

State-of-the-Art Convection Air Drying & Curing Technologies

Stable web handling for wide format, thin films, high speeds



MEGTEC'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.

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

- Membrane Manufacturing
- Advanced Battery Materials
- Medical Products
- Photovoltaic Cells
- Window Films
- LCD Screens
- PSA Label Stock
- Laminates

The bottom line is process knowledge

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LEGEND non-contact flotation dryers offer proven, field-tested performance for high production



MODULAIR provides high productivity with a flexible design

LEGEND Air Flotation Dryers

- 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 capability and zone configuration.

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

MODULAIR Air Flotation Dryers

- Ultra-compact, modular size
- Economical installation
- Low operating costs
- Easy maintenance

Compact, Space-Saving Design

The MODULAIR dryer has a small footprint when compared with other styles of dryers. Air handling equipment is mounted on the top section of the enclosure with a vertical fan arrangement. The unit is only slightly wider than the designated web width.

High Process Productivity

Each module features integrated air handling with internal return air management. Two-sided flotation with symmetrical air flow provides superior web stability. Internal dampers allow precise control of return air flow to ensure maximum drying uniformity.

Economical Installation

Units are preassembled, prewired and prepiped at the factory. No interconnecting ductwork is required. The modules are inexpensive to ship and install in minimum time. The compact size also reduces platforming costs.

Easy to Operate / Easy to Maintain

Planar screwjack retraction simplifies webbing up, cleaning, and maintenance. Gas-fired units include high efficiency burners that feature 5-minute heat-up and enhanced functions.

Heat source location:	Remote to the dryer
Heat source type:	Electrical, steam, thermal oil, natural gas
Web width range:	Up to 410" (10 m)
Standard nozzles:	1x, 1.5x and 2x HI-FLOAT®, STEPFOIL®

Heat source location:	Integrated into upper portion of the dryer
Heat source type:	Electric, steam, thermal oil and natural gas
Web width range:	33" (840 mm) to 95" (2400 mm)
Standard nozzles:	1x, 1.5x and 2x HI-FLOAT®, STEPFOIL®



Roll support dryers: an economical solution without sacrificing quality

Roll Support Dryers

- 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 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 RollTracker Design

The basic stand-alone RollTracker 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 capacity.

Heat source location:	Remote or integrated
Heat source type:	Electrical, steam, thermal oil, natural gas
Web width range:	Up to 80" (2,000 mm)
Standard nozzles:	Slot nozzles, dilution nozzles, hole bars



Precision nozzle designs

Infrared 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 process.

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

Other types of dryers and ovens offered by MEGTEC:

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

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MEGTEC Products

Drying and Conditioning

Air flotation dryers
Air flotation dryers with integrated oxidizer
Roll support dryers
Infrared dryers
Thru-air dryers
Catenary ovens
Festoon-style ovens
Chill stands
Silicone coaters

Environmental Compliance and Sustainability

Regenerative thermal oxidizers (RTO)
Regenerative catalytic oxidizers (RCO)
Recuperative catalytic oxidizers
Recuperative thermal oxidizers
Direct thermal & catalytic oxidizers
VOC biological treatment systems
Solvent recovery/carbon adsorption systems
Heat recovery systems
Energy production from coal mine methane (VAM)

Purification and Separation

Distillation, stripping & liquid extraction

Biofuels Production

Methanol recovery, biodiesel distillation, glycerin purification
Ethanol distillation

Roll and Web Handling

Equipment

Match-speed splicers
Zero-speed splicers
Butt splicers
Register splicers
Web guides
Roll loading systems
Rewinders
Infeeds
Air turns
Web stabilizers
High-speed sheeters

MEGTEC Services

24h/7d Parts & Telephone Support
Condition monitoring
Preventive maintenance programs
Spare parts & upgrades
Training programs
Project management
Turnkey installation
Equipment optimization
Equipment rebuilds
In-house pilot line testing
Process energy audits
Environmental compliance assistance
Catalyst testing & supply
In-house laboratory analysis



MEGTEC's inhouse pilot lab line located in its De Pere, Wisconsin, USA facility offers customers the ability to test, develop and improve processes by evaluating system variables and components.

The pilot line has multiple coating methods and a 3-zone dryer that has been used with a wide range of substrates and tensions. Example applications include pre-preg materials, composites, laminates and other types of coated web and strand-based materials.