

# **Mini Coater – Hot Melt Version**



### Mini Coater – Hot Melt Version

## Specifications

## July 2023

**Overview:** The Mini-Coater is a versatile and compact coating system designed for precise and uniform application of hot melt coatings and lamination on small-scale substrates. This customized cart-based machine combines an Unwinding Roll #1, Idler Roll, Hot Melt Coater, Unwinding Roll #2, Laminator, and Rewind to provide a comprehensive coating and laminating solution.

## Key Features:

## 1. Unwinding Roll #1:

- Cantilevered design for easy access and operation.
- Air-powered shaft with 3" core, accommodating up to a 13" maximum web width.
- Unwind includes a variable force, 25-pound, magnetic braking module for precise tension control.
- Substrate capacity: 3" core, 13" maximum web width, 9" maximum outer diameter.
- Integrated into the Customized Cart for optimized mobility and space utilization.

## 2. Idler Roll:

- Cantilevered design for efficient substrate leading into the Hot Melt Coating nip.
- Adjustable height to ensure precise alignment and coating application.
- 3" outer diameter by 13" wide aluminum roller with polished and anodized surface for smooth coating.

#### 3. Hot Melt Coater:

- Utilizes the standard UC-200 coating head designed for 13" wide web substrates and 12" wide coatings.
- Heating controls integrated into the main control cabinet.
- Frame rail mounted for stability and rigidity during operation.
- Offers operational specifications similar to the standard unit available on the ChemInstruments website.

https://www.cheminstruments.com/universal-coater.html

#### 4. Unwinding Roll #2:

- Cantilevered design for easy access and setup.
- Air-powered shaft with 3" core, suitable for up to 13" maximum web width.
- Unwind equipped with a variable force, 25-pound, magnetic braking module for precise tension control.
- Substrate capacity: 3" core, 13" maximum web width, 9" maximum outer diameter.
- Integrated into the Customized Cart for optimized mobility and space utilization.

#### 5. Laminator:

- Based on the standard LL-100 benchtop laminator designed for 13" wide web substrates.
- Room temperature laminator for versatile laminating applications.
- Top and bottom rolls made of 2" silicone rubber covered material with 80 durometer for consistent lamination.

- Independent variable speed motor for flexible control over lamination speed.
- Speed range of 1.0-12.5 fpm (30-375 cm/m) for various production needs.
- Laminator controls integrated into the main control cabinet.
- Frame rail mounted for stability and rigidity during operation.

<u>https://www.cheminstruments.com/benchtop-laboratory-</u> laminator.html

#### 6. Rewind:

- Cantilevered design for easy access and winding operations.
- Air-powered shaft with 3" core, supporting up to 13" maximum web width.
- Rewind includes a variable force, 25-pound, magnetic clutching module for precise tension control.
- Independent set-speed motor for flexible control over the rewinding process.
- Located just past the Laminating nip for ease of access and efficient winding.
- Adjustable height to accommodate various winding angles from the Laminator nip.

#### 7. Customized Cart:

- Custom-designed cart equipped with locking swivel wheels for easy mobility and positioning.
- Frame rails offer flexibility in locating the various components for optimal arrangement.

- Compact dimensions, not exceeding 48" long x 32" deep x 57" high, ensuring space efficiency.
- Customized control cabinet designed to hold all required controls, including electric and pneumatic.

**Applications:** The Mini-Coater is ideal for small-scale coating and laminating applications in research, development, and small-batch production environments. Its precise and user-friendly design ensures consistent results for various substrates and coating materials.

## Power Requirements:

• 120VAC / 1 Phase / 20 amp breaker

#### or

• 240VAC / 1 phase / 15 amp breaker

## Air Requirement:

• 80 PSI required for operation

## Price and Delivery

- Mini Coater Hot Melt Version
  \$39,500 USD
- Payment terms:
  - Prepay (international) / Net 30 (USA only)
- Crating:
  - Extra-large HT crate \$325 USD
- Delivery:
  - $\circ\,$  2-3 months to build

## Mini Coater VS. HLCL-2000

## Which is right for you?

Comparing the Mini Coater and HLCL-2000 reveals both similarities and differences. The Mini Coater boasts cantilevered rolls, multiple unwinds, motorized rewind, adjustable roll heights, and a magnetic brake system. In contrast, the HLCL-2000 shines in simulating production processes at lab scale and boasts a successful track record in hot melt coating and laminating. Regardless of your preference, both ensure efficient, top-quality coating. The decision is yours: embrace Mini Coater's innovation or tap into HLCL-2000's traditional expertise.

Features	Mini Coater	HLCL-2000
Cantilevered Rolls	Yes	No
Ability to have multiple unwinds	Yes	No
Motorized Rewind	Yes	No
Air Powered Shaft	Yes	No
Adjustable Roll Heights	Yes	No
Mounted on a cart	Yes	No
Compact Design	Yes	Yes
Adjustable Gap	Yes	Yes
Brake Type	Magnetic	Friction
Digital speed control	Yes	Yes
120V or 240V	Yes	Yes
Price	Higher	Lower



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