



FACTS

Alcoa Howmet's casting operations, located in Whitehall, Michigan, is a leading producer of complex investment cast turbine components for the aerospace and industrial gas turbine industries. It specializes in the casting of single-crystal, directionally solidified, and equiax airfoil components with advanced configurations and materials. Alcoa Howmet, located here since 1951, occupies 396,000 square feet (35,640 sq m).

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 29 production facilities, Alcoa Power and Propulsion employs more than 11,000 people worldwide.

PRODUCTS

- Blades, vanes and high-temperature hardware for turbine engines

Single-crystal/polycrystal

Aircraft and industrial gas turbines

- Blades, vanes and multi-vane segments
- Duct segments, shrouds and blade seals
- Hardware components
- Maximum size: Directional solidification SC up to 15 in (0.38 m) DS up to 17 in (0.43 m)

Equiax

Aircraft and industrial gas turbines

- Blades, vanes and multi-vane segments
- Duct segments, shrouds and blade seals
- Maximum size: 16 in (0.4 m)

Alloys Poured

- IN713, IN100, Mar-M 200+HF, Mar-M 247, IN718, X-40, IN792, B1900, René 125, René 80, U500
- U700, Mar-M 509, IN792, CMSX3, CMSX4, CMSX10
- All advanced, directionally solidified and single-crystal alloys, including production processes for Yttrium, Rhenium, low-sulfur, and customized alloys
- Many turbine manufacturers' proprietary alloys

CAPABILITIES

Inspection

- Full-layout department
- Laser scanning/Coordinate Measurement Machine
- Computed tomography
- Inspection to CAD definitions
- Advanced white-light projection technology

CONTACT INFORMATION:

Alcoa Howmet

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CUSTOMERS

- Chromalloy
- Avio, Inc.
- General Electric Aircraft Engines
- General Electric Power Systems
- Honeywell
- IHI
- Johnson Technology
- Meyer Tool
- Mitsubishi
- MTU Aeroengines
- GE Nuovo Pignone
- Rolls-Royce
- Samsung
- Siemens
- Snecma
- Solar® Turbines: A Caterpillar Company
- Hamilton-Sundstrand
- Therm, Inc.
- BF Goodrich Turbomachinery Products
- United Technologies
Pratt & Whitney, United States
Pratt & Whitney, Canada
- Volvo
- Williams International