

WELDING METHOD AND ASSEMBLY THEREFOR
ABSTRACT OF THE DISCLOSURE

An assembly and method for welding an article, such as an air-cooled superalloy airfoil (24) of a gas turbine engine nozzle (10). The method entails inserting a fixture (32) into a cooling passage (14) of the airfoil (24). The fixture (32) is configured to close a first opening (20) to the passage (14) through which the fixture (32) is inserted into the passage (14). The fixture (14) is also configured to introduce a gas into the passage (14) through a longitudinal row of ports (40). A through-wall crack (30) in the airfoil (24) is weld repaired while the gas flow is maintained to the cavity (14) at a rate that sufficiently pressurizes the passage (14) to prevent the molten filler material from entering the passage (14) through the crack (30), while allowing the filler material to fill the crack (30).

FIGURE 3