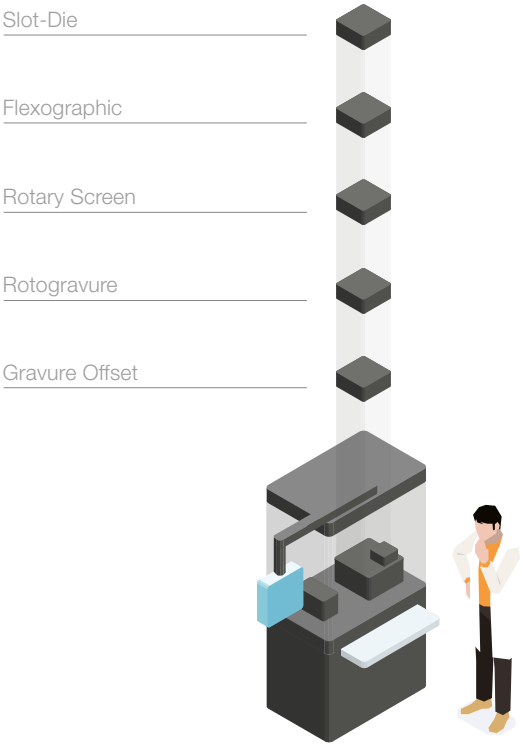
challenger

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

With its compact design, modular architecture, and interchangeable printing and coating modules, the challenger 171 ensures precise layer-to-layer registration and supports flexible substrates for a wide range of applications.

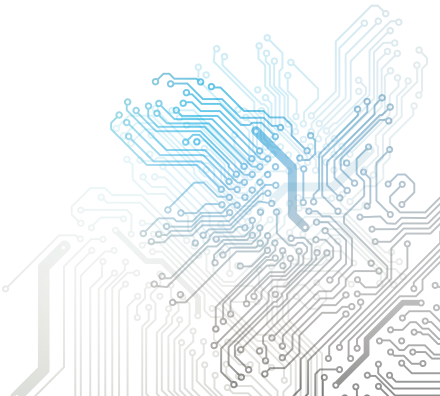
Applications

- Research and development in printed electronics
- Ink and substrate testing
- Multilayer printing
- Prototype development



Technical Data

Printing/Coating technologies:	Slot Die, Rotary Screen, Flexo, Rotogravure, Gravure Offset
Substrate size:	Up to 210 x 148 mm (DIN A5)
Substrate compatibility:	Flexible substrates up to 1 mm thickness
Process speed:	Up to 30 m/min.
Positioning accuracy:	+/- 10µm
Dimension (L x W x H):	1200 x 880 x 2200 mm
Weight:	200 kg
Electrical connection:	1x230V
Compressed air:	6 bar



Technologies & Options

- **Modular Design:** The challenger 171 supports various printing and coating technologies, including Slot Die Coating, Rotary Screen, Flexographic, Rotogravure, and Gravure Offset. Its modular design allows for quick and easy integration of these modules, with changes made in less than 10 minutes.
- **Compact Design:** With its small footprint, the challenger 171 is ideal for laboratories and facilities with limited space, offering high functionality without taking up much room.
- **Precise Multilayer Printing:** The integrated camera system enables precise registration for multilayer printing on flexible substrates with a thickness of up to 1 mm.
- **Low Ink Consumption & Efficient Printing:** The system uses less than 1 ml of ink per print (gravure, flexo, and gravure offset), ensuring clear and reproducible prints while minimizing ink waste.
- **User-Friendly Operation:** The challenger 171 features a color touch screen interface and state-of-the-art BECKHOFF control technology, ensuring intuitive operation and easy process monitoring.
- **Expandable System:** The challenger 171 can be expanded over time, allowing customers to add new printing and coating modules as needed without requiring factory intervention.

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