MANUFACTURING CAPABILITY

PEOPLE WHO INNOVATE

TO DELIVER NUCLEAR SERVICES SAFER, FASTER, AT LOWER COST

New Build Nuclear Services Decommissioning

cavendishnuclear.com
Our people

Our mission is simple and drives our behaviour in everything that we do: Cavendish Nuclear – people who innovate to deliver nuclear services safer, faster and at lower cost.

We are proud to be the UK’s leading supplier to the nuclear industry and a growing global force.

From our inception during the earliest days of nuclear research and development, we recognised that a focus on people and the expertise they deliver is the key to meeting the challenges of this exciting technology.

Our approach has seen us bring together much of the UK’s rich nuclear heritage with a highly skilled workforce, to create the innovative organisation you see today.

The breadth of our expertise means we are able to offer unrivalled experience and specialist knowledge across all aspects of the nuclear energy life cycle, from design and build, through operations and maintenance, to decommissioning, waste management and remediation.

As a wholly owned subsidiary of Babcock International Group, we are trusted to deliver the highest standards of safety, quality, security and environmental protection for our customers. Our business is supported by the three cornerstones of safety, people and performance – zero harm, one inclusive culture and 100% delivery on our promises.

Cavendish Nuclear’s manufacturing capability comprises three manufacturing, assembly and testing facilities at Whetstone, Rosyth and Chester.

These facilities deliver a wide range of manufacturing capabilities from specialist waste containers and products for decommissioning, to large scale complex projects for the Offshore Renewables, Subsea Oil and Gas industries.

Both the Whetstone and Rosyth have extensive facilities to support full mock-up assembly and off-site commissioning activities.

At Rosyth, we also offer a range of welding engineering services including compiling and qualifying new weld procedures, the employment of mechanised and/or automated welding operations and the training and testing of welders.

At Chester, our facility fabricates and tests high integrity stainless steel drums and stillages in support of numerous plant operations and intermediate level waste (ILW) storage.
Overview

Our manufacturing facility at Rosyth, covering 1,300 acres (5.3 km²), is one of the largest in the UK.

With a footprint of 300 acres and a fabrication area where you could comfortably park 1,169 buses, Babcock’s Rosyth site boasts 25 covered manufacturing bays with specially widened doors that can accommodate even the largest of projects.

Rosyth provides manufacturing, engineering, project management, procurement, commissioning and logistics services. Users of this facility include the Nuclear, Offshore Renewables, Subsea Oil and Gas industries.

Capabilities / Facilities

- Dedicated production facility complete with three manufacturing bays.
- Almost 800 skilled engineers who support all aspects of detail engineering, concept development and Front End Engineering Design (FEED) services
- Bespoke welder training and testing facility
- Mechanised and automated welding
  - Access to the latest state of the art welding equipment utilising inverter technology with mechanised equipment
  - Certificated 355G6CA, ISO9606 structural MCAW/FCAW carbon welders &130 TIG/TiP/TIG welders covering carbon, stainless steel and duplex steel materials on both plate and pipe
  - Medium to high volume repetition of weld joints
  - NC / CNC control
  - Vision systems & laser guide joint tracking
- An experienced resource pool in developing and delivering high integrity fabrication solutions to UK, European and international standards such as ASME and RCC-M

Products delivered:

Aircraft Carriers for the MOD

The Sellafield Pile Fuel Cladding Silo Rap on Silo Doors project – including manufacturing of high integrity welded components

In the last 2 years we have processed 2371 individual welder test plates, tubes and pipes

3m³ Debris Waste Boxes
  - Laser cutting
  - 2D and 3D
  - Automated/mechanised handling
  - Robotic welding
  - GTA, CMAW, Hybrid-CMAW/Laser
  - 3D Inspection
  - Laser Metrology, CMM

Over 75,000 high integrity stainless steel products for the nuclear industry at 99.7% defect free, as validated by Sellafield Ltd.

Compact Stillage fabrication for 500 Litre Nuclear Waste Container handling, transport & storage

High integrity stainless steel containers

TRU-Shield lead lined containers

MagneX 3m³ drums and boxes

Stainless steel stillages

Transport containers

Vacuum vessel and pipe spooling

Nuclear handling and maintenance equipment

Overview

The Chester facility has 4400m² fabrication and manufacturing floor space and principally manufactures high integrity stainless steel components, including containers for the nuclear industry.

These facilities are also used for the testing, development and initial commissioning of bespoke equipment.

Customers include Sellafield, Magnox, EDF, Dounreay, AWE, Westinghouse and GE Healthcare.

Capabilities / Facilities

- Extensive experience of machining and fabrication of a wide range of products and steels.
- Over 25 years’ experience in manufacturing stainless steel drums, boxes and stillages
- A dedicated supplier of stainless steel products and fabrications to the nuclear industry
- Welding in TIG, MIG, Plasma, MAG robotic welding, manual, multi-function and semi-automatic
- Welders and weld qualifications on 316L, 304L
- Excellent fabricated tolerances and control of dimensions

Products delivered:

Development and manufacture of high integrity nuclear fuel transport containers

Over 75,000 high integrity stainless steel products for the nuclear industry at 99.7% defect free, as validated by Sellafield Ltd.

Compact Sillage fabrication for 500 Litre Nuclear Waste Container handling, transport & storage

High integrity stainless steel containers

TRU-Shield lead lined containers

MagneX 3m³ drums and boxes

Stainless steel stillages

Transport containers

Vacuum vessel and pipe spooling

Nuclear handling and maintenance equipment
Overview

The Whetstone Facility is 10,000 SqM and offers manufacturing, component production, development, assembly and test facilities and a nuclear spares production capability. Engineering, scientific and managerial skills support the facility’s output.

Facilities include a high bay with a large 28m deep pit facility and crane up to 50 tonnes, and the facilities to manufacture, assemble and test all types of electrical and electronic assemblies.

A purpose-built Active Maintenance Facility is also in place with all the necessary health physics services.

Organisations that use this facility include AWE, Magnox and EDF.

Capabilities / Facilities

- 100,000 sq feet facility including high and low bays
- A high bay with a large 28m deep pit facility and crane up to 50 tonnes
- Facilities to manufacture, assemble and test all types of electrical and electronic assemblies
- Unique fully licensed Active Maintenance Facility for decontamination, refurbishment and testing of radiologically activated and contaminated equipment
- Assembly and test facility, including electrical
  - Welding, Brazing, Silver solder, soft solder
  - Fabrication
  - Mag Particle testing, NDT, Shear tests
  - Machine shop, Mill, Turn, Horizontal and vertical jig boring, Surface and cylindrical grinding.

Products delivered:

- Critical nuclear spares, Hoists, Crabs, Cable reeling drums, Nose units, Fuelling machine spares and refurbishment
- Testing equipment
- Special purpose equipment
- Nuclear retrieval equipment
- Shield doors
- Refuelling equipment
- Reactor Protection equipment

Manufacturing accreditation

ISO 9001: Quality Management Accreditation

BS EN 3834-2: Quality Requirements for Fusion Welding of Metallic Materials

BS EN 1090: Execution of Steel Structures (Construction Products Directive - CE Marking)