

GREEN SAND DEFECT ANALYSIS

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Learning made Simple, Visual, and Interactive

Green Sand Systems: Defect Analysis is an examination of the appearance, root causes, and potential preventative measures for defects common to green sand systems. Presented in THORS' highly visual and interactive learning format, this course is designed to improve the ability of foundry employees to recognize and correct green sand related defects.

Credit Hours **2**

Learning Objectives

- Understand some of the basic defects associated with mold handling and ventilation.
- Differentiate between the various types of potential gas defects for green sand castings.
- Recall the defects that are caused by ventilation related problems.
- Identify the common green sand defects associated with expansion and erosion.

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I. Molding Anomalies and Venting

- **Mold Anomalies**
 - o Cracked Molds
 - o Runouts
 - o Crush
 - Mold Crush
 - Core Crush
 - o Casting Swell
 - o Shrinkage
 - o Stickers
- **Mold Venting**
 - o Blisters
 - o Gas Holes
 - Blowholes
 - Pinholes
 - o Surface Pitting

II. Sand Expansion and Erosion

- **Expansion Defects**
 - o Buckles
 - o Rat Tails
 - o Expansion Scabs
 - o Veins
 - **Erosion Scabs**
- ### III. Metal Penetration and Pouring
- **Penetration Defects**
 - o Burn-On
 - o Burn-In
 - o Explosive Penetration
 - **Pouring Defects**
 - o Cold Shuts
 - o Misruns
 - o Doughnuts

