

Principles of Extrusion Blow Molding

About the Seminar:

This two-day program focuses on two types of blow molding techniques: Continuous Extrusion Blow Molding and Reciprocating Screw Blow Molding. It is a comprehensive training course designed to cover machine operation, safety, basic maintenance and troubleshooting of blow molding operations. Topics include: safe operations, high density polyethylene, terminology, testing of the materials, process description, machine sequence, start up, proper adjustments, bottle quality and overall machine performance.

Who Should Attend:

Anyone working with the extrusion blow molding process will benefit from this technical seminar. This includes Blow Mold engineers, operators, management, Sales and R&D.

Benefits of Attending

- ▶ Learn the various characteristics of resin processing
- ▶ Understand blow molding techniques and machinery
- ▶ Review best practices for operator and machine safety
- ▶ Troubleshoot and identify practical solutions

Concepts Covered

- ▶ Material handling
- ▶ Machine hydraulics
- ▶ The electrical system
- ▶ Machine pneumatics
- ▶ Cooling systems
- ▶ Machine extruders
- ▶ Extrusion head and design
- ▶ Extrusion tooling
- ▶ Clamping areas
- ▶ Blow pins set-up
- ▶ Advantages and disadvantages of Ovalized or shaped tooling



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Course Syllabus

Introduction

High Density Polyethylene Production
Important Polymer Properties

Resin Processing Characteristics

Heat and Pressure Effects
Plastic Swell and Flare Characteristics

Blow Molding Overview

Types of Machinery
Blow Molding Techniques

Blow Molding Machine

Drive System
Control Panel
Machine Limit Switches
Hydraulics
Clamp
Pneumatic System
Blowpins and Prefinish Systems
Manifold Chokes
Head Tooling, Oval Dies
Molds
Stripper
Swing Arm and Cooling Bed
Trimmer
Regrind System

Material Conveying Systems

Silo
Preblend Systems
Hopper Loaders

Safety

Operator Safety
Machine Safety Switches and Alarms

Processing

Start Up and Shut Down Techniques
Common Bottle Problems and Solutions
Troubleshooting Methods
Contamination Investigation

Machine Side Training

Location of all Components
Start Up and Shut Down Procedures
Routine Adjustments
Bottle Weights
Parison Lengths
Preblow
Cycle Time
Safety