

Automatic Liquid Penetrant Inspection 4.0: how to increase productivity and safety while reducing your variable per-part costs

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The target of this presentation is to present to the audience with the latest innovations in Automatic Liquid Penetrant Inspection. The focus of this presentation is the automotive industry but the data presented relates also to marine, railway and power generation industry. In the fast changing world of automotive companies must always compare their current production variable per-piece costs with the present available technologies to find new ways to improve their productivity, offer better pricing than competitors, care everyday more about a sustainable and safe liquid penetrant inspection. The Topics discussed will include:

- Liquid penetrant inspection variable costs analysis (liquid penetrant and waste water per-part consumption data; comparison of different water treatment technologies and their impact on the variable costs)
- Optimizing liquid penetrant inspection fixed costs (Liquid Penetrant equipment with higher productivity and more compact design; optimizing your energy consumption)
- Liquid Penetrant Equipment with 4.0 data management and automatic defect recognition (workforce assistance tools; importance of a low and uniform background on the reliability of inspection; impact on the probability of detection; integration of data in the Company's general managerial accounting software)
- Safety considerations (water based liquid penetrants compared to standard penetrants carrying risks according to the GHS Globally Harmonized System; neutral PH degreasers compared to high PH degrears; safety protections in high productivity liquid penetrant equipment)

Conclusions: a summary will be presented of the productivity, safety and cost advantages available today with the present technologies in the field of Automatic Liquid Penetrant Inspection 4.0, to allow companies to find new ways to improve their productivity, offer better pricing than competitors, care everyday more about a sustainable and safe liquid penetrant inspection.