



# Paulson ProEx 1 Extrusion – Seminar Outline

## Duration

4 Days

## Certification

Graduates will be Certified in the knowledge of extrusion “from the plastic’s point of view,” will understand the “why” behind the extrusion process, and confidently and safely use the right systems and data to make production floor decisions before changing settings on the extruder.

**Paulson ProEx1 Extrusion Seminar** Paulson’s new ProEx 1 extrusion seminar offers immediately actionable training for extrusion production floor personnel at any level of experience. You will leave this extrusion class with practical, immediately useful knowledge and skills, plus a thorough understanding of how to approach the extrusion process from a scientific point of view. It is a comprehensive, real-world class for anyone in the extrusion manufacturing industry who wants to increase their understanding of the principles of extrusion and wants a scientific background for approaching their extrusion production floor.

## Who should attend?

Extrusion operators, technicians, engineers – and novice or seasoned extrusion veterans.

## What you will learn.

When you complete this course you will be able to:

- Understand the structure, application and science of extrusion technology.
- How to optimize control settings
- How to regulate plastic temperature

## Why earn a Paulson Certification?

Paulson Training Programs has an industry-leading 35 year reputation for developing highly qualified injection molding and extrusion personnel who are sought after by the top plastics industry companies. To maintain this quality, we test each student at the end of the course with a written exam. Based on final scores, each participant earns one of three levels of Certification: **Paulson Gold Certificate of Achievement**; **Paulson Silver Certificate of Achievement**; and a **Paulson Certificate of Completion**.



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# Paulson ProEx 1 Extrusion – Seminar Outline

The main topics covered during this intensive 4-day seminar include:

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## The Single Screw Extruder:

- Parts and Operation
- The Structure of Plastic Raw Materials
- The Characteristics of Plastics for Extrusion
- Effects of Pressure, Temperature, and Flow
- Optimizing Extruder Controls
- Safety, Pre-Start, and Start-up Procedures
- Steady-State Operation, Shutdown, and Maintenance Procedures
- Single Screw Extruder Troubleshooting
- Plant Management Topics

## Twin Screw Extrusion Lesson

- Twin Screw Uses
- Twin Screw Parts and Operation
  - Parts of the Extruder
  - Modular Design
  - Temperature Control
  - Screw Elements and Functions

## Sheet Extrusion Lesson

- Thickness Definitions
- Uses of Sheet
- Monolayer and Multi-layer
- Downstream Equipment
  - Roll Stacks
  - Roll Design
  - Pull Rolls
  - Gauging Systems
  - Other Line Options

## Sheet Extrusion Dies

- Parts of the Die
- Plastic Flow in the Die
- Plastic Flow Leaving the Die
- Care of Dies
- Manifold Designs
- Flow Control through the Die
- Co-extrusion
  - Multi—Manifold Dies
  - Feedblock
- Plastic Travel through the Roll Stack

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## About Paulson Plastics Academy

The **Paulson Plastics Academy (PPA)** is the division of Paulson Training Programs devoted to in-person, hands-on training. We offer expert instructor-led, vendor-neutral certification seminars that teach the fundamentals and advanced topics of injection molding, extrusion, and extrusion blow molding. The number of Plastics Academy graduates grows by hundreds each year. Whether you need a customized onsite seminar for your whole team or an instructor-led classroom experience for one or a few of your personnel, PPA can help you take the next steps on your journey to success. Contact us today to learn how we can help you get the most out of your training investment.

Register for a Paulson Plastics Academy seminar online or speak with an expert.

### Paulson Training Programs

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