

EXCO Engineering

Ante Lausic, PhD

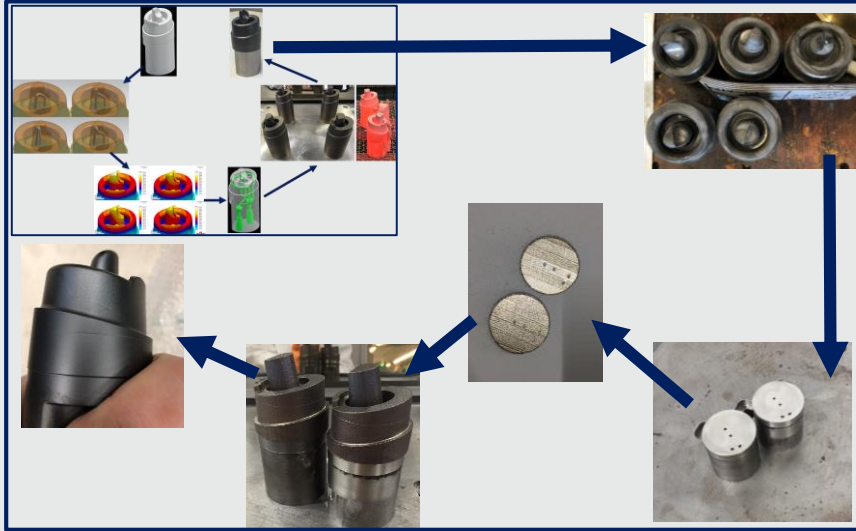
Additive Manufacturing Engineer

antel@excoeng.com

- Exco Engineering designs, develops, and manufactures die cast tooling for the automotive industry. Operations based in North America serve a global customer base.
- We are the global leaders in tool steel AM having developed the largest printers on the market for our tooling operations in Newmarket, Ontario.
- Our vision for Advanced Manufacturing in our facility is to incorporate metal deposition technology for the purpose of repurposing die components.

Exco is a 2019 PACE Award winner for its hybrid rebuilding of end of life tooling to mitigate economical and environmental aspects of the die casting process.

Exco's Hybrid AM Printing Process



Project Idea: Repurpose Large Tooling

Objective: Reduce rebuild/PM times and cost in half and eliminating waste by 80%

Goals:

1. Identifying areas of used insert in need of repair
2. Depositing fully dense tool steel on hybrid base
3. Scaling across a 1.5x1x1m envelope
4. Incorporating conformal cooling
5. Match/exceed conventional die life

- Project partners could include;
 - CT/X-ray scanning technology providers
 - *Entering an untapped industry*
 - Metal powder manufacturers
 - *Larger material library for growing AM market*
 - Powder/wire deposition machine manufacturers
 - *New products for the global tooling industry*
 - Casting/moulding/stamping companies
 - *Shorter PM cycles and cost*