



Howmet Hampton Casting Structural Business Center

Alcoa Investment Cast and Forged Products



The Howmet Hampton Casting Structural Business Center is a leader in the production of large superalloy and titanium aerospace structural components for the aero-engine, airframe and rocket industries.

The Structural Casting Center has been located in Hampton, Virginia since 1981, where together with the IGT plant, it occupies approximately 500,000 square feet of manufacturing space. The Center employs approximately 200 people.

Howmet Castings Structural Casting

One Howmet Drive
Hampton, VA 23661

Tel 757 825 6993
Fax 757 825 7963

Contact:
William Smith
Plant Sales Manager
whsmith@howmet.com

Visit our web site at:
www.howmet.com

Products

Titanium intermediate compressor cases, fan hub frame cases, compressor rear frames, turbine exhaust cases, rocket turbo pump housings and ducts, structural airframe components

Alloys Poured

- Titanium-, nickel- and cobalt-based alloys
- Ti-6-4, Ti-6-2-4-2, IN713, IN718, IN625, Mx, René 77, René 108, WASPALOY, C101, IN939, JBK75

Inspection

- Full layout department
- CMM/Robotic inspection
- Up to 4 MeV X-ray capabilities
- UT, RT and PT Level III Certified

Manufacturing Process

- Lost wax/investment casting
- 300-ton wax-injection equipment
- Robotic ceramic shell process (3,000-lb. capacity)
- Titanium Casting: Vacuum, static, or centrifugal
- Superalloy Casting: Air Vacuum Equiax, MX[®] ultra-fine grain
- On-Site chemical milling for titanium castings

Growth Area

Substantial growth potential exists in the aero engine, airframe and rocket sectors of the industry.

- Rapid prototyping/tooling design supports development and low rate production
- Electronic data transfer supporting multiple platforms
- Unigraphics[®] workstation
- SLA Quickcast[®] capability
- CAPM (Computer-Aided Pattern Modeling)

Capabilities

Superalloy

- Maximum pour weight: 4,000 pounds
- Casting envelope: 92 inches in diameter x 92 inches in height x 92 inches in length

Titanium

- Maximum pour weight: 1,600 pounds
- Casting envelope: 62 inches in diameter or 72 inches in length x 36 inches in height

Customers

Structural Casting is an approved source for many customers, including:

- BAe
- Bell Helicopter
- Boeing Commercial Airplane Group
- Boeing Integrated Defense Systems
- Boeing Phantom Works
- FAMAT
- General Electric Aircraft Engines
- Honeywell Aerospace
- IHI
- Johns-Manville
- KHI
- Lockheed
- MHI
- Northrup Grumman
- Rocketdyne Propulsion & Power
- Rolls-Royce
- Samsung
- United Technologies:
 - Pratt & Whitney, United States
 - Pratt & Whitney, Canada
- Volvo Aero