Who should attend?
Process Engineers from manufacturing and research environments will benefit from the practical approach to improving quality and optimising productivity. Senior operators and maintenance personnel will find the program particularly useful. Managers and owners will learn how to train their employees and how to select equipment for their factories.

General information
Registration
Seminar timetable
8 am – Registration (Thursday 22 July only)
9 am – Welcome and start
10.30 am approx. – Morning tea
12.30–1.30 pm – Lunch
3.30 pm approx. – Afternoon tea
5.30 pm Cocktails and discussion session (Thursday only)
The number of participants is strictly limited and it is therefore recommended that you register as early as possible. An administrative fee of AUD$50 will be charged for cancellations received one week before the course starts. After this date there will be no refunding of registration fees, but full credit can be given for another person from the same company to attend. Substitutions may be made at any time, but an advance notice would be appreciated. RMIT Rheology and Materials Processing Centre will not be responsible for any costs incurred by the attendee in the unlikely event of the seminar being cancelled.
Accommodation
A special rate of AUD$210 per night including full buffet breakfast has been negotiated with the Rydges Hotel. Availability is on a first-come-first-served basis. Bookings must be made directly by calling reservations on +61 3 9347 7811. To obtain the special rates please indicate your participation in the RMIT training course.

Principal Lecturer
Paul Waller has been involved in the plastic film industry for more than 30 years. Clients have included raw material suppliers, processors, end users, educational institutions and industry associations.
Paul Waller obtained his B.Eng in Chemical Engineering at McGill University in Montreal and his MBA at York University Schulich School of Business in Toronto.
Mr Waller started his career at Dow Chemicals Canada’s polyethylene technical services group before moving to Esso Chemical Canada’s Vinyl division.
Mr Waller designed and delivered the Blown Film Technology program for the Canadian Plastics Training Centre in Toronto and SENAI in Brazil. He has provided intensive in-house training to more than 900 operators, technicians and engineers on five continents.

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Disclaimer
Every effort has been made to ensure the information contained in this publication is accurate and current at the date of printing.
For the most up-to-date information, please refer to the RMIT University web site.
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Sponsored by RMIT University, Rheology and Materials Processing Centre and the Society of Plastics Engineers
Blown and Cast Film Processing and Troubleshooting
Thursday 22 – Friday 23 July
Registration: 8–9 am Thursday 22 July

Topics to be covered include:

Properties of Plastics
- Fundamental characteristics
- Effect of process conditions and film structure on film properties
- Process time theory and how it affects film properties
- Barrier principles
- Review of resin options
- Case studies

Extrusion Fundamentals
- Hardware components of single screw extruders
- Blending systems and causes for common defects
- Recycling systems for trim
- Motors, drives and energy efficiency
- Gear reducers and thrust bearings
- Grooved feed throat versus smooth bore barrel design
- Screw design fundamentals
- Barrel heating and cooling
- Workshop 1—Temperature Profiles for Extruders
  - Screw and barrel wear
- Workshop 2—Screw and Barrel Wear
  - Instrumentation and controls
  - Screen changers
- Workshop 3—Surging

Blown and Cast Film Production
- Cast film dies
  - Die and block design options
  - Case studies utilising compuplast Flow2000™ simulation software
  - Automatic gauge control
- Blown film dies
  - Die and block design options
  - Case studies utilising compuplast Flow2000™ simulation software
  - Automatic gauge control

Workshop 4—Melt Fracture, Sharkskin, Interfacial Instability
Workshop 5—Gels
- Web quenching with cast film extrusion
- Cast film web quenching and stability control
- Review of technologies to improve stability

Workshop 6—Draw Resonance, Unstable Edges, Snap off with Cast Film
- Blown film bubble cooling and stability control
- Selection criteria for cooling systems
- Comparison of air ring systems
- Air ring adjustment principles for low and high stalk bubbles
- Comparison of internal bubble cooling systems
- Automatic gauge control for blown film
- Blown film bubble stabilisers
- Blown film collapsing systems

Workshop 7—Bubble Stability
- Film treatment principles

Workshop 8—Surface Treatment
- Mechanics of winding
- Principles of winding and web tension control
- Wrinkle elimination by analysis of roller position
- Heat sealing and bag manufacturing principles

Workshop 9—Heat Sealing
- Operating principles
- Startup, purging, shutdown procedures
- Troubleshooting techniques
- Systematic approach
- Troubleshooting guide
- Practical examples and case studies
- Case studies using Fourier analysis of gauge variation to identify causes of transverse and machine direction gauge variation

Workshop 10—Gauge Variation
- Film treatment principles

Registration Form—Blown and Cast Film Processing and Troubleshooting
22 and 23 July 2010
(Please photocopy for additional registrations)

Name: __________________________________________________
Position: ________________________________________________
Company name: __________________________________________
Mailing address: __________________________________________
Tel. _______________________________________________________
Email: __________________________________________________

Fees
Both days—AUD$1,200 + GST
This includes registration, lecture notes, arrival tea/coffee, morning tea, afternoon tea and lunch, cocktails and hors d’oeuvres at Thursday evening discussion session.

Discount (Only one discount per registration)
☐ I am an SPE member—AUD$50 per day discount OR
☐ Company registrations of two (2) or more people—AUD$50 per person per day discount

Method of payment
☐ Cheque (payable to Rheology and Materials Processing Centre)
Mail cheques and registration form to:
Rheology and Materials Processing Centre
RMIT University
GPO Box 2476
Melbourne VIC 3001

☐ Credit card (Visa or Mastercard)—Tel. +61 3 9925 3653

Receipt number: __________________________________________

☐ Please email a copy of my receipt

Prepaid Credit Card Registration
Please fax the completed form including your receipt number to fax: +61 3 9925 2268

All fees are to be paid in advance—Payment must be in Australian dollars.