



# Postprocessing & Finishing

## Hot Isostatic Pressing (HIP)

### BACKGROUND

Metallic components made using additive or conventional manufacturing processes can have internal porosities that impair their mechanical strength and service life. In safety-critical applications, especially in aviation, a virtually pore-free material structure is required in order to meet the highest demands in terms of strength, reliability and durability.

### ADDED VALUE

- Reduction of internal porosity
- Increase in strength and service life
- Improvement of material homogeneity
- Suitability for safety-critical applications
- Can be combined with heat treatment

### TECHNOLOGY

Hot isostatic pressing (HIP) is a compaction process in which heat and high gas pressure act simultaneously on a workpiece. Systems are used that allow temperatures of up to 1400°C and pressures of up to 2070 bar. The uniform application of pressure from all directions causes internal pores to close almost completely, and material properties comparable to those of forged components can be achieved.

