Bradken - Atlas

One of the premier foundries in North America, Atlas has been producing high integrity steel castings for customers around the world for more than a century. Bradken - Atlas has a rich history in the Energy market possessing the technical tools and infrastructure to manufacture the most challenging steel and stainless steel castings under the most intense specifications. Bradken - Atlas is one of only a few foundries left in North America that is qualified to make castings for Nuclear applications. State-of-the-art technology is employed to produce complicated components with stringent metallurgical and quality requirements. Our Washington facilities are not just foundries; we have evolved into a manufacturer of major metal components and value added offerings.

Manufacturing Capabilities (Overview)

- Each Bradken business unit makes use of continuous improvement programs utilizing lean manufacturing and six sigma and maintains specialists at the business unit and corporate levels to drive improvements and efficiencies
- Off-shore oil & gas certified by numerous OEM’s and countries with material qualified to EN 10225 and API RP2Z
- Nuclear certified by ASME as a certified material manufacturer QSC certificate No. 204
- In house ASTN level III non-destructive testing specialists in Ultrasonic, Magnetic particle, Visual, Dye penetrant, Radiography and Linatron X-Ray capabilities for wall thicknesses beyond 6.5"
- Navy nuclear qualified to NAVSEA 250-1500
- ISO 9001 certified world-class foundry
- DNV approved manufacturer of steel castings
- Casting weight range: 200 to 45,000 lbs in a variety of steels and specialty stainless steels
- Approved manufacturer of HY-80 and HY-100 castings by the department of the navy
- Two electric arc furnaces and two 10 ton AOD systems can be operated individually or in concert to produce heat sizes from 1,500 to 95,000 pounds
- Captive machining and heavy fabrication facility (formerly Ideal Machine & Manufacturing) provides: machining, fabrication, horizontal milling, vertical boring, drilling and tapping

Key Differentiators:

- Highly engineered complex steel and stainless steel castings with intensive specifications
- AOD Capable: Full range of 130 high, low alloy & duplex/stainless steel casting alloys
- Linatron X-Ray capabilities to 20” section thickness
- Pro/ENGINEER and CAD/CAM Software Tools
- Solidification Modelling/Assisted Engineering
- Fabrication, cast/fabrication and hydro testing
- Rough machining, final machining/assembly
BRADKEN MANUFACTURING FACILITIES

Facility Information

- 500,000 sq ft Mfg.
- 640 employees

In Business
- Since 1899

Capabilities
- Casting
- Machine Shop
- Fabrication
- Assembly

Metals Cast
- Cast Steels
- Austenitic-Ferritic Duplex
  200 to 45,000 lbs.
- Carbon Steels
  200 to 45,000 lbs.
- Corrosion Resistant Steels
  200 to 45,000 lbs.
- Heat Resistant Steels
  200 to 45,000 lbs.
- Low Alloy Steels
  200 to 45,000 lbs.
- Other Nonferrous Alloys
  Nickel-Base
  200 to 45,000 lbs.

Molding or casting process used
- Air-Set/Nobake
  200 to 45,000 lbs.

Flask sizes
- Minimum 28” X 28”
- Maximum 192” X 192” or 144” x 268”

Specialized casting capabilities
- AOD refining
- Magmosef Simulation

In-house Heat Treating
- Furnaces Multiple

- Furnace Sizes
  Minimum 44” X 144” X 96”
  Maximum 168” X 240” X108”

- Type of Heat Treating
  Normalization
  Stress Relieving
  Annealing
  Quench and Temper

Other
- Heat Soak
- Stabilization
- Water quenched to 50 tons

Quality and Process Controls
- Hardness
- Dimensional Layout
- Microstructure
- Radiography
- Charpy Impact Testing
- Magnetic Particle Examination
- Liquid Penetant Examination
- Chemical Analysis
- Sand Control
- Ultrasonic Examination
- Mechanical Testing
- Lean Manufacturing & Six Sigma

Certified Welding Standards:
- ASME Section IX, AWS D1.1, MIL-STD-248D, NAVSEA 250-1500-1

Fabrication Capability

- Maximum Lifting Capacity
  80,000 lbs.

Welding Capabilities
- FCAW
- GMAW SAW
- GTAW SMAW

Fabrications to 80,000 lbs

Capabilities include robotic production welding, large jobbing work, mechanical assembly, rig up, assembly, hydrostatic testing and paint capabilities

- Welders certified ASME, Sec IX, AWS D1.1, FCAW, GMAW, SAW, GTAW, SMAW

Quality Assurance Program
- ISO
- API 610, 8C and 2SC
- ABS
- Marine Steel Castings
- MMPS No. 5165
- ASME
- QSC-204 Exp.
- Date Sept. 23, 2010
- ASTM
- NACE
- MR0103, MR0175
- DNV
- Certificate No. AMM-2617
- Other
- NAVSEA Qualification for HY-80 and HY-100 Materials
- Lloyd’s Register Certificate No. MD00/3366/0001/2

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