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WELDING METHOD AND APPARATUS THEREFOR

ABSTRACT OF THE DISCLOSURE

An apparatus (10) and method for welding a superalloy article. The apparatus (10) generally entails an enclosure (12) adapted for containing a superalloy article, a polarity-reversing plasma transferred arc welder apparatus (20) for welding a localized region of the article, an induction coil (14) for heating the localized region, and means for sensing (24) and controlling (26) the temperature of the localized region. The induction coil (14) is placed in close proximity to the localized region of the article so that the temperature of the localized region is largely determined and quickly altered by the output of the coil (14). The welding apparatus (20) is operated at very low currents of not more than forty-five amps, so that the welding apparatus (20) has only a secondary heating affect compared to the induction coil (14).

Figure 1



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