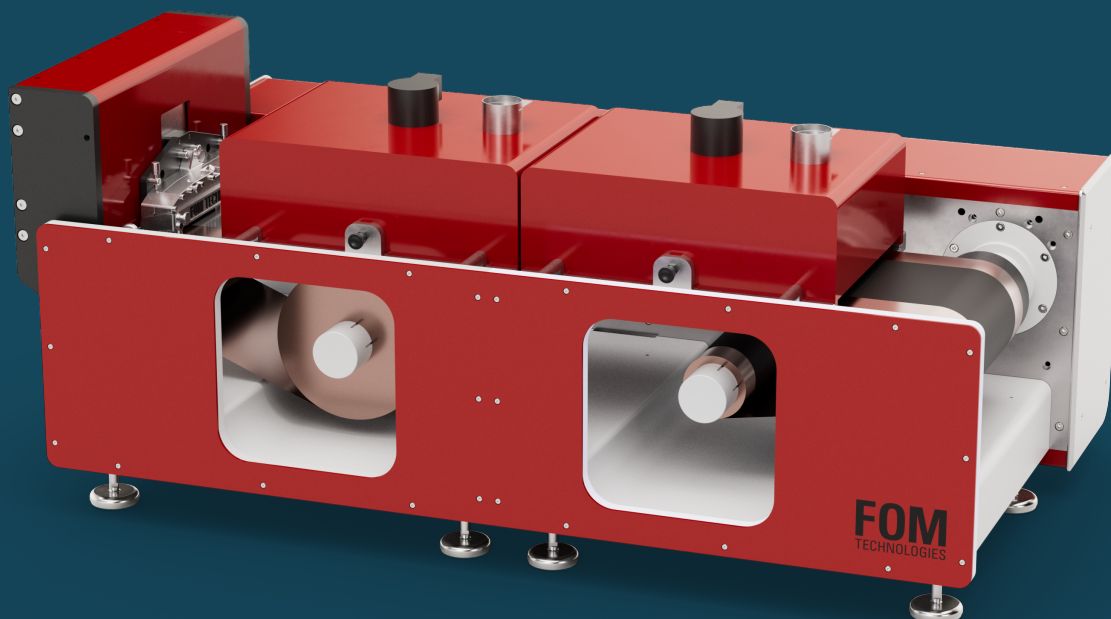


# FOM omegaR2R



The FOM omegaR2R is a versatile lab-scale roll-to-roll slot-die coater designed to replicate pilot-scale coating processes with precision, reproducibility, and scalability. Its modular design and multiple drying options (IR, UV, hot air) enable seamless adaptation to evolving research needs to safeguard your investment.

The FOM omegaR2R enables researchers to accelerate and perfect their processes, thereby bridging the gap between lab-scale research and pilot-scale production.

## KEY FEATURES

- Desktop roll-to-roll slot-die coater
- Fully motorized coating bridge
- Non-contact coating with  $\mu\text{m}$  precision
- Coating width from 1 mm to 300 mm
- Upload or save coating recipe through cloud-based repository
- Modular oven system (Hot air, IR, UV, hot air/IR) - sections of 250/500 mm.
- Software-controlled syringe pump
- Excellent layer uniformity and repeatability
- Broad viscosity range
- Remote support & troubleshooting



# Technical specifications

## MACHINE

- Model: FOM omegaR2R
- Standard dimensions: 680x895x1570 mm (HxWxL)
- Extension modules: 250 mm or 500 mm
- Weight: 265 kg (Standard configuration)
- Weight per module: 25 kg (250 mm) or 37 kg (500 mm)
- Software-controlled syringe pump (From 1 ml to 300 ml)
- Integrated PLC control system
- Roller with self-centering web alignment
- Speed control via active NIP
- Web tension 10-80N

## MACHINE UTILITIES

### Electrical power supply

- 3-phase Voltage: 3-phase+N+G 400 (V)
- Voltage frequency: 50 & 60 (Hz)
- Maximum current: 24 (A)

### Compressed air

- Compressed air information: Spec list 5-7 bar. Clean and dry, non-lubricated. ISO 8573-1:2010 Class 1.2.3 or better
- Connection and tubing type: To be fitted to Ø6 mm Festo push-fit connection

### Internet Connection

- Ethernet cable via Rj45 connector

## COATING

- Motorized slot-die head positioning with 1 µm precision
- Automated bridge angle movement from 0 to 90° angle
- Coating width: 1 to 300 mm
- Web width: Up to 320 mm
- Max roll diameter: 250 mm (max entrance space 300 mm; larger rolls cannot be removed)
- Coating speed: 0.01 up to 5.0 m min<sup>-1</sup>
- Slot-die head heating: Up to 80°C
- Slot-die compatibility: FOM SD 25 – FOM SD 300

## DRYING

### Drying options (Max. 2 meters in total):

- FOM hot air oven section - 250/500 mm in length
- FOM IR oven section - 250/500 mm in length
- FOM combined hot air / IR oven section - 250/500 mm in length
- FOM UV oven section - 250/500 mm in length

Exhaust: Ø63 connection pipe

## CERTIFICATIONS & STANDARDS

- Machine Standard: EN 60204-1 and ISO 13849-1 (CE)
- Compliant with Quality Directive 2006/42/EC Annex II B
- Electrical panel standard: UL508A

## OPTIONS

### Equipment:

- FOM ionizing bar (Anti-static)
- FOM Blade coating system
- Corona treatment

### Additional drying/curing:

- FOM Air knife system

### Enclosure:

- FOM Enclosure

### Pumps, syringes, and consumables:

- Continuous pump – High viscosity pump
- Continuous pump – Standard viscosity pump
- Syringe pump - Standard viscosity
- Syringe pump - High viscosity
- Stainless steel syringes
- Glass syringes
- Plastic syringes
- Syringe heating up to 80 °C
- Slot-die shims and guides for adjusting coating width and pattern

