

## METHODS AND APPARATUS FOR LASER DEPOSITION

### ABSTRACT

A laser deposition apparatus includes a sealed enclosure configured to hold a substrate, a  
5 powder source configured to hold a powder material, a peen source configured to hold a shot  
peen media, and a deposition system fluidly connected to the powder source and the peen source.  
The deposition system includes a laser configured to generate a laser beam. The deposition  
system is configured to deposit one or more layers on the substrate by injecting a stream of the  
powder material into the laser beam. The deposition system is configured to shot peen the one or  
10 more layers by propelling the shot peen media onto an exterior surface of the one or more layers.

Figure 1