

INDUCTION HIGH-FREQUENCY UNIT

FOR REMELTING OF REFRACTORY POWDER MATERIALS

One of the perspective directions of HF-plasma application is remelting of powder materials. A source of HF-discharge is a high-frequency generator, which induces a powerful electromagnetic high-frequency field in the inductor. The inductor contains a plasmatron forming a set mode for plasma forming gas escape at 7000–10000 °C temperature.

One of the directions of HF-plasma application is remelting of powder materials with further deposition of molten particles on a substrate; the second one is remelting and balling of powder materials. High melting efficiency of oxide materials allows wide application of developed equipment in additive technologies.

- > Technology of plasma treatment of powder materials using HF-plasma allows receiving the spherical particles independent on shape of raw material. Application of special design reactor allows treatment of powder of chemically active metals and alloys in plasma with their further usage for additive technologies.



Developed by PWI