PoDFA Metallographic Analysis Training Course

Duration: 4.5 Days

Program

Who should attend?

♦ Metallographers with experience in cutting, mounting, polishing and the use of an optical microscope.

Training objectives:

At the end of the training course, attendees will be able to:

♦ Identify main types of inclusions under optical microscope

♦ Sample and prepare PoDFA or Prefil samples

♦ Perform accurate counting of each inclusion type and calculate the total metal cleanliness in mm²/kg.

Location

ABB Bomem’s main office and manufacturing site in Quebec City, Canada

♦ Click here to access a road map to our facility from the Quebec Airport (Jean-Lesage Airport).

♦ Click here to access tourist information sites.

Date

♦ To be determined upon demand.

*Approximately three training sessions are given every year.
| **DAY 1**  | **Introduction** | ♦ Welcoming remarks and guided tour of ABB Bomem Inc.  
♦ PoDFA Technology video presentation, filter certification  
♦ General ABB presentation, PoDFA-f and Prefil presentations  
♦ Metal Sampling  
Crucible preparation, safety equipment  
Each participant takes PoDFA and/or Prefil samples  
♦ PoDFA Standard Practice Instructions (Part 1)  
Receiving, Cutting and Mounting specimens |
| **Sample Preparation (Part 1)** | |  |
| **DAY 2**  | **Sample Preparation (Part 2)**  
**Inclusion Identification** | ♦ Polishing specimens  
♦ Survey of Inclusions  
Presentation and description of each inclusion type  
♦ Review of each inclusion type under microscope |
| **DAY 3**  | **Inclusion Identification and Counting** | ♦ PoDFA Standard Practice Instructions (Part 2)  
PoDFA evaluation presentation  
Grid and Estimate Method  
♦ Template presentation  
♦ 20 µm rule (Exercises)  
♦ PoDFA specimen evaluation |
| **DAY 4**  | **Inclusion Counting** | ♦ PoDFA specimen evaluation (continued).  
** Each participant should evaluate at least one sample using the GRID method at 50X, 100X, 200X and one with the ESTIMATE method.  
♦ Comparison and discussion of the results. |
| **DAY 5 (AM)**  | **Examination Session and Varia** | ♦ PoDFA examination  
♦ Choice to review one of the workshops (i.e. polishing)  
♦ Conclusion and questions |

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