Moldex3D
MOLDING INNOVATION

Challenges of Design and Process Optimization for Extrusion Blow Molding

Limited Seats. Register Now!

Course Introduction

In recent years, extrusion blow molding has been applied to produce many commodity products. In order to shorten product development cycle, reduce cost, and raise competitiveness, a steady and effective process is a must for product varieties. However, many issues are encountered for extrusion blow molding process and its products, such as non-uniform thickness distribution, blow-through, incomplete molding, and dimension accuracy problem. The main reason is the difficulty in visualizing processing history inside the mold. As a result, the optimization for die/mold design and process parameters is hard to perform efficiently. The conventional trial-and-error method is not effective to problem diagnosis and optimization for new product development.

Goals

- Applications and life cycles for extrusion blow molding
- Current issues and challenges for extrusion blow molding
- Bottlenecks and limitations for traditional product development cycle
- Problem diagnoses and solutions for the automotive water/fuel tank or other products

Course Information

Date ： Please refer to official website

Organizer ：CoreTech System

Contact ：mkt@moldex3d.com

Remark：Small class size of 8-10

Topic	
Introduction to Extrusion Blow Molding and its Industrial Applications	
Production Life Cycle for Extrusion Blow Molding - Molding Mechanism - Challenges encountered - CAE application：Process investigation and optimization	
Case Study (1)	Problem diagnosis and solution for automobile water tank
Case Study (2)	Blow molding Issues and process optimization for on windshield wiper water tank
Case Study (3)	Problem diagnosis and solution for blow molding on automotive/motorcycle fuel tank

*The agenda is subject to changes.

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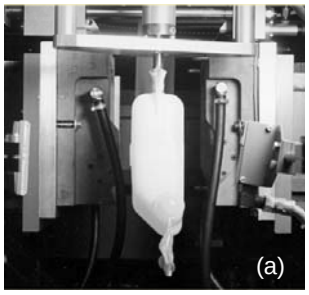
Course Content

The course begins with a brief introduction to extrusion blow molding and its industrial applications. Afterwards, we address the challenges in the development of extrusion blow molding products from the viewpoints of die/mold designs. Furthermore, some real case studies are investigated in order to give students the in-depth understanding of extrusion blow molding process. The first case is concerning the issue of the area with high stretching ratio and its problem overcome for an automobile water tank. The second case regards with the thickness distribution for a windshield wiper tank. We discuss how to optimize the preform thickness profile through the simulation analyses. In this course, students can learn how to use a scientific CAE tool to reach solutions and optimization for extrusion blow products.

Participants

- Boss and managers
- Supervisors in Research or Production Departments
- Part design/production engineers
- Mold design/manufacturing engineers
- Extrusion Blow Molding experts/ engineers
- Material suppliers
- People interested in extrusion blow molding plastic products and processing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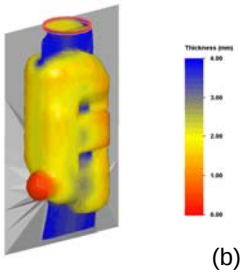
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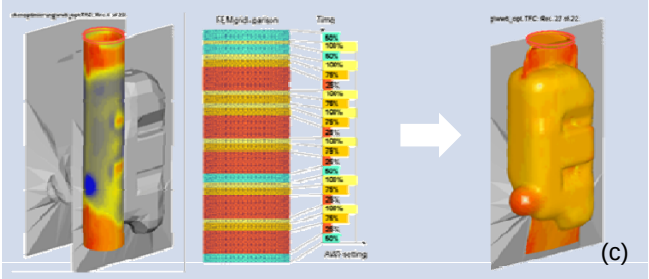
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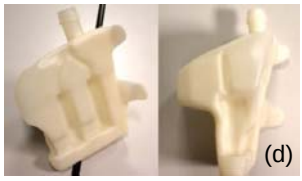
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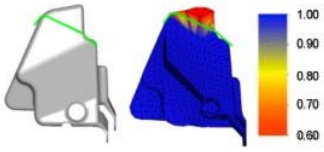

(e)

(a) Practical blow molding process for windshield water tank .

(b) Simulation analysis for windshield water tank：thickness distribution prediction.

(c) Blow molding optimization：optimized preform thickness profile (axial thickness control) .

(d) Real automobile water tank manufactured by extrusion blow molding.

(e) How to use CAE to solve problems.

Instructor

Our professional instructors all hold extensive qualifications and have many years of hands on experience in injection molding industry. A strength of Moldex3D Advanced Molding Technology

Workshop program is our committed and highly experienced instructors. Driven by their passion for the injection molding industry, our instructors are specialists in their relative fields with first-hand knowledge of their industry.

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