Hot isostatic pressing (HIP) was invented in 1955. Among the many applications for hot isostatic pressing, densification of aluminium castings is one of them. Using high pressure and high temperature for a certain time, porosity can be reduced. This leads to an improvement of mechanical properties, especially of fatigue strength. In addition to changes in porosity, solution hardening and a change of the precipitate characteristics have to be considered, too. Using the current way of hot isostatic pressing, it is only economical for castings with high initial porosity.
Einrichtungen > Fakultäten > Fakultät für Maschinenwesen > Institut für Werkstoffe und Verarbeitung > Lehrstuhl für Umformtechnik und Gießereiwesen (Prof. Volk) > 2009

entries: