

## Research Laboratory Coater (RLC)

infinityPV ApS offers a broad range of coating machinery and equipment from the low budget small footprint coating systems to the large manufacturing systems for printed functional materials such as solar cells, fuel cells, transistors, LEDs, sensors and much more. The **RLC** (Research Laboratory Coater) is the creative starting point where films can be made using your materials and inks through a wide choice of deposition techniques (slot-die, flexo, knife, bar, spray etc.). The system is easily expanded to full R2R (roll-to-roll) processing by docking the printing unit onto a R2R platform. Drying of the films can be achieved using hot plate, integrated forced air, inert gas, UV or IR. The Research Laboratory Coaters are turn-key systems starting from the simple single axis slot-die coating set-up where functionality and complexity can be gradually added. All systems are upwards compatible, and it is possible to upgrade the basic system to the most advanced version at any given point.



Common to all the products in the **infinityPV** research laboratory line is that they have a small foot print and present an open platform that is easily adaptable to all the great experiments that have not been carried out yet. You can fit them almost everywhere in the lab, in the fume cupboard, on the bench and in the glovebox.

### Key highlights:

infinityPV research laboratory coaters are unique on several fronts:

- Side operation and easily expandable
- Working area 280x100 mm
- Manual touch screen operation and free software for PC control
- R2R upgradable
- UV, IR, hot-air and inert gas oven systems available
- Hotplate and gradient heating zone plates available
- Work integrated with **infinityPV** syringe pumping systems supporting gradients and dilution experiments
- Low laboratory footprint that easily fits in a glovebox (w/d/h: 50/55/45 cm). The side operation makes glovebox operation very easy
- Operates from a single phase 110-240VAC 50/60Hz power supply
- Fully CE-approved and compliant
- Slot-die, knife, flexo, gravure, tape and bar coating possible
- Turn key system
- Upgradable all the way to full roll-to-roll coating
- Fast industry 4.0 ready software package and interfacing to robotics



We are proud to state that no competitors can match our current quality, adaptability, price, and flexibility in our range of coating and printing equipment.

## Service and support:

We offer service using phone or skype on a 24/7 basis and we guarantee shipping of spare parts to Europe, US and RoW within 2-5 working days (islands and remote areas excluded).

## RLC Selection Guide

There are five overall RLC designs: **RLC Basic**, **RLC Print**, **RLC Full**, **RLC 3DPrint** and **RLC R2R**. Each are made to specific use cases and offers various options.

	RLC Basic	RLC Print	RLC Full	RLC 3DPrint	RLC R2R
Touch screen control	✓	✓	✓	✓	✓
Software control	✓	✓	✓	✓	✓
Single axis motion controller (fwd/rev)	✓	✓	✓		✓
Mount for coating and printing units	✓	✓	✓	✓	✓
Linear ball rails	✓	✓	✓	✓	✓
Linear ball rails (cross web)			✓	✓	✓
Single syringe pump		✓	✓	✓	✓
Slot-die head (50 mm)	(✓)	✓	✓	✓	✓
Slot-die head (65 mm and 115 mm head)	(✓)	(✓)	(✓)	(✓)	(✓)
Simple flexographic roller system			(✓)		(✓)
Heated slot-die head			(✓)		(✓)
Integrated ink heater (low dead volume)			(✓)		(✓)
Heating controller for heated slot-die head/ink			(✓)		(✓)
Hot plate			✓	✓	✓
Hotplate with different temperature zones/gradient			(✓)	(✓)	(✓)
R2R docking unit (unwinder and rewinder)				(✓)	✓
UV-curing unit				(✓)	(✓)
IR oven				(✓)	(✓)
Hot air oven				(✓)	(✓)
Inert gas option				(✓)	(✓)
Dual, triple, quadruple syringe pump for gradients			(✓)	(✓)	(✓)
Flexo, rod, knife, bar, gravure coating and tape casting			(✓)	(✓)	(✓)
3-axis control (side registration, up/down, fwd/rev)				✓	

*Elements in brackets are obtainable as extra options*