

SYSTEM FOR MACHINING THE ABRADABLE MATERIAL OF A TURBOFAN ENGINE

ABSTRACT

A system (100) for machining an abradable material of a gas turbine engine and associated methods (200). The system (100) includes a frame (102) including a first arm (106) extending from a central location (108). The system (100) further includes an attachment structure (122) coupled to the frame (102) at the central location (108). Moreover, the attachment structure (122) is configured to couple to at least a fan rotor (38) of the gas turbine engine. Additionally, the system (100) includes a cutting apparatus (112) coupled to a first distal end (110) of the first arm (106) opposite the central location (108). The cutting apparatus (112) includes a rotating shaft (114) and plurality of cutting disks (116) coupled to the rotating shaft (114). Further, the plurality of cutting disks (116) define a helical cutting profile (120) configured to machine a contour within the abradable material complementary to at least one fan blade (44) of the gas turbine engine.

[Figure 3]