

La fabrication de composants par HIP à partir de poudres métalliques pour la réalisation de pièces de grandes dimensions

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Aubert & Duval (A&D) is a French industrial company producing high properties metallic products for high technology applications. A&D is a member of Eramet group and constitutes, with Erasteel Company, the Eramet's Alloy Branch. Powder activities are strongly represented in the Branch thanks to facilities dedicated to the production of powders (for additive manufacturing, tool steels and stainless steels or superalloys for aero-engine components) and to the production of hot isostatically pressed (HIPed) net shape (NS) or near net shape (NNS) parts.

Different kinds of NS/NNS parts are produced, monolithic or bimetallic. The main industries interested by the technology are the tooling, bimetallic parts for corrosion or wear resistant products, oil and gas, nuclear, aeronautic. The attractiveness of NNS powder metallurgy (PM) HIPed parts versus forgings and castings is different depending on application and market (cost efficiency, to improve mechanical properties / microstructural homogeneity, leadtime, to decrease raw material and machining costs, to obtain complex shape...).

The presentation will be focused on some examples of large scale components.