



# NEWS

2nd Quarter 2007

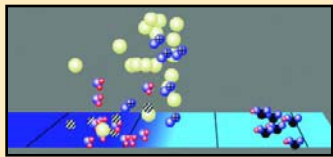
## Surface Treating Technology

Visit Enercon on the web for the latest developments in surface treating technology: [www.enerconind.com](http://www.enerconind.com)

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#### Plasma3™ Applications



Learn how Plasma3™ activates surfaces for increased performance and longevity

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#### Technically Speaking



Did you know?

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#### Unique surface treatment applications



Use surface treatment for sheets, foams and three dimensional objects

## Mission critical flexible packaging applications benefit from Plasma3™

Operations that require stringent surface treating performance now have the power of Plasma3™ atmospheric plasma systems as a treatment option for mission critical coating, laminating, and printing applications.

Plasma3™ provides exceptional long lasting treatment results on materials that are unresponsive to traditional treatment methods.

The atmospheric plasma system produces a homogenous glow discharge that delivers exceptionally uniform treatment that cleans, etches and functionalizes surfaces for improved adhesion on a wide variety of surfaces.

Converters are taking advantage of this technology to add value to their unique



The introduction of gas chemistries to a proprietary electrode produces a high density glow discharge that creates high surface energy.

packaging structures and processes as well as generating impressive results without the risk of backside treatment on more traditional converting applications.

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## Maximize control and flexibility with new power supply designs



New interface designs provide operators and command central with fingertip control

At CMM Enercon will exhibit the latest innovations in corona power generators. New Compak™ 2000 power supplies will feature advanced graphic display interfaces.

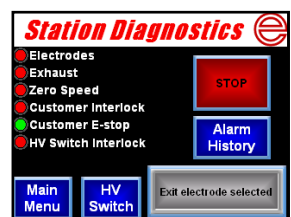
These new control schemes simplify installation and operation by integrating many functions such as Watt Density Control and Station Diagnostics with standard operations into a single operator interface.

New interface options also include data logs, remote communications for integrated line control and support for multiple languages .

The newest Compak 2000 interface features PLC control and allows customization of user defined features such as single signal system start-up. The system also supports ethernet as well as other network protocols.

The expandability and flexibility of this new interface provides Enercon customers with immediate benefits and the ability to economically integrate future options.

See these new systems at CMM booth 1445 or please contact us for more information.



New Compak 2000 PLC based operator interface

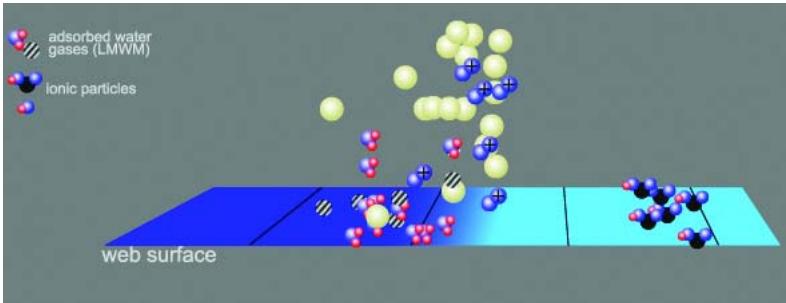
See it at CMM INTERNATIONAL Booth 1445

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# Mission Critical applications benefit from Plasma3™

(continued from page 1)



## How Plasma3™ works

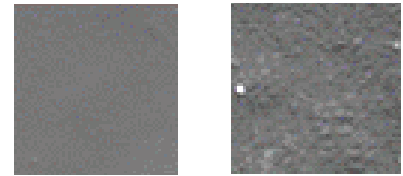
Reactive gases are diffused toward the surface under the influence of electrical fields. Low molecular weight materials such as water, absorbed gases and polymer fragments are knocked off the surface to expose a clean, fresh surface. At the same time a percentage of the reactive components in plasma with sufficient energy bond to the freshly exposed surface, changing the chemistry of the surface and imparting the desired functionalities.

## Materials suitable for Plasma3™ surface treatment

Films	Nonwovens	Metals
Papers	Wovens	Powders
Foams	Fibers	

## Examples of Plasma3™ treatment results

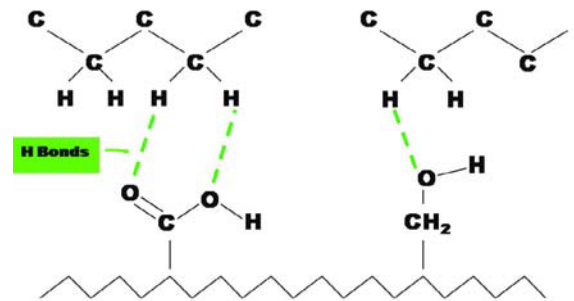
### Plasma treated PE Film



Original Film      Plasma Treated

PE Film 30,000 SEM magnification

### Extruded LDPE (Extrusion Coating)



Polymer surface functionalized with Atmospheric Plasma

## e Resources

# Take advantage of free and confidential lab testing and determine which technology is best for your application

Can Plasma3™ solve your adhesion challenge? Take advantage of Enercon's free laboratory testing facilities and find out.

For many of our current and prospective customers our laboratory serves as a confidential process development center where they can trial a variety of surface treating techniques.

The lab allows the comparison of a broad range of treatment options which provides unbiased technology comparisons. This test data is designed to yield valuable insight into the most effective process for a given application.

To assist in your evaluation of surface treatment solutions Enercon offers:

- Full range of ASTM Dyne Solutions
- Contact Angle Meter
- Ink Retention Testing
- Peel Adhesion Testing

Contact us today to schedule your free corona, atmospheric plasma or flame treatment application trial.



# Do you know what's new? Find out from the comfort of your desk and decide if CMM is worth the trip

See it at  
**CMM**  
INTERNATIONAL  
The Coating Machinery/Materials  
Conference and Exposition  
Booth 1445



Tom Gilbertson  
VP Application  
Engineering

Industry trade shows are not what they used to be. The internet has shortened the distance between suppliers and customers in ways that only a decade ago was unimaginable.

However trade shows still provide the unique opportunity for one-on-one visits with many industry experts in the same venue. And there's no substitute for being able to "kick the tires" on the latest show room models.

## CMM 2007

**Did you know** Enercon's power supplies offer new interface architecture that provide single point control for all standard and optional system function. With our PLC based power supply integrating customized options and networking to your master control center has never been easier. See it in operation at CMM booth 1445.

**Did you know** Enercon's Plasma3™ atmospheric plasma system provides you with the flexibility to mix different gas chemistries to create unique surface treatment results for a variety of applications. With new highly complex and engineered substrates, inks, coatings and laminations being introduced every day, Plasma3™ provides you with unparalleled surface treatment flexibility. See it at CMM booth 1445.

**Did you know** Enercon manufactures treatment systems for objects as well as webs? That's right, whether you have a flat sheet, a thicker foam or a three-dimensional object Enercon has a surface treatment delivery system that will work for your application. See Enercon's Dyne-A-Mite™ HP in operation at CMM booth 1445.

**Did you know** that Enercon configures each corona system based on your application? We choose from several designs of ceramic and metal

electrodes and match them to one of our many roll covering solutions to optimize performance at the required watt densities. Enercon's CMM exhibit features a unique carousel of electrode and roll configurations to help your team understand the sometimes subtle differences that can make or break an application. Take a hands on look at CMM booth 1445.

We won't be able to exhibit all of our innovations at CMM, but here are a few extra "did you knows" from the Enercon development team.



Pneumatic segments add safety and simplify set-up.

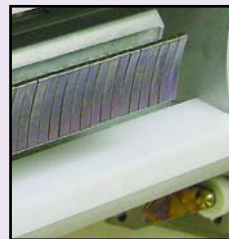
**Did you know** Enercon manufactures pneumatically retractable segmented electrodes? Consider the benefits for your operation. No need to climb the tower to engage or disengage the segments. Electrode position is controlled from the conveniently located power supply interface.

**Did you know** Enercon can integrate its surface treaters into sheeting equipment? The ability to bump treat immediately prior to sheeting has provided a competitive advantage for many customers.

**Did you know** Enercon ozone generating equipment is used to improve the performance of extrusion coating lines? The combination of ozone and corona produce far superior results than the use of corona alone. Contact me for a technical research paper that documents these findings.

I hope to see many of you at this year's CMM show in Rosemont. In the meantime feel free to contact me with a "Did you know?" of your own.

Sincerely,



Metal Electrodes



New Interface



Plasma3™



Corona for objects



Ceramic electrodes

**Film and Laminates Session at CMM**



Enercon's Rory Wolf will present *New Printing Adhesion Improvements Using Atmospheric Plasma Technology*, and *New Atmospheric Plasma and Photografting Approach for Permanent Surface Tension and Coating Adhesion* at CMM's Film and Laminates session on June 5th from 8-9:30am.

If you can not attend the show please contact us for a copy of these informative presentations at [info@enerconind.com](mailto:info@enerconind.com).

**2007 Industry Events**

**MD&M East**

Booth 1051

June 12-14/New York City, NY

**Assembly Technology Expo**

Booth 1123

September 25-27/Rosemont, IL

**CPP/PackExpo Las Vegas**

Booth C-3129

October 15-17/Las Vegas/NV

**K 2007**

Hall 10/G48

October 24-31/Düsseldorf, Germany

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**Surface Treatment not just for webs**

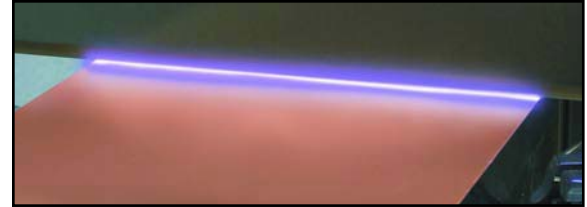
Enercon's line of atmospheric plasma surface treaters includes systems designed for the treatment of objects.

At CMM Enercon will exhibit its Dyne-A-Mite™ HP air plasma treater.

The system's blown-arc surface treatment improves adhesion for:

- printing
- labeling
- coating
- bonding
- painting

It successfully treats a wide variety of polymers, extruded, pultruded, molded and formed materials. Treatment is ideal for PE, PP, PET, nylon, vinyl, polystyrene, polycarbonate, PVC and all other types of thermoformed and thermoset plastics.



**Adhesion improving surface treating systems are available for virtually any sheet or dimensional object.**

Contact us today for a complimentary lab trial of your application at [info@enerconind.com](mailto:info@enerconind.com) or call 1-262-255-6070.



[www.enerconind.com/treating](http://www.enerconind.com/treating)

**Surface Treating Technology**

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