



EPERC

TG5 – Additive Manufacturing Meeting report

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□ 2 presentations

- Strathclyde – TWI: application on pressure relief valve
 - How to use Additive Manufacturing for small components
 - Different Material: X65 – 316 SS
 - Question on surface finish and porosity
 - Influence of Heat Treatment
- RINA
 - Question on the final RINA product: the powder
 - How to guarantee the quality of the final product and repeatability of powder quality
 - Guidelines for Users certification

□ The major actors on this AM topic:

- CEN / TC 438: Business Plan (can be download on CEN/TC website)
 - consistency and harmonization with ISO/TC 261
 - standardize the processes of Additive Manufacturing,
 - process chains (hard- and software), test procedures, environmental issues, quality parameters, supply agreements, fundamentals and vocabularies
 - Creep-fatigue analyses
- INAIL start a 4 years program
- UK: Strathclyde – TWI cooperation
 - program to support CEN and ISO/TC 261
 - Design rules
 - Exemple on a small cylinder: 25mm
- BREDA questions:
 - Integrity of final AM PE
 - Process simulation
 - From forging to AM: stabilization
- BV: How to replace old equipment by AM equipment
- RINA:
 - Fatigue and fracture pre-normative rules
- Other participants: interesting by the topic

EPERC TG5 Potential Actions List

- ❑ Report for General Introduction to AM and Pressure Equipment
- ❑ Open important questions from Milan participants:
 - Repeatability of Material data
 - Heat Treatment effects on Material Properties and Surface Finish
 - Fatigue analyses
 - Flaw tolerance and critical crack size

- ❑ Very active discussion through the participants
- ❑ A lot of basic questions associated to "New Material" and basic Material Properties to design AM Pressure Equipment
- ❑ A lot of specific questions, as on first level quality and repeatability: the powder
- ❑ A 2-3 day EPERC seminar on AM has to be proposed
 - In touch with CEN/TC 438
 - Enlarged to EU Key actors from France and Germany as a minimum
 - With PE industry representative
 - To cross all the major R&D programs
 - Define Gaps and Needs to define a complementary EPERC R&D program

If you have any Questions, Remarks or Suggestions
be in touch with EPERC BOD members:

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Or use EPERC website www.eperc-aisbl.eu : "How to contact us"