ATI Aerospace integrates Allegheny Technologies Incorporated (ATI) historic aerospace capabilities to offer our aerospace customers a variety of proven metallic and manufacturing resources needed to make the commercial and military aircraft, and the jet engines that power them, in the 21st century.

ATI has been a world leader in the development and manufacture of mission-critical metallics, including titanium and titanium alloys, nickel- and cobalt-based superalloys and specialty alloys, for more than five decades.

The ideas behind the creation of ATI Aerospace evolved from our belief that unprecedented opportunity exists in the aerospace metallics sector to collaborate with our customers to help solve the challenges they face in developing and manufacturing today’s and tomorrow’s aircraft and jet engines.

We believe that ATI Aerospace possesses the resources and capabilities to assist our customers in dealing with the materials, manufacturing and security of supply challenges they face in providing the world’s airlines with more fuel-efficient, maintainable and comfortable commercial aircraft.

ATI Aerospace has the capacity to manage the specialty metals supply chain in a manner unique to this industry — to help reduce the volatility, handle the risk, deliver the quality and provide the stability and credibility required by our global customers.

Integrity and quality... in our products and our people, stability and trust... in our capacity to deliver and to manage risk... these are the hallmarks of ATI and the foundation for the future of ATI Aerospace.
Mission Critical Metallics®

ATI's innovative specialty metals solutions are used in the critical components of airframes, jet engines, landing gear, hydraulic tubing, fasteners and ducting for commercial jetliners and military aircraft.

At ATI Aerospace, we leverage our experience in specialty metals and use the most advanced proprietary processes and technology in the industry to manufacture "best-in-class" products satisfying precise performance specifications.

Our proprietary products for aerospace include:

- High-performance titanium and titanium alloys
- Nickel- and cobalt-based alloys and superalloys
- Stainless and specialty alloys
- Zirconium, hafnium and niobium
- Tungsten materials
- Metalworking, turning and cutting tools and systems

Our high-performance products are engineered to stringent certification standards in many fabricated forms, including:

- Slab, plate and sheet
- Ingot, billet and bar
- Strip and foil
- Rod, tube and wire
- Extrusions, forgings, castings and custom, near-net shapes

What's more, our ATI Aerospace team is a proven pioneer in new product and materials research, testing and development.

With mission-critical metals that are second to none, we are helping our aerospace customers build superior aircraft and jet engines. No other company in our industry offers a greater product breadth or technical depth.
When it’s time to select high-performance titanium alloys, superalloys and specialty metals for aerospace applications, there are many considerations, from alloy and product form, to quality and availability, to on-time delivery.

ATI Aerospace provides hundreds of superior metallic aerospace solutions, including these recent innovations:

**ATI 718Plus® Alloy**

is a new, patented nickel-based superalloy developed for next-generation jet engine applications. It elevates temperature resistance beyond the current 718 alloy. Applications range from fan cases, discs and blades to structural castings, sheet applications and fasteners. ATI 718Plus® alloy permits jet engines to burn hotter to improve fuel efficiency and reduce emissions.

**ATI 425® Titanium Alloy**

was developed to reproduce the strength of conventional Ti 6-4 with an added advantage – it can be cold rolled to lengths of up to 1,000 feet and to much thinner gauges. It can also be rolled into continuous coils for thin sheet, strip, foil and tubing. With applications ranging from seamless tubing for hydraulic systems to seat tracks, ATI 425® titanium is a “must-have” material for next-generation aircraft.

**Orthorhombic Titanium Aluminides**

are a breakthrough material. They can be used to produce thin foils with structural strength at 1,200 degrees Fahrenheit. This innovative product is designed for use in manufacturing lightweight, creep-resistant structures. Developed for metal matrix composite rotor disks, these materials offer high ductility and compatibility with silicon carbide fibers. Orthorhombic Titanium Aluminides are also ideal for honeycomb foils.
Unsurpassed Manufacturing Capabilities

The rising use of composites in the coming generations of commercial airliners is increasing the use of titanium and titanium alloys, with the global demand for titanium mill products projected to surge to 350 million pounds by 2011. Obtaining a sufficient supply of aerospace-grade titanium to meet this increasing demand will be critical to the success of global airframe and engine OEMs.

To provide certainty of supply, ATI is investing more than $900 million to increase our titanium sponge production and enhance our titanium and specialty metals melting, fabricating and finishing capabilities. These major capital investments include:

- Upgrading and expanding our titanium sponge facility in Albany, Oregon
- Building a new premium titanium sponge facility in Rowley, Utah
- Expanding and upgrading our Specialty and Titanium Plate facility in Washington, Pennsylvania
- Adding new premium titanium melting, forging and finishing facilities at our Bakers, North Carolina, facility

In conjunction with its pursuit of manufacturing assets that are second to none, ATI also understands the need to offer our customers a geopolitically secure source of titanium and other aerospace specialty metals as well as a resource ideally positioned to smooth the ride through the peaks and valleys of demand cycles via an integrated supply chain.

From refining and reduction through melting, fabricating and finishing, ATI is a leader in quality assurance, innovation and reliability. We have earned a reputation for providing high quality specialty metals meeting the stringent requirements of our global customers.

ATI Aerospace can tailor production paths and processes to meet your product performance requirements. Working closely with our customers, one of our major goals is to decrease your "buy-to-fly ratio" through near-net-shape product forms and fabricating advances that help reduce overall manufacturing costs.
Mission Critical Metallics®

Integrated Capabilities

Product Breadth
- Titanium
- Nickel-Based Alloys
- Stainless & Speciality Steels
- Cobalt-Based Alloys
- Tungsten
- Niobium, Hafnium

Technical Depth
- Alloy Development
- New Materials
- Corrosion Engineering
- High-Temperature Metallurgy
- Surface Science
- Metallurgical & Corrosion Testing
- Failure Analysis
- Machining Speciality Metals

Unsurpassed Manufacturing Capabilities
- Extrusion & Reduction — Ti, Zr
- Melting — PM/EB/VAR — Ti, VA/VA/AD/ADD/VM/ESR — Ni/Steel
- Sheet, Plate, Extrusions & Forged Products
- Coil, Strip & Foil
- Precision Finishing
- Near-Net Shapes

Value-Added Resources
- Next-generation Applications
- Integrated Supply Chain
- Material & Process Optimization
- Application Engineering
- Contract R&D
- Long Term Agreements
- Engineered Components
- Cutting Tool Solutions

Enabling Sustainability
- Longer Product Life
- Enhanced Fuel Efficiency & GHG Performance
- Demanding Environments
- Recyclable
- Improved Resource Extraction

Investing to Meet Customer Needs
- Greenfield & Brownfield Expansion
- Stable Value Chain
- Quality & Reliability
- Security of Supply
Rocket nozzles fabricated from ATI C103
Our Focus on Innovation

As a leader in product and process innovation, ATI is expecting to play a key role in the future of aerospace. We offer our customers cutting-edge technology and renowned metallurgical experience that continues to produce breakthroughs in proprietary alloys and processes.

Our focus on innovative metals solutions and new product development is backed by our technical “know-how,” our longstanding commitment to R&D and the best people in the specialty metals industry. ATI Aerospace can deploy more than 170 metallurgists, chemists, engineers and staff members to collaborate with our customers on meeting their increasingly stringent performance requirements.

As part of our technology arsenal:

• We leverage extensive modeling experience to achieve rapid prototyping of new alloys
• Our laboratories analyze alloy chemistry, mechanical properties and corrosion resistance to confirm that our alloys perform to specification
• We specialize in applied research with and for our customers to design and engineer products to specific, performance requirements
Our Aerospace Team

ATI Aerospace is a shared identity that reflects the manufacturing capabilities, achievements and people of the key operating companies of ATI, which work as a dedicated and cohesive team to support and drive your success.

As an integrated manufacturer offering a secure and stable supply and the unmatched experience and capabilities to produce a wide range of vital special metals for aerospace, we are the leading team for your mission.

Our world-class aerospace team includes:

- ATI Allvac, a leading producer of titanium-based alloys, nickel- and cobalt-based superalloys, and specialty steels. ATI Allvac’s advanced manufacturing technologies – such as plasma arc melting and vacuum induction melting – provides ATI Aerospace with the flexibility and capability to address even the toughest design challenges.

- ATI Wah Chang is a leading manufacturer of zirconium and titanium sponge and titanium and zirconium alloys and castings. ATI Wah Chang’s advanced alloys have been used in land- and sea-based systems, as well as the F-22 Raptor Advanced Tactical Fighter.

- ATI Allegheny Ludlum makes premium quality coil, plate and precision strip products in a wide variety of titanium, nickel, specialty and stainless alloys for airframe applications. This ATI business also produces premium nickel alloy sheet for jet engines.

- ATI Engineered Products, a business unit focused on providing advanced machining systems for “difficult-to-machine” materials. ATI Stellram, part of Engineered Products, manufactures tools developed especially for the demands of machining titanium and other alloys.

TREX Titanium 3-2.5 tubing for aircraft hydraulic tube applications