

VACUUM COLD SPRAY PROCESS

ABSTRACT OF THE DISCLOSURE

A method for depositing a metallic material onto a substrate comprises the steps of placing the substrate in a vacuum chamber, inserting a spray gun nozzle into a port of the vacuum chamber, and depositing a powdered metallic material onto a surface of the substrate without melting the powdered metal material. The depositing step comprises accelerating particles of the powdered metal materials within the vacuum chamber to a velocity so that upon impact the particles plastically deform and bond to a surface of the substrate.

Figure 1