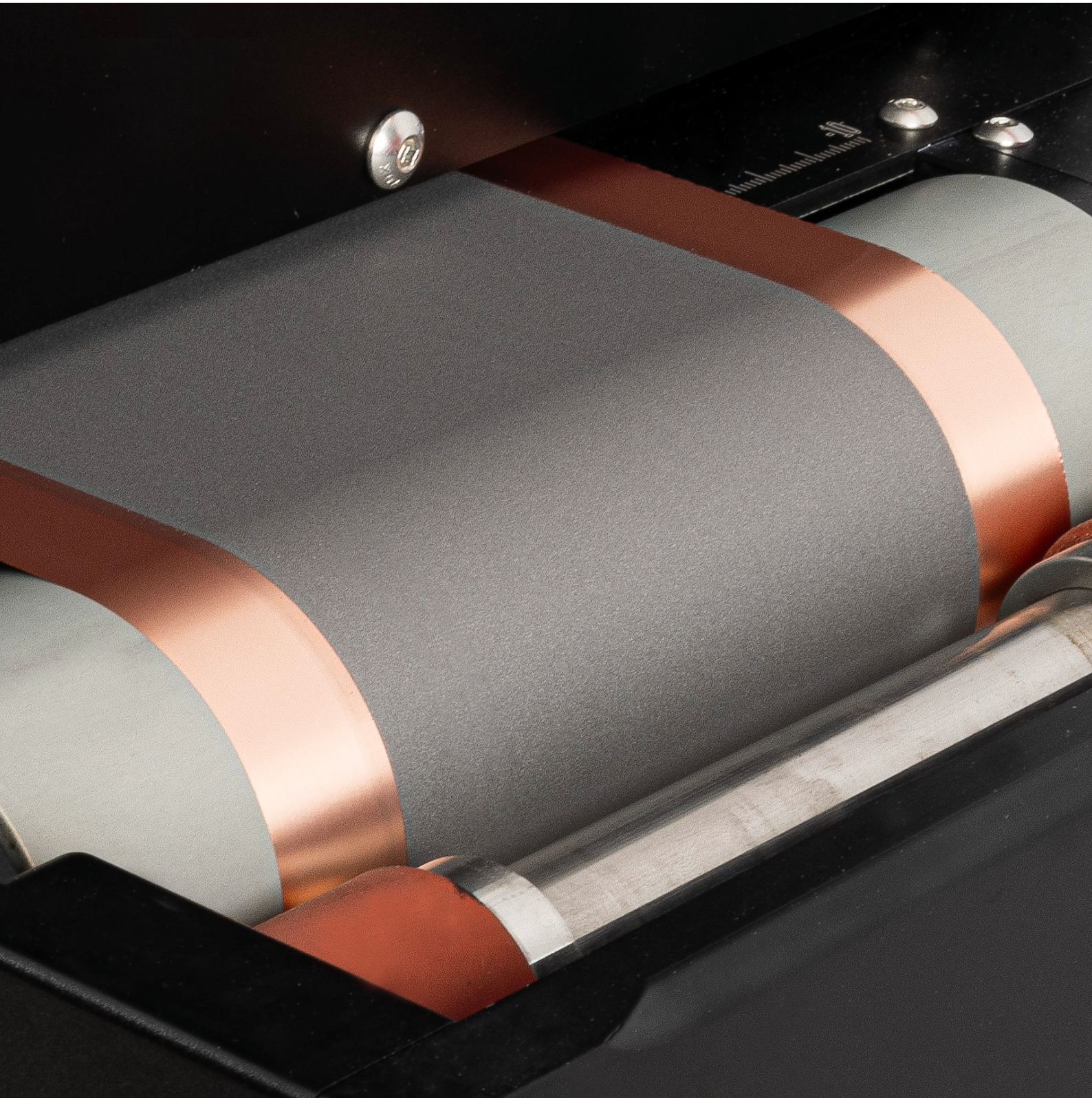
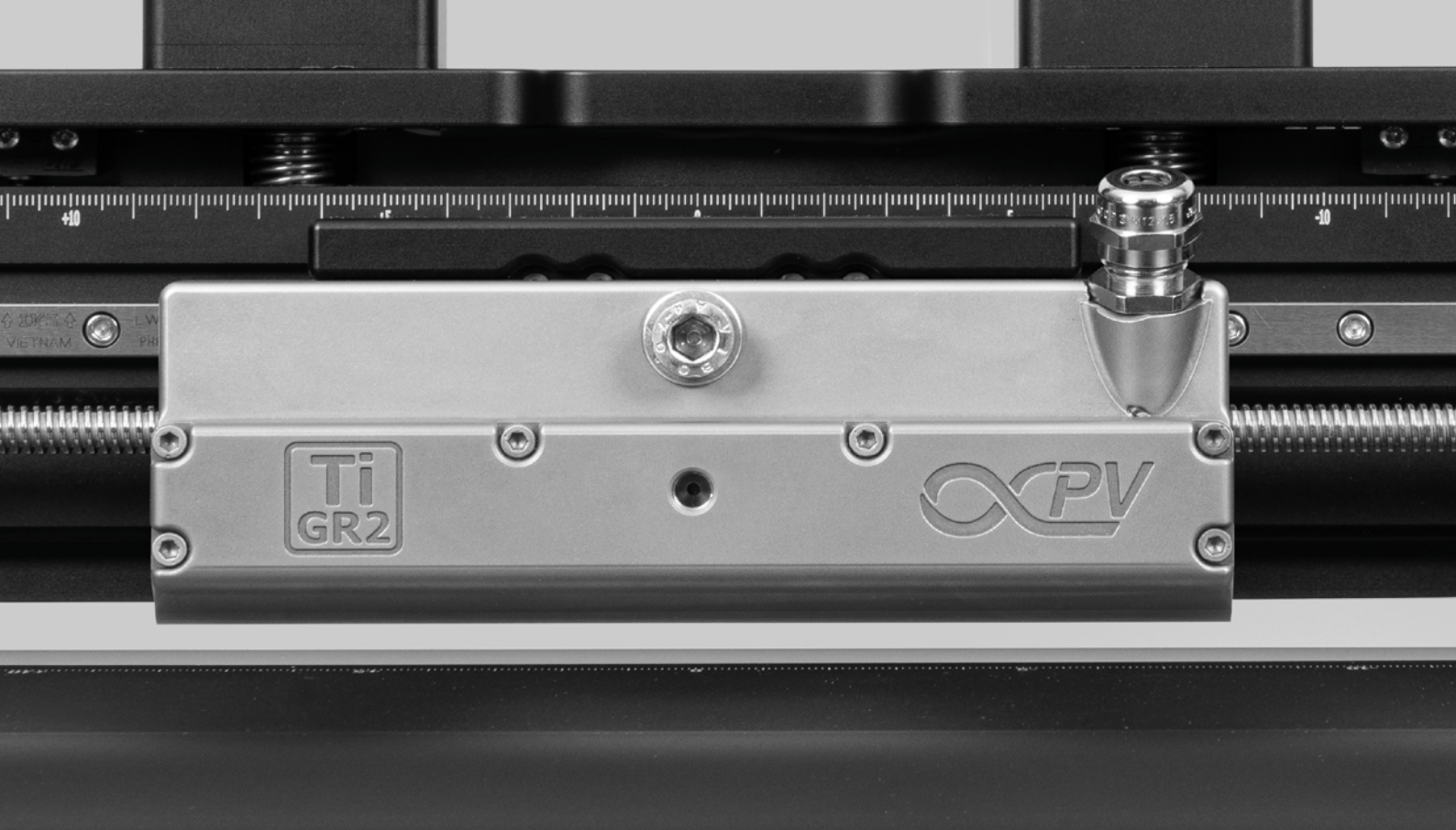


COMPANY OVERVIEW





Shaping the Future of Thin-Film Technology

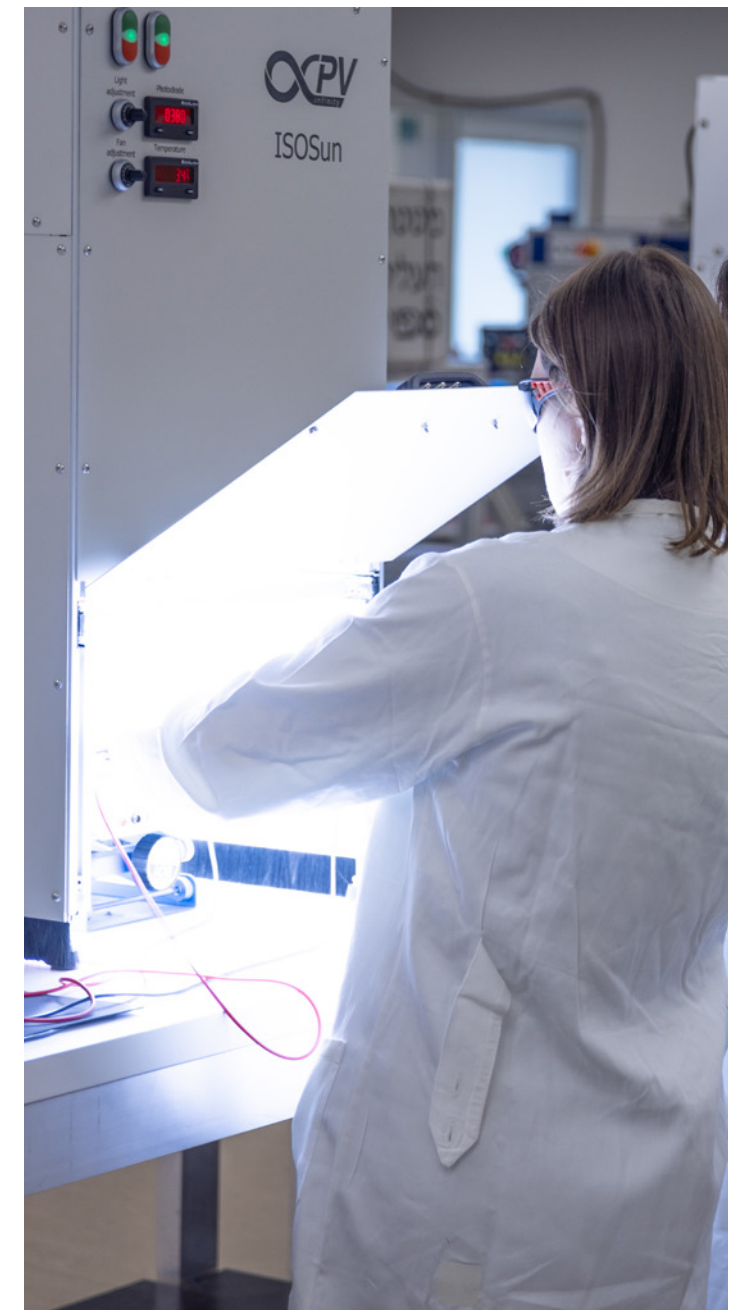
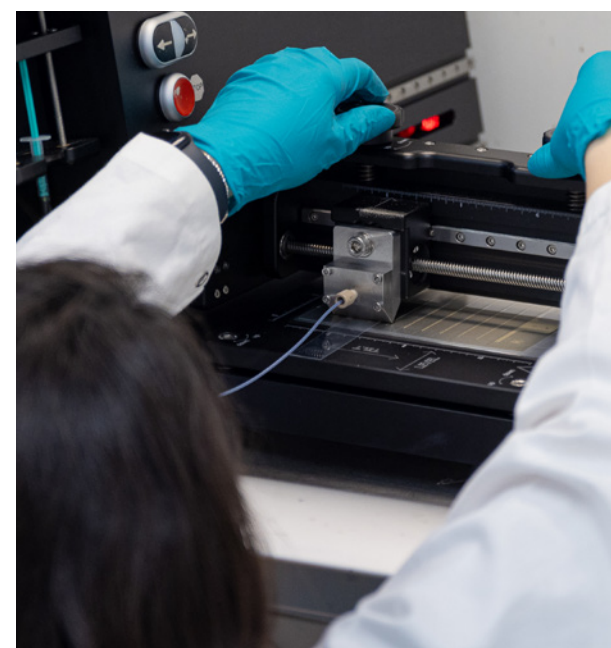
We are infinityPV, a Danish company with a global footprint, pushing the boundaries of what's possible in printed and flexible electronics. Innovation and sustainability are at the heart of everything we do. We specialize in designing and manufacturing compact, state-of-the-art laboratory equipment that bridges the gap between research and industrial-scale production.

What We Offer

Our product range includes high-precision slot-die coaters, roll-to-roll systems, and expertly engineered slot-die heads. These are tailored to support the development of advanced technologies such as flexible solar cells, printed batteries, fuel cells, LEDs, OLEDs, sensors, and pharmaceuticals. With deep-rooted expertise in slot-die coating and roll-to-roll processing, we deliver more than just equipment—we enable the future of electronics and materials science.

Our Commitment

We understand that every project is unique, and we are committed to meeting your specific needs. With a well-stocked inventory, we ensure fast access to essential components and materials. We invite you to visit our production site and experience our solutions firsthand before making any commitments. Customer satisfaction is our priority. We provide lasting support for all our products and clients, ensuring that spare parts are always available or quickly manufactured when needed. At infinityPV, we stand by our technology and our customers—we leave no one behind.



Designed for All Types of Coating Applications



Batteries

Active materials are deposited onto flexible or rigid substrates to create electrodes for lithium-ion and other battery types. Precise and uniform coating enhances energy density, improves cycle life, and ensures consistent performance across large-scale production.



Pharma & MedTech

Biocompatible coatings and drug-eluting layers can be deposited onto medical devices with high precision and consistency. This ensures uniform surface coverage, reliable performance, and controlled release of therapeutic agents, supporting applications such as stents, implants, and diagnostic tools.



Membranes

Functional layers are deposited onto polymeric or porous substrates with high precision, tailoring properties such as selectivity, permeability, and chemical resistance. This controlled coating process supports applications in filtration, separation, water treatment, and energy devices.



Packaging

Functional coatings are applied to enhance barrier properties, extend shelf life, and improve visual appearance. The process also enables seamless integration of electronic components, supporting the development of smart and interactive packaging solutions.



Fuel Cells

Catalyst layers are deposited with controlled thickness and uniformity onto membranes and electrodes. This precision enhances electrochemical performance, improves fuel efficiency, and supports the durability of next-generation fuel cell technologies.



Solar Cells

Organic photovoltaics, perovskite solar cells, dye-sensitized cells, and tandem architectures can be fabricated through precise layering of active materials. Controlled deposition ensures optimal light absorption, efficient charge transport, and improved device stability.



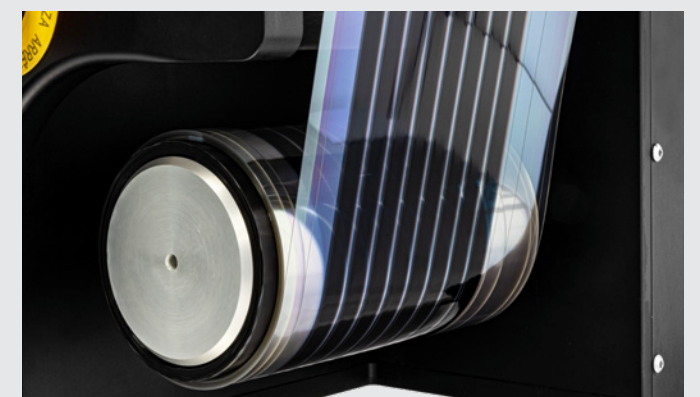
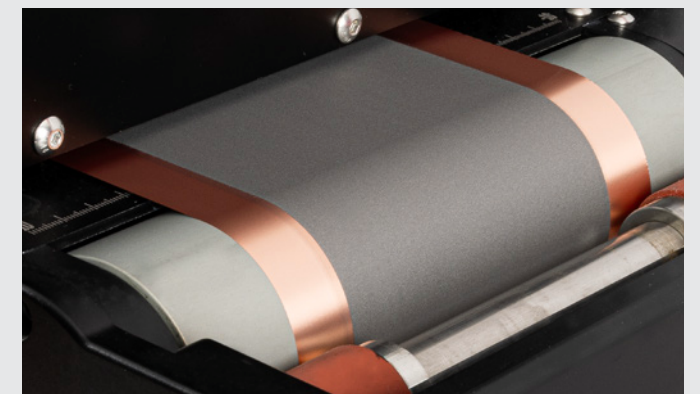
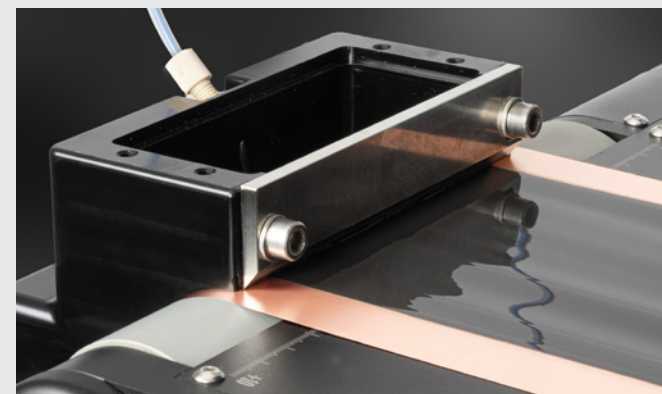
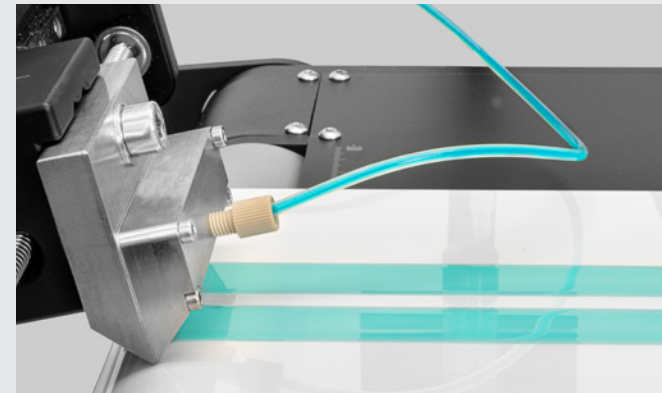
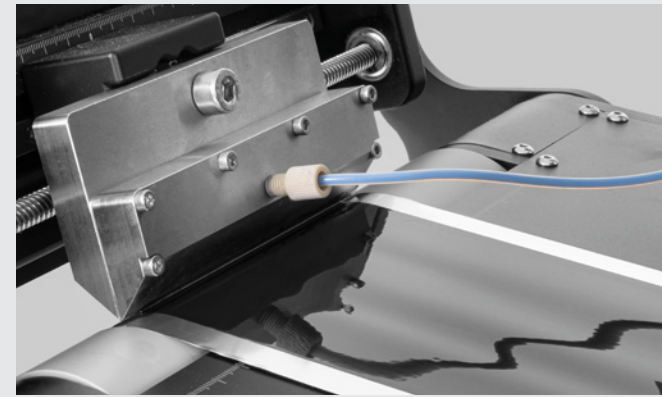
Adhesives

Functional coatings can be applied to polymeric or porous substrates with exceptional control over thickness and uniformity. This enables fine-tuning of properties such as selectivity, permeability, and chemical or thermal resistance.

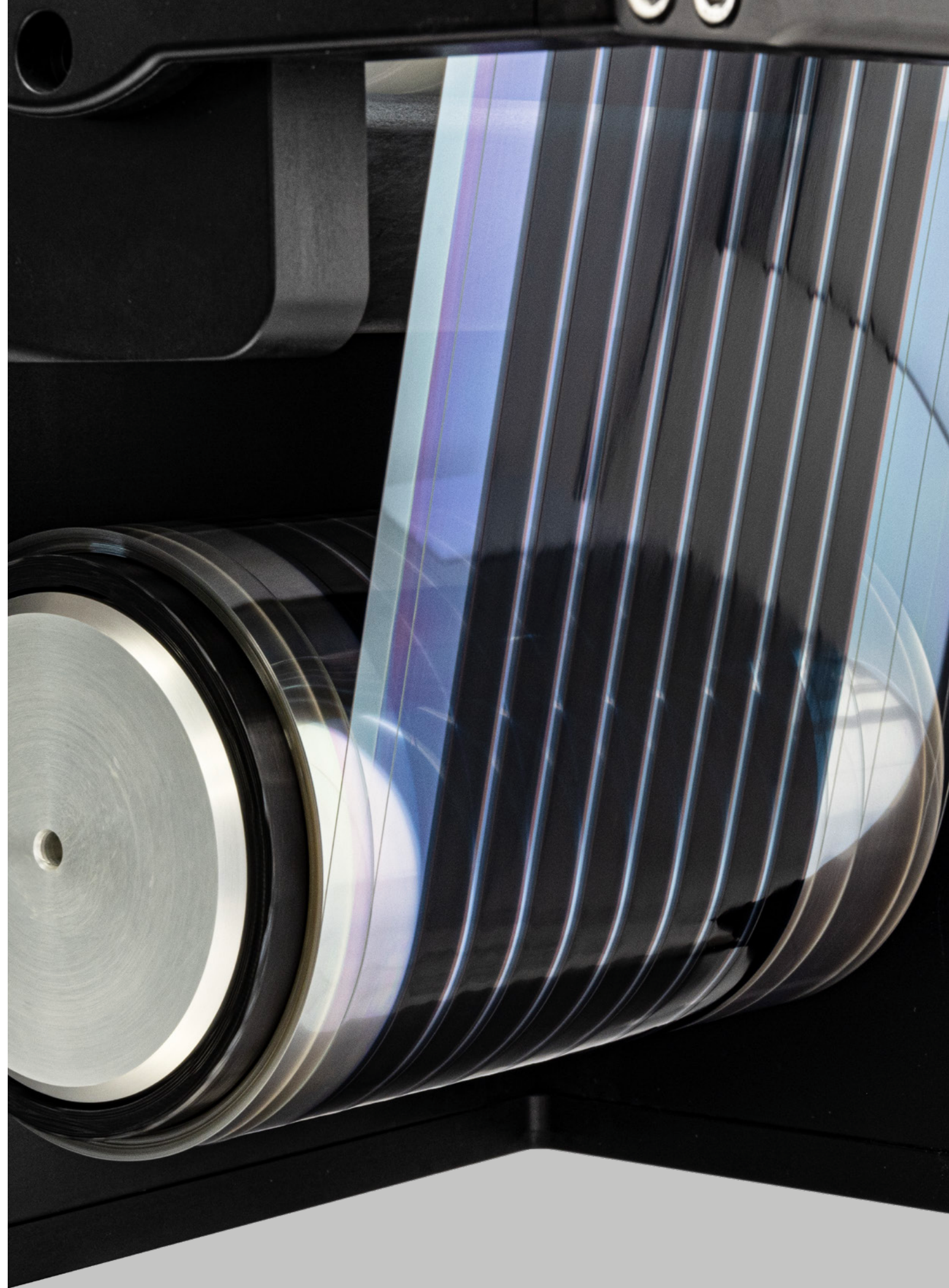


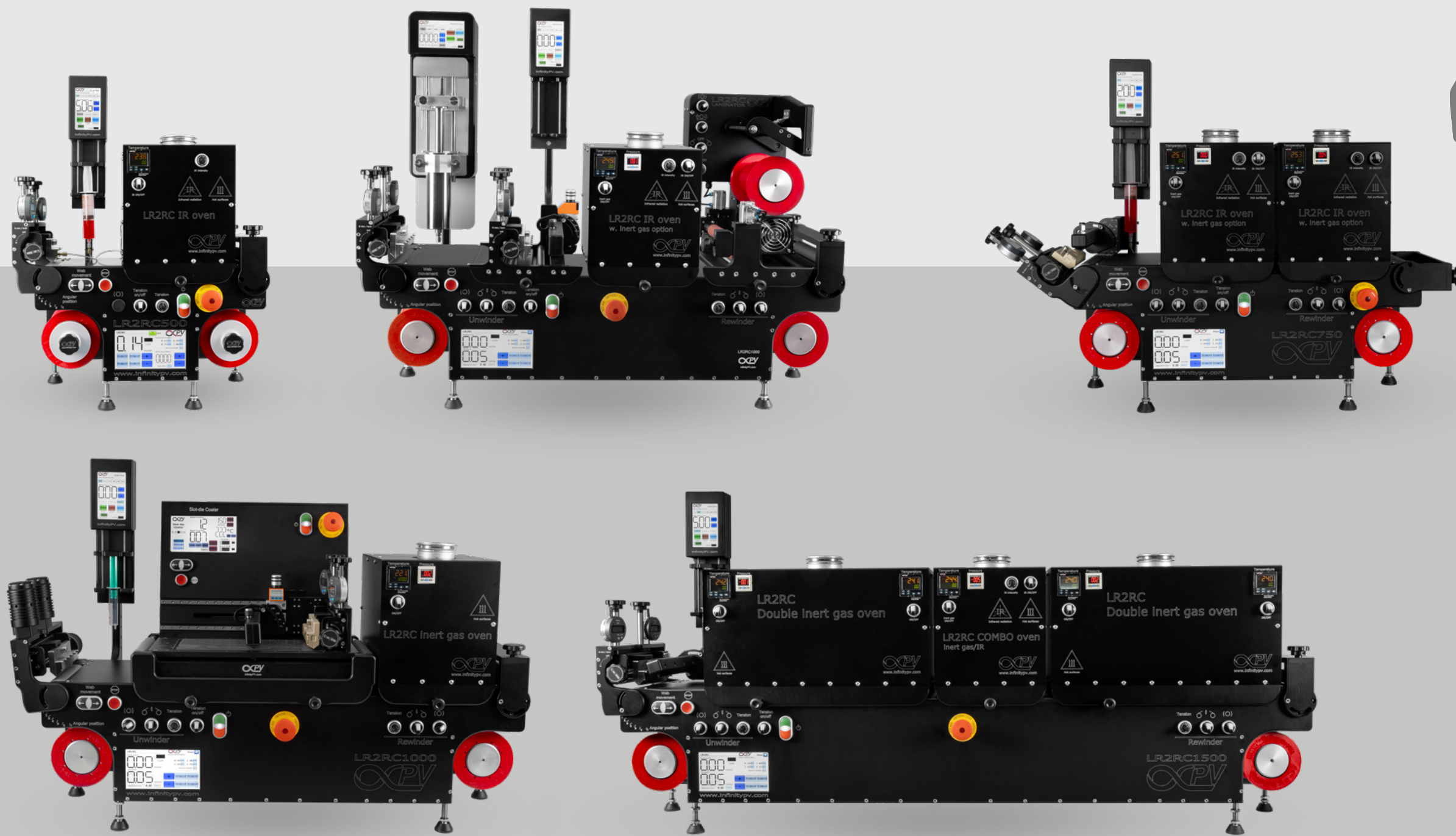
Sensors

Sensing materials are applied with high accuracy onto flexible substrates, enabling the production of lightweight and reliable sensors. Consistent coating enhances sensitivity, stability, and overall device performance across a wide range of applications.



COATING MACHINES





Slot-die Coater

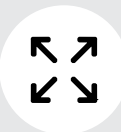
The *Slot-die Coater* from infinityPV is a high-precision, modular system designed for thin-film research in batteries, solar cells, fuel cells, OLEDs, and sensors. Its compact footprint fits seamlessly into gloveboxes and fume hoods, making it ideal for R&D. With optimized ink delivery, micrometer-accurate adjustments, and mounting systems for slot-die, bar, knife, pen, and flexo printing, it ensures uniform coatings across various applications. Engineered for ease of use, reproducibility, and global compliance, the *Slot-die Coater* is a versatile solution for advanced thin-film development.

Key Features

- **Compact and Versatile Design:** Compatible with gloveboxes and fume hoods
- **Modular System:** Customize with slot-die heads, air knives, flexo, and more
- **Multiple Coating Techniques:** Slot-die, bar, knife, pen, and flexo printing
- **PC Control & Vacuum Chuck:** Optional features for enhanced precision
- **Precision Syringe Pump:** Optimized ink delivery for consistent coating
- **Easy Operation:** Touchscreen interface and micrometer adjustments
- **Global Compliance:** CE-certified & CSA/UL compliant
- **Emergency Off Interface** (EMO Circuit)
- **Applications:** Batteries, solar cells, OLEDs, transistors, sensors, and more

Technical Specifications

- **Coating Width:** 100 x 280 mm (Mini) | 160 x 280 mm (Pro)
- **Coating Speed:** 1.2 – 33 mm/sec
- **Operating Power:** 110 – 240 VAC
- **Hot Plate Temperature Range:** RT – 140 °C
- **Vacuum Chuck Temperature Range:** RT – 100 °C
- **Size (WxDxH):** 440 x 360 x 400 mm (Mini) | 440 x 420 x 400 mm (Pro)
- **Weight:** 22 kg (Mini) | 24 kg (Pro)
- **Slot-die Head Adjustment Resolution:** 1 µm



≥ 340 x 420 x 400 mm



≥ 22 kg



≤ 160 mm width



Up to 140 °C



1.2 - 33 mm/s



PC Control Option



Build Your Own at infinityPV.com

Laboratory Roll-to-Roll Coater

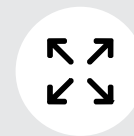
The *Laboratory Roll-to-Roll Coater* from infinityPV is a high-precision, compact and fully modular system that enables high-precision processing of thin functional films from lab to small pilot scale. With customizable platform sizes and interchangeable components—including slot-die heads, slurry coaters, flexographic printers, air knives, pumps, drying and curing units, laminators, and surface treaters—it fits seamlessly into existing lab setups like gloveboxes or fume hoods. Capable of handling hundreds of meters of foil, it supports scalable production for applications such as batteries, fuel cells, printed solar cells, sensors and pharmaceutical applications. The system’s CE certification and CSA/UL compliance underscore its reliability and adherence to international safety standards, ensuring consistent, high-quality results across a range of advanced applications.

Key Features

- **Compact and Versatile Design:** Compatible with gloveboxes and fume hoods.
- **Modular System:** Customize with slot-die heads, ovens, air knives, and more.
- **Multiple Coating Techniques:** Slot-die, bar, knife, pen, and flexo printing.
- **Modular Drying/Curing System:** Accommodates various drying and curing methods.
- **Option for PC Control:** Advanced control options for precision and repeatability.
- **Web Tension Control:** Ensures consistent quality across runs.
- **CE Certified - CSA/UL Compliant:** Meets international safety standards.
- **Applications:** Batteries, fuel cells, solar cells, pharmaceuticals and more.

Technical Specifications

- **Operating Power:** Single phase (240VAC) for smaller models; three-phase (400VAC) for larger models.
- **Coating Width:** Up to 180 mm (standard models), up to 280 mm (wide models).
- **Drying/Curing Length:** From 250 mm (LR2RC500) to 1250 mm (LR2RC1500).
- **Web Width:** Up to 200 mm (standard models), up to 310 mm (wide models).
- **Web Speed:** 0.05-2.8 m/min (forward and reverse).
- **Spindles:** Automatic compressed air spindles for 3-inch core diameters, adjustable cones for smaller cores in LR2RC500.



Length: 500 - 1500 mm



Drying Length: <1250 mm



Coating Width: ≤ 280 mm



0.05 - 2.8 m/min



PC Control Option



Glovebox Compatible



Build Your Own at infinityPV.com

LR2RC500



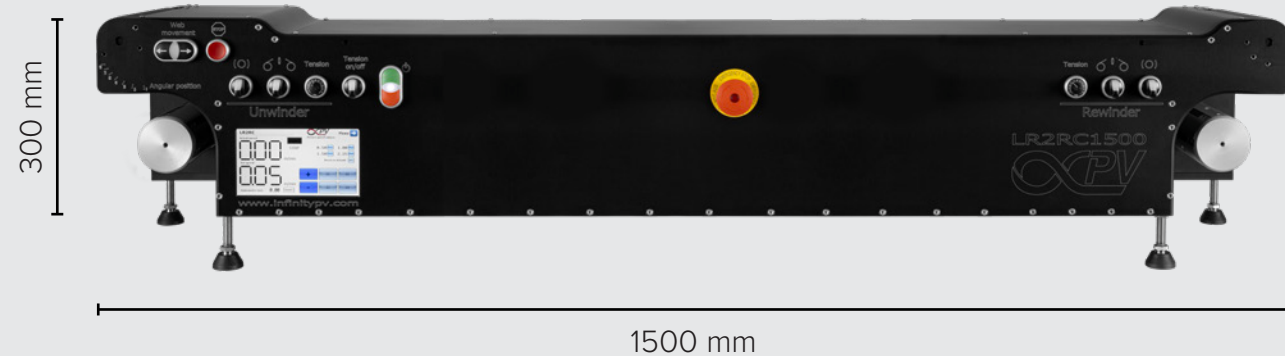
LR2RC750



LR2RC1000



LR2RC1500



How to Customize Your Own Laboratory Roll-to-Roll Coater



1. Select a Platform



2. Select Your Components



3. Get a Quotation

 Build Your Own at infinityPV.com

R2R Hybrid Coater

Discover the powerful combination of the *Slot-die Coater* and the *Laboratory Roll-to-Roll Coater*, an integration that offers unparalleled versatility for both research and production applications. In advanced thin film manufacturing, continuous R2R processing offers high throughput and cost efficiency. However, some stages—such as quality inspection, patterning, or thermal treatment—may require stopping the roll to perform precise, controlled operations on a specific area of the substrate. Dock the *Slot-Die Coater* onto the *Laboratory Roll-to-Roll Coater* platform and get the most advanced equipment in lab-scale thin film processing. The *R2R Hybrid Coater* merges the best of sheet coating and roll-to-roll coating into a single, innovative solution. This unique setup not only allows you to efficiently process large rolls of material but also offers the precision and control needed for detailed sheet applications.

Key Features

- **Compact Size:** Fits in laboratories, gloveboxes, or fume hoods without additional infrastructure.
- **Customizable:** Choose from a variety of: lengths, coating widths, thin film processing options and numerous components.
- **Easy and Fast Exchangeable Modular Components:** Includes printing and coating units, drying and curing systems, foil pretreatment, laminators, trimming knives, air knives and more.
- **Modular Drying/Curing System:** Accommodates various drying and curing methods including heated vacuum chuck.
- **Software Control Option:** Advanced control options for precision and repeatability.
- **Web Tension Control:** Ensures consistent quality across runs.

Technical Specifications

- **Operating Power:** Single phase (240VAC)
- **Coating Width:** Up to 180 mm
- **Drying/Curing Length:** From 500 mm to 1250 mm
- **Web Width:** Up to 200 mm
- **Web Speed:** 0.05-2.8 m/min (forward and reverse)
- **Spindles:** Automatic compressed air spindles for 3-inch core diameters.



Length: 750 - 1500 mm



Drying Length: <1250 mm



Coating Width: $\leq$ 180 mm



0.05 - 2.8 m/min



PC Control Option



Glovebox Compatible



Build Your Own at infinityPV.com

Precision Slot-die Heads



Premium Materials

Our slot-die heads are available in high-quality materials such as PEEK, Stainless Steel (316/316L), and Titanium, ensuring durability and compatibility with a variety of demanding applications.



Optimized Dead Volumes

The innovative design of our slot-die heads minimizes dead volume, ensuring efficient material usage and reducing waste. This feature is crucial for applications where material cost is a consideration, enhancing the overall sustainability of your coating processes.



Customizable Options

We understand that every application is unique. Our slot-die heads can be customized to fit your specific requirements, providing the versatility needed for a wide range of thin-film technologies, including batteries, fuel cells, solar cells, transistors, and LEDs.



Heated Slot-die Heads

Our heated slot-die heads provide precise temperature control for improved material flow and uniform coating, ideal for high-viscosity materials and temperature-sensitive processes. Consistent heating enhances film quality and reduces defects.



Versatile Coating Widths

Available in standard widths ranging from 40 mm to 305 mm, these slot-die heads offer flexibility for any coating process. Whether you're working on small-scale prototypes or large production runs, we have the right solution to meet your needs.



Easy to Assemble and Clean

Designed with user convenience in mind, our slot-die heads allow for straightforward assembly and disassembly. This means quicker changeovers and less downtime between runs, maximizing productivity in your laboratory or production environment.



Precision and Control

Achieve consistent and uniform coatings with our slot-die heads, which are engineered to provide precise control over film thickness and deposition rates. This level of accuracy is essential for high-performance applications, ensuring that your end products meet the highest quality standards.



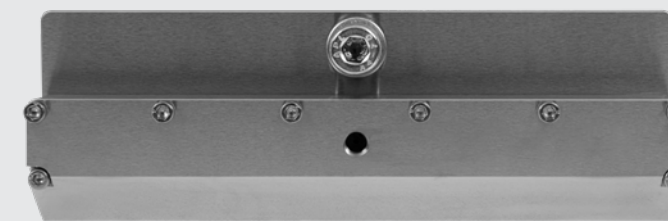
40 mm Slot-die Head
(10/13 mm Coating Width)



65 mm Slot-die Head
(50 mm Coating Width)



115 mm Slot-die Head (100 mm Coating Width)



165 mm Slot-die Head (150 mm Coating Width)



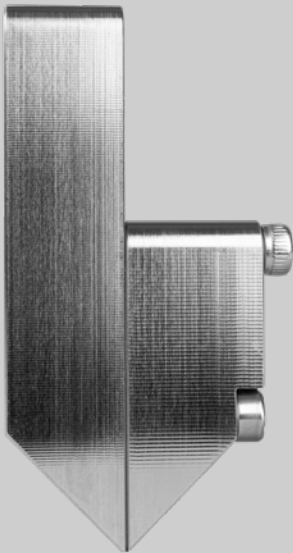
195 mm Slot-die Head (180 mm Coating Width)



305 mm Slot-die Head (280 mm Coating Width)

COATING COMPONENTS





Slot-die Heads

Engineered with precision and innovation in mind, our slot-die heads offer unparalleled slot-die coating across various materials and size. Available in PEEK, Stainless Steel (315/316L) and Titanium in standard widths of 40 mm, 65 mm, 115 mm, 165 mm, 195 mm and 305 mm, these slot-die heads accommodate a wide range of working widths, allowing for precise slot-die coatings ranging from minute details to expansive surfaces.

Key Features

- Available materials: PEEK, Stainless Steel (315/316L), and Titanium
- Standard widths: 40 mm (10/13 mm coating width), 65 mm (50 mm coating width), 115 mm (100 mm coating width), 165 mm (150 mm coating width), 195 mm (180 mm coating width), 305 mm (280 mm coating width)
- Optimized dead volumes for lab, pilot, and industrial-scale applications
- Suitable for coating volumes from microliters to milliliters
- Simplified two-part design for easy assembly, disassembly, and cleaning
- Lightweight PEEK heads ideal for low pressure and low-viscosity inks, with fast positioning on automated platforms
- Custom shim kits tailored to unique specifications
- Optional heated slot-die heads and controllers available
- Accessory kits for low and high viscosity fittings

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Slurry Coater

The Slurry Coater is a precision tool designed for wet film deposition in laboratory-scale R&D, ideal for coating functional materials like battery slurries, perovskite inks, conductive pastes, and sensor formulations. Seamlessly integrating with the Laboratory Roll-to-Roll Coater, it ensures uniform, repeatable coatings with micro-precision control over the wet film thickness.

Key Features

- Designed for Coating of Slurries
- Made from POM and Stainless Steel (316L)
- 100 mm Coating Width
- Works With Thin Substrates (5-25 um)
- Simple Adjustment of the Substrate - Knife Gap
- Precise Ink Delivery from the Laboratory Roll-to-Roll Coater Pumping System
- Option for Inert Conditions

Platform Compatibility

R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Knife Coater

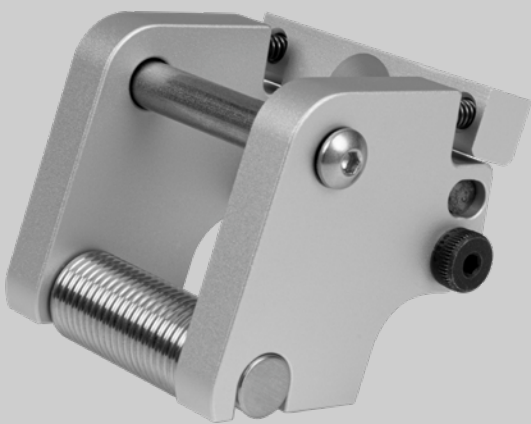
The knife coater unit has a knife blade in anodized aluminum with a high precision ground edge, resulting in a coating width of 30 mm.

Key Features

- Knife blade made from anodized aluminum
- High-precision ground edge
- Coating width of 30 mm

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater



Bar Coater

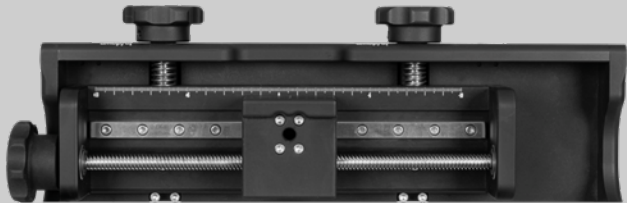
Bar Coater for thin films: The spring-loaded system compensates for minor alignment inaccuracies. Simply push one of the five bars (10, 25, 50, 100, or 250 microns) into the holder to achieve various wet thicknesses.

Key Features

- Bar Coater designed for thin film applications
- Spring-loaded system compensates for minor alignment inaccuracies
- Easy-to-use holder for quick bar changes
- Compatible with five bar sizes: 10, 25, 50, 100, and 250 microns
- Enables control over various wet film thicknesses

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater



Simple Mounting System

The high-precision angular mounting system is ideal for mounting slot-die heads, knife coating setups, or flexographic units, offering 0 to 90-degree angle adjustment and manual tilt and cross-web control.

Key Features

- High-precision angular mounting system
- Suitable for slot-die heads, knife coaters, and flexographic units
- 0 to 90-degree angle adjustment
- Manual tilt adjustment
- Manual cross-web positioning control

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Advanced Mounting System

The advanced mounting system features manual adjustment with digital micrometers to ensure precise head-to-substrate distance control. The system is perfect for positioning slot-die heads, knife coating setups, or flexographic units. With 0 to 90-degree adjustability, it offers flexibility during setup and coating.

Key Features

- Advanced mounting system for precise positioning
- Manual adjustment using digital micrometers
- Ensures accurate head-to-substrate distance control
- Compatible with slot-die heads, knife coaters, and flexographic units
- 0 to 90-degree angle adjustability
- Offers flexibility during setup and coating operations

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



PC Controlled Mounting System

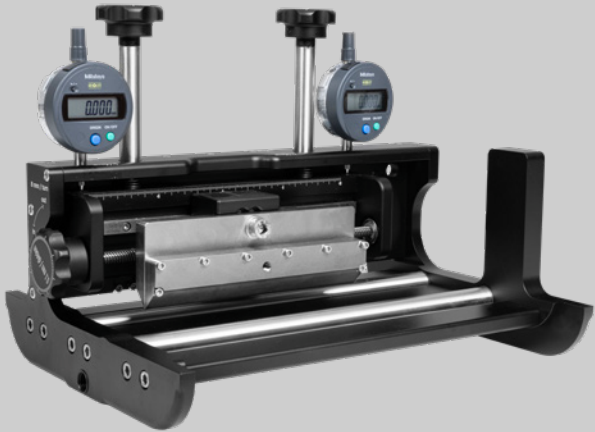
The PC controlled mounting system is ideal for remote operation, whether you're working in a glove box or at synchrotron beamlines.

Key Features

- Included software for comprehensive process control
- Manages motion for coating and printing positions
- Controls tension, web speed, and direction
- Allows spindle adjustments and unwinder/rewinder modes
- Integrates with pumping systems
- Enhances accuracy and repeatability
- Optional camera system for real-time visualization of the coating process

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Inline Mounting System

The Inline Mounting System can be placed anywhere down the web as an additional slot-die coating station for inline processing, allowing for flexible application of roll-to-roll coating.

Key Features

- Inline Mounting System for roll-to-roll coating
- Can be positioned anywhere along the web
- Enables additional slot-die coating stations
- Supports flexible inline processing
- Ideal for multi-layer or sequential coating setups

Platform Compatibility

R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Jumbo Syringe Pump

Discover the precision and versatility of infinityPV syringe pumps, engineered to seamlessly integrate into our cutting-edge coating and printing equipment, including the Laboratory Roll-To-Roll Coater and Research Laboratory Coater, while also standing as standalone solutions tailored to your unique needs.

Choose from our Standard (0-20 mL) and Jumbo (0-60 mL) variants, featuring an intuitive 5” color touch screen for effortless ink flow configuration, ensuring impeccable delivery for your research and production endeavors.

Key Features

- 5” Touch Screen for Easy Operation
- Accurate Ink Delivery for Precision Printing
- Automated Retrack Functionality
- Run Indication Displayed on Touch Screen
- Syringe Kit Included for Convenience
- Advanced Gradient Experiments Supported with Up to Four Pumps (More on Request)
- Intuitive User Interface for Seamless Operation
- Pump Rate: 0.01 ml - 9.99 ml per Minute
- Syringe Size: 1 ml to 60 ml
- Dimensions: 260x90x75 mm
- Interface: 2.0 USB Port
- Compatibility: Works as a Standalone System
- Data Logging: Yes
- Computer Interface: Yes
- Free Software Available Online

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Mammoth Syringe Pump

The infinityPV Mammut Syringe Pump features a 300 ml stainless steel (316) syringe, resistant to corrosive materials and easy to clean, making it ideal for high-volume coating. It offers precise flow control for accurate delivery of inks and slurries, ensuring experimental integrity.

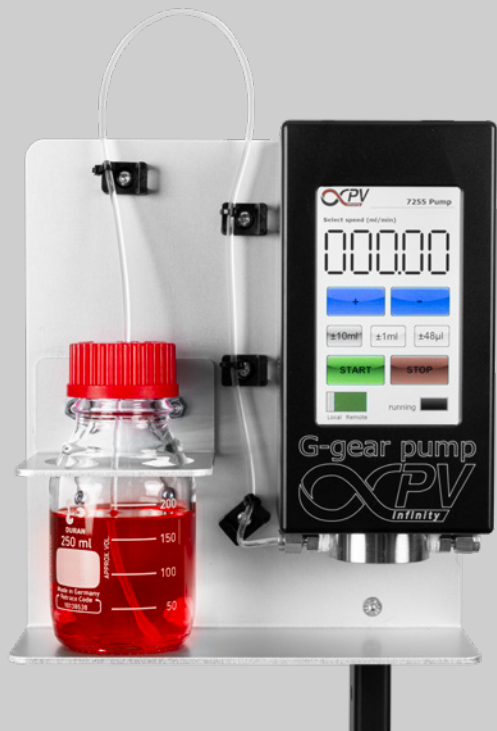
With an intuitive touchscreen and programmable settings for flow rates, volumes, and infusion protocols, it supports flexible and reproducible experiments. Multiple pumps can be operated simultaneously via software, enhancing throughput, while its robust construction ensures long-term, low-maintenance performance.

Key Features

- 300 ml Stainless Steel (316) Syringe
- 5” Touch Screen for Easy Operation
- Accurate Ink Delivery for Precision coating
- Pump Rate: 0.01 ml/min - 99.99 ml/min
- Computer Interface: Yes

Platform Compatibility

R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Gear Pump

The Gear Pump is a positive displacement pump that uses gears to pump fluids by transferring mechanical energy from the motor to the fluid. It is ideal for applications that require a steady fluid supply over extended periods.

The pump can function across a wide range of flow rates, making it suitable for various industrial processes that demand both low and high flow rates. Additionally, its design allows for the pumping of non-Newtonian fluids without imposing strict limitations on the type of liquid being used.

Key Features

- High resistance to corrosion oxidizing and reducing media, acids and bases
- High dosage precision CV < 1 % at low volumes
- Broad viscosity range
- Low pulsation delivery, low shear stress rotary micro annular gear technology
- High differential pressures achievable even for low viscosity liquids
- Easy Maintenance
- Adjustable flow rate by changing RPM
- Pump Type: Internal Gear Pump
- Flow Rate: 0.05 - 288 ml/min
- Max System Pressure: 8 bar (1160 psi)
- Viscosity Range: 0.3 – 1000 mPas
- Liquid Temperature Range: -5°C to 60°C
- Particles: <10 um



Heated Slot-die Head Controller

Engineered for precise temperature regulation and superior slot-die coating performance, this advanced controller guarantees uniform film thickness and enhances product quality, ensuring optimal results with every use.

Key Features

- **Precise Temperature Control:** Maintain uniform temperature across the slot-die head, ensuring even coating and reducing material waste.
- **Enhanced Process Stability:** Reduce variability in coating thickness and improve overall product quality.
- **User-Friendly Interface:** Easily set and monitor temperature parameters with an intuitive touch-screen interface.
- **Durable Design:** Built with high-quality materials to withstand demanding industrial environments.
- **Energy Efficient:** Minimize energy consumption with our innovative heating technology.
- **Improved Coating Quality:** Achieve consistent film thickness and better adhesion with precise temperature control.
- **Increased Productivity:** Reduce downtime and maintenance costs with a reliable and easy-to-use controller.
- **Cost Savings:** Lower material waste and energy consumption, leading to reduced operational costs.



Simple Flexo Roller

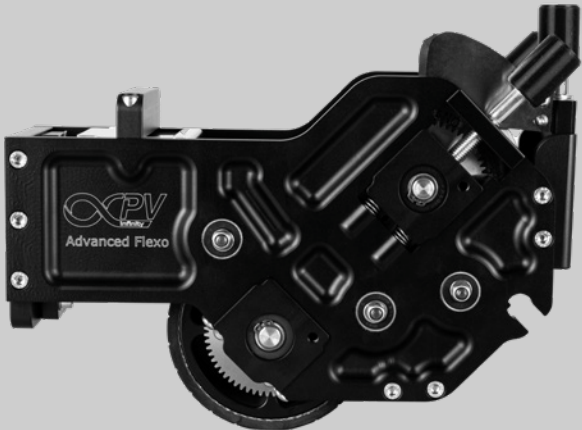
The simple flexo roller can be used for printing many types of materials when preparing single devices among others the back silver for inverted geometry device.

Key Features

- Available in a Simple and an Advanced Version
- Customized Printing Patterns
- Light Weight
- Very Simple to Assemble and Disassemble
- Easy to Clean and Maintain
- From Single Stripes to Many
- From Narrow to Wide Printing Width
- Many Patterns and Widths in Stock
- Easily Customized to Your Device Layout

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Roll-to-Roll Flexographic Printer

The Roll-to-Roll Flexographic Printer is specially designed for scaled R2R printing. The flexographic printing systems offer customizable printing patterns and widths, ideal for various ink and substrate types

Key Features

- Roll-to-Roll Flexographic Printer designed for scaled R2R printing
- Customizable printing patterns and widths
- Compatible with various ink types
- Suitable for a wide range of substrate materials
- Ideal for high-speed, continuous printing processes

Platform Compatibility

R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Foil Turner

The foil turner allows for efficient inline processing on both sides of the foil, making it perfect for double-sided slot-die coating applications.

Key Features

- Foil turner for inline double-sided processing
- Enables coating on both sides of the foil
- Ideal for double-sided slot-die coating applications
- Enhances process efficiency in roll-to-roll setups



Knife Cutter

Cut, trim, slit, and split with ease using the Knife Cutter. It simplifies foil handling with ultra-durable carbide cutters and easily adjustable cutting positions

Key Features

- Knife Cutter for cutting, trimming, slitting, and splitting
- Ultra-durable carbide cutters for long-lasting performance
- Easily adjustable cutting positions
- Simplifies foil handling and processing

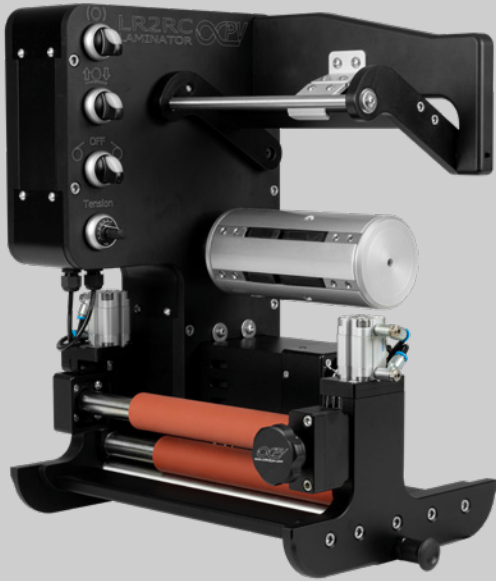


Stripper Unit

The stripper unit efficiently removes protective liners or foils just before the coating or printing station, ensuring a clean substrate for precise processing.

Key Features

- Stripper unit for removing protective liners or foils
- Positioned just before coating or printing stations
- Ensures a clean substrate surface
- Enhances precision in subsequent processing steps



Roll-to-Roll Laminator

The Roll-to-Roll Laminator is a versatile component that integrates seamlessly into the Laboratory Roll-to-Roll Coater platform. This advanced laminator is designed to facilitate efficient encapsulation and the application of protective liners in R2R processing, supporting various adhesives, including PSA, hotmelt, and UV-curable types.

Whether you're working on thin films for batteries, sensors, or other advanced materials, the Roll-to-Roll Laminator ensures high-quality lamination that can be easily scaled for pilot production.

Key Features

- Maintains consistent quality across all runs with precision tension control.
- Smooth and accurate lamination is ensured by the compressed air nip.
- Equipped with a 3-inch core spindle.
- Superior alignment and finish come from the high-precision grinded roller.
- Precise foil alignment is guaranteed by the adjustment roller.
- Web width options include up to 200 mm for the standard model or 305 mm for the wide model.



Inert Gas Oven

Enhance your thin-film drying process with the compact inert gas oven. Featuring precise PID temperature control and flexible gas flow options, it's ideal for fast, consistent drying in research and pilot runs. Perfect for solvent evaporation and more.

Key Features

- Compact design fits easily into lab and pilot-scale setups
- Precise PID temperature control for accurate and stable heating
- Supports both compressed air and inert gas for flexible drying options
- Fast heat-up time for efficient processing
- Optimized for thin-film drying involving solvent evaporation
- Ensures consistent and repeatable drying results
- User-friendly controls for easy temperature adjustments
- Available in single or double lengths, with options for single- or dual-sided heating



Infrared Oven

Achieve rapid, direct heat transfer with our 1000W Infrared Oven, designed for efficient thin-film drying. With adjustable IR intensity, and inert gas options, it's perfect for advanced coating and drying applications in the lab.

Key Features

- Provides powerful, direct infrared (IR) heating to the material, minimizing energy loss to the surrounding air
- Includes two easily interchangeable 500-Watt IR light sources, available in Clear, Ruby, or Gold
- Allows customization of the drying process by selecting the appropriate IR light type
- IR intensity can be adjusted via a front-panel potentiometer
- Air temperature is displayed on the front panel for easy monitoring
- Advanced 1 kW version supports inert gas for efficient drying in controlled environments
- Available in single or double lengths, with options for single- or dual-sided heating



IR Oven w. Option for Inert Gas

This powerful infrared (IR) heat source efficiently transfers heat directly to the material, rather than the surrounding air. Up to 1 kW IR oven with options for curing under inert atmosphere.

Key Features

- Equipped with two 500-Watt IR light sources (easily exchangeable)
- Three IR light source options: Clear, Ruby, and Gold
- Adjustable IR intensity via front-panel potentiometer
- Real-time air temperature display for monitoring
- Optional 1kW IR version available
- Inert gas option for oxygen-free IR drying environments
- Available in single or double lengths, with single- or dual-sided heating options



UV-LED Oven

The UV-LED curing system utilizes LED light sources for fast and efficient curing (photopolymerization) in a wide range of applications, including adhesives and coatings.

Key Features

- Standard UV-LED wavelength: 365 nm
- Customizable wavelengths available upon request
- Adjustable UV light intensity via front panel potentiometer
- Inert gas option for oxygen-free UV curing
- Designed for precise and versatile UV curing applications
- Available in single or double lengths, with single- or dual-sided heating options

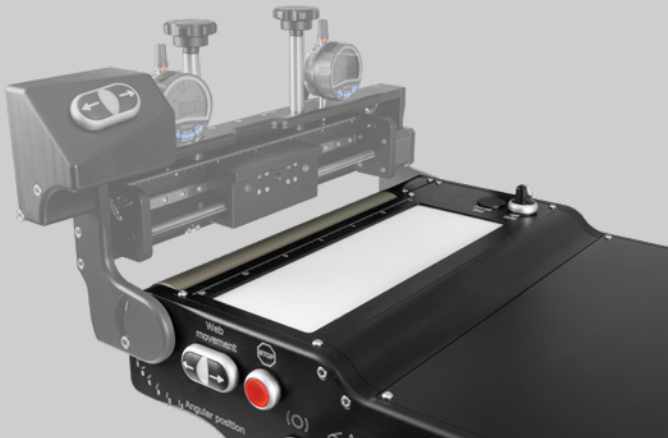


Combo Oven: Inert Gas and IRs

Maximize your drying versatility with our combo oven, offering integrated hot-air, inert gas, and infrared (IR) technologies. Ideal for advanced thin-film processing where multiple heating methods are required in compact spaces.

Key Features

- Combo Oven with integrated hot-air, inert gas, and infrared (IR) technologies
- Maximizes drying versatility for thin-film processing
- Supports multiple heating methods in a single compact unit
- Ideal for advanced and precise drying applications in limited spaces



Inspection Plate

To ensure the highest quality when coating and printing on transparent substrates, adding a light table for immediate post-process inspection is highly advantageous

Key Features

- Versatile inspection table for roll-to-roll coating
- Supports both visual inspection and camera system installations
- Easy mounting on existing or new coater setups
- Can be included in the initial order or retrofitted later
- All units pre-prepared for seamless integration
- Enhances quality control with flexible inspection options



Air Knife Standard

Optimize the drying and quenching of coated thin films with the air knife. Designed for materials like perovskites, it offers precise control with adjustable angles, distances, and customizable air blade widths.

This sleek, anodized aluminum tool ensures fast drying without disrupting your coating process. Available in two sizes and easy to install, it includes PET shims for thickness adjustments and an 8mm air/gas inlet for seamless integration.

Key Features

- Air Knife Standard for drying and quenching coated thin films
- Designed for sensitive materials such as perovskites
- Precise control with adjustable angles and distances
- Customizable air blade widths for optimized airflow
- Sleek anodized aluminum construction
- Available in two sizes
- Easy installation and integration
- Includes PET shims for thickness adjustments
- Features an 8 mm air/gas inlet for seamless connection

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Air Knife Pro

With micrometer screws and a digital display, the Air Knife Pro allows for fine-tuning the air knife position, giving you reliable control that's ideal for applications requiring consistent, repeatable results.

Key Features

- Two Sizes Available: Air Blade Width Up to 200 mm or 285 mm
- PET Shim Included: Thickness of 120µm
- Angle Adjustment Mount Included
- Micrometer Screws with Display
- Air/Gas Inlet for 8mm Outer Diameter Air Hose Included
- Easy Assembly and Disassembly
- Constructed with Anodized Aluminum

Platform Compatibility

Slot-die Coater
R2R Hybrid Coater
Laboratory Roll-to-Roll Coater



Edge Guide

Edge guide for high precision alignment of the substrate during operation. Delivered as a turnkey system, including work bench on wheels and 4 additional rollers.

Key Features

- Edge guide for high-precision substrate alignment during operation
- Delivered as a turnkey system
- Includes a mobile workbench on wheels
- Comes with 4 additional rollers for enhanced web control



Laser Scriber

The Laser Scriber offers a precise and efficient method for patterning of Indium Tin Oxide (ITO) based substrate used in the fabrication of Perovskite and other printed solar cells. The laser system allows for high resolution and customization, making it ideal for applications requiring intricate designs.

Key Features

- Laser Scriber for precise patterning of Indium Tin Oxide (ITO) substrates
- Ideal for Perovskite and other printed solar cell fabrication
- Provides high-resolution patterning
- Allows for customizable and intricate design creation
- Efficient and accurate processing method



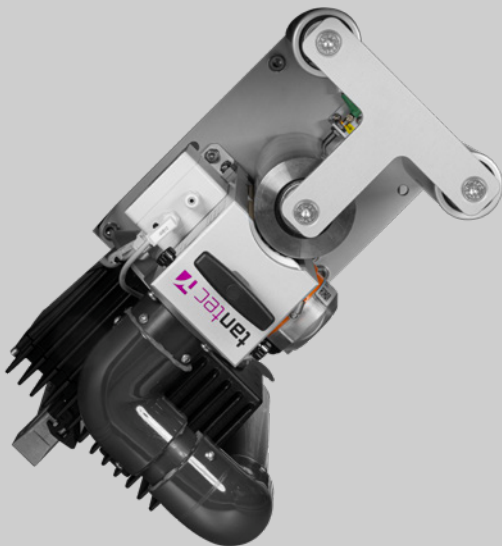
SpotTEC Corona Surface Treater

Ideal for treating profiles, cables, and injection-molded parts, the SpotTEC by Tantec seamlessly integrates into production lines, bringing exceptional flexibility and efficiency to surface preparation. Using high-voltage discharge in atmospheric air, the SpotTEC applies a high-frequency charge onto substrate surfaces, promoting strong adhesion for glue, inks, and coatings.

Its advanced design eliminates the need for a counter electrode, with a blower precisely directing the discharge generated between two electrodes in the discharge head. Providing a cost-effective solution for pre-treating three-dimensional, molded, or extruded plastic parts, the SpotTEC offers low investment and operational costs.

Key Features

- **Effortless Installation and Use:** No parameter adjustments are needed—simply connect to the mains, and you’re ready to go.
- **Low Maintenance:** Maintenance is minimal, requiring only periodic replacement of the metal electrodes.
- **Flexible Configuration Options:** The generator can be set up with either a single or dual treatment head for added versatility.
- **Airflow Monitoring:** During operation, airflow is continuously monitored to ensure optimal performance.
- **LED Status Indicators:** Front-panel LEDs provide real-time updates on the generator’s status throughout the treatment process.
- **Treatment Versatility:** Designed to treat non-conductive surfaces at line speeds up to 20 m/min, offering effective performance at lower speeds.



LabelTEC Corona Surface Treater

Polymer substrates, due to their naturally low surface energy, often suffer from poor adhesion to inks, glues, and coatings. For optimal adhesion, the surface energy of the substrate must be increased to just above that of the material being applied.

Corona surface treatment with LabelTEC by Tantec effectively enhances surface adhesion properties, making it ideal for pretreating conductive and non-conductive narrow webs. This system can treat one or both sides of the web and accommodates widths from 100-500 mm, with production speeds reaching up to 150 m/min.

Key Features

- **Mains Voltage and Frequency:** 230 VAC 50/60 Hz
- **Output Voltage/Power:** Choose from 200W / 1000W / 2000W
- **Output Frequency:** Up to 30 kHz
- **Mains Cable:** Supplied with connector
- **Control Interface:** Connector supplied
- **Operator Display:** HMI remote
- **Treatment Width (mm):** From 100 – 500 mm
- **Side for Treatment:** 1 or 2 sides
- **Speeds:** Up to 150 m/min
- **Electrodes:** Ceramic



Manual Nip Roller

The nip roller enhances web control by pressing the web onto the roller, increasing friction and optimizing web movement and speed. Includes both manual control of nip pressure and tilt.

Key Features

- Full rubber roller included in the basic configuration
- Manual adjustment for both nip pressure and tilt
- Optional advanced features includes: adjustable nip rollers, automated nip engagement, precise pressure control and defined pressure points
- Functions as a simple laminator
- Ideal for manual packaging of devices with minimal effort



Adjustable Nip Roller

Roller for adjustable nip and two nip rollers with 30 mm width.



Standard Hot Plate

The Slot-die Coater includes an integrated hot plate for convenient drying of processed thin films directly on the unit. The system features a standard hot plate capable of reaching temperatures up to 100 °C, ensuring efficient drying during your coating process.

Key Features

- Convenient on-unit drying of thin films
- Heats up to 100 °C
- Ensures efficient drying during coating process



High Temperature Hot Plate

Upgrade from the standard hot plate, which reaches up to 100 °C, to the high-temperature hot plate capable of reaching 140 °C. This enhanced option provides greater flexibility, optimizing your thin-film coating applications.

Key Features

- High-temperature hot plate upgrade for slot-die coater
- Increases maximum temperature from 100 °C to 140 °C
- Provides greater flexibility for thin-film drying
- Optimizes coating process for heat-sensitive materials

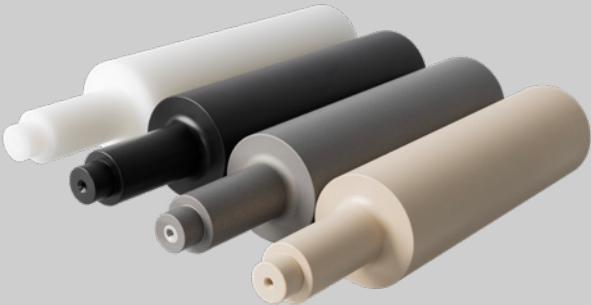


Heated Vacuum Chuck

Upgrade from the standard hot plate to the heated vacuum chuck, capable of reaching up to 100 °C. This advanced feature provides precise workholding for thin foils and substrates, minimizing deformation during coating and printing.

Key Features

- Heated vacuum chuck upgrade for precise workholding
- Heats up to 100 °C
- Ideal for thin foils and substrates
- Minimizes deformation during coating and printing
- Enhances process accuracy and stability



Rollers

In the standard configuration, the coater is equipped with high-quality anodized aluminum rollers, each with a diameter of 60 mm. For specialized needs, we also offer rollers in POM (available in black or white for contrast), PEEK (for exceptional chemical resistance), and stainless steel (for extreme corrosion resistance).

Key Features

- Standard configuration includes anodized aluminum rollers (60 mm diameter)
- Rollers engineered with extremely low runout for high precision
- Optional roller materials for specialized needs includes: POM (black or white for visual contrast), PEEK (high chemical resistance), Stainless steel (extreme corrosion resistance)
- Mechanical and material properties tailored to influence experimental outcomes

CHARACTERIZATION EQUIPMENT





High Power 4 Channel SMU

The High Power 4 Channel Source Measure Unit with MPPT is versatile, catering to both small laboratory PV devices and larger PV modules with higher power levels, offering a maximum of 5000 mW per channel.

The infinityPV Source Measure Units offer cutting edge technology for precise solar cell characterization and research, redefining precision and efficiency in testing. With multiple input channels, customizable power options, and intuitive software, they provide unparalleled flexibility for optimizing solar cell devices and modules.

Key Features

- 5,000 mW/Channel, 2/4-Point Measurements
- Operation Range: -17.5V to +17.5V / 1000mA
- Size: 405 mm x 153 mm x 95 mm (WxDxH)
- 16-bit Resolution
- Banana Plugs (4 mm) for Robust and Versatile Connection to Solar Cells
- Fully Independent Maximum Power Point Tracking (MPPT) on All Channels
- Datalogger That Accepts a Large Range of Probes (Resistive, Voltage, Current, Source V / Measure I, Source I / Measure V, Pt100)
- Operates From 110-240 VAC
- CE Certified - CSA/UL Compliant
- 5-inch Touch Screen
- Compatible With the infinityPV ISOSun Solar Simulator and ISOS-L-3 Chamber
- Free Software Available Online that simplifies data logging while recording IV or MPP data



Low Power 8 Channel SMU

The Low Power 8 Channel Source Measure Unit with MPPT is specifically tailored for laboratory PV devices and compact modules, supporting voltages of up to 5 V and currents of up to 40 mA, with a maximum of 200 mW per channel.

The infinityPV Source Measure Units offer cutting edge technology for precise solar cell characterization and research, redefining precision and efficiency in testing. With multiple input channels, customizable power options, and intuitive software, they provide unparalleled flexibility for optimizing solar cell devices and modules.

Key Features

- 200 mW/Channel, 2-point Measurements
- Operation Range: -5V to +5V / 40 mA
- Size: 350 mm x 133 mm x 95 mm (WxDxH)
- 16-bit Resolution
- Banana Plugs (4 mm) for Robust and Versatile Connection to Solar Cells
- Fully Independent Maximum Power Point Tracking (MPPT) on All Channels
- Datalogger That Accepts a Large Range of Probes (Resistive, Voltage, Current, Source V / Measure I, Source I / Measure V, Pt100)
- Operates From 110-240 VAC
- CE Certified - CSA/UL Compliant
- 5-inch Touch Screen
- Compatible With the infinityPV ISOSun Solar Simulator and ISOS-L-3 Chamber
- Free Software Available Online that simplifies data logging while recording IV or MPP data



LBIC

A calibrated photodiode and filter to calibrate light intensity precisely at your sample’s position. Unlike internal reference diodes, the CalCell accounts for factors like sample geometry, fixture, and position, ensuring confidence in your experimental results.

Key Features

- Calibrated photodiode and filter for precise light intensity measurement
- Measures light intensity directly at the sample position
- Accounts for variations in sample geometry, fixture, and placement
- Enhances accuracy of solar simulator calibration
- Ensures consistency and reliability in test results
- Quartz window for optical durability and stability
- Compatible with infinityPV Source Measure Units
- Ideal for calibrating ISOSun solar simulators and other light sources



R2R LBIC

A contactless, non-destructive imaging solution for printed solar cells, enabling high-speed, detailed analysis of photovoltaic performance across endless rolls of solar foil.

Key Features

- Enables visualization of functional and non-functional areas in printed solar cells using contactless LBIC imaging
- Supports foil widths of 350, 700, 1050 up to 2100 mm and infinite foil length
- Provides high-resolution imaging with pixel sizes between 40 and 100 microns
- Operates at web speeds ranging from 2 to 90 meters per minute
- Uses laser wavelengths between 450 and 1050 nm, adaptable for different solar cell materials
- Can be installed above or below the moving web with a compact footprint around 1.5 times the foil width cubed
- Non-destructive testing method producing detailed images of photovoltaic function without damaging the foil
- Self-contained unit requiring only a 110-240 VAC power source and includes web speed acquisition
- Easily retrofittable to existing roll-to-roll manufacturing lines and interfaces with current hardware and software
- Handles challenges such as speed, noise, electrical contacts, data handling, image processing, and defect detection
- Enables real-time quality monitoring to maximize processing speed, yield, and documentation



CalCell Reference Device

A calibrated photodiode and filter to calibrate light intensity precisely at your sample’s position. Unlike internal reference diodes, the CalCell accounts for factors like sample geometry, fixture, and position, ensuring confidence in your experimental results.

Key Features

- Calibrated photodiode and filter for precise light intensity measurement
- Measures light intensity directly at the sample position
- Accounts for variations in sample geometry, fixture, and placement
- Enhances accuracy of solar simulator calibration
- Ensures consistency and reliability in test results
- Quartz window for optical durability and stability
- Compatible with infinityPV Source Measure Units
- Ideal for calibrating ISOSun solar simulators and other light sources



Temperature and Relative Humidity Probe

A temperature and relative humidity probe that logs temperature and relative humidity data over time, providing valuable environmental insights.



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