



FACTS

Alcoa Howmet's Ti-Cast operation, located in Whitehall, Michigan, is the premier titanium investment-casting operation for complex shapes and designs. It delivers parts to the commercial and military aerospace industries, and the automotive and medical industries.

Ti-Cast uses rapid prototype capabilities and partners with the Alcoa Howmet Research Center to develop customer-centric technical solutions and support. It occupies 82,285 sq ft (7,405 sq m) of manufacturing space.

Alcoa Power and Propulsion, a major business unit of Alcoa Inc. (NYSE: AA), is a global leader in airfoil and structural investment castings, forged structural parts, and forged aircraft wheels. Serving the aerospace, defense, energy and industrial markets, its products are primarily used in jet engines and industrial gas turbines. Additional value-added products and services include hot isostatic pressing, specialty coatings, research and development, supply chain management, specialty tools, molds, and machinery. With 28 production facilities, Alcoa Power and Propulsion employs more than 11,000 people worldwide.

PRODUCTS

- Complex titanium aerospace products
- Engine and airframe hardware
- Commercial and military aerospace products
- Diesel truck applications
- Automotive turbocharger wheels

Alloys Poured

- Ti-6Al-4V
- Ti-6Al-2Fe-1Si
- Ti-5Al-5Mo-5Y-3Cr-0.5Fe

- Ti-6Al-2Sn-4Zr-2Mo
- Ti-15V-3Al-3Sn-3Cr
- Gamma TiAl

Growth Areas

- Airframe applications
- Converting fabrications to investment castings
- Prime contracting for user-ready, machined castings
- Automotive market

CAPABILITIES

- Titanium investment casting up to 30 in (73.5 cm) in diameter
- Rapid prototyping
- CAPM (Computer-Aided Pattern Modeling)

Manufacturing Processes

- Lost wax/investment casting
- Induction skull remelting (ISR)
- Vacuum arc remelting (VAR)

Quality Assurance

- State-of-the-art layout department
- Coordinate measurement machine
- AS9100/ISO9001:2000 Certified
- Nadcap
 - Nondestructive test (fluorescent penetrant inspection and X-Ray)
 - Heat Treat
 - Welding
 - Chemical Processing

CUSTOMERS

- Airbus
- Avio, Inc.
- BAE Land Systems
- Goodrich Aerospace, Inc.
- Boeing Commercial
- Boeing Military
- BorgWarner
- Caterpillar®
- Cessna Aircraft Company (A Textron Company)
- General Electric Aircraft Engines
- Honeywell
- Lockheed Martin
- Mitsubishi
- Mitsui
- Northrop Grumman
- Parker Hannifin
- Philips
- United Technologies: Pratt & Whitney, Canada
- Raytheon
- Rolls-Royce
- Samsung
- Volvo
- Vought Aircraft Industries, Inc.

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