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Heat Treatment of PM parts by Hot Isostatic Pressing

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Powder Metallurgy is a competitive method vs forgings and castings, when it comes to cost effectiveness manufacturing of complex parts or alloy systems prone to cracking during heat treatment.
By applying a Heat Treatment step in the HIP, due to the use of high pressure during the HT-step, it opens up new possibilities for to improve the strength, ductility and especially the fatigue properties of the material and residual stresses will also be eliminated.

Today, it is possible to combine HIPing and heat treatment in a specifically designed HIP equipped with Uniform Rapid Quenching (URQ®) or Uniform Rapid Cooling (URC®). This paper will describe the process and benefits of HIP of PM parts together with the possibilities and advantages of combining the HIP process and heat treatment in a Rapid Cool HIP.

Please choose topic

Materials

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