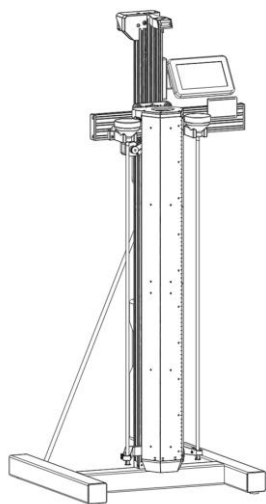


Hydrophilic Coating Machine

HPC | Technical data sheet

Programmable dip coating, drying, and UVC curing for catheter R&D and pilot production. Dual dipping stations support primer and top coat application in an automated, recipe-based workflow.



Process features

- Dual dipping stations for primer and top coat
- Programmable dip, dwell, and retract speeds
- Heated forced-convection drying
- 275 nm UVC curing with exposure from all sides
- Sealed iris mechanism at the curing chamber
- Up to 25 recipes with PIN-protected editing

Device and dipping stations

Parameter	Specification
Maximum coated length	100 cm
Maximum overall device length	135 cm (extension available)
Dipping station materials	Polyethylene, POM (Delrin), polyamide (nylon)
Dipping station inside diameter	11 mm (7.8 mm and 4.6 mm available)
Dipping station volume	180 mL each

Programmable process

Parameter	Specification
Dip and retract speed	1–9999 mm/min
Dip dwell time	0–60 sec (5 sec increments)
Dry time	0–15 min (1 min increments)
Cure time	0–15 min (1 min increments)
Dip cycles	0–15 per station
Recipe storage	Up to 25 recipes
Process lock	PIN-protected editing
Rotation speed	10 RPM

Thermal and curing specifications

Parameter	Specification
Drying method	Heated forced convection
Drying temperature	Off or 30–55 °C (5 °C increments)
Curing source	UVC LEDs
Nominal wavelength	275 nm
Irradiance	4.5 mW/cm ² (45 W/m ²)
Exposure coverage	360° around the device
Distance to lights	6 cm
Iris diameter	2–20 mm (closed to open)

UVC curing performance

Coating partners report cure times of 3–5 minutes with hydrophilic coatings tested in the HPC. Narrow-band 275 nm output and exposure from all sides support curing around the device. Required cure time depends on the coating formulation and process.

Broadband lamp irradiance includes energy across a wider wavelength range and is not directly comparable to the HPC's concentrated UVC output. Wavelength, exposure geometry, and demonstrated coating performance matter alongside the irradiance value.

On demand LED operation

The LEDs switch on only during curing and remain off between cycles, avoiding the extended operating hours associated with keeping a mercury lamp warmed up. This limits accumulated LED operating hours. UVC output decreases with use; the rate depends on operating conditions.

Wireless chamber radiometer

Available now, Pilot Line's dedicated wireless radiometer measures irradiance around the full circumference and along the length of the curing chamber. Data transmit to the machine's LCD, where users can view a plot of the chamber's irradiance profile.

Facility requirements

Parameter	Specification
Electrical supply	110–240 VAC, 50/60 Hz, 400 W
Floor footprint	3 ft × 2 ft
Minimum ceiling height	9 ft for full Z travel (travel can be limited)

Compliance

- CE-marked.
- Tested to comply with FCC Part 15, Subpart B (47 CFR Part 15)

Warranty and support

Six-month standard warranty covering defects in materials and workmanship under normal use and operation within published specifications. An optional annual Comprehensive Machine Support plan is available; coverage and terms are defined by the selected plan.

For pricing, availability, or a demo: sales@pilotlinetools.com | www.pilotlinetools.com