EXTRUSION
SmartTech™ Onsite Training Events

Routsis SmartTech™ is the most effective hands-on training program available for plastic processors and technicians. This unique combination of face-to-face instruction, online training, and hands-on skills development teaches your employees the science of extrusion — not just the workings of a particular single-screw or twin-screw extruder.

How do the SmartTech™ events work?

Prior to the event, participants are required to take online training to prepare them for focused technical discussions. The onsite training event itself can be either 1 or 2 days long, depending on your company's training needs. After the event, participants must complete additional online training — reinforcing the classroom discussions and preparing them for the **SmartTech Extrusion Pro™** completion exam.

- **1-Day: Classroom**
  Intended for groups of 10-15 participants, our single-day classroom event is perfect for anyone involved in developing, documenting, troubleshooting, or monitoring the extrusion process. This includes line operators, technicians, engineers, managers, and supervisors.

- **2-Day: Skills Development**
  Our two-day event augments the classroom training with hands-on skills development labs performed on your machines. Specifically designed for line operators, process technicians, and engineers, this intensive training is limited to groups of 8-10 participants.

What is the SmartTech™ pricing model?

SmartTech™ pricing is based on the number of contiguous days of onsite instruction. Since most of the cost is due to travel and preparation, longer events are more cost-effective. For example, a 2-day event costs only 25% more than a 1-day event.

All Routsis SmartTech™ courses are available for both single-screw and twin-screw extrusion operations.

SINGLE SCREW

TWIN SCREW

Routsis Training
Hands-on. Online. Ongoing.

SmartTech Extrusion Pro™

for Extruder Operators, Technicians, and Engineers

Our **SmartTech Extrusion Pro™** class provides participants with a well-rounded understanding of the extrusion process — including processing, documenting, purging, and troubleshooting. Training topics will be tailored to your equipment, processes, and products. Our engineer will discuss your specific processes prior to our visit to your facility, in order to ensure appropriate content is covered.

Pre-Requisite Online Training (7-14 hours)

- The Extruder
- Plastic Materials
- The Extrusion Process
- Preventive and Corrective Actions
- Startup, Changeover, and Shutdown
- Extrusion Quality
- Material Handling
- Problem Solving & Troubleshooting

Post-Requisite Online Training (6-12 hours)

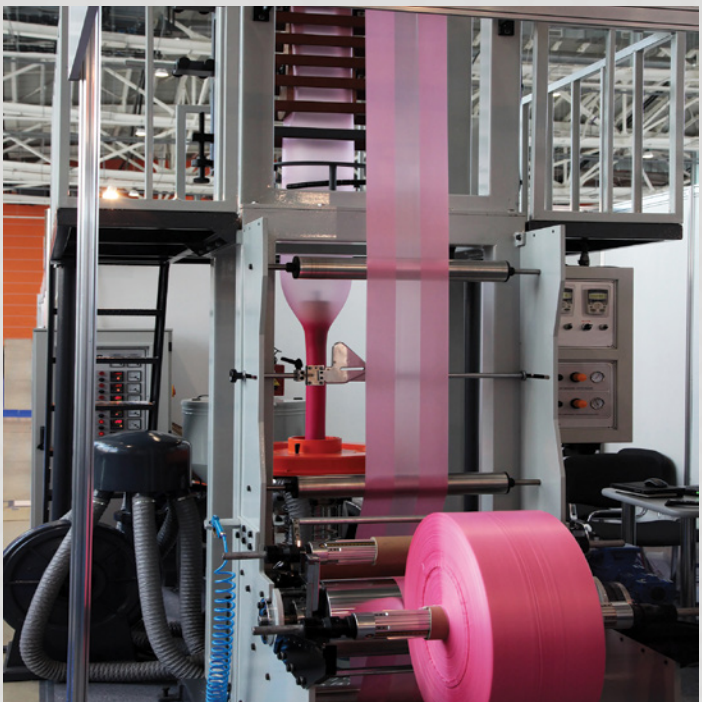
- Math for Extruders
- Scientific Troubleshooting
- Scientific Purging: Techniques
- Scientific Purging: Procedures
- Scientific Purging: Compounds
- Extrusion Pro™ Completion Exam

Classroom Instruction

- Extrusion Safety
- The Extrusion Process
- Extrusion Machinery
- Purging Techniques & Procedures
- Inputs, Outputs, & QA
- Scientific Process Documentation
- 5 Rules of Processing
- Heating Control
- Forming, Calibration & Cooling
- Scientific Troubleshooting
- Simulation Scenarios (if applicable)
- Material Drying (if applicable)

Hands-On Skills Development **

- Extrusion Line Review
- Scientific Purging
- Process Documentation
- Process Cause & Effects
- Evaluating Process Limits



** *Hands-on Skills Development is only performed at 2-day events*

SmartTech PVC Extrusion Pro™

for Performance PVC & CPVC Processors

Targeted to companies processing PVC & CPVC products with strict strength and/or resistance requirements, **SmartTech PVC Extrusion Pro™** gives participants with a well-rounded understanding of the extrusion process. Prior to our visit to your facility, our engineer will discuss your specific needs — ensuring we cover topics that are applicable to your equipment, processes, and products.

Pre-Requisite Online Training (7-14 hours)

- The Extruder
- Plastic Materials
- The Extrusion Process
- Preventive and Corrective Actions
- Startup, Changeover, and Shutdown
- Extrusion Quality
- Material Handling
- Problem Solving & Troubleshooting

Post-Requisite Online Training (6-12 hours)

- Math for Extruders
- Scientific Troubleshooting
- Scientific Purging: Techniques
- Scientific Purging: Procedures
- Scientific Purging: Compounds
- Extrusion Pro™ Completion Exam

Classroom Instruction

- Extrusion Safety
- Understanding PVC
- The Extrusion Process
- Extrusion Machinery
- Purging Techniques & Procedures
- Process Inputs and Outputs
- PVC Quality Assurance
- PVC Gelation/Fusion
- 5 Rules of Processing
- Heating Control
- PVC Forming, Calibration & Cooling
- Scientific Troubleshooting for PVC
- Simulation Scenarios (if applicable)
- PVC Material Drying (if applicable)

Hands-On Skills Development **

- PVC Extrusion Line Review
- Scientific Purging of PVC
- Process Documentation for PVC
- Process Cause & Effects
- Evaluating Process Limits

** *Hands-on Skills Development is only performed at 2-day events*

Routsis Training

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