## Extruder Maintenance (Dr. Kirk Cantor) Oct 27, 2017

#### **About the Seminar**

This one-day program focuses on proper maintenance of polymer extruders, both single screw and twin screw. Upon completion of this seminar, attendees will be able to:

- describe how to safely maintain and operate an extruder
- identify the primary extruder components requiring maintenance and explain how best to maintain them
- discuss how screw and barrel construction influences wear rate and extruder performance
- describe troubleshooting methods for extruder mechanical problems

#### What the attendees will learn:

- safety considerations when operating and maintaining extrusion systems
- components comprising the extruder drive system and how to maintain them
- screw and barrel characteristics, including materials of construction, clearance issues, alignment, and maintenance
- extruder instrumentation calibration, installation, and diagnostics
- proper extruder operating procedures
- common methods and materials for purging
- troubleshooting extruder mechanical problems

#### Who should attend:

- Operators
- Set-up technicians
- Process engineers
- Maintenance mechanics
- Floor supervisors
- Plant managers

#### **LOCATION OF SEMINAR:**

D. R. Joseph, Inc.

921 W. Harris Rd. Arlington, Texas, 76001 +1-817-987-2030

#### **RECOMMENDED HOTEL:**

Courtyard Marriot
711 Highlander Boulevard
Arlington, Texas 76015
+1-817-465-5599

# **Course Description**

# Continued...

- 1. Introduction to Extruders
  - o Single Screw Extruders
  - o Twin Screw Extruders
- 2. Safety
  - o Moving Parts & Nip Points
  - o Electricity/Grounding
  - o High Temperatures
  - o High Pressures
- 3. Drive System
  - o Motor
  - o Gearbox
  - o Thrust Bearing
- 4. Screw and Barrel
  - o Materials of Construction
    - Standard Materials
    - Corrosive Resistance
    - Wear Resistance
    - Specialty Materials
    - Screw/Barrel Material Compatibility
  - o Flight Treatment
  - o Screw/Barrel Clearances
    - Heated Barrel
    - Cooled Feed Throat
  - o Screw/Barrel Wear
    - Mechanisms
    - Indicators
  - o Barrel Alignment
    - Consequences of Misalignment
    - Alignment Techniques
  - o Feed Housing
    - Temperature Control
    - Cooling Channel Blockage
  - o Screw/Barrel Cleaning
    - Pulling Screw
    - Cleaning Screw/Barrel
    - Measurements
    - Breaker Plate/Screen Pack Installation
    - Replacing Screw

- 5. Instrumentation
  - o Sensor Calibration
  - o Heater Installation and
  - Diagnostics
  - o Thermocouple Installation and Diagnostics
  - o Pressure Transducers
- 6. Proper Operation Methods
  - o Start-up
  - o Normal Operation
  - o Shutdown
- 7. Purging
  - o Material Types
  - o Purging Methods
- 8. Troubleshooting Mechanical Problems
  - o Vibrations/Unusual Sounds
  - o High/Low Temperature
  - o Low/No Output
  - o Output Instabilities
  - o Excessive Pressure
  - o Vent Flow
  - o Plastic Leakage

## **Books authored by Kirk Cantor:**

 Blown Film Extrusion, includes "Blown Film Extrusion Simulator"



The course fees are:	Through Sept 22, 17	After Sept 22, 17
Blown Film Extrusion:	\$850.00	\$950.00
Extruder Maintenance:	\$350.00	\$450.00
3 <sup>rd</sup> attendee discount (5%):		
Total:		

A 5% discount will be given for the 3<sup>rd</sup> 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 22, 2017 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

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Name Attendee:			
Title:			
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City:	State:		
Country:	Zip:		
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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 problems call the number on the back of		
	vour credit card!		



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