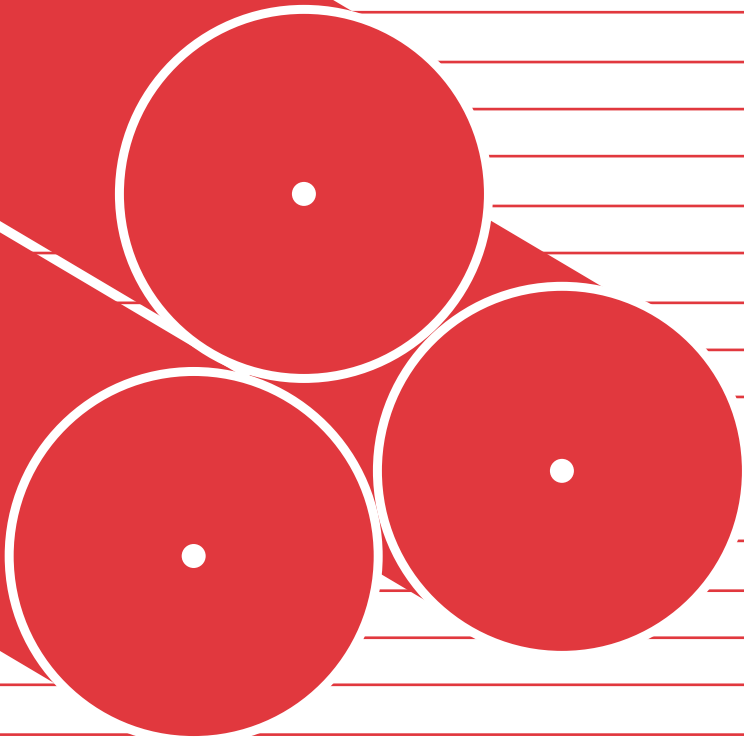


UNION TOOL ROLLER COATERS

For Controlled
Application of
Liquid Coatings
Onto All Flat
Materials



The Union Tool Corporation



UNION TOOL ROLLER COATERS IMPROVE EFFICIENCY BY RAPIDLY APPLYING CONTROLLED LIQUID COATINGS ONTO ANY FLAT MATERIAL

Save up to 50% on coating materials. Improve efficiency. Reduce maintenance costs. These are just some of the ways you can benefit by installing Union Tool roller coaters in your plant.

Union Tool roller coaters are engineered to accurately apply

controlled liquid coatings onto any flat material. Any fluid substance—such as glue, resinous adhesives, drawing compound, latex, wax, oil, plastic, paint or varnish—can be applied to any flat material, including metals, veneers, plywood, fabrics, paper, cardboard, rubber, plastics, glass, hardboard, cork and others.

Union Tool can also custom design roller coaters for experimental work, light-duty performance, or heavy-duty major production. Through custom engineering, we match your exact requirements with equipment that is adaptable to meet any coating need, including continuous strip, intermittent or piece applications.

ROLL CONFIGURATIONS

The roll configurations shown are representative of the most common methods of roller coating used in industry today. Double coaters, such as Models A and B, apply coating from the top and bottom rolls to both sides of the material (but can be used as single top or bottom coaters). Single coaters, such as Models C and D, apply coating from the top or bottom of the rolls onto only one side of the material.

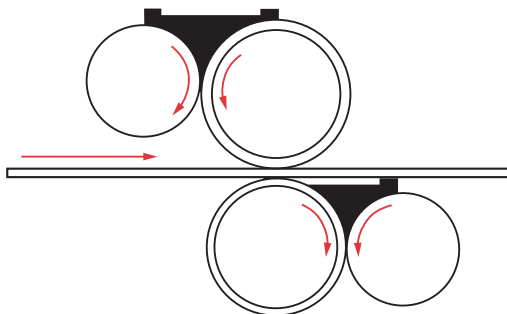
The liquid coating in Model A is held in the crotch or trough formed by the coating and doctor roll. As the rolls rotate, the material is metered through and a controlled amount of coating is applied to both sides.

Coating material for the top coating roll in Model B is held in the trough or crotch formed by the coating and doctor rolls. The bottom roll receives the coating material from the pan in which it runs.

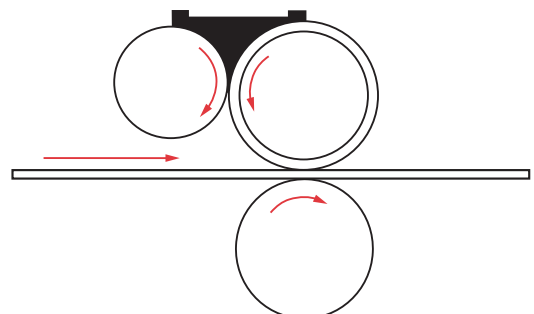
The coating material for Model C is held in the top crotch or trough with the pan underneath.

In Model D the coating material is held in the pan in which the roll runs.

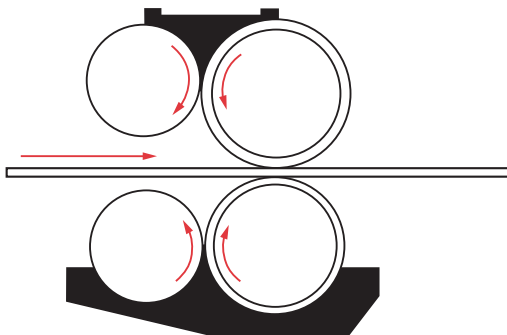
A wide variety of roll coverings are available, including Neoprene, gelatin, Thiokol, Urethane and plated steel. The rolls are usually smooth ground but can be corrugated depending on the type of material used for coating and the amount to be applied.



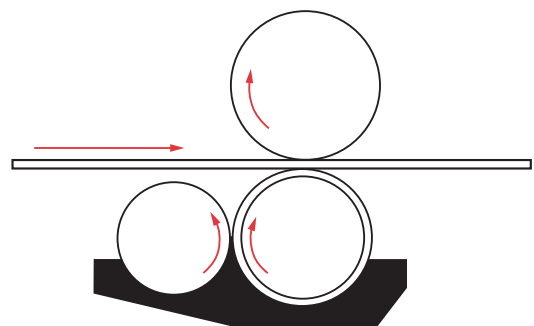
Double Coater - Model A



Single Top Coater - Model C



Double Coater - Model B



Single Bottom Coater - Model D



FIVE STANDARD SIZES

Union Tool offers five standard series of roller coaters, each in four standard models based on the type of rolls and their various positions. The model letter (A, B, C, D) represents the roll configuration available while the series number (5, 15, 35, 45, 55) stands for the size of the diameter of the roll. From these units, Union Tool builds custom coaters designed to match the requirements of specific applications.

STANDARD CONSTRUCTION FEATURES

Rigid Steel Frames

Series 5 and 15 machines have tubular steel frames for lifetime rigidity. Series 35, 45 and 55 have extra-heavy-duty electrically welded steel frames. All motors, gear reducers and variable speed drives are housed within the frames of the coaters, conserving valuable space while providing maximum protection.

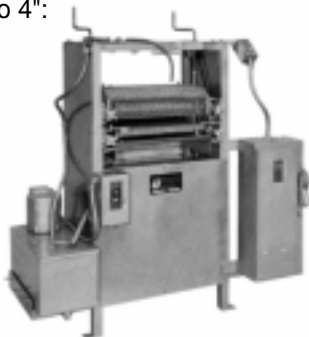
Shielded Chain Drives

Union Tool roller coaters are equipped with a positive chain drive that is fully shielded from the crotch of the rolls, eliminating contamination of the driving mechanism.

ROLLER COATERS

Series 5 Roller Coater

Coating roll diameter on the Series 5 is 4", doctor roll diameter is 2³/₄". Rolls are mounted in self-aligning ball bearings. Standard machines have smooth ground coating rolls and are equipped with a 1/2 HP dual-voltage motor (single speed). Roll openings are adjustable to accommodate material thicknesses from 0" to 4":



Series 15 Roller Coater

The Series 15 coating roll diameter is 6¹/₂". Doctor roll diameter is 4³/₈". All rolls are spring-loaded and easily cleaned. Standard machines are equipped with a 1/2 HP dual-voltage motor, 110V controls (any single speed), infeeding support table and offbearing fingers. Standard roll coverings include Neoprene, Thiokol or chrome plated steel. Roll openings are adjustable to accommodate material thicknesses from 0" to 4".



Series 35 Roller Coater

Coating roll diameter is 7¹/₈". Doctor roll diameter is 4⁷/₈". The Series 35 is available in any roll length from 12" to 80". A heavy-duty steel plate housing assures rigidity. Standard machines are available with a wide variety of coating roll coverings. A single handwheel adjustment controls the upper roll assembly, with openings from 0" to 2". Parallel rolls are assured through a positive gearbox arrangement. Other standard features include a 3/4 HP dual-voltage motor, 110V controls (any single speed), infeeding support table and offbearing pickoff fingers.



Series 45 Roller Coater

The Series 45 coating roll diameter is 8³/₄". Doctor roll diameter is 6¹/₂". Rolls are mounted in self-aligning ball bearings, and available in any length from 12" to 98". A single handwheel adjustment controls the upper roll assembly with openings from 0" to 2". Standard roll coverings include Thiokol, Neoprene or chrome plated steel. A 2 HP dual-voltage motor with 110V controls (any single speed) is also standard.



Series 55 Roller Coater

The Series 55 is available in any roll length from 60" to 168" with extra-heavy-duty electrically welded steel plate housings for maximum duty. Diameter of the coating roll is 11³/₄". Doctor roll diameter is 7¹/₂". Anti-friction bearings are sealed and self-aligning. A single handwheel adjustment controls upper roll assembly with openings from 0" to 2". A 3 to 5 HP dual-voltage motor with 110V controls is also standard.



NOTE: Guards are removed on certain pictures for illustrative purposes only.



ROLLER COATERS FOR LUBRICANTS AND DRAWING COMPOUNDS

The metalworking industry has found that Union Tool roller coaters reduce costs while improving efficiency through more precise application of lubricants and drawing compounds. In addition to saving up to 50% on lubricant costs, UT coaters can offer lower direct labor and maintenance costs when compared to conventional brush or spray methods.



Drawing compound coater with return feed option eliminates offbearing labor. The return feed conveyor can be adapted to any Union Tool roller coater.



Drawing compound coater specifically designed to fit between columns of a transfer press. It will accept various sizes of stock parts.

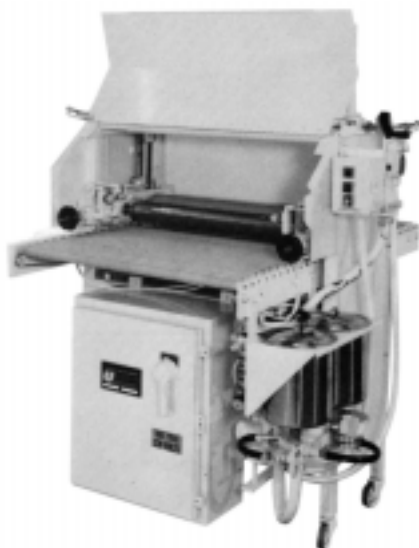
PRINTED CIRCUIT BOARD COATING SYSTEMS

Union Tool printed circuit board coaters are specially designed to apply protective coatings to PCB substrates. Special roll configurations simplify maintenance and cleaning.

Union Tool also manufactures a complete line of PCB feeders, stackers, conveyors, flux coaters, and roll soldering systems. For more information, call Union Tool today and ask for a free copy of our Automatic PC Board Production Equipment brochure.



Special PCB Coater applies protective film, adhesive and UV coating to the top side of the substrate leaving a smooth, accurate coating. The use of a vacuum platen with automatic board removal allows the coater to be used in an inline process. Explosion proof electricals, antistatic dust removal, chilled transfer roll and unifeed roll adjustments are options which have been incorporated.

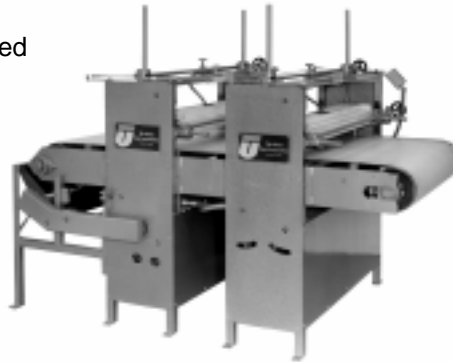


Sealbrite coater applies protective film to both sides of substrate as well as through-hole—leaving a smooth, accurate coating in thicknesses from 100 to 300 micron inches. Infeed conveyor enables the machine to be hand-fed or used with an inline system.

ADHESIVE COATERS

Union tool coaters are ideally suited for adhesive applications which require precise thicknesses. Typical applications include:

- Paper laminates
- Wood laminates
- Metal laminates
- Vinyl laminates
- Acoustic tile
- Flooring
- Gaskets



Double coater for wet-on-wet application of adhesives. Brush cleans belt continuously.



Gasket coater applies adhesive coating to thin gasket stock. Thru-conveyor is automatically cleaned with reverse-revolving brush roll.

FINISHING SYSTEMS

Union Tool finishing systems combine the traditional benefits of roller coating with the unique process efficiencies of UT system design. Typical coatings suitable for roller coater application include:

- Varnishes
- Paints
- Enamels
- Lacquers
- Liquid vinyl
- Protection coatings

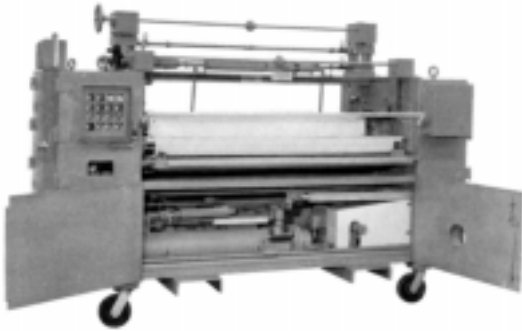


Roller coater applies liquid vinyl and heat sealing lacquer coating to cardboard stock. After coating, the material is moved via conveyor through a solvent flashoff area, then through an infrared oven that dries the applied film. A cool-out area permits stacking of material at the end of the line.

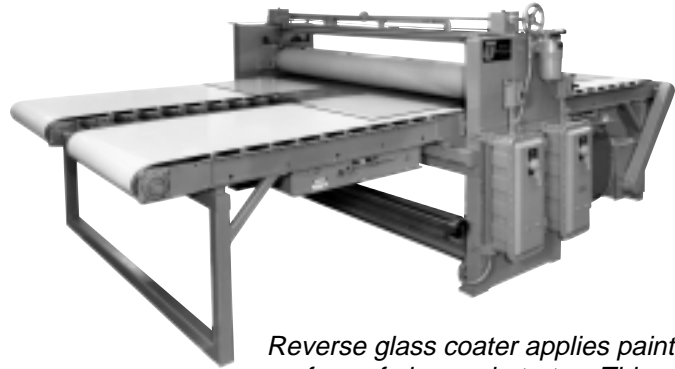


SPECIAL APPLICATION COATERS

Union Tool's expertise in roller coating technology enables us to design and build coaters to meet virtually any special need. Many times an existing machine can be adapted for a special application with a minimum of additional tooling.



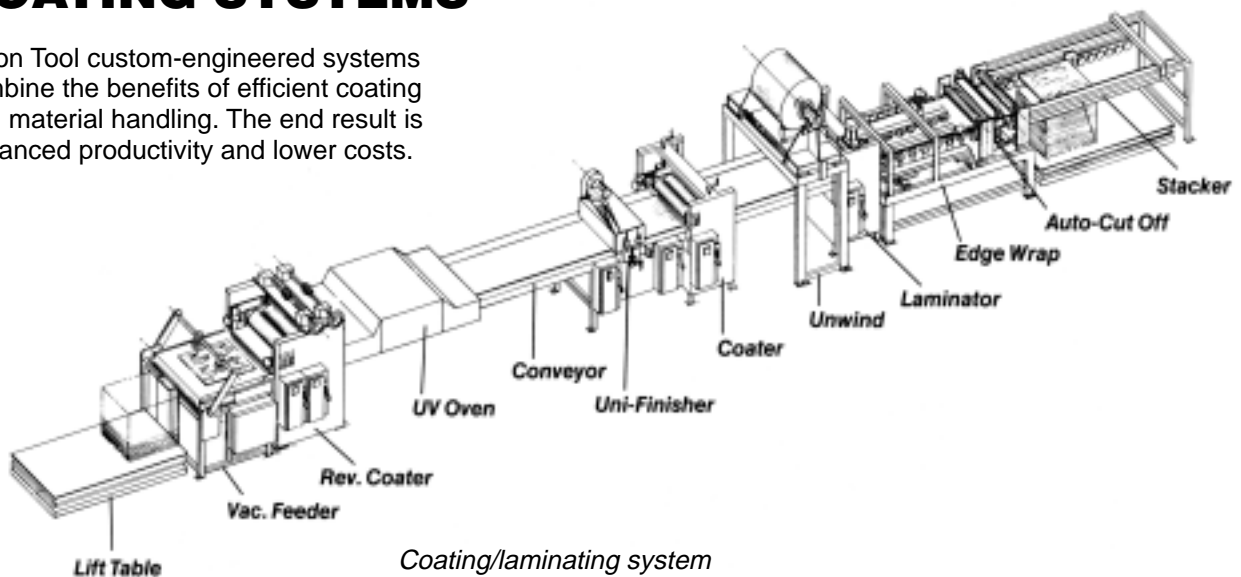
Hot melt coaters are used for application of wax, lubricants and adhesives which require heat to maintain proper control. The rolls are heated by hot oil—which is circulated through the rolls by a special pump. Heat can be controlled to a maximum of 375° F.



Reverse glass coater applies paint to top surface of glass substrates. This coater produces a smoother coat with less striations than curtain coating. Other unique features include faster cleanup, less waste, and easy changeover between colors.

COMPLETE MATERIAL HANDLING AND COATING SYSTEMS

Union Tool custom-engineered systems combine the benefits of efficient coating with material handling. The end result is enhanced productivity and lower costs.



Coating/laminating system incorporates a lift table and vacuum feeder, reverse coater, uni-finisher, roller coater and unwind stand, laminator conveyor, edge wrap, cutoff and stacker.



FEATURES AND OPTIONS

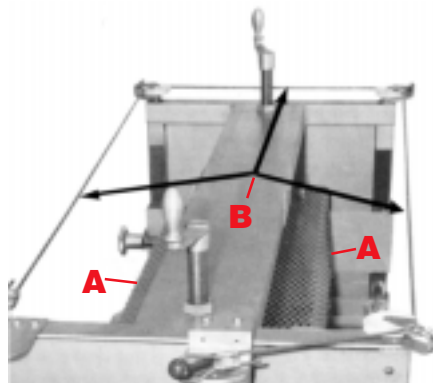
SAFETY FEATURES

Protective Guards (A)

Guards are supplied as standard equipment on all units. Front roll coverings are guarded as are chain drives.

Safety Reversing Control (B)

The safety reversing control is an optional feature designed to reverse passline travel in the event of an emergency. Exerting light pressure on the safety control cable activates a reversing drum switch.



Doctor Roll Safety Release (C)

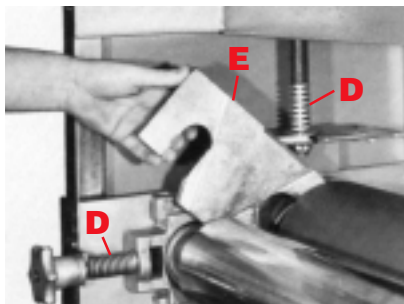
In case of an emergency, a knockout spring adjustment can be manually activated. This action immediately springs the roll back to release the object.



SET UP/MAINTENANCE FEATURES

Spring-Loaded Rolls (D)

This feature prevents damage on journal of rolls. If a foreign object enters between rolls (wider than the opening allows for), the rolls immediately spring back to release the object. All rolls are mounted in self-aligning bearings that are sealed for life.

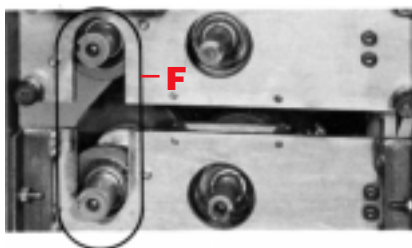


Seal Plates (E)

All models have easily removable seal plates for simplified cleaning.

Removable Rolls (F)

Coating rolls are quickly and easily removable through a special cutout in the housing on all Series 5 and 15 machines. All that is required is to disengage the chain drive, remove two bolts in each bearing and drop out the roll.



OPTIONS

Uni-Feed (G)

This optional feature adjusts both ends of the doctor roll with a single handcrank to assure parallel rolls. Both ends move an equal distance toward or away from the coating roll to control film thickness.

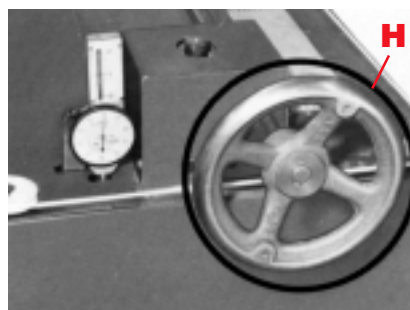


Air Cylinder Attachments

Optional air cylinders may be used for the doctor roll or coating roll assembly. The rolls may be retracted when the power is shut off at the end of the day. When power is turned back on, the rolls will be returned to the same setting by the air cylinders.

Roll Opening Adjustments (H)

A single handwheel adjustment is standard on Series 35, 45 and 55; optional on Series 5 and 15. Hand cranks are standard on Series 5 and 15.



Pumping System

An optional recirculating pumping system continuously supplies coating material to the crotch of the rolls. It features an inline relief system so the amount of coating can be precisely regulated. Seal plates are designed for use with recirculating systems.

Conveyors

Optional infeed, offbearing and thru-conveyors save the operator time in feeding, transporting and stacking of material.

Explosion-Proof Electricals

Optional explosion-proof electricals prevent flash fires where hazardous materials are used.

Casters With Locking Device

Casters with a locking device are installed on each unit if requested. A foot lock is pressed to the floor to maintain stationary installation.



UNION TOOL: YOUR SINGLE SOURCE FOR QUALITY COATING & LAMINATING EQUIPMENT

The Union Tool Corporation is recognized throughout the industry as an innovative specialist in the roller coating field. Union Tool offers a complete line of quality built roller coating, laminating and finishing equipment to match your needs. These high production machines and complete systems eliminate costly manual labor, saving you time and money, while keeping close tolerances of film thicknesses at peak performance. Unmatched versatility allows UT coaters to fit into your production facilities as individual units or as part of a complete mass production line. Either way, Union Tool is qualified to help you develop the most profitable equipment plan for your operation.

CUSTOM-BUILT EQUIPMENT BY A PROFESSIONAL ENGINEERING STAFF

Union Tool maintains a staff of highly qualified engineers specializing in the application of high efficiency, custom-built equipment for individual production situations. Many times a custom adaptation of a machine will help solve a production problem. Union Tool engineers work with you to develop a production system that best fits your application.

FULL SERVICE BACKUP

All Union Tool roller coating equipment is shipped completely assembled. Field engineers work with our customers to ensure proper performance. And, to keep the machines up and running, Union Tool can provide overnight delivery service for all standard parts—to anywhere in the US and Canada.

MACHINE RECONDITIONING SERVICE

Before you consider replacing an older UT machine with a new one, check into our reconditioning service. We can return older equipment to like-new condition at a fraction of new equipment cost. Call Union Tool today for further details.

LABORATORY TESTING AT NO COST OR OBLIGATION

We at Union Tool recognize that change is a major aspect of production processes. Therefore, in order to assure efficient, dependable operation with your production material, we invite you to take advantage of our testing facilities. By submitting your samples for tests you will be able to see the actual coating on your product, and evaluate both machine and coating. There is no cost for this service and no future obligation.

Our policy at Union Tool is to provide the extra service that makes a satisfied customer. At Union Tool, our only business is solving your production problems—we're not satisfied until you're satisfied.



At Union Tool, computer-aided design technology is used to reduce the time and costs associated with new product development.



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