Blown Film Extrusion (Dr. Kirk Cantor) **October 24-26, 2018**

About the Seminar:

This three-day program provides a broad overview of blown film extrusion, including materials, hardware, and processing methods. In addition to the classroom sessions, there will be hands-on workshops each day. Upon completion of this seminar, attendees will be able to:

- describe how all parts of an extrusion line interact with plastic material to affect final product performance and quality
- identify various polymer materials used to produce blown film and discuss important film properties
- discuss in detail the hardware specific to blown film processing, including screws and dies
- describe how bubble geometry creates the molecular structure that influences film properties
- troubleshoot both extruder and film problems
- operate a laboratory three-layer blown film line

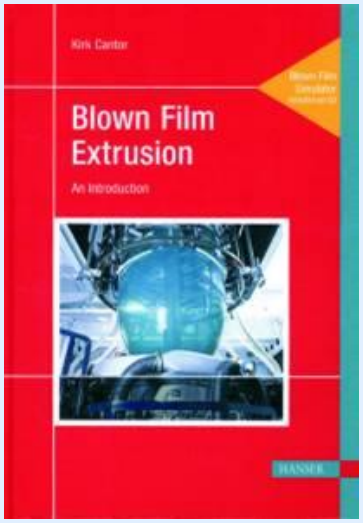
What attendees will learn:

- hardware systems on an extruder and the functions that the extruder performs on the plastic material
- various polymers used to produce blown film, including the rheological and solid state properties of these polymeric materials
- upstream and downstream hardware specific to blown film extrusion
- bubble geometry and the process parameters used to create specific bubble shapes
- control systems, both manual and automated, for maintaining product targets
- process/structure/property relationships in blown film: how bubble geometry affects molecular structure and film properties
- basic blown film coextrusion principles
- how to solve both extruder and film problems

Who should attend:

- Operators
- Set-up technicians
- Process engineers
- Quality control personnel
- Floor supervisors
- Plant managers
- Film purchasers

Course Description	Continued...

• An Introduction to Blown Film Extrusion
• Extrusion Fundamentals Overview
  ○ Safety
  ○ Hardware Systems
  ○ Inside the Extruder
• Blown Film Materials
  ○ Polymer Overview
  ○ Rheology
  ○ Film Properties
• Blown Film Hardware
  ○ Equipment
  ○ Bubble Geometry
  ○ Cooling
  ○ Line Control
• Blown Film Processing
  ○ Bubble Geometry vs. Process Variables
  ○ Simulator Exercise I
  ○ Process/Structure/ Property Relationships
  ○ Simulator Exercise II
	• Troubleshooting
	  ○ Extruder Problems
	  ○ Film Problems
	• Co-extrusion
	  ○ Dies
	  ○ Interfacial Instability
	  ○ Applications
	• Quality/Variation
	
	➢ Hands-on Workshops
	  ❖ Set-up/Operation and Film Testing
	  ❖ Troubleshooting
	  ❖ Multilayer Films
	
	Books authored by Kirk Cantor:
	• Blown Film Extrusion, includes "Blown Film Extrusion Simulator"
	 

See registration form below:

The course fees are:	Through Sept 25, 18	After Sept 25, 18
Blown Film Extrusion:	$1250.00	$1350.00
3rd attendee discount (5%):		
Total:		

A 5% discount will be given for the 3rd and up attendees from the same company. The course fees include lunch for each day and the handout material.

Cancellations: A refund, less $150.00 cancellation fee, will be made if the registration is cancelled in writing by or on Sept 25, 2018 REE Inc. reserves the right to cancel one or more seminars or substitute instructors. Should this occur the attendees will be notified. We do not take any responsibility for penalty fees or any other cost that may be incurred due to cancellation. We recommend that you book travel with refundable fares. Registrants who fail to attend are liable for the fees of the course registered for.

Scan registration and email to: Sietske@rauwendaal.com
or register on-line at www.rauwendaal.com

PO #			
Name Attendee:			
Title:			
Company:			
Billing Address:			
City:		State:	
Country:		Zip:	
Phone:			
Fax:			
E-Mail:			
Additional attendee name:			
Additional attendee name:			
Credit Card	If you use this form you can use the "custom payment box" on the front of our website to use a credit card. Be sure to check "not a PayPal member" put in your total and write me a note that you faxed your registration form. If you have a problem call the phone number on the back of your card.		

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