Practical Injection Molding - Expert Series









Fully Interactive
Digital Video

3-D Animation

9+ Hours of Training

Greatly enhance the knowledge and effectiveness of your molding personnel with our new Expert Series!

- ◆ Learn how the four plastic processing variables of pressure, temperature, flow rate and cooling rate determine ALL part properties.
- Discover the relationship between cavity pressures and the internal part stresses they create.
- Mold better parts by applying your increased knowledge of plastic behavior to the molding machine controls.

This program builds on the knowledge gained from the Practical Injection Molding - Basic and Optimizing modules. Emphasis of this course is on building an in-depth understanding of the molding process for those wanting to be at the expert molding level.

Expert level knowledge is vital to the success of today's molding operations. Increased customer demands and increased competition demand a renewed commitment to developing the in-house resources that separate your production team from the competition's.

Practical Injection Molding - Expert Series

Inside the Injection Molded Part

This lesson describes the structure of plastic molecule

This lesson describes the structure of plastic molecules and the different internal structures that can develop in molded parts - crystalline, amorphous and oriented. A part's internal structure affects finished part properties.

Plastic Flow: Understanding How Flow Affects the Molding Process
This lesson explains how the various types of plastics flow, orient, and change their viscosity. Molecular orientation is discussed including its effects on part directional properties and frictional heat generation.

The Effects of Temperature, Pressure, Flow & Cooling on the Molded Part
This lesson shows that although a typical molding machine has from 15 to 30 separate
controls, the plastic knows only the four primary plastic processing conditions -- pressure,
temperature, flow rate, and cooling rate.

The Requirements to Control Molded Part Quality
This lesson continues our discussion of the four primary plastic processing conditions. Here we examine the effects of cavity pressure on molded part properties. The internal part stresses caused by pressure and cooling are explained.

The Expert Use of Molding Machine Controls

This lesson teaches the practical application of the information presented in the previous lessons. The effects of machine controls on plastic behavior is analyzed to show how control changes affect finished part properties.

