

# Universal Surface Treater

## High Quality Surface Treatment Solution

The Universal Surface Treater is the ideal solution to integrate into converting lines for the treating of film extrusion, adhesive coatings, and laminating and printing needs. With Pillar's Universal Surface Treater, converters can now have the best of all available surface treatment equipment configurations to allow for maximum power and flexibility in all surface treatment applications. The Universal Surface Treater features a patented design of easily interchangeable magazines and ground rolls to allow operation as a bare roll (conductive substrates), covered roll (non-conductive substrates), or dual-dielectric (delicate substrates) system.

The Universal Surface Treater Station features include:

- **Patented Modular Interchangeable Magazine Approach:** with this approach, users can easily change out electrode assemblies and ground rolls in a matter of seconds to allow for easy cleaning and effortless changeout with minimal downtime
- **Patented Pneumatic Thread-Up Mechanism:** with the pneumatic thread-up mechanism, users are able to pivot the electrodes out of the way for easy thread-up; this unique design enables knots and splices to move easily through the gap without breaking the web or damaging the electrode
- **Special Electrode Mounting:** special electrode mounting prevents electrical shorts due to carbonizing of build up - ultimately reducing excessive spare parts inventories, clean-up time, and maintenance; the Universal's magazine design enables each material to thermally expand at its own rate without causing electrode warping or changes in gap to ensure even treatment across the web
- **Roll Coverings:** dynamically balanced treater rolls are equipped with externally mounted ground brushes; the Universal Surface Treater is compatible with all commercially available treater roll coverings
- **Aluminum End Plates:** the 1 inch (25mm) thick aluminum end plates provide increased equipment rigidity to eliminate issues associated with web wrinkles and alignment
- **Easy Roll Removal:** incorporates slotted end plates with access covers to make roll changeovers quick and simple
- **External Gap Adjustment with Micrometer:** using a micrometer, gap adjustments can become as elementary as turning a dial - reducing overall set-up time



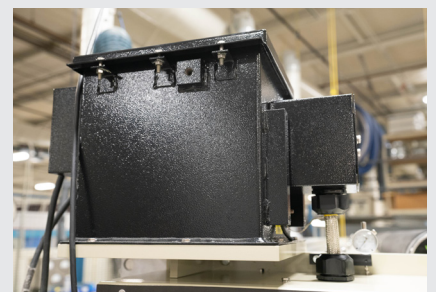
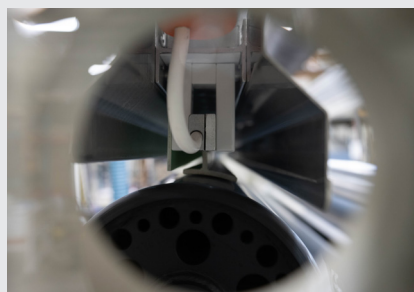
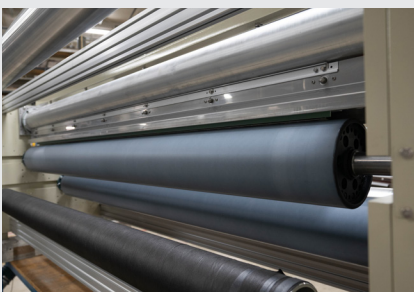
Film Extrusion



Adhesive Coatings

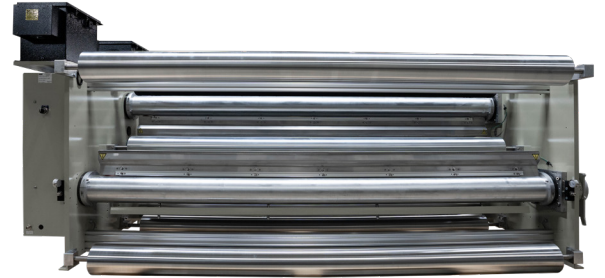


Laminating and Printing



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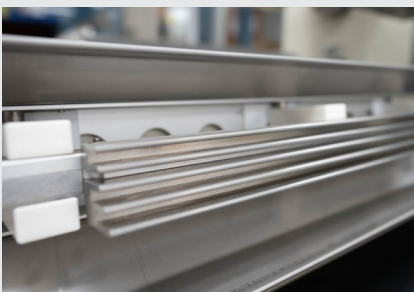


### How does it work?

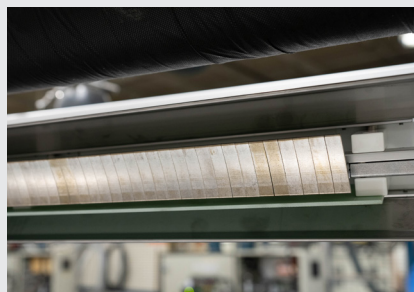
Pillar Technologies' Universal Surface Treaters deliver reliable, powerful, and adaptable surface treating for a wide variety of applications. With the help of our team and facilities, we can guarantee your Universal Surface Treater will be optimized to meet your exact application needs. It starts by determining your line speed, treat width, and what film type you will be using. Next, we will determine the watt density, and from there, your power level. Once we have this information, we can help you understand the right types of ground rolls and coverings to use, as well as what type and how many electrodes are needed. From here, our engineers will work with you to determine any other options or customizations needed to get your system exactly where it needs to be for your facility and production line.

### Interchangeable Electrode Assemblies

Pillar Technologies offers three different types of electrode assemblies: stainless steel segmented electrodes, stainless steel finned electrodes, and ceramic round or square electrodes. Stainless steel segmented electrodes (available in 3mm, 6mm, and 12.5mm sizes) now allow operators using dielectric covered rolls the flexibility to treat various web widths and "lane" treat while achieving higher treat levels. Stainless steel finned electrodes are used in conjunction with dielectric covered ground rolls for efficiently treating difficult-to-treat, non-conductive materials with a fixed width or lane treatment requirement. Ceramic round or square electrodes are designed for converters looking to treat metallized, thin, or sensitive substrates utilizing either bare roll or dual-dielectric surface treatment technology.



**Stainless Steel  
Finned Electrodes**



**Stainless Steel  
Segmented Electrodes**



**Round Ceramic  
Electrodes**

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### Product Specifications

Universal Specifications	Universal Conductive	Universal Non-Conductive
Easy Roll Removal	Standard	Standard
Electrode Type	Ceramic Tube	Stainless Steel Tube Stainless Steel Segmented Finned Electrode
Electrode Assemblies Available	Up to 4 per side	Up to 4 per side
External Gap Adjustment	Standard	Standard
Microprocessor Controlled Diagnostics	Standard	Standard
Zero Speed Detection	Standard	Standard
Patented Pneumatic Retract Assembly	Standard	Standard
Roll Type*	Steel, Aluminum, Water-Cooled	Steel, Aluminum, Water-Cooled
Roll Diameters*	6", 8", 10", 12", 14", 16", or larger	6", 8", 10", 12", 14", 16", or larger
Roll Coverings Available	Bare, Conductive Ceramic, Hard Coat	Ceramic, Epoxy, Glass, Hypalon, Silicone, Silicone Sleeve (4", 6", 8" rolls only)
Sides Treated	1 or 2 (3 and 4 available for Blown Film)	1 or 2 (3 and 4 available for Blown Film)
Treat Widths Accommodated	12" - 120"	12" - 120"
Modular Magazine	Standard	Standard
Spare Magazine	Optional	Optional
Idler Rolls	Optional	Optional
Micrometer Controlled Gap Read-out	Optional	Optional
Nip Roll Assembly	Optional	Optional
Pressurization Package	Optional	Optional
Tamper Proof Gap Adjust	Optional	Optional
Tendency Drive Package*	Optional	Optional
Direct Drive*	Optional	Optional

\* Contact your Pillar Technologies representative for customized information