



SmartTech™
ON-SITE SCIENTIFIC MOLDING TRAINING

Process Master (4 Days)

SmartTech™ Process Master provides the necessary knowledge and skills to build, document, troubleshoot, and optimize Scientific Molding processes. In addition, participants are well-equipped to pass the Injection Molding Professional Certification Exam, which is included with this package. This 4-day training gives participants an extended, well-rounded understanding of injection molding — perfect for anyone involved in the development, establishment, evaluation, optimization, or management of injection molding processes.

SmartTech™ Training Structure

- Face-to-Face Instruction
- Hands-On Skills Development
- Post-Requisite Online Training
- Injection Molding Professional Certification Exam

Prerequisite Online Training

- Injection Molding Basics
- Understanding Plastics Materials
- Establishing a Scientific Molding Process
- Processing Parameters for Scientific Molding
- Math for Scientific Molders

Day 1 : Classroom Discussion Topics

- Injection Molding Safety
- Establishing 1st Stage Injection
- Process Inputs vs. Outputs
- Establishing 2nd Stage Packing
- Check Ring Repeatability
- Barrel Purging Concerns

Day 1 : Practical Skill Development

- 1st Stage Injection Speed Determination
- 1st Stage Injection Transfer Optimization
- Maximum 1st Stage Injection Pressure
- Maximum 1st Stage Injection Time
- 1st Stage Check Ring Evaluation



Day 2 : Classroom Discussion Topics

- 5 Rules of Effective Processing
- Understanding Part Cooling
- Understanding Screw Recovery
- Scientific Process Documentation
- Scientific Troubleshooting Techniques

Day 2 : Practical Skill Development

- 2nd Stage Packing Pressure Optimization
- 2nd Stage Packing Time Optimization
- 2nd Stage Final Cushion Optimization
- 2nd Stage Clamp Force Optimization
- Scientific Melt Temperature Measurement
- Scientific Coolant Temperature Measurement
- Scientific Process Documentation



Routsis Training
Hands-on. Online. Ongoing.

Day 3 : Classroom Discussion Topics

- 1st Stage Optimization
- 1st Stage In-Mold Rheology
- 1st Stage Cavity Imbalance
- Part Cooling Rate
- Mold Opening & Closing

Day 3 : Practical Skill Development

- 1st Stage In-Mold Rheology
- 1st Stage Speed Study
- 1st Stage Cavity Imbalance
- 1st Stage Transfer
- Cooling Temperature
- Cooling Time
- Estimated Shots in Barrel
- Estimated Dryer Residence Time

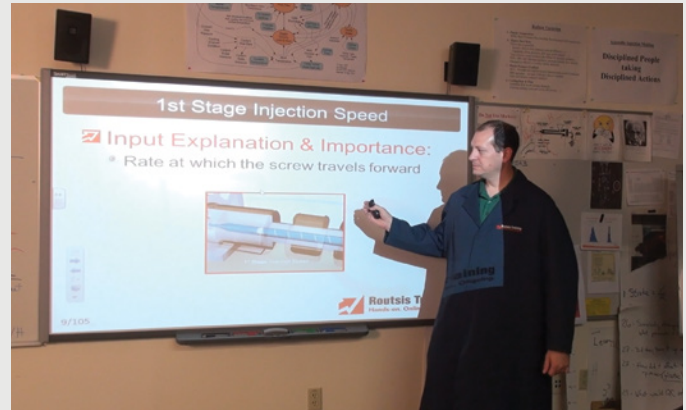
Day 4 : Classroom Discussion Topics

- Practical Rheology
- Screw Recovery Optimization

Day 4 : Practical Skill Development

Scientific Process Development & Documentation, using:

- 1st Stage Comparative In-Mold Rheology
- Rear Zone Temperature Study
- Back Pressure Study
- Screw Recovery Time
- Performing a Basic DOE (Optional)
- Comparative Purging Analysis (Optional)



Post-Requisite Online Training

- Material Drying Technology
- Scientific Troubleshooting for Injection Molders
- Processing for Profit
- Purging for Scientific Molders

Injection Molding Professional Certification Exam

The areas being tested in this exam include:

- Injection Molding Safety
- Plastics Material Basics
- Defect Troubleshooting
- Scientific Molding
- Scientific Process
- Scientific Purging
- Scientific Documentation



PRODUCT INFORMATION:

**SmartTech™ Process Master:
On-Site Scientific Molding Training**

*4 days of on-site skill development +
21 online courses & certification exam*

product id: **crt.im4**

(978) 957-0700

www.traininteractive.com

 **Routsis Training**