



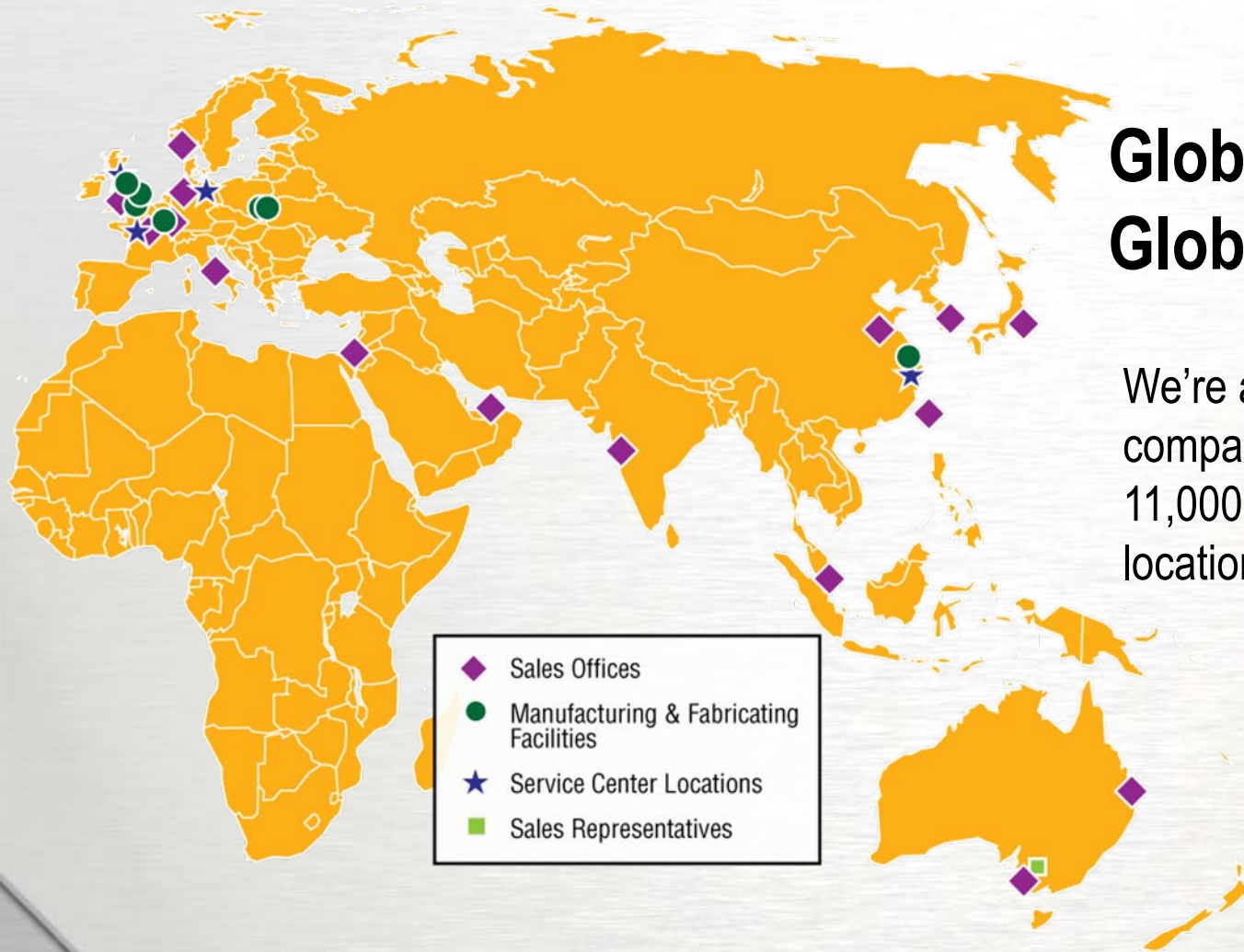
This is ATI





Mission Critical Metallics®

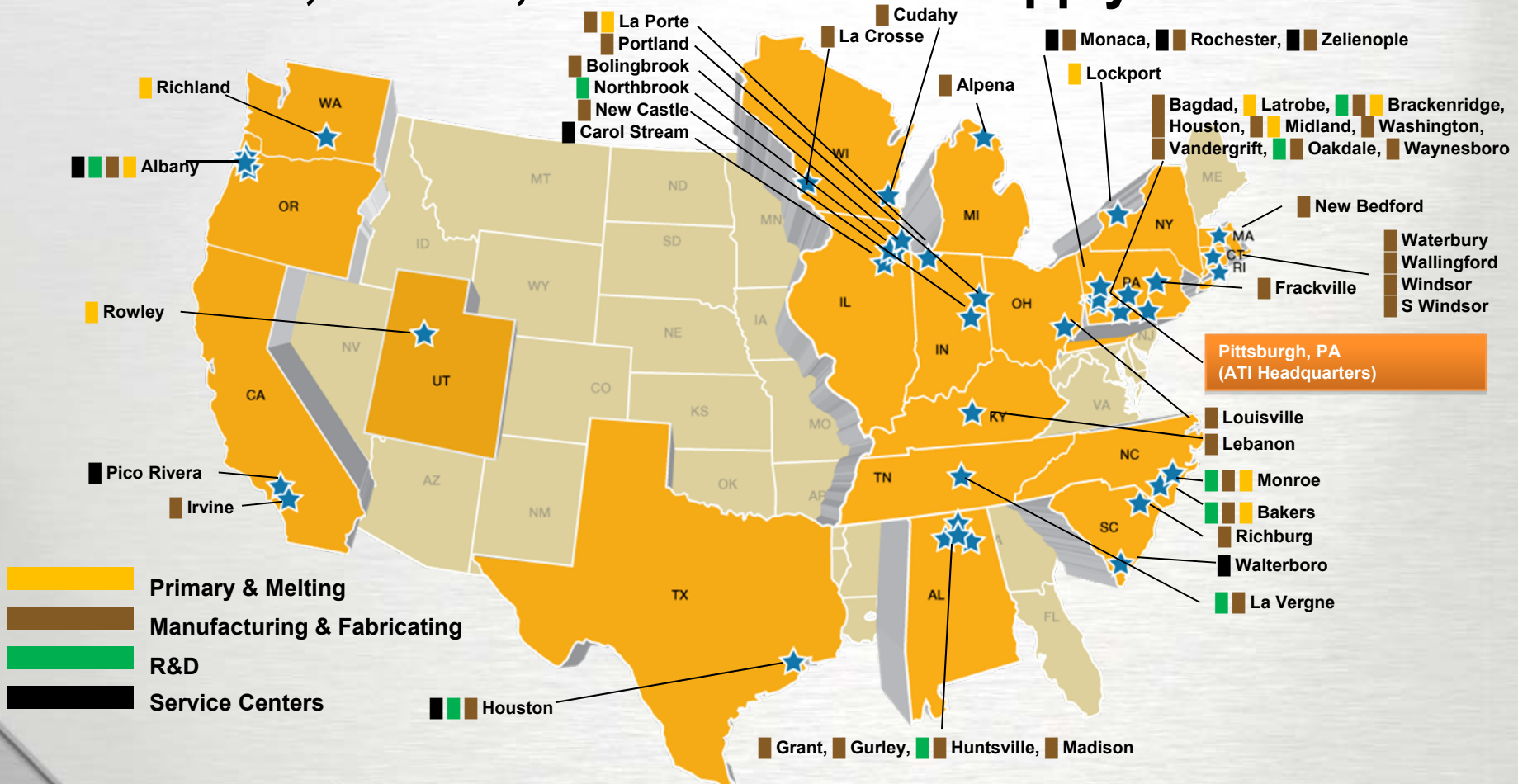
ATI seeks to be the world's best specialty metals company by providing our customers with unmatched product breadth, unparalleled technical depth and unsurpassed manufacturing capabilities that solve their most difficult challenges.



Global Size, Global Reach

We're a specialty metals company with more than 11,000 employees in over 90 locations across the globe.

Reliable, Secure, and Redundant Supply Chain



Business Segments & Operations



Regional Organizations



Integrated Supply Chain

Primary Production



Melting



Manufacturing



Fabricating



Machining & Finishing



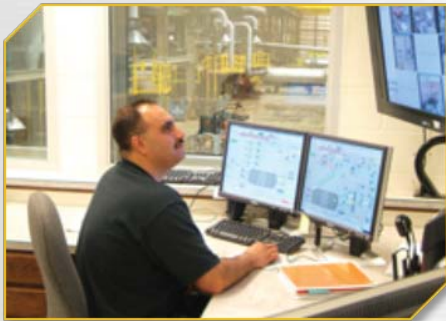
Cutting Tools



Service Centers



Investing in the Future



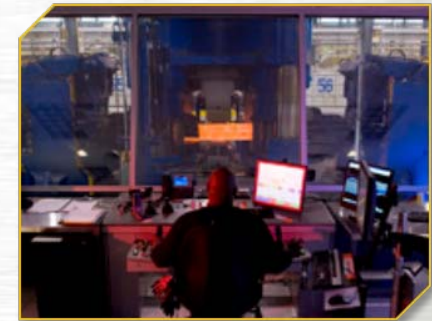
Expanded titanium and zirconium sponge production, Albany, OR



Premium-grade titanium sponge production, Rowley, UT



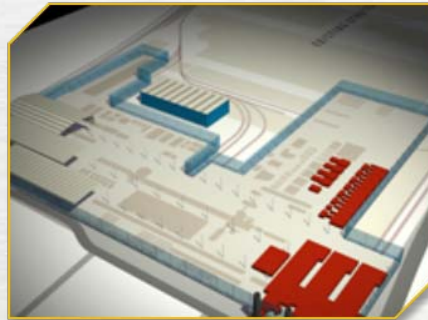
Plasma Arc Melt (PAM) & Vacuum Arc Remelt (VAR) capability, Bakers, NC



Forging & radial forging capacity, Bakers, NC



Advanced machining capability, Sheffield, UK



Hot-rolling and processing facility – titanium, specialty alloy sheet & plate, Brackenridge, PA (*Under Construction*)



Advanced powder metal near-net-shape capability – Pittsburgh, PA



Highly-engineered forged, cast & machined components capability – WI, CA, OR, CT, Poland

Unmatched Product Breadth – Alloys & Semi-Finished Products



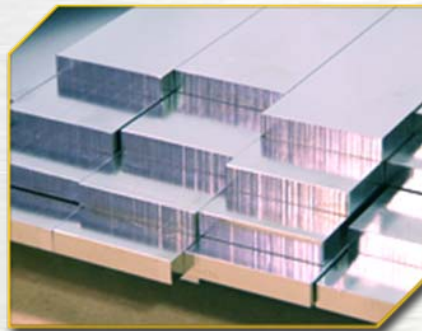
**Titanium &
Titanium Alloys**



**Nickel- & Cobalt-Based Alloys,
Superalloys & Specialty Alloys**



**Specialty Stainless & Grain-
Oriented Electrical Steels**



**Exotic Alloys – Zirconium, Hafnium,
Niobium, Vanadium**



**Precision &
Engineered Strip**



Tungsten Heavy Alloys

Unmatched Product Breadth – Net-Shape Products, Components & Cutting Tools



Powder Metal Alloys & Near-Net Shapes



**Forgings – Titanium, Nickel Alloys, Superalloys,
Stainless & Specialty Steels, & Iron**



**Castings - Titanium Investment, Titanium
& Zirconium Rammed Graphite, & Iron**

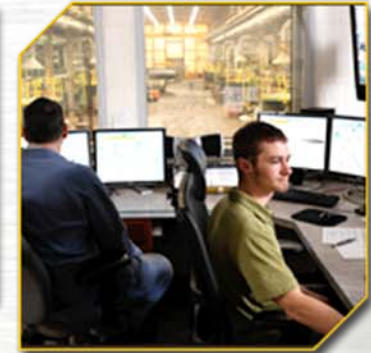


**Machined Components – Titanium, Nickel Alloys,
Superalloys, Stainless & Specialty Steels,
Aluminum, Magnesium & Exotic Alloys**



**Machining, Cutting
& Finishing Tools**

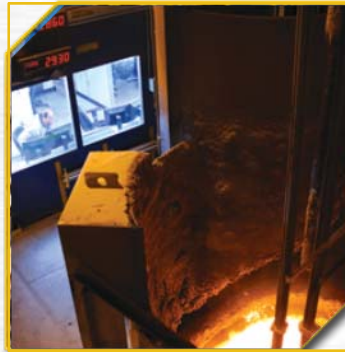
Unsurpassed Manufacturing Capabilities



Primary Production

- New capacity, state-of-the-art technology
 - Premium titanium sponge facility – Rowley, UT
 - Expanded titanium and zirconium production – Albany, OR
 - Ammonium paratungstate – Huntsville, AL
 - Titanium & superalloy powder – Pittsburgh, PA

Unsurpassed Manufacturing Capabilities



Advanced Melting of Titanium, Nickel & Specialty Alloys

- Most advanced vacuum melting capabilities in the industry
 - Titanium, nickel & specialty alloys
 - New Plasma Arc Melt (PAM) & Vacuum Arc Remelt (VAR) capacity
 - Electron Beam (EB) & Vacuum Induction Melt (VIM) capability
- Air-melting experience and know-how
 - Electric Arc Furnace (EAF) capability / Argon-oxygen decarburization (AOD) / Electroslag Remelt (ESR)

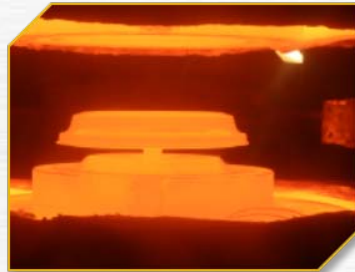
Unsurpassed Manufacturing Capabilities



Manufacturing

- **Sheet & Plate**
 - Advanced manufacturing complex, Washington, PA
 - Specialty and titanium sheet facility, Louisville, OH
 - Continuous automated finishing line, Midland, PA
- **Precision Rolled Strip® products**
 - STAL joint venture – Shanghai, China
 - Tension leveler – unsurpassed flatness for wide, thin material – New Bedford, MA
- **Semi-Finished Forgings**
 - 700mm advanced radial forge machine & 10,000-ton open-die forge press, Bakers, NC
- **Long Products**
 - Custom-rolled extruded shapes, rod and wire, Monroe, NC & Richburg, SC

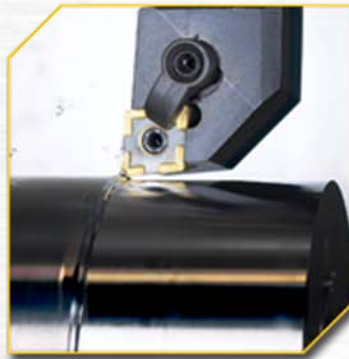
Unsurpassed Manufacturing Capabilities



Highly Engineered Forged, Cast & Machined Components

- Forgings
 - Hot & Closed Die
 - Isothermal
 - Large Seamless Rolled Rings
 - Large seamless thin-walled cylinder
- Titanium Castings
 - Large, Complex Investment Castings
 - Intricate Geometries & Cast-In Features
 - Assembly Ready
- Advanced Machining Capabilities
 - Horizontal & Vertical CNC Machining Centers
 - Vertical Turret & Horizontal Trust Lathes
 - Standard & Complex Shapes

Unsurpassed Manufacturing Capabilities



Precision Cutting Tools, Metalworking & Finishing

- Specialized machining/finishing
- Tooling solutions
- Milling, turning, drilling and threading systems
- Precision grinding & water jet cutting
- Abrasive & band sawing
- Shot-end tooling for aluminum diecasters

Unparalleled Technical Depth



- Microstructure Control
- New Materials
- Process Modeling
- Corrosion Engineering
- High-temperature Metallurgy
- Powder Metallurgy
- Surface Science
- SuperCooler™ Processing
- Metallurgical & Corrosion Testing
- Ultrasonic Inspection
- Failure Analysis
- Tool & Die Making



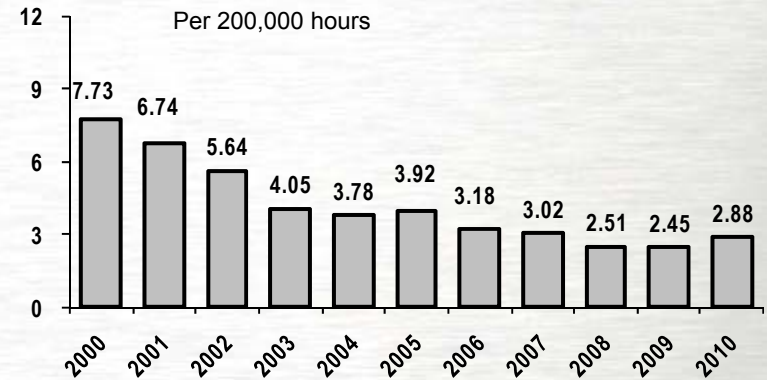
Alloy Development

- **ATI 425[®] Alloy**
 - Revolutionary, cold-rollable titanium alloy
- **ATI 718Plus[®] Alloy**
 - Nickel-based alloy for high-performance jet engines
- **ATI 500-MIL[®] Alloy**
 - High-hard steel plate for armor applications
- **Titanium Aluminides**
 - For extremely high-temperature applications
- **ATI Datalloy 2[®] Alloy**
 - Non-magnetic stainless alloy for tough directional drilling environments
- **ATI 2102[™], ATI 2003[®] & ATI 2304[™] LDSS**
 - Lean Duplex Stainless Steel for subsea flow lines & top-side structurals
- **ATI S240[®] & ATI 13-8 SuperTough[®] PHSS**
 - High-Strength, Precipitation-Hardened Stainless Steels with excellent corrosion resistance, toughness and manufacturability

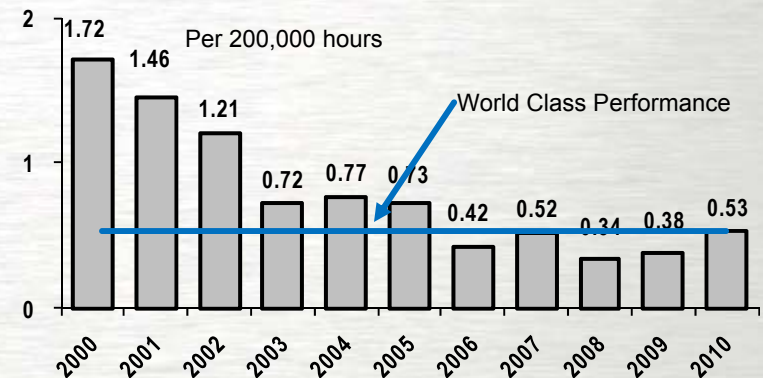


Committed to a Safe, Sustainable Future

OSHA Recordable Incidents Across ATI*



Lost Time Case Rate*



*Does not include ATI Ladish



Committed to a Safe, Sustainable Future

Enabling Sustainable Development



ATI's superalloy for tomorrow's fuel-efficient engines

- Higher Performance
 - Enables engines to operate 100⁰F hotter
 - More power per unit of fuel
- Lower Emissions
 - More complete combustion
 - Fewer combustion by-products

Mission Critical Metallics®

- **Integrated Global Supplier**
 - Reliable, secure supply chain
 - Serving critical markets
- **Unmatched Product Breadth**
 - Components, forms, dimensions
 - Next-generation applications
- **Unsurpassed Manufacturing Capabilities**
 - World-class capabilities – sponge, melting, manufacturing, fabricating, machining & precision finishing
- **Unparalleled Technical Depth**
 - Alloy development
 - Thermo-mechanical processing
 - Near-net & Net-shape processing
 - Testing, evaluation, characterization
 - Tool & die making
 - Air quenching & SuperCooler™ annealing
- **Worldwide Service Centers**

Why Partner with ATI

- **ATI is a world-class specialty metals company**
 - Broadest alloy product offering in the industry
 - Highly-engineered forged, cast, machined & fabricated components
- **Secure Supply Chain**
- **Unsurpassed manufacturing capabilities aligned with market needs**
 - Redundant capabilities for stable supply
 - Integrated flow paths for reliable delivery
- **Customer-focused technical experience**
- **Financial strength**
- **Values-based leadership**

ATI Market Sectors



 **ATI** Aerospace



 **ATI** Defense



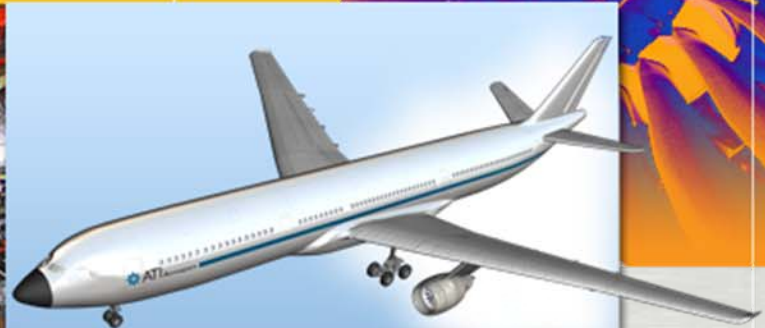
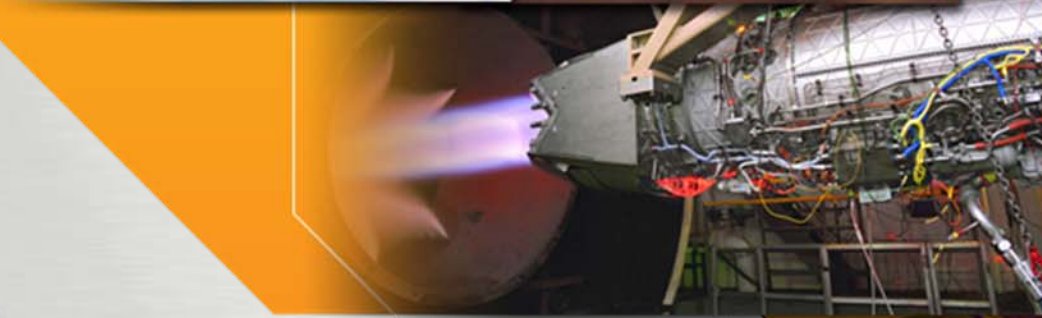
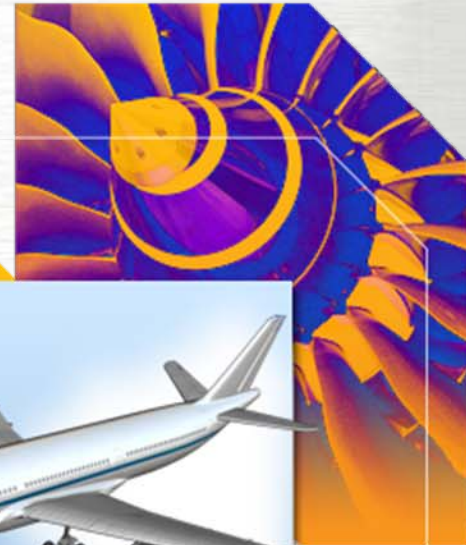
 **ATI** Oil & Gas



 **ATI** Nuclear Energy

This is ATI

We are...
In the Air



Aerospace Applications

Hydraulic Tubing

- ATI 3-2.5™ Titanium
- CP Titanium
- ATI 425® Titanium

Hydraulic Fittings

- ATI 6-4™ Titanium

Tubing

- ATI 15-333™ Titanium
- ATI 3-2.5™ Titanium
- ATI 425® Titanium
- CP Titanium
- ATI 219™ Stainless

Fasteners

- ATI 6-4™ Titanium
- ATI 425® Titanium
- CP Titanium
- ATI 15-333™ Titanium

Seating Tracks

- ATI 6-4™ Titanium
- ATI 425® Titanium

Ducting
Environmental Control System
Wings De-Icing
Bleed Air
Bellows
APU Exhaust

- ATI 6-4™ Titanium
- ATI 15-333™ Titanium
- CP Titanium
- ATI 625™ Nickel
- ATI 718™ Nickel
- ATI 321™ Nickel
- ATI A286 Steel

Brackets, Fittings & Clips

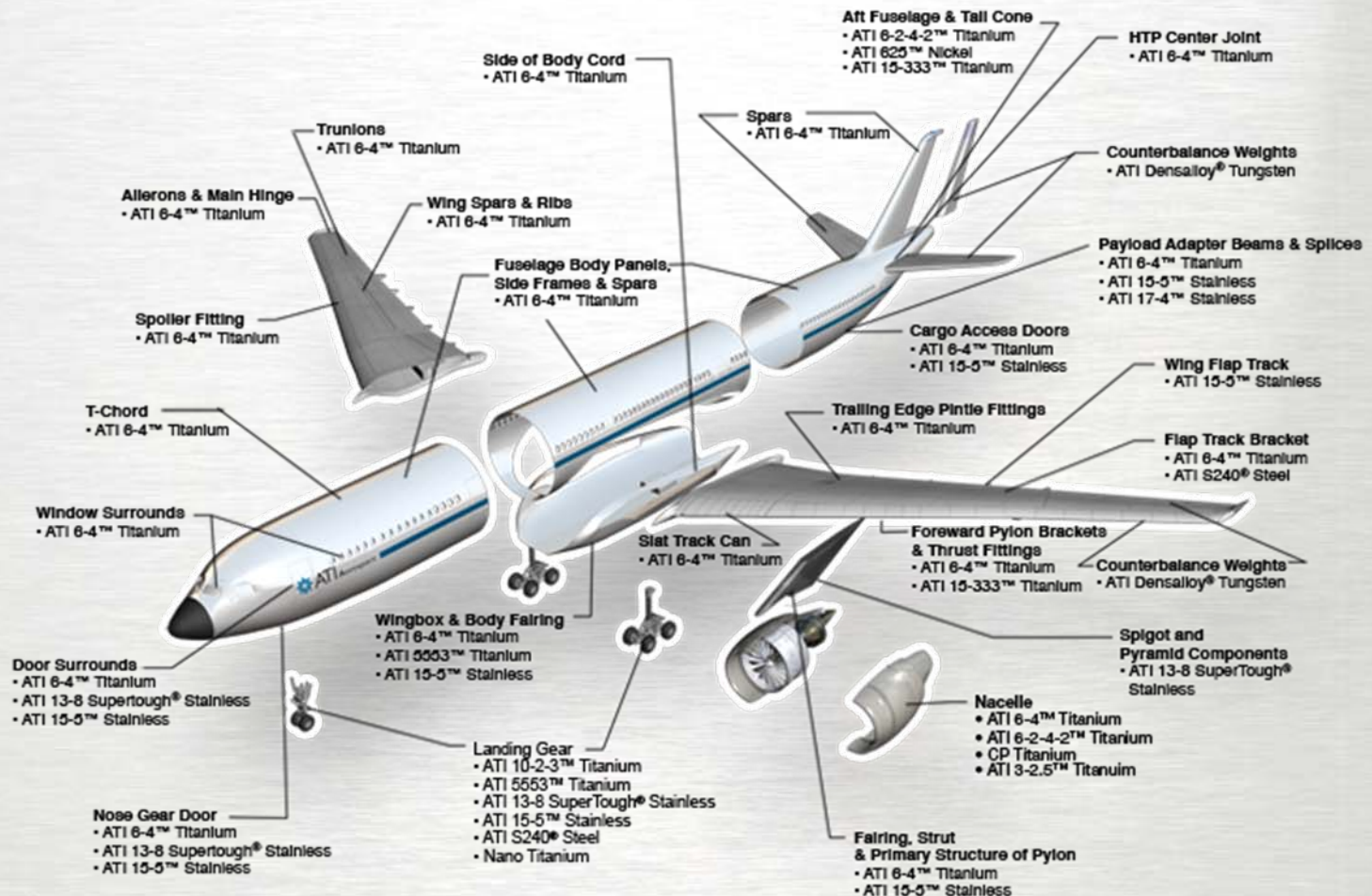
- ATI 6-4™ Titanium
- ATI 15-333™ Titanium

Fire Suppression Bottles

- ATI 219™ Stainless

Fuel Controllers

- AM 350® Steel
- AM 355™ Steel



Aerospace Applications

Fasteners

- ATI 6-2-4-2™ Titanium
- ATI CP™ Titanium
- ATI 425® Titanium

Brackets, Fittings & Clips

- ATI 6-4™ Titanium
- ATI 6-4 ELI™ Titanium

Hydraulic Tubing

- ATI 3-2.5™ Titanium

Flight Controls

- ATI 13-8Mo™ Stainless
- ATI 15-5™ Stainless

Engine Mounts, Gun Mounts, Bomb Hangers

- ATI 13-8 SuperTough® Stainless

Trunion Pin, Torque Tube & Various Linkages

- ATI 13-8 SuperTough® Stainless

Bulkheads

- ATI 6-4™ Titanium
- ATI 6-4 ELI™ Titanium

Cockpit Window Surrounds

- ATI 6-4™ Titanium
- ATI 6-4 ELI™ Titanium

Intake & Auxiliary Vent Doors

- ATI 6-4 ELI™ Titanium

Rear Spar*

- ATI 6-4 ELI™ Titanium
- ATI 13-8Mo™ Stainless
- ATI 15-5™ Stainless

Aileron Strongback

- ATI 6-4™ Titanium

Wing Clips & Brackets

- ATI 15-333™ Titanium

Leading-Edge Flap Actuators

- ATI 13-8Mo™ Stainless
- ATI 15-5™ Stainless

Tail Fin Spars*

- ATI 6-4 ELI™ Titanium
- ATI 6-2222™ Titanium
- ATI 13-8Mo™ Stainless
- ATI 15-5™ Stainless

Rudder Actuator

- ATI 13-8Mo™ Stainless
- ATI 15-5™ Stainless

Aft Keel Structure*

- ATI 6-2222™ Titanium

Engine Bay Doors*

- ATI 6-4™ Titanium
- ATI 3-2.5™ Titanium

Tail Pipe Actuator

- ATI 13-8Mo™ Stainless
- ATI 15-5™ Stainless

Aft Frame

- ATI 6-4 ELI™ Titanium

Spars & Structures

- ATI 6-4 ELI™ Titanium
- ATI 6-2222™ Titanium
- ATI 13-8Mo™ Stainless
- ATI 15-5™ Stainless

Front Spar*

- ATI 6-4 ELI™ Titanium

Side of Body Chord*

- ATI 6-4™ Titanium

Pylon Castings*

- ATI 6-4™ Titanium

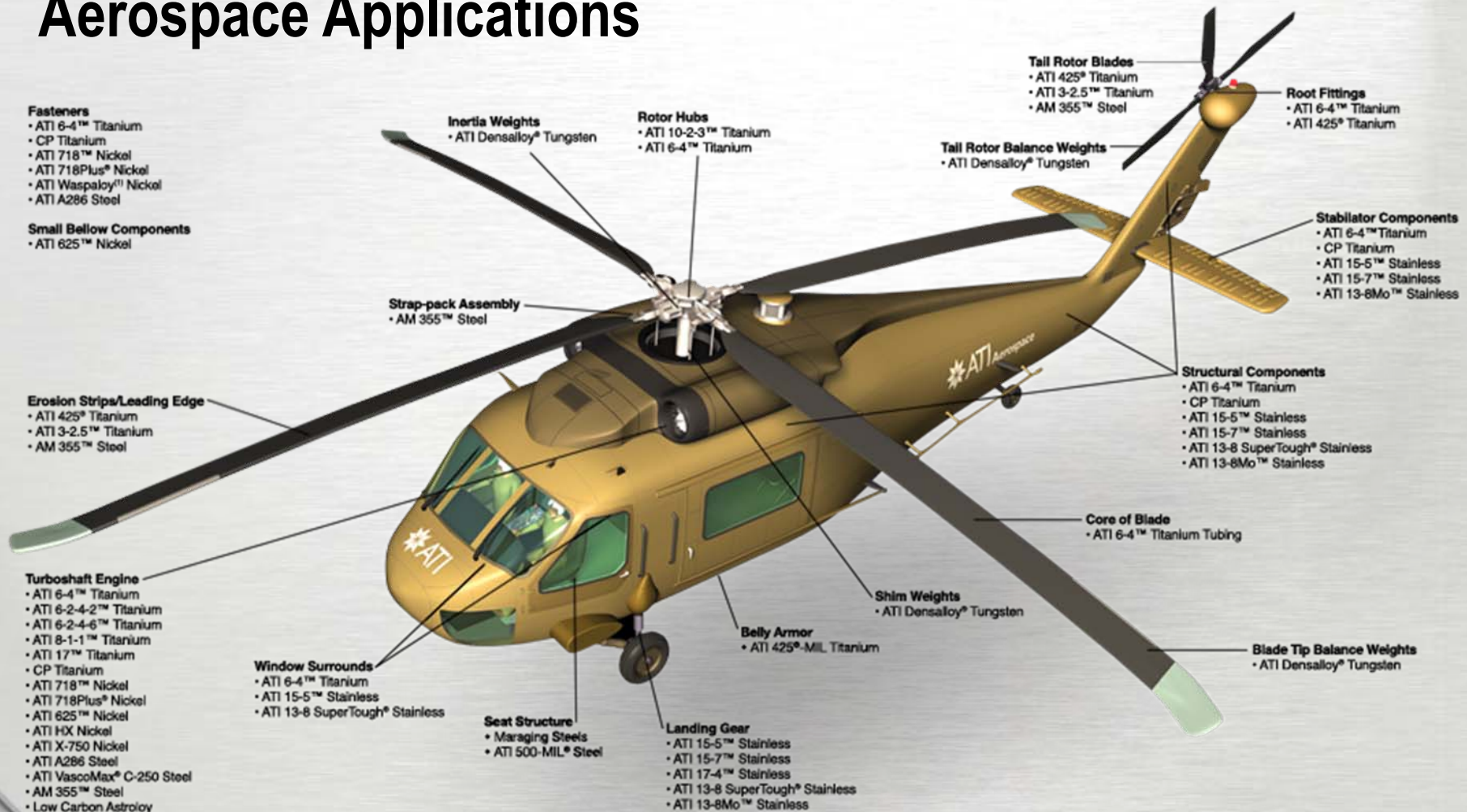
Landing & Weapons Bay Doors

- ATI 6-4™ Titanium

Landing Gear & Tail Hook Components

- ATI 10-2-3™ Titanium

Aerospace Applications



ATI Alloys in Jet Engines

Fasteners

- ATI 6-4™ Titanium
- ATI 55Nb Titanium
- ATI 718™ Nickel
- ATI 718Plus® Nickel
- ATI 17-7™ Stainless
- ATI A286 Steel

Honeycomb, Bellows, Insulation & Tubing

- ATI 6-4 EII™ Titanium
- ATI 3-2.5™ Titanium
- ATI 6-2-4-2™ Titanium
- ATI 425® Titanium
- Orthorhombic Ti Aluminide
- ATI 718™ Nickel
- ATI 718Plus® Nickel
- ATI 600™ Nickel
- ATI 625™ Nickel
- ATI HX Nickel
- ATI 15-7™ Stainless
- ATI 21-6-9 Steel
- AM 350® Steel
- ATI A286 Steel

Fan: Disks, Rotor, Blades, & Casings

- ATI 6-4™ Titanium
- ATI 6-2-4-2™ Titanium
- ATI 17™ Titanium

Compressor & Turbine: Disks, Rotors, Blades, & Vanes

- ATI 6-4™ Titanium
- ATI 6-2-4-2™ Titanium
- ATI 6-2-4-6™ Titanium
- ATI 8-1-1™ Titanium
- ATI 17™ Titanium
- Gamma Ti Aluminide
- ATI 718™ Nickel
- ATI 718Plus® Nickel
- ATI 720™ Nickel
- ATI 901™ Nickel
- ATI HX Nickel
- ATI Waspaloy® Nickel
- ATI Rene® 95 Nickel
- ATI A286 Steel
- ATI FV535 Steel
- ATI M152 Steel
- ATI FV448 Steel

APU Disks

- ATI 720 PM Nickel
- Low Carbon Astroloy

Exhaust Cones, Mufflers & Thrust Reversers

- ATI 718™ Nickel
- ATI 718Plus® Nickel
- ATI 617™ Nickel
- ATI 625™ Nickel
- ATI HX Nickel
- ATI C-103 Niobium

Combustors & Liners

- ATI 718™ Nickel
- ATI 718Plus® Nickel
- ATI HX Nickel
- ATI L-605 Cobalt
- ATI 188™ Cobalt

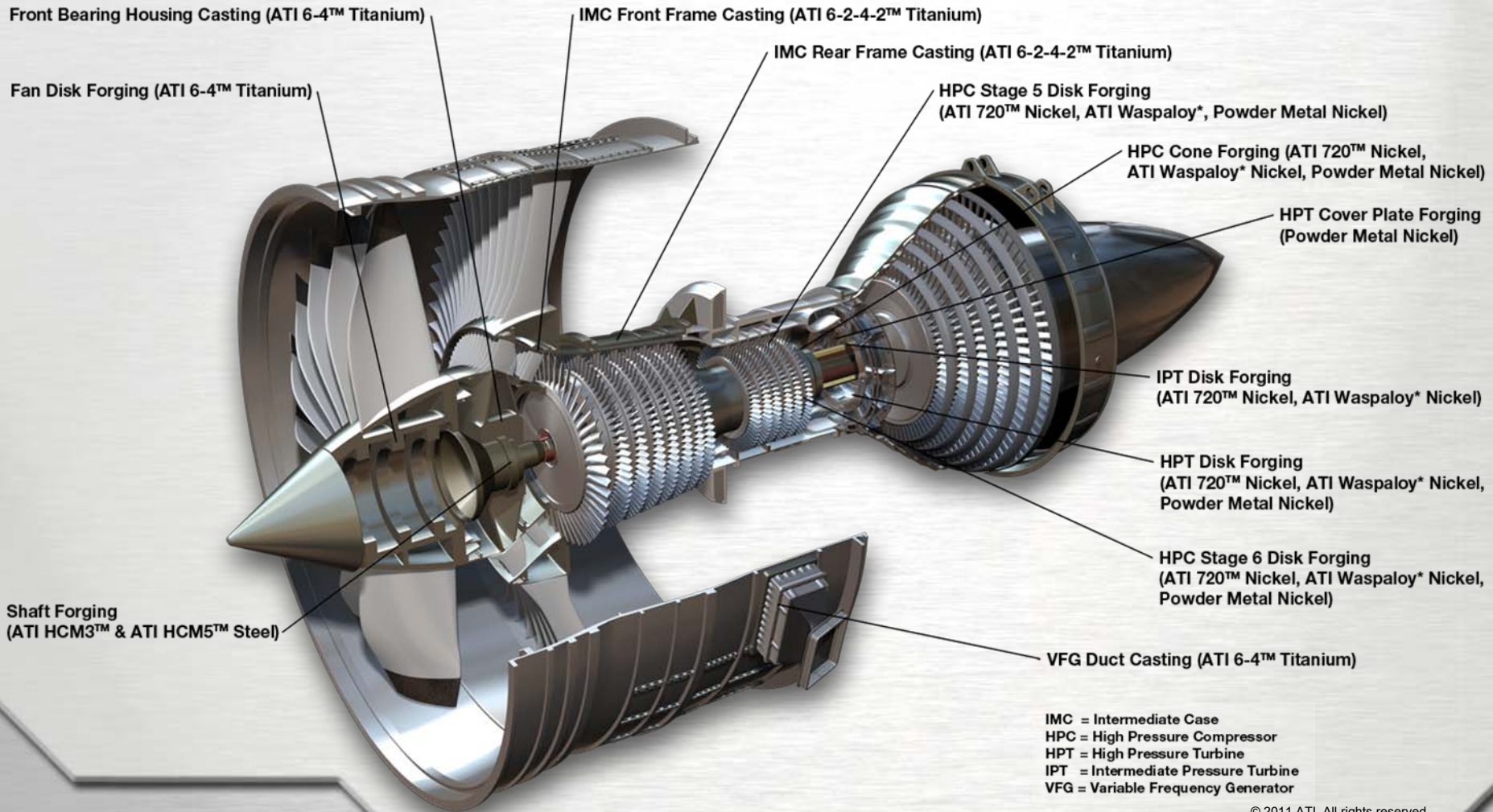
Casings & Rings

- ATI 718™ Nickel
- ATI 718Plus® Nickel
- ATI 263™ Nickel
- ATI 625™ Nickel
- ATI GTD-222 Nickel
- ATI HX Nickel
- ATI Waspaloy® Nickel
- ATI X-750 Nickel
- ATI A286 Steel

Shafts, Gears, & Bearings

- ATI 718™ Nickel
- ATI 1014 Steel
- ATI VascoMax® C-250 Steel
- ATI HCM3 Steel
- ATI HCM5 Steel
- ATI RBD Steel

ATI Components in Jet Engines



We are...
On the Battlefield



Defense Applications



Land



Air



**Soldier
Protection**



Sea

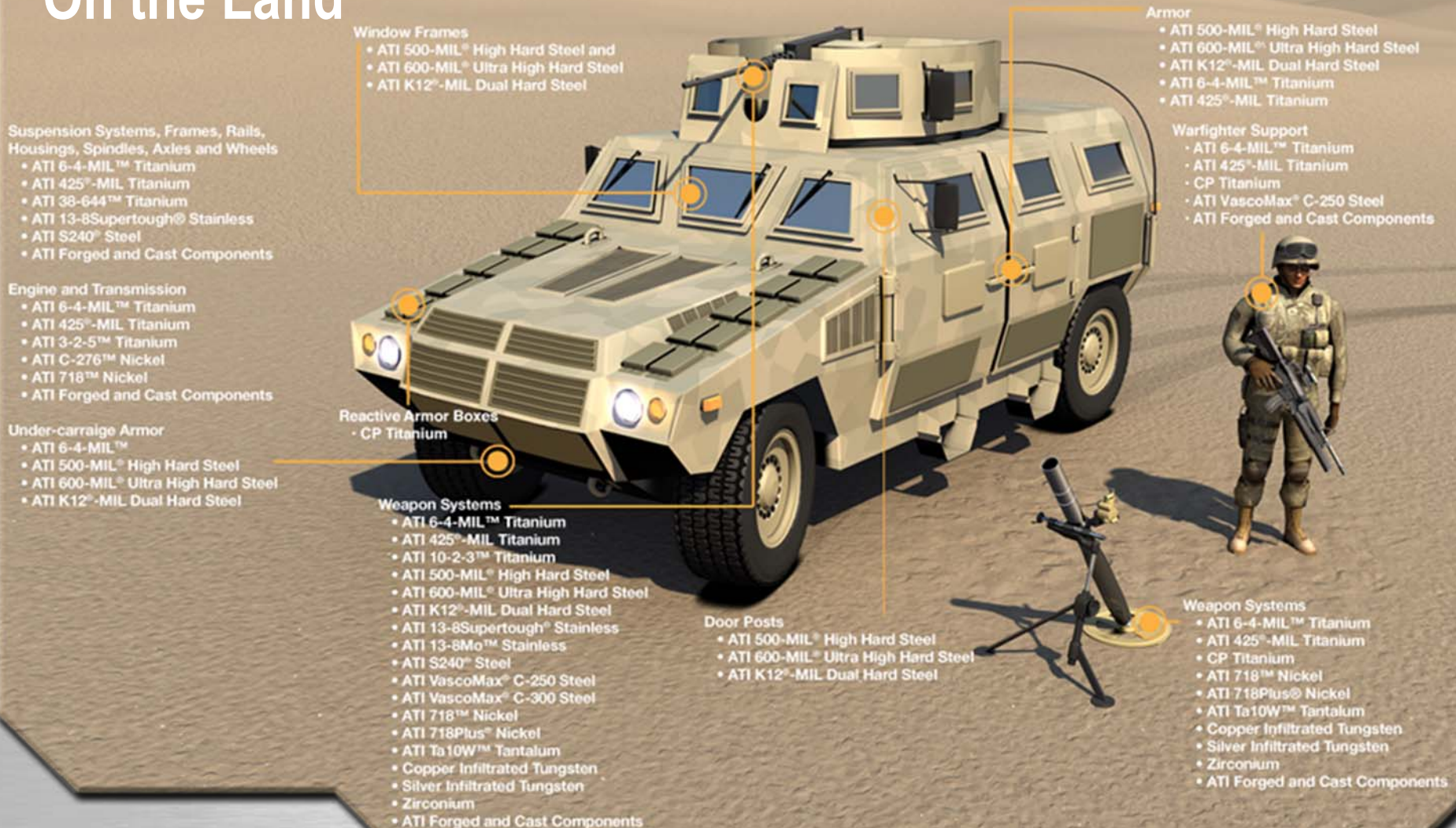


**Weapons
Systems**

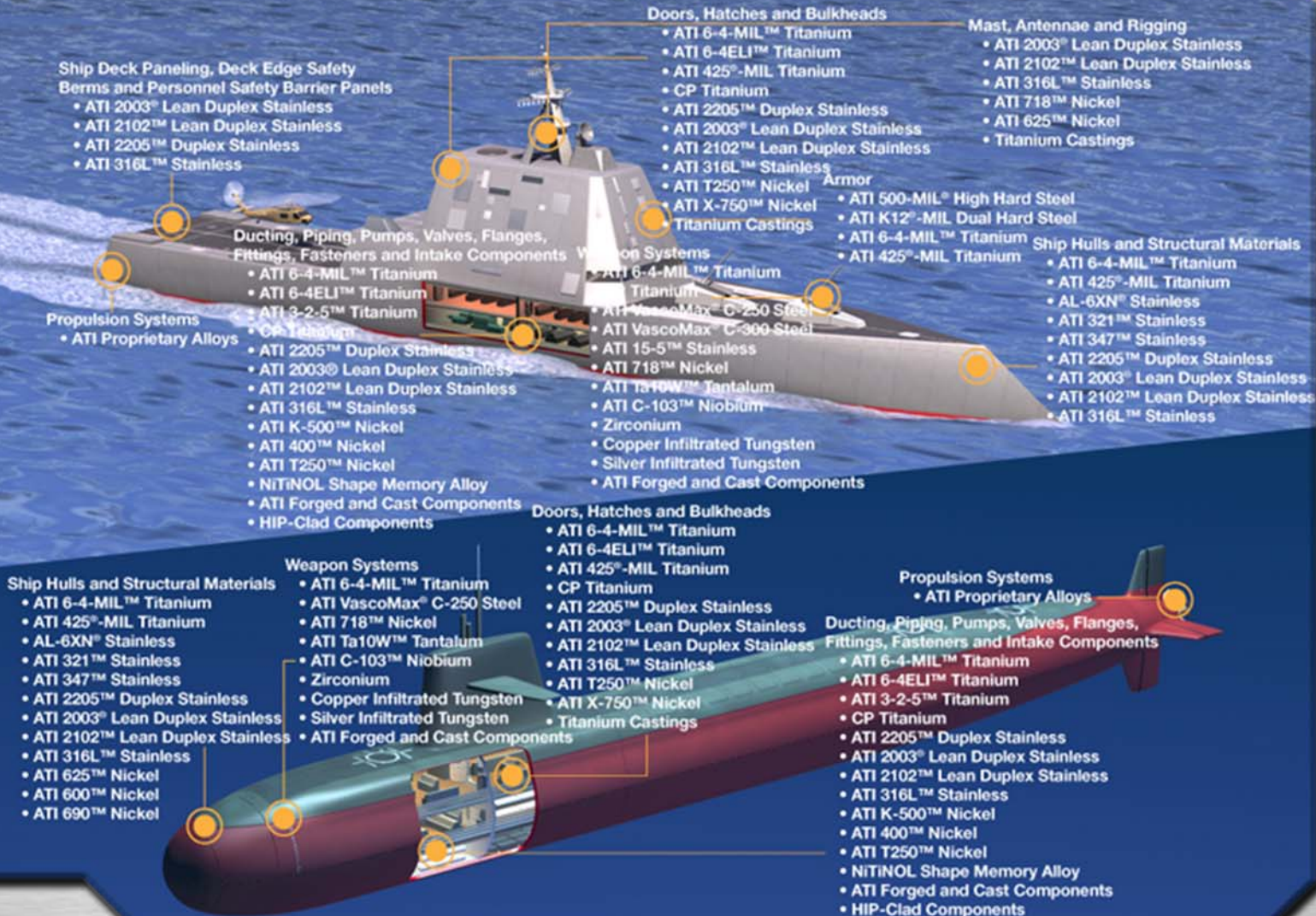


This is ATI

On the Land



At Sea



This is ATI

We are...
Where Energy is Discovered



Offshore Applications for Topsides



Floating Production Storage & Offloading (FPSO) Vessel



Instrumentation Tubing,
Piping & Pipe Racks
• ATI 2003[®] Lean Duplex
• ATI 2205[™] Duplex
• ATI 316L Stainless

Accommodation Modules, Firewalls/Blastwalls,
Cable Trays & Ladders
• ATI 2003[®] Lean Duplex
• ATI 2102[™] Lean Duplex
• ATI 316L Stainless

Water Separation, Desalination,
and Fire Suppression
• ATI 2205[™] Duplex
• ZERON[®] 100[®] Super Duplex
• AL-6XN[®] Stainless
• AL-6XN Plus[®] Stainless
• Titanium Pipe & Tubing
• Titanium Pump Castings
• Titanium Valve Castings

Tanks, Process Vessels, Heat Exchangers
& Flare Tips

- ATI 2003[®] Lean Duplex
- ATI 2205[™] Duplex
- ZERON[®] 100[®] Super Duplex
- AL-6XN[®] Stainless
- ATI 316L Stainless
- ATI 625[™] Nickel
- ATI 825[™] Nickel
- ATI 276[™] Nickel
- ATI 600AT[™] Nickel
- Titanium Alloys





- < Seam Welded Steel Umbilical Tubing
- ATI 2003[®] Lean Duplex
 - ATI 2102[™] Lean Duplex
 - ZERON[®] 100[®] Super Duplex
 - ATI 316L Stainless

- < Carcass for Flexible Flow Lines
- ATI 2102[™] Lean Duplex
 - ATI 2003[®] Lean Duplex
 - ATI 2205[™] Duplex
 - ZERON[®] 100[®] Super Duplex
 - AL-6XN[®] Stainless
 - AL-6XN Plus[®] Stainless
 - ATI 316L Stainless
 - ATI 304 Stainless

- < Line Pipe and Clad Line Pipe for Flow Lines and Injection Lines
- ATI 625[™] Nickel
 - ATI 825[™] Nickel
 - ATI 904L[™] Stainless
 - AL-6XN[®] Stainless
 - ATI 316L Stainless

- Flying Leads
- ATI 2003[®] Lean Duplex
 - ATI 2102[™] Lean Duplex
 - ZERON[®] 100[®] Super Duplex
 - ATI 316L Stainless

- Subsea Valves, Valve Internals & Tubing Hangers
- ATI 718-OP[®] Nickel
 - ATI 925[™] Nickel
 - ATI 625[™] Nickel
 - Titanium Alloys
 - ATI A625 PM Nickel
 - ATI 625M PM Nickel

Offshore Applications for Subsea

- Risers & Flow Lines
- ATI 2003[®] Lean Duplex
 - ATI 2102[™] Lean Duplex
 - ATI 2205[™] Duplex
 - ZERON[®] 100[®] Super Duplex
 - AL-6XN[®] Stainless
 - AL-6XN Plus[®] Stainless
 - ATI 316L Stainless
 - ATI 304 Stainless

- Marine Bending for Buoyancy Modules
- ATI 625[™] Nickel

- Clad Pipe
- ATI 625[™] Nickel
 - ATI 825[™] Nickel
 - ATI 904L[™] Stainless
 - AL-6XN[®] Stainless
 - ATI 316L Stainless

- Jumpers
- ATI 2003[®] Lean Duplex
 - ATI 2205[™] Duplex
 - ZERON[®] 100[®] Super Duplex
 - AL-6XN[®] Stainless
 - ATI 316L Stainless

- Umbilicals
- ATI 2003[™] Lean Duplex
 - ATI 2102[™] Lean Duplex
 - ZERON[®] 100[®] Super Duplex
 - ATI 316L Stainless

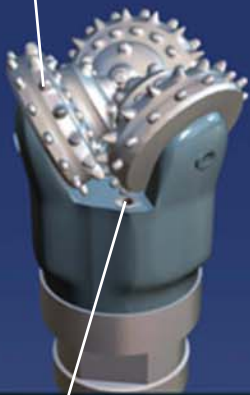
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* ZERON is a registered trademark of Rolled Alloys UK Ltd.

Version2 – 1/10

Rotary Cone Drill Bit

Cutting Insert
• Tungsten Carbide



Mud Nozzle
• Tungsten Carbide

Wellhead Equipment
• ATI 718-OP® Nickel
• ATI 925™ Nickel
• ATI 625™ Nickel
• ATI A286™ Nickel
• ATI 725™ Nickel

Tubing Hanger
• ATI 718-OP® Nickel
• ATI 925™ Nickel

Armor Cable
• ATI 35N™ Nickel
• ATI 400™ NiCu
• ATI 316L™ Stainless

Sub-surface Safety Valve
• ATI 718-OP® Nickel
• ATI 925™ Nickel
• Titanium Alloys

Wireline Components & Pressure Vessels
• ATI 35N™ Nickel
• ATI 6-2-4-6™ Titanium
• ATI 6-6-2™ Titanium
• ATI 6-4™ Titanium

Measurement While Drilling Housings & Internals Datalloy 2® Stainless
• ATI Staballoy® 734 Stainless
• ATI Staballoy® 734HS Stainless
• ATI 13-8™ Stainless
• ATI 718-OP® Nickel
• ATI 925™ Nickel
• ATI 6-2-4-6™ Titanium
• ATI 6-6-2™ Titanium
• ATI 6-4™ Titanium

Stabilization
• ATI 718-OP® Nickel
• ATI 925™ Nickel
• ATI Datalloy 2® Stainless
• ATI Staballoy® AG17® Stainless

Instrumentation & Chemical Injection
Tubing Contained in Completion String
• ATI 2003® Lean Duplex
• ATI 2205™ Duplex
• Zeron® 100® Super Duplex
• ATI 625™ Nickel
• ATI 825™ Nickel

Non-magnetic Drill Collar
• ATI Datalloy 2® Stainless
• ATI Staballoy® AG17® Stainless

Rotary Steerable Drilling
• ATI 718-OP® Nickel
• ATI 925™ Nickel
• ATI Datalloy 2® Stainless
• ATI Staballoy® AG17® Stainless

Shafts for Electronic
Submersible Pumps (ESPs)
• ATI 718™ Nickel
• ATI 925™ Nickel
• ATI K-500™ Nickel
• ATI 625™ Nickel

Mud Motor
• ATI S240® Stainless
• ATI 718-OP® Nickel
• ATI 925™ Nickel

Pump & Motor Assemblies
• ATI S240® Stainless
• ATI 718™ Nickel
• ATI 13-8™ Stainless

Production & Completion Tubulars
• ATI 718-OP® Nickel
• ATI 925™ Nickel
• ATI 6-2-4-6™ Titanium
• ATI 6-6-2™ Titanium
• ATI 6-4™ Titanium

Fishing Tools
• ATI S240® Stainless
• ATI 718-OP® Nickel
• ATI 925™ Nickel

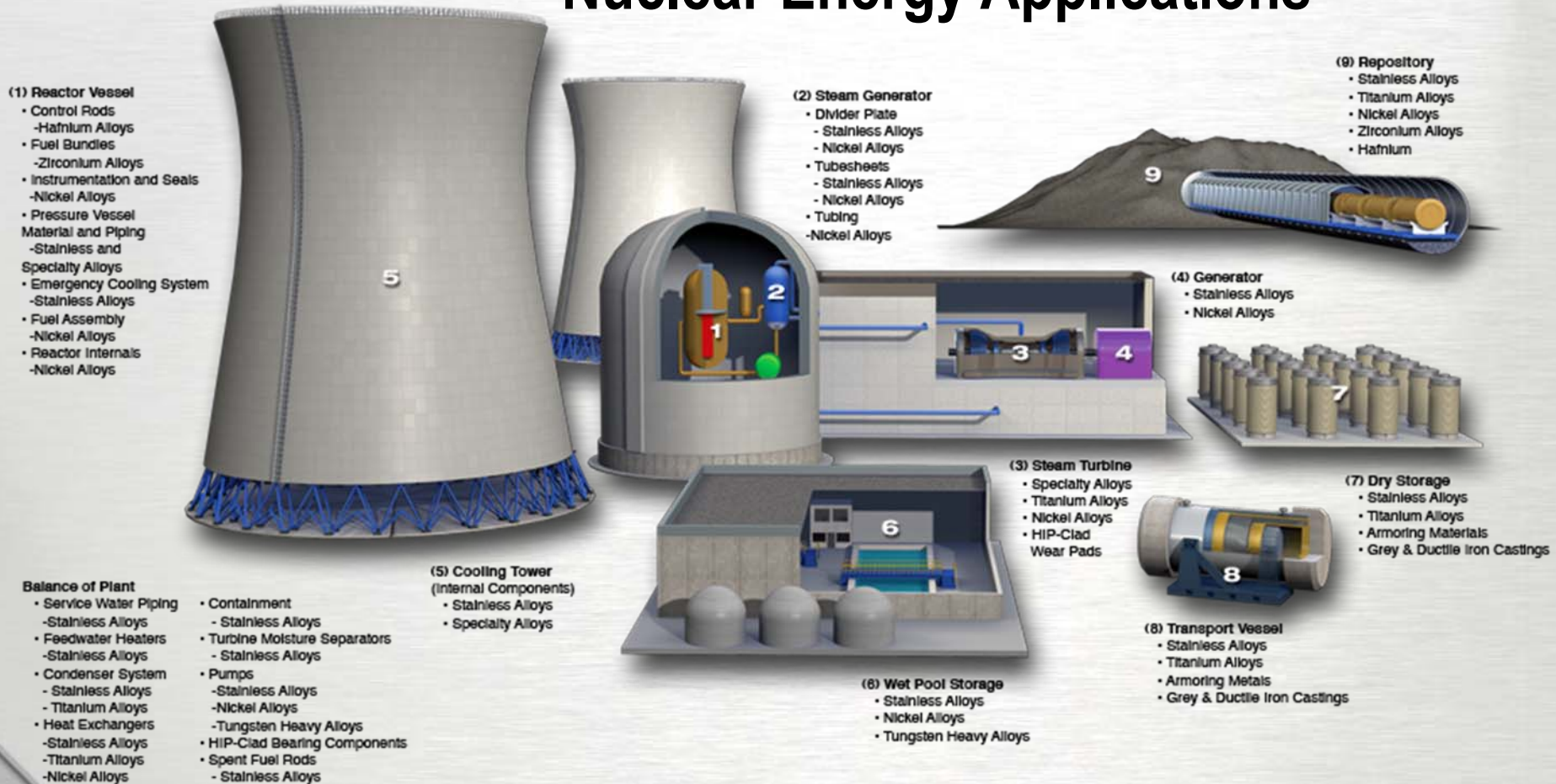
PDC Drill Bit
• Tungsten matrix materials
form the body
• Polycrystalline Diamond Compact
(PDC) Cutting Inserts on a
Tungsten Carbide Substrate
• Tungsten Carbide Nozzles

Downhole Applications for Drilling and Completions

**We are...
Where Energy is Created**



Nuclear Energy Applications



**We are
Where Sustainable Energy
is Created & Distributed**





This is ATI



Mission Critical Metallics®