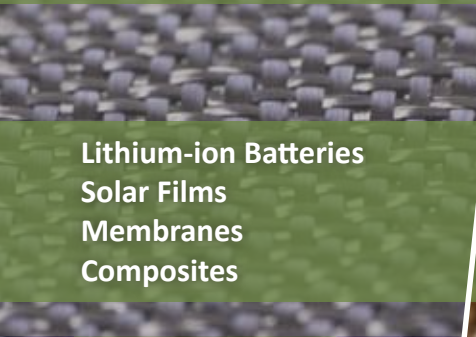


# Thermal Processing & Environmental Solutions

*for Solar Photovoltaics*

*& Printed Electronics Applications*

## Advanced Materials Processing



- Lithium-ion Batteries
- Solar Films
- Membranes
- Composites

## Environment, Climate & Energy



- Air Abatement Systems
- Carbon Management
- Energy Recovery
- Biofuels & Renewable Energy

## Printing & Packaging Applications



- Digital Printing
- Commercial Printing
- Newspaper Printing
- Packaging



[www.megtec.com](http://www.megtec.com)



## Drying & Curing using Air Flotation

- Unlimited configurations
- Energy-saving design
- Design flexibility
- Easy threading and cleaning access

### **Customized Design Advantages**

Separate web drying and air handling modules open the basic design to virtually unlimited capabilities and zone configurations.

MEGTEC can customize a dryer or oven for your exact specifications, from different types of heat sources, zone lengths, web widths and nozzle configurations while providing superior drying, curing and web handling.

### **Energy-Saving Design**

High-efficiency heat sources and advanced air flow management conserve energy to minimize operating costs. Whether you operate with gas, thermal oil, steam or electricity, we have a heating system designed for your needs.

### **Easy Maintenance**

Planar retraction provides ample access from both sides of the dryer for thread-up, cleaning and internal maintenance. Accessible fans, motors and heat sources allow for easy adjustment, service and maintenance.

Heat source location: Remote to the dryer

Heat source type: Electricity, steam, thermal oil, natural gas

Web width range: Up to 410" (10 m)

Standard nozzles: 1x, 1.5x and 2x HI-FLOAT®, STEPFOIL®

**M**EGTEC's extensive experience covers a wide range of substrates such as ultra-thin films, foils, laminates, coiled metals and other advanced materials. This experience provides a deep understanding of specific industrial web coating and drying processes, and the optimal drying or curing solution for every application.



## Drying & Curing using Roll Support

- Compact design
- Easy installation
- Available with removable nozzles for easy cleaning
- Modular design for custom configurations

### **Compact, Cost-Effective Design**

This basic design is the most economical choice for a convection dryer or oven when contact with the uncoated side of the web is acceptable. Available in a self-contained design which requires minimal floor space and reduces the support structure as well as installation costs. For wider webs or longer zones, the air handling systems can be remotely located for increased flexibility.

### **Easy Maintenance**

Large access doors, bottom-side access panels, externally mounted bearings with remote lubrication lines and optional removable end-fed nozzles are just a few of the features that make this dryer easy to maintain and clean. Additional available options include release-coated nozzles and idler rolls, semi-indirect heat sources and HEPA filtration.

### **Optional Integrated Design**

The basic stand-alone dryer design is available in several lengths. Individual zones can be easily linked for processes requiring longer or multi-zoned drying. This self-contained design also promotes easy and economical future expansion of drying or curing capacity.

Heat source location: Remote or integrated

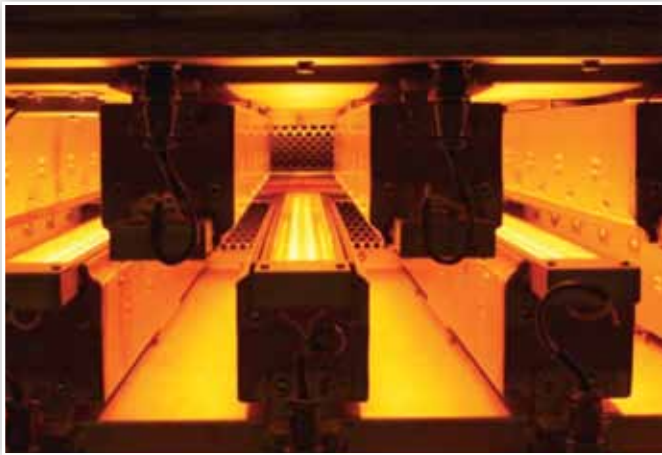
Heat source type: Electricity, steam, thermal oil, natural gas

Web width range: Up to 80" (2,000 mm)

Standard nozzles: Slot nozzles, dilution nozzles, hole bars

MEGTEC can custom engineer drying or curing systems for virtually any industrial web application including:

- Advanced Battery Materials
- Medical Products
- Photovoltaic Backsheets
- Composites
- Electronics
- Window Films
- Membrane Manufacturing
- Laminates



## Drying & Curing using Infrared or Combination IR/Convection Dryers

MEGTEC offers a wide range of infrared (IR) configurations to meet the demands of a variety of products and applications. These include systems designed for complete drying, preheating, pre-drying, fusing, curing and profiling of continuous materials. By combining the correct wavelength infrared and optimization of the control system, precise process conditions can be achieved to maximize product quality in the most efficient manner.

MEGTEC has a patented shutter system for use in applications where quick on-off function of the infrared is critical. In addition to stand-alone infrared modules, MEGTEC can also combine infrared with flotation and/or impingement drying systems to enhance the performance of the overall drying or curing process.

MEGTEC ovens can be designed in horizontal, vertical, or arched configurations depending on the specific product and space requirements.

### ***Dryers and ovens offered by MEGTEC:***

- Hybrid or custom dryers & ovens
- Catenary convection air dryers
- Festoon dryers
- UV dryers
- Tenting ovens
- Can/drum dryers
- Belt conveyor ovens
- Idler roll ovens
- Convection/IR combo
- Flotation convection
- Impingement ovens
- Thru-air dryers
- Tunnel dryers



## Research & Development Center

MEGTEC's R&D Center located in De Pere, Wisconsin, enables customers to facilitate their ideas and innovations into advanced technology patents.

Our facility includes an in-house pilot lab line that offers mixing capabilities for preparation of coatings, multiple coating methods, a 3-zone dryer that can be used with a wide range of substrates and tensions, corona treater for foil substrates, and on-line coating thickness measurement and tracking.

Using MEGTEC's pilot coating line can help you conduct proprietary research and development, or test and optimize new or existing coatings, web materials and processes. MEGTEC's pilot line provides the versatility and confidentiality you need, as well as the ability to produce prototype materials for further research, marketing and quality testing.

### Features include:

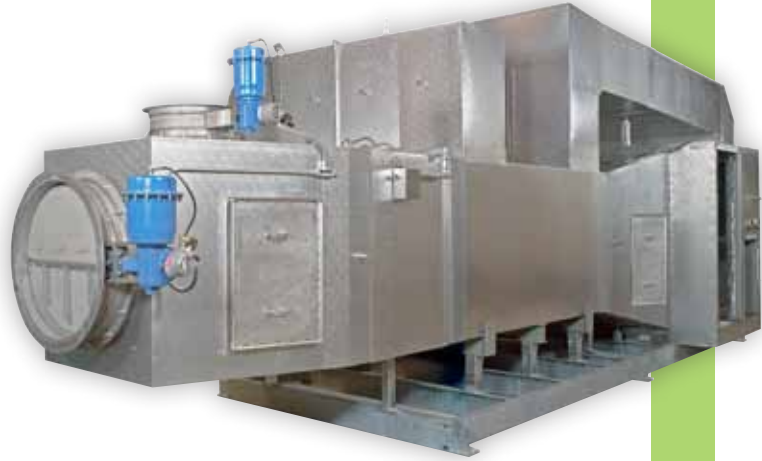
- Slot die coater with skip and stripe coating capabilities
- (3) 1.5m long dryer zones for wide range of web widths, substrates, tensions
- Laminator, both wet and dry end
- Corona treater
- High performance fluid delivery system
- Ross mixer
- Thickness gauges

# Air Pollution Control

## by Solvent Recovery Activated Carbon Adsorption and Distillation



MEGTEC has developed proprietary activated carbon and distillation systems for the high efficiency removal, recovery and purification of up to 99% of the solvents from coating line exhaust air streams in the manufacturing process. These systems are configured for the specific exit dust air conditions and provide regulatory compliance with global and local emission standards.



*MEGTEC regenerative thermal oxidizers are available in sizes ranging from 4,000 scfm [6308 Nm<sup>3</sup>/hr] to 90,000 scfm [141930 Nm<sup>3</sup>/hr] capacity, in single and multiple can designs*

## by Thermal Oxidation

For applications where solvent recovery is not appropriate, MEGTEC offers regenerative thermal oxidation (RTO) systems in different sizes and configurations for environmental compliance.

By applying our industry knowledge and expertise in process air handling, MEGTEC provides equipment that delivers regulatory compliance without affecting the performance of your process line or the integrity of your end product. With more than 4,000 equipment installations worldwide, we have both the industry experience and regulatory knowledge to design the right VOC (volatile organic compound) abatement solution for your process.



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