MATERIAL-EFFICIENT CU WIRE-BASED 3D PRINTING TECHNOLOGY

3DMPWIRE



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GOAL:

The main aim of the project was developing Cu-based wires as feedstock materials for the use in additive manufacturing and also developing printing technology of elements such as propellers. The components were manufactured by means of the 3D Metal Printing (3DMPR) process which belongs to the Wire Arc Additive Manufacturing (WAAM). The 3DMP® process considered an alternative. competitive, and more environmentally friendly to presently used conventional metal processing technologies.

The principle of the 3DMP® process is to make the final product layer-by-layer from the wire as a feedstock material. The result of the project is ready to implement 3DMP® technology for manufacturing corrosion resistant components, in particular marine propellers. Moreover, the developed materials and production technology can be used to manufacture other products in many branches of the industry.











