



EBCHR MELTING

TIMET's patented EBCHR process is the most sophisticated in the world.

With EBCHR furnaces located in Morgantown, Pennsylvania, and Vallejo, California, TIMET refines more titanium, with higher quality, than anyone.

The capacity of Morgantown's EBCHR 'A' furnace, a 4-gun single chamber design, is 2200 MT a year. Our 'B' furnace, with 5 guns and our patented dual chambers, is known as the Maximelt and refines up to 10,000 MT a year. A new 'C' furnace, based on the 'B' furnace Maximelt design, also has a 10,000 MT annual capacity.

Our Maximelt furnaces are the most technically advanced EBCHR furnaces in the world. Using our patented C-shaped hearth, they can process virtually any ratio of scrap to sponge in a highly advanced, single-step melting, refining and continuous casting process.

Raw material, including processed scrap, sponge, alloying elements and remelt electrodes, is fed into the furnace and melted by a carefully controlled pattern of electron beams. As the molten metal flows through the C-shaped hearth, any high density inclusions sink to the bottom of the melt and any low density inclusions are likely to be refined due to residence time in the hearth. The C-shape physically separates melting, refining and casting zones, to maximize refining capabilities and permit casting of the widest variety of product forms with the greatest economy. Proprietary software uses real-time data to help operators control all phases of furnace operation. Specific recipes are stored in the computer for unerring repeatability.

[Click here for an Interactive tour of TIMET's patented EBCHR Maximelt Furnace.](#)