

# Research Laboratory Coater

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 coating, flexo, knife, bar, spray etc.). The RLC's are turn-key systems starting from the simple single axis slot-die coating set-up where functionality and complexity can be gradually added. Common to all the products is that they have a small footprint 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.



## Technical Specifications

Item	Technical parameters	Remarks
<b>RLC unit</b>		
<i>Weight</i>	>20 kg	Depending on configuration
<i>Dimensions (h x w x d)</i>	45 x 50 x 55 cm 45 x 50 x 60 cm (RLC 3DPrint)	
<i>Power supply</i>	120 V AC or 240 V AC	Depending on configuration
<i>RLC system control</i>	Touch screen Manual adjustment Computer control	Depending on configuration
<i>Coating area</i>	100 mm x 280 mm	
<i>Coating speed</i>	From 1.2 mm/sec and up to 33 mm/sec.	Depending on configuration
<i>Base plate temperature</i>	Standard up to 90 °C. High temp. option up to 140 °C	
<i>Thin film processing options</i>	Slot-die coating, heated slot-die head, knife coating, bar coating, simple flexo printing	
<b>Syringe Pump</b>		
<i>Pump Control</i>	Touch screen Computer control	
<i>Ink flow</i>	0.01 ml – 9.99 ml	
<i>Ink volume</i>	Standard pump up to 20 ml syringe. Jumbo pump up to 60 ml syringe.	
<i>Option for mixing/gradient experiments</i>	Combine up to 4 pumps for advanced mixing and gradients experiments	

<i>Power supply</i>	24 V	Powered from the RLC unit
<b>Thin film processing:</b>		
<b>Slot-die coating:</b>		
<i>Slot-die coating width</i>	5 mm – 100 mm	Patterned or full coating
<i>Slot-die head position</i>	12 o'clock	
<i>Hight adjustment (head to substrate)</i>	5 mm	
<i>Sideways travel length</i>	110 mm	
<i>Slot-die head material</i>	Stainless Alloy Composite	Standard slot-die heads are made in stainless
<i>Tubing and Connector material</i>	PTFE (Tubing) and Peek (connector)	
<b>Heated slot-die head</b>		
<i>Temperature range</i>	RT-100 °C.	
<i>Slot-die head material</i>	Alloy	
<i>Slot-die coating width</i>	10 mm – 100 mm	Patterned or full coating
<b>Simple flexo printing:</b>		
<i>Printing width</i>	25 mm wide standard 1-junction 10 mm wide stripes sleeve	
<i>Printing thickness</i>	1.5-50 m <sup>3</sup> /m <sup>2</sup>	
<i>Printing pattern</i>	Slanted stripes	Customized patterns obtainable
<b>Knife coater:</b>		
<i>Coating width</i>	30 mm	
<i>Coating thickness</i>	Up to 750 microns	
<i>Coating thickness adjustment</i>	Manually	
<i>Knife coater material</i>	Stainless (the knife) and alloy	