Event Agenda

Fundamentals of Automated Visual Inspection Training Course (PDA 593.2)

DAY 1	
8:30	**Welcome and Introductions**
9:00	Theory 1: Introduction into Visual Inspection and Regulatory Requirements • Purpose of visual inspection • Regulations review: United States, Europe, Japan, China • Similarities and differences in compendial methods • 100% inspection and acceptance testing (AQL) incl. DIP • Definitions and practical examples of inherent, intrinsic and extrinsic particles
10:30	**Break**
10:45	Theory 2: Life Cycle Approach and Risk Evaluation • Contamination control strategy • Holistic particle life cycle management • Particle investigations • Risk evaluation of particulate matter • Monitoring and trending
12:00	**Lunch**
13:00	Theory 3: Technical Principles of Automated Inspection Machines Part I • Functionality of automated inspection machines • Camera systems/light/motion • Image processing and database system • Interlinkage of parameters: speed, rotation speed, inspection parameters, detection probability, false reject rate
13:45	**Break**
14:00	Theory 3: Technical Principles of Automated Inspection Machines Part II • Properties, capabilities and limitations of automated inspection systems • Scope of automated visual inspection • Considerations on primary containers and product properties • Artificial Intelligence – how and when to apply it in AVI
15:30	Exercise 1: Principle Basic Image Acquisition and Processing, Test Samples Parametrization
16:30	**End of Day 1**

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DAY 2	
8:30	Theory 4: Transition from Manual to Automated Inspection • Manual inspection as a prerequisite for transition to automated inspection • Manual inspection baseline assessment • Interpretation of inspection results and validation of data • URS & feasibility studies
10:30	**Break**
10:45	Theory 5: Qualification Test Set and Routine Test Set • What to include in test sets for qualification • How to ensure the test set is representative and challenging • Routine defects vs. artificial defects
12:00	**Lunch**
13:00	Theory 6: Validation of AVI processes • Considerations on validation strategy for automated inspection • 2-stage inspection process with MVI/SAVI • Performance measurement – comparing apples to apples • Maintaining the manual inspection
14:15	**Break**
14:30	Theory 7: Validation Maintenance • Risk management • Routine functional tests • Monitoring of performance • Change control • Re-validation
15:00	Exercise 2: Quality Factors and Knapp Simulation
16:00	**End of Event**