WHAT WE MAKE AND WHERE IT GOES

AEROSPACE AND DEFENSE

Products

- Nickel- and cobalt-based alloys and superalloys, titanium alloys, and vacuum-melted specialty alloys for commercial and military jet engines
- Titanium alloys, vacuum-melted specialty alloys, and high-strength stainless alloys for commercial and military airframe components for airframe structural parts and fasteners
- Titanium alloy tubing and nickel-titanium shape memory alloy for aerospace hydraulic systems
- Titanium-niobium alloy for high-temperature rivets and fasteners
- High strength stainless alloys for composite helicopter blades
- High temperature niobium and tantalum alloys for rocket nozzles and jet engine components
- Tungsten materials for cutting tools and for counter-balance weights
- The patented high fracture toughness alloy ATI 13-8Mo Super Tough® Alloy
- ATI 500 MIL™ high-hard steel, CP titanium, and ATI 64™ titanium plate for armor application
- CP titanium and alloy castings, bar, and wire for defense applications
- High feed milling systems for aerospace metals

Growth Opportunities

- ATI® 718 Plus® alloy for jet engine applications
- Allvac® 1014 alloy for jet engine shafts in the latest engines
- ATI 425® titanium cold-rollable plate, sheet, foil, bar, and wire for airframe and defense applications
- CP titanium and alloy castings and cut/machined parts for armor and other military applications
- AL17-4™ and AL17-7™ plate for airframe, military, and armor components
- Electron Beam (EB) single melted titanium alloy for commercial airframe applications
- Shapes for airframe applications
- Titanium sheet for airframe and jet engine applications
- Through-coolant solid carbide drill technology for drilling titanium and nickel based alloy airframe components
- Precision threading tools for threading titanium aerospace fasteners

Emerging Technologies

- Titanium aluminide and nickel-titanium alloys for armor and other military applications
- Patented tungsten carbide composite drills and end mills for machining airframe and engine components

CHEMICAL PROCESS INDUSTRY/OIL & GAS

Products

- Corrosion Resistant Alloys (CRAs) such as duplex stainless, super stainless, nickel-based, and titanium alloys for seawater environments, such as offshore oil and gas applications
- Premium-melted specialty alloys and engineered products for oil and gas drilling applications
- Nickel-based alloys, titanium alloys, and premium-melted specialty alloys for well completion systems
- Stainless alloys for ethanol and LNG (Liquefied Natural Gas) applications
- Tungsten carbide powders and crystalline tungsten powders for exploration
- Tungsten carbide components used in drill bits, downhole pumps, and flow regulators
- ATI proprietary Datalloy® non-magnetic stainless drill collars for directional drilling
- Nickel-based superalloys, titanium alloys, and premium-melted specialty alloy products for chemical plant applications, including refineries
- Titanium castings for pumps and valves
- Zirconium products for sulfuric, nitric, acetic and formic acids and urea processing
- CP titanium for nickel-based alloys and stainless alloys plate frame heat exchangers and tubing

Growth Opportunities

- ATI 2003™ and ATI 2102™ duplex stainless
- Nickel-based alloys for exploration of alternative fuel sources, such as oil sands and shale oil
- Ductile iron castings for compression and pumping equipment
- Carbon and alloy steel forgings for flow control products and downhole tools
- CRAs for exploration and production of unconventional hydrocarbons such as heavy oil and shale gas
- Precision threading of piping for deep hole gas exploration
- Through-coolant solid carbide drill technology for drilling heat exchange plate frames

Emerging Technologies

- Titanium to lighten drill strings for deeper oil and gas exploration projects
- Patented tungsten composite tooling for machining valve and pump components
- ATI OmegaBond® tubing for fertilizer and chemical processing

ELECTRICAL ENERGY

Products

- Titanium, superferritic and duplex stainless steels, and nickel-based alloys for seawater environments
- Corrosion and oxidation resistant alloys for fuel cells
- Grain-oriented electrical steels for power distribution and power generation transformers
- Nickel-based superalloys, titanium alloys, and vacuum-melted specialty alloys for gas and steam turbine components
- Reactor-grade zirconium and hafnium products for nuclear fuel cladding and structural applications
- Hydrogen membrane purification modules
- Tungsten carbide for centrifuge tiles, coal crushers, and fan blades
- Tungsten carbide for machining turbine blades and shafts
- Ductile iron castings for wind turbines and gas turbines, engine blocks for stationary power generation
- Densalloy® tungsten alloys for shielding in nuclear power plants

Growth Opportunities

- Oxidation resistant alloys for land-based turbines
- Corrosion and oxidation resistant alloys and bi-metallics for fuel cells
- CRAs for flue gas desulfurization pollution control equipment
- Stainless and specialty stainless alloys for solar energy applications
- Titanium alloy and CRA, tubing for geothermal wells
- Castings and forgings for wind turbines
- Tungsten heavy alloys for nuclear energy safety pumps
- Through-coolant solid carbide drill technology for drilling heat-exchanger tube sheets

Emerging Technologies

- ATI® 718Plus® alloy for industrial gas turbines
- Patented large diameter superalloy ingots for gas turbine components
- Niobium-titanium, niobium alloys, and vanadium alloys for magnetic confinement of high temperature plasma in fusion reactors
- Ruthenium-based tungsten carbide for machining turbine blades

MEDICAL

Products

- Titanium alloys, cobalt-based alloys, and zirconium-niobium alloys for implants, medical equipment, and surgical instrumentation
- Nickel-titanium for arterial stents and catheter guide wire
- Titanium foils for maxillofacial implant plates
- Niobium-titanium alloy for superconducting magnets to power MRI imaging equipment
- Tungsten products for MRI shielding applications
- Tungsten for diagnostic isotope vial and dose shielding
- Tungsten carbide for machining medical implants

Emerging Technologies

- Titanium alloy seamless tubing for bone nails and screws
- Boutique alloys (Ti-15Mo, ATI 35NLoTi™ alloys) designed to meet unique demands for biomedical applications, such as spinal implants and pacemaker lead wires
- Bismuth tin for lead replacement
- ATI TJA-1537® alloys for improved medical implants
- High fatigue strength beta titanium alloys for medical implants
- Titanium sheet and strip for implants

Our Chevron Milling Cutter system using ATI's patented X-Grade™ tungsten carbide insert machines an aerospace component made from ATI 64™ titanium.