



PRODUCTS

Delivering the shapes, sizes, quality and quantities to satisfy the widest range of applications.

TIMET's hearth melted products reduce downstream costs by unburdening customer melt shops and reducing the need for forging. We commonly supply electrodes for VAR remelt in aerospace and standard grades; rectangular slabs, solid ingots, and specialty forms in CP and industrial alloy grades; and depleted alloy D-shaped rounds. Aerospace Applications Our innovative use of electron beam refining is often preferred by jet engine manufacturers because of its unparalleled ability to remove inclusions. The EBCHR process yields ultraclean titanium alloys and nickel-based superalloys for disks and other critical engine components.

Industrial Applications

Because it maximizes scrap utilization and eliminates ingot forging, TIMET's unique cold hearth refining and continuous slab casting system is the lowest cost method of producing starting stock for the manufacture of corrosion-resistant strip, plate, tube and pipe.



Premium Quality Aerospace Alloy Electrodes

TIMET is the largest supplier of premium grade, hearth-refined electrodes that meet flight critical specifications for rotating components. Because our EBCHR technology can remove both HDIs and LDIs, it is a preferred method of refining titanium for some jet engine components. Remelt electrodes are ready for final VAR melt for homogenization.



Standard Grade Alloy Electrodes

For structural aerospace parts, tightly controlled preparation of raw material, followed by hearth refining, saves costs and meets chemical uniformity requirements for remelt electrodes. We can consume up to 100% scrap and deliver a product that eliminates a traditional first stage melt.



Commercially Pure Slab and Ingot

TIMET's EBCHR process is particularly efficient for producing CP titanium for industrial and aerospace uses. To minimize raw material costs, we can input any mix from 100% scrap to 100% sponge. Mill products manufacturers realize additional savings because near net shape casting reduces the need for forging and improves yields. CP slab used for flat roll products conforms to ASTM, ASME and AMS standards.



Industrial Alloy Grade Products

TIMET offers additional specialty grades of EBCHR titanium to cover a wide range of industrial requirements. For instance, armor plate can be rolled directly from EB slab, eliminating additional VAR and forging costs. ASTM grade 12 offers higher strength and increased corrosion resistance compared to CP grades. For even more corrosive environments, ASTM grades 7, 11, 16, and 17, which include palladium, are regularly produced.



Depleted Alloy Electrodes

As an economical way of recycling high volumes of scrap, TIMET/Morgantown produces depleted alloy D-rounds. 100% scrap is melted, hearth refined and cast into a shape compatible with customer sponge compacts. During scrap refining a uniform electrode is produced, free of HDIs, with a known chemistry, but without compensation for loss of alloy. Final chemistry is adjusted at the customer's facility by welding the depleted alloy electrode to a sponge/alloy compact, then VAR melting.