



Belmar Engineering Services Ltd



COMPANY PROFILE



Belmar Engineering's history has reflected the history of bespoke and high-end engineering in the Northeast of Scotland and beyond. It has responded to change from being a blacksmith workshop some 50 years ago to being one of the few remaining specialist workshops in Scotland, catering to the needs of the local and global Oil and Gas Industry. With contracts going overseas the control of quality and ability to collaborate with the client is lost. Belmar offer local proximity, with a legacy of client relations and undertaking, and a commitment to the highest quality expectations. We do not compromise quality or delivery, but ensure expectations are understood and met.



SITE

**Abbotswell Road
West Tullos
Aberdeen**

**37000 sq ft
Workshop Space**



Belmar – Service Offering

- Belmar offers a wide range of specialist machining services provided by market leading CNC technology, producing high quality precision engineered products bespoke to the demands of customers.
- Belmar has the infrastructure to facilitate its machining services with full Inconel overlay capabilities to produce complex components for the offshore Oil & Gas market.
- Belmar offer inspection and NDE services to customers within the O&G industry. Belmar offer repair and maintenance services to existing customers on internally manufactured components only.

Belmar Capabilities

One Stop Shop

- Facilities & capabilities designed to ensure Belmar can deliver customers with a full package from start to end process.
- Ability to conduct machining, welding, gun drilling, inspection and NDE services all under one facility improving the customers over all experience and satisfaction.

Specialist Machining, Welding & Tooling

- Large sophisticated machine & tooling capacity, producing niche complex products tailored to each customer requirement.
- Hold tooling and technique specialisms that can't be matched by competitors.

Inspection, NDE & Repair Services

- Carry out full inspection and NDE services prior to component delivery.
- For existing customers on internally manufactured components, inspection and quotes can be provided leading to rework services.



Belmar – Production Capabilities

Key Equipment & Technologies



CNC Machining

- Fully automated pre-programmed manufacturing software designed to dictate the movements of factory machinery
- CNC machining enables highly detailed cutting capabilities for steel and other materials
- Consistency in component production delivering precision and accuracy which would be difficult to replicate manually



Tig Cladding Rigs

- 4 state of the art cladding rigs used to automate welding services in line with customer requirements
- Overlay cladding improves quality by providing protection against wear and tear and corrosion
- Equipment is coupled with highly qualified and skilled personnel (ASME IX qualified)



Inspection & NDE

- Technologically advanced inspection and NDE testing equipment including but not exhaustive; 3D co-ordinate measuring machine, hardness and thickness testers, profile projector and videoscope
- Inspection and NDE services performed by highly trained and experienced qualified personnel

Accreditations

Belmar Engineering's pledge to maintain the highest standard of Quality Assurance along with Environmental Management Systems are acknowledged through our recognised accreditations:

- **ISO 9001:2015:** Quality Assurance
- **ISO 14001:2015:** Environmental Management Systems
- **ASNT Level II:** Non-Destructive Testing
 - Liquid Penetrant Inspection*
 - Magnetic Particle Inspection*
 - Ultrasonic Inspection*
- **PCN Level II:** Non-Destructive Testing
 - Liquid Penetrant Inspection*
 - Ultrasonic Inspection*



Facility Capabilities

- Our Integrated Engineering Facility is located within the West Tullos Industrial Estate, Aberdeen.
- Aberdeen serves as a central hub for European Oil and Gas logistics therefore having a facility in the city allows greater access to broader markets.
- The facility is split up into three workshops; the main workshop, storage & welding workshop and the small workshop.
- With the current resources, the facility is generating 31,000 hours of production hours annually. This is achieved through day and night shifts.
- Belmar works alongside Tullos Training to provide apprenticeship opportunities every year. The aim is to take on at least 2 apprentices annually – supporting them through a scheme which involves both on and off the job training over a 4-year period.



MAIN WORKSHOP



STORAGE & WELDING
WORKSHOP



SMALL WORKSHOP

Workshop Equipment Breakdown

Main Workshop

- The main workshop contains 5 cranes with a lifting capacity of up to 20 tonnes.
- Full equipment breakdown:
 - 7 x Giddings & Lewis PC50T horizontal borers
 - 1 x Giddings & Lewis PC40 horizontal borers
 - 3 x Alesa Monti horizontal borers, twin CNC rotary tables vertical and horizontal.
 - 1 x MTE BF-2200 machining centre
 - 1 x Giddings & Lewis VTC 1600 VTL
 - 1 x Tacchi HD1450 Hollow Spindle lathe – 4.5m bed length
 - 1 x Gurutpze A-1200 lathe - 5m bed length
 - 1 x Gurutpze A-1600 lathe - 6m bed length
 - 2 x Hartford PBM115 Horizontal Borers (Brand New)

Small Workshop

- This is a smaller workshop with 3 cranes and a lifting capacity of 3 tonnes.
- Full equipment breakdown:
 - 2 x Giddings & Lewis PC50T horizontal borers
 - 2 x Giddings & Lewis PC40 horizontal borers
 - 1 x Tacchi HD1450 Hollow Spindle lathe – 4.5m bed length
 - 1 x Mori Seiki SL603 lathe
 - 1 x Mori Seiki SL403 lathe

Storage & Welding Workshop

- Material Storage and Welding Workshop with 2 cranes with a lifting capacity of 10 tonnes.
- Full equipment breakdown:
 - 4 x Cladding Rigs
 - 1 x Bandsaw
 - 1 x Aberlink Coordinate Measuring Machine

Inspection Equipment

- Inspection equipment breakdown:
 - External Micrometers up to 36", Internal Micrometers up to 68", Depth Micrometers up to 6", Bore gauges from 0.375" dia.
 - Faro arm 3D coordinate measuring machine
 - Aberlink Coordinate Measuring Machine
 - Gagemaker taper & groove gauges, pitch diameter thread gauges
 - King Brinell hardness tester
 - Fischer MP-40 thickness tester
 - Baugh & Weedon wall thickness tester
 - Profile Projector
 - Surface Finish tester
 - Videoscope
 - Hard thread gauges including Unified, Stub Acme, N.P.T., Line Pipe & API



Equipment and Production Capabilities

Machining

Belmar has invested heavily in its machinery with its max capacity being capable of manufacturing up to 8 tonnes in weight.

All machines are equipped with a full range of attachments such as contouring heads to meet the complex requirements of each customer.

Welding

Belmar offers its customers full clad welding services. With its wide range of equipment, Belmar has the flexibility to weld small and large components.

The equipment and personnel held enables Belmar to deliver high demanding job specifications to a high quality whilst delivering customer satisfaction.

Machining Capabilities

- Max turning capacity - 78" chuck dia., 98" max.swing, 110" max.height
- Max MTE milling capacity – 90" x 48" table size, headstock travel 80", cross travel 48"
- Horizontal Borer capacity – 120" x 60" max.table; attachments include CNC rotary tables, air lift tables of various sizes, contouring heads, vertical milling heads and gun drilling units

Welding Capabilities

- 2 x 10 tonne fixed head, 1 x 10 tonne swivel head and 1 x 5 tonne swivel head hot wire tig cladding rigs
- 2 x Kemmpi master tig AC/DC 3500W and 1 x Kemmpi KPS 4500 w/KWF 300 MIG
- 4 x Top Hat type 3M x 2.5m x 1.7m Heat Treatment Furnaces
- ASME IX qualified personnel

Key Features & Machining Applications

Large machinery facilitating small to max capacity orders

Accurate and Precise Measurements

Reduced Manual Labour and Human Error

Consistency in Output

Key Features & Welding Applications

Improves Quality by Protecting against Wear, Tear and Corrosion

Suite of procedures for welding different materials

Versatility and Precision

Produces a Durable and Superior Output for the O&G market



Equipment and Production Capabilities

Inspection & NDE testing

Belmar provides a range of inspection and NDE services to the Oil & Gas industry. Belmar has invested heavily in its inspection equipment to ensure all components are compliant and of the highest quality upon completion..

Belmar provides all existing customers with inspection services post-delivery which can lead to quotes for repairs and modification work to be completed internally.

Belmar holds the ASNT Level II and PCN Level II accreditation in Non-Destructive Examination, with all services being performed by qualified highly skilled personnel.

Inspection & NDE Capabilities

Services include:

- Liquid Penetrant Inspection
- Magnetic Particle Inspection
- Ultrasonic Inspection
- Welding Inspection
- Machine Component Inspection
- Thickness Overlay Measurement

Equipment includes:

- Faro Arm Coordinate Measuring Machine
- Aberlink Coordinate Measuring Machine
- MP-40 thickness tester
- External micrometers up to 36", internal micrometers up to 68", depth micrometers up to 4"
- Profile Projector
- Videoscope

Key Features & Machining Applications

**Compliance
with International Standards**

Prevention of Reoccurrence

**Accurate
Measurements provided by
CMM reports**

Quality & Assurance



Belmar – Key Product Lines

Key Components Produced

- Belmar have developed custom tooling for blue chip customers which has resulted in them becoming a key supplier of custom components for these customers. Examples of these products which include components manufactured by Belmar are:



Landing Strings

- Premium supplier of manufacturing part for downhole strings, used by customers for reliable well access.
- Produced with larger wall thickness which have higher yield strengths, increasing the components capacity.
- The welding technology capabilities within Belmar improve the components quality creating greater resistance against corrosion.
- With over 30 years of continued customer relationship, Belmar has invested in specialist tooling which has been built up over several years to enable the quality manufacture of the component used within the landing strings.



Subsea Tree Systems

- Used by a key customer at the wellhead, to monitor, manage injection and control of flow from the reservoir.
- Provides multiple downhole functionalities and flexibility.
- Belmar manufactures the component used with high efficiency creating high reliability and long-term performance through the durable materials and techniques used in production.
- Belmar has built the knowledge and expertise in manufacturing the subsea tree systems through the continued relationship with the customer over the last decade.



Valve Blocks/Gate Valves

- Used and installed by customers at strategic points along pipelines to control the flow of fluid or gas.
- Safety and operational efficiency is key - from the manufacturing process through to final inspection, Belmar must remain compliant with International Standards.
- The component requires routine inspections to be conducted to check for signs of wear and tare.
- Belmar offer both the manufacturing and inspection element therefore are appealing to customers as a 'one stop shop'.

Other Services

- In addition to their core services Belmar also have the capacity to offer additional services to customers. These services do not form part of their key service offering and are not externally marketed by Belmar.

Repair & Rework Services

- Belmar regularly performs repair and rework services for existing customers. Belmar has the infrastructure in place which can facilitate all rework and modifications required for customers.
- Belmar currently perform inspection services for internally manufactured components only post-delivery. Belmar will prepare reports for all components which they have inspected. These reports will be provided alongside a fee quote outlining the expected costs for Belmar to carry out any repairs and maintenance on the components.
- Due to Belmar having a fully integrated engineering facility at West Tullos they can carry out all inspection and rework services on site. This prevents the need for items to have to be transported across various sites. This is beneficial for the customer as it reduces the likelihood of components being damaged and results in a quicker lead time.
- As an inspection has been carried out prior to the repairs and rework service commencing the management team have a detailed estimate of the time which the repairs and rework will take, resulting in this service offering being a highly profitable element of Belmar.
- There is also a high degree of regulatory requirements in place for certain components which state that the component is to be inspected periodically. Belmar are certified to carry out these inspections and perform any repairs and modifications if required.

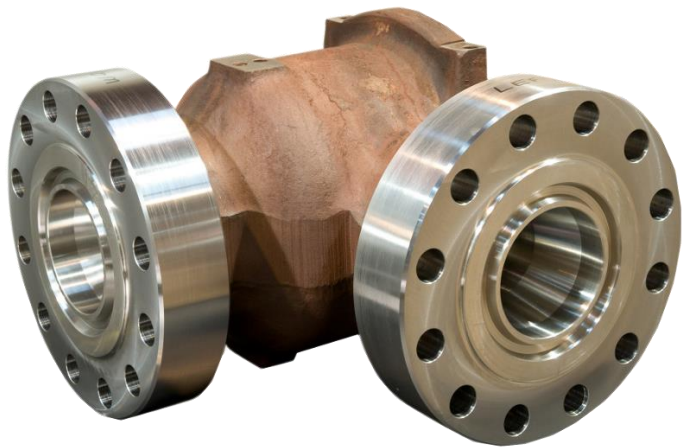
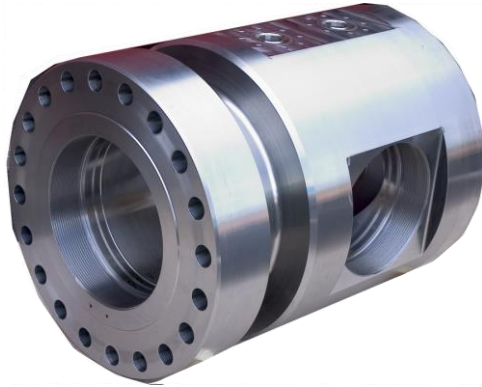
Component Examples



CUSTOMERS



TYPICAL COMPONENTS



TYPICAL COMPONENTS

