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Press Forging of Alloy 718Plus™

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Abstract

An emerging alloy that will fit the niche for low cost, high temperature applications is of great interest to the aerospace industry. One alloy, 718Plus™ has potential to replace high cost powder alloys in turbine engines and is the focus of on-going research. To investigate this potential alloy and application, an effort was undertaken to establish a manufacturing process route including hydraulic press forging and several heat treating methods. The paper will summarize the results obtained from press forgings given direct age and solution and age heat treatments. Issues relating to the alloy and TMP processing cycle will be assessed in regard to mechanical properties to determine the merits and/or limitations of this alloy.