

FREE FLOW ABRASIVE HOLE POLISHING

ABSTRACT OF THE DISCLOSURE

A free flow abrasive hole polishing system and method improves air flow and resultant component cooling efficiency for an apertured article (18). The free flow abrasive hole polishing system mixes an abrasive particle component (12) with a carrier media (14) to create a free flowing abrasive particle carrier media mixture. This mixture is pumped through apertures (20) defined by aperture walls (22) in the article (18) to improve air flow and resultant cooling efficiency of the article. Since the abrasive particles (12) have mass and velocity and the free flowing media (14) does not have resistance to flow, the abrasive particles (12) impinge on peaks of the aperture walls (22), predominantly removing high spots in the aperture walls (22).

Figure 1