

BURNTISLAND FABRICATIONS LTD

Global Project Solutions Exceeding Customers' Expectations





COMPANY – SYSTEMS

Burntisland Fabrications Ltd. (**BiFab**) was formed in 2001 following a buyout by the existing management team from the former owners. That same team has operated the yard, producing major fabrications for the offshore oil and gas industry, since 1990. The vision of the management has sustained **BiFab** through a period of significant change in the North Sea energy industry allowing it to emerge as the only remaining major fabricator (2005) currently operating in Scotland.

While the company focus continues to be the offshore energy sector **BiFab** has recognised that this sector is changing and now includes the renewables markets such as wind, wave and tidal power.

BiFab's success is based on its key assets, the skills of its professional staff and workforce coupled with its ability to offer a choice of two fabrication locations suited to different project needs. In Burntisland and Methil **BiFab** can offer two superb fabrication facilities where work can be carried out under cover. The two yards are located in Fife approximately 20 km apart and are operated using the same management systems.

A large pool of skilled labour is readily available in the area of the two yards covering all disciplines. In recent years we have operated with a workforce of more than 500 people.

In order to deliver the ethos of our mission statement to our clients, **BiFab** operates a wide range of standard systems and procedures to ensure a consistent approach to all our activities.

PROJECT MANAGEMENT

- **Dedicated Project Management Team (PMT) for each project.**
- **Direct access to senior management within the company.**
- **Modern IT systems.**

ENGINEERING DESIGN

- **Full design / co-ordination service on EPC contracts, with inhouse construction / engineering for all disciplines.**

SAFETY

- **Ongoing development of the Safety Management System in**

accordance with HSG (65).

- **Operations carried out in strict accordance with the Safety Manual, Safety Operating Procedures and the appropriate Risk Assessments.**
- **Auditing of adherence to Safety Manual and commitment by senior management.**

QUALITY

- **Quality Management System accredited to BS EN ISO 9001:2000.**
- **First Point Assessment registered.**
- **Achilles registered.**
- **Systems to maintain up to date document distribution.**

ENVIRONMENT

- **Well established environmental improvement programme.**

PLANNING

- **Established planning system based on international software.**
- **Develop the project plan through medium and long term look-aheads.**
- **Allocation of adequate trained resources.**
- **Monitoring of actual progress against plan on a weekly basis.**

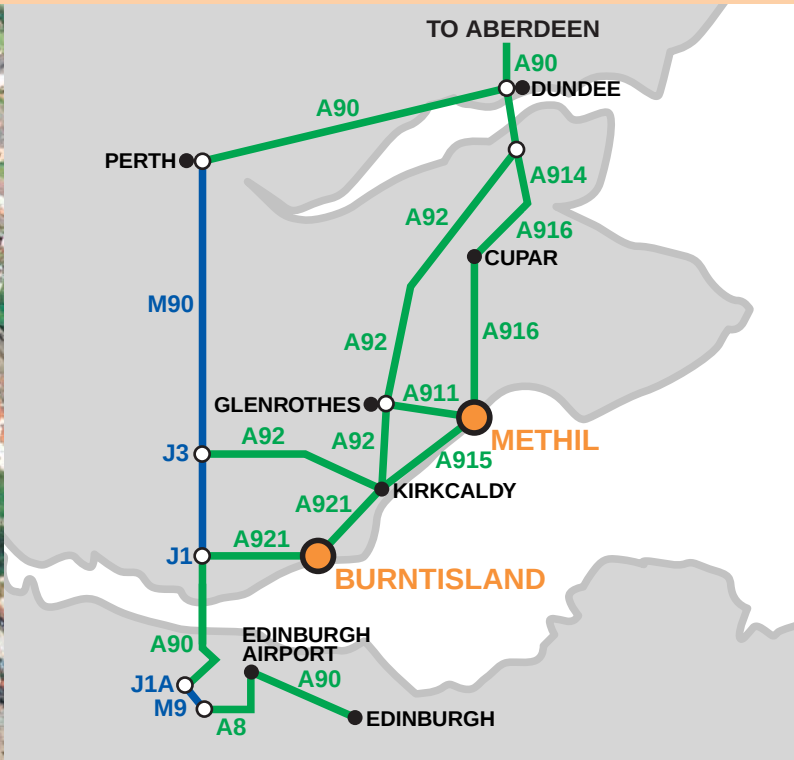
GLOBAL NETWORK

BiFab recognises that, as our clients become more global in their E&P activities, we as a company must develop to meet the challenge of operating in an international marketplace. As a result **BiFab** has already established agreements with international companies in a number of regional hubs and continues to look at further expansion. These agreements include the transfer of technology, expertise and management systems to our regional partners.

Agreements are in place and/or being concluded in the following regions.

- **North America.**
- **Gulf of Mexico.**
- **West Africa.**
- **North Africa.**
- **Caspian Sea.**
- **China.**

NO TASK IS SO IMPORTANT OR SO URGENT THAT IT CANNOT BE UNDERTAKEN SAFELY



BURNTISLAND FACILITY

BiFab's market focus continues to be based on its key assets, the skills of its professional staff and workforce. This is coupled with its ability to offer a choice of two fabrication locations, suited to different project needs but located within 20 km of each other. Both yard facilities operate under the management systems described elsewhere in this brochure.

Key features of the Burntisland yard resources and facilities: -

- Experienced project management and construction management teams.
- Design services – conceptual, detail, fabrication.
- 2 undercover assembly halls, 5470 m².
- 3 prefabrication workshops, 4700 m².
- 1 exotic pipe work shop, 1200 m².
- 1 paint shop, 3000 m².
- Environmentally controlled storage 3066 m².
- Open assembly / storage area, 60,000 m².
- Load out quay, 5000 tonnes capacity.
- Non-tidal dock with access for 300 x 90ft barges.
- Cranes ranging from 3 – 100 tonnes capacity.
- Computerised cutting equipment.

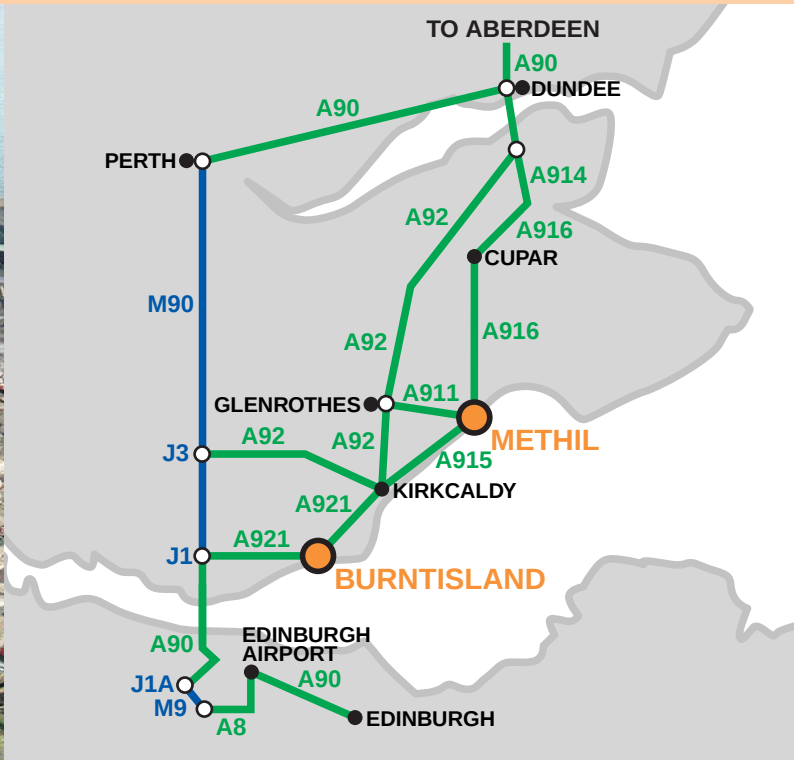
The yard is located 27 kilometres from Edinburgh International Airport, and is adjacent to the main London / Edinburgh / Aberdeen rail link. There is also good access to major roads with the A92 connecting within 15 kilometres to the motorway network.

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METHIL FACILITY

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The key features of the Methil yard resources and facilities: -

- Experienced project management and construction management teams.
- Design services – conceptual, detail, fabrication.
- 1 undercover assembly hall, 6400 m².
- 3 prefabrication workshops, 7900 m².
- 1 paint shop, 1650 m².
- Environmentally controlled storage, 6800 m².
- Open assembly / storage area, 277,000 m².
- 2 load out quays, 20,000 tonnes capacity each.
- Maximum water depth at quayside 9 metres.
- Cranes ranging from 3 – 160 tonnes.

The yard is located 48 kilometres from Edinburgh International Airport, and is within 8 kilometres of the main London / Edinburgh / Aberdeen rail link at Kirkcaldy. There is also good access to major roads with the A955 connecting within 10 kilometres to the motorway network.

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DECKS/MODULES/JACKETS

The range of yard facilities available to **BiFab** means that we can offer to undertake a wide range of projects, under cover, at a location that is most suited to the clients' requirements. With load out capacities of 5,000 tonnes at Burntisland and 20,000 tonnes at Methil we have the ability to meet our clients' needs. As a flexible, goal orientated contractor who can draw on the collective experiences of our personnel, we can meet our clients' demands for the safe, economic and timely delivery of their project.

At Burntisland we can undertake undercover module assembly in two identical halls. Maximum construction dimensions are 22.9 m wide x 90 m long x 19.2m high.

At Methil we can undertake undercover module assembly in the main hall. Maximum construction dimensions are 47.5 m wide x 130 m long x 29 m high.

BiFab has delivered a wide range of projects from our yards. These have included.

- Complete topsides decks.
- Utilities modules.
- Process modules.
- Jackets.
- Compression modules.
- E & I modules.
- Turret assemblies (FPSOs).
- Pre-assembled units (PAUs).
- Pre-assembled racks (PARs).

Our client base includes Amec, BP, Britannia, Chevron, ConocoPhillips, Elf, Encana, Mobil, Nexen, Occidental, SBM, Shell, Talisman, Total and Wood Group.



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SUBSEA

BiFab has been involved in the design and fabrication of subsea structures at the Burntisland yard since 1990. Projects have ranged in size from a 750 tonnes, 8 slot manifold down to a 20 tonne single well manifold. More recently the Methil yard has also been utilised, particularly where clients have wanted to deliver their equipment on a DSV rather than by barge.

Notable successes have included the EPC contract for the Nelson field, the Britannia manifold (one of the largest in the North Sea), the ETAP subsea structures and more recently the supply of six subsea structures for the Buzzard field development and a manifold for the Bouri field.

BiFab can offer a single source responsibility for the engineering, procurement and construction of all types of subsea structures including:

- Manifolds.
- SSIV skids.
- PLEMs.
- Protection structures.
- Drilling templates.
- Towheads and trailheads.
- Mid water arches.
- Suction piles.
- Caissons.
- Risers.
- Tie-in spoils.

We can also offer overseas assembly of subsea manifolds and systems, as well as overseas completion of tie in spoils.

Our client base includes; Agip, Amoco, BP, Britannia, Chevron, Conoco, EMC, FMC, Halliburton, Kvaerner, Marathon, McDermott, Nexen, NSP, SCS, Saipem, Shell, SLM, Stena, Stolt and Technip.



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ACCOMMODATION

The first EPC accommodation project to be undertaken at the Burntisland yard by the **BiFab** management team was for the Chevron Alba field. This was subsequently followed by three new LQs for the Brent field, British Gas Armada, Bluewater FPSO Bleo Holm, Esso Jotun, and more recently BP Schiehallion FPSO. All projects are executed undercover and are scheduled to ensure the complete separation between "dirty" and "clean" fabrication activities.

Currently **BiFab** can offer EPC contracting for accommodation projects based on either the integrated module approach or a mini-modular solution. **BiFab** can call on over 15 years of experience in order to offer the most cost and weight effective solutions to offshore accommodation requirements. Projects can range from full scale stand alone complexes designed for single lift installation, to individual, road transportable units used as sleeping accommodation, recreation facilities, offices and laboratories.

Our designers are conversant with international requirements, whether they be legislative, HSE related or local comfort standards. Material selection and procurement are undertaken on the same basis, with availability of local spares being a particular consideration on international orders. The completed module is subject to rigorous testing and commissioning of each system before it is released to the client. Where a mini-modular solution is provided, our skilled workforce will be mobilised to the location site for final hook-up and commissioning.



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MINIMUM FACILITIES PLATFORMS

BiFab can offer a number of solutions for marginal field development on an EPC basis. These solutions include self installing platforms where no heavy lift crane vessel is required, thereby reducing CAPEX, and NUI low maintenance / low energy usage platforms that reduce OPEX.

Typically such installations will weigh (topsides plus foundations) less than 750 tonnes and are ideal for fabrication and load out from either our Burntisland or Methil yards where the entire installation can be completed under cover. At Burntisland the unit can be loaded out into our non-tidal dock using our existing bogey system. **BiFab** can also offer offshore hook-up and final commissioning of the installation once it has been installed offshore.

Subsea foundation options include standard piling, suction piles or gravity bases with sub-structures which can be monopod, tripod or quadropod.



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DRILLING

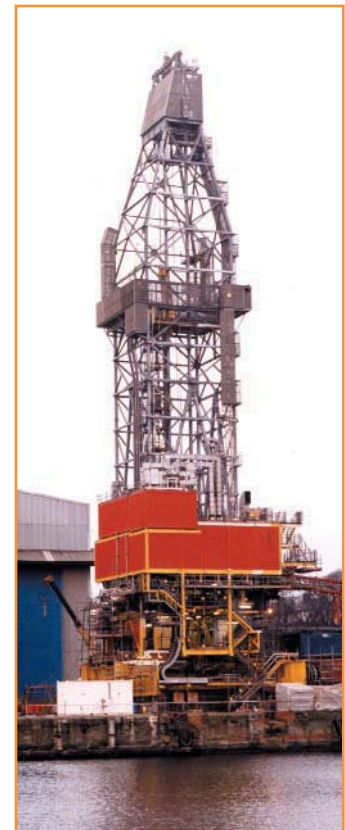
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BiFab has undertaken a number of drilling related projects from drillers control cabins to full scale drilling equipment sets and support modules. Most notable amongst these was the EPC contract for the replacement DES on the Shell Brent Charlie platform which was undertaken in a Joint Venture with an internationally recognised drilling rig design company.

Services which can be supplied by **BiFab** include,

- **Drilling Equipment Sets.**
- **Drilling Support Modules.**
- **Drillers Control Cabins.**
- **BOP repair and testing.**
- **Rig refurbishment.**

Our client base includes, BP, Hamilton, Martin Decker/Totco, Shell and SantaFe.



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EXOTICS/PIPEWORK

In early 2004 **BiFab** made the decision to build a specialist piping workshop within its facility at Burntisland. The facility is state of the art and can handle pipe spools from 36" diameter downward. Spools of up to 15 tonnes can be handled at any one time utilising the overhead cranes.

The shop is equipped with ring mains for air and inert gas feeding 24 individual welding workstations. Capacity for the production of stainless steel or duplex / super duplex is in the region of 3,000 manhours per week. A recent project saw the production of 640 tonnes of super duplex pipework in a 16 week period.

BiFab has a wide range of pre-approved welding procedures covering the following materials,

- Carbon Steel and LTCS.
- Carbon Steel (Clad).
- Standard & Super Austenitic Stainless steel.
- Duplex.
- Super Duplex.
- Cunifer.
- Inconel.



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GENERAL FABRICATION

Today's clients demand that projects are completed safely and economically. Burntisland Fabrications Ltd (**BiFab**) is a flexible, goal orientated contractor and can draw on the many years of experience of its personnel to ensure that clients' requirements are met.

GENERAL FABRICATIONS

The **BiFab** facility at Burntisland is ideally suited to all types of fabrication. Our sub-assembly bays cater for small to medium volumes, while our large fabrication halls allow work to proceed under cover ensuring that risks due to weather are minimised. **BiFab** has a wide range of experience and a proven track record covering all types of fabrication:

- **Bridges.**
- **Large Diameter Pipe Reels.**
- **Flare Towers.**
- **Smaller Fabrications.**

LINKSPANS

BiFab also offers a complete service covering the provision of linkspans:

- **Design.**
- **Fabrication.**
- **Installation.**
- **Commissioning.**

Experience in this sector includes the linkspan for the ferry service operating from the new terminal at Hull. The linkspan in this case comprised passenger and car gangways supported by a tower with an innovative climbing mechanism for adjusting the height to the vessel. The total weight was 700 tonnes.



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Photography © AMEC Border Wind

RENEWABLES

BiFab has specialised in the offshore oil and gas sector for many years and has established a reputation for innovation through the provision of cost effective design and fabrication solutions while, at the same time, achieving excellent results in HSE and Quality.

Since the management buyout in 2001 the management team has recognised that the skill base that exists within the company is ideally suited to the type of fabrication work that is required within the renewables energy sector, particularly when it comes to providing solutions for offshore wind, wave and tidal projects. To this end **BiFab** was keen to see the development of an energy park at the Methil yard which it reopened in 2003. That vision is now reality with a collaborative project at Methil between government and private industry (with **BiFab** as a leading player).

Currently the company is working on the development and construction, at Methil, of two support structures for the experimental Beatrice DOWNVInD project which is sponsored by Talisman, SSE, European Commission, DTI and the Scottish Executive. This will be the deepest offshore wind installation in the world when it is installed in 2006.



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DOWNVInD PROJECT



BiFab is proud to be associated with the DOWNVInD Project.

The DOWNVInD Project (Distant Offshore Wndfarm with no visual impact in Deepwater) , a joint initiative by Talisman Energy and Scottish & Southern Energy, is the largest European R & D undertaking of its type involving companies from the UK, Germany, Norway, Sweden and Holland – as well as a number of academic institutions.

The initiative will lead to the installation of 2 x 5MW wind turbines in the Beatrice oilfield, 23 Km offshore in the Moray Firth in Scotland. The first turbine units was installed onto a support structure within the oilfield early in the summer of 2006 and will provide power to the Beatrice platform during the two to three year experimental program. Thereafter this could lead to the development of a full scale commercial wind farm at the site generating enough power to meet the domestic needs of 20% of Scotland's population.

BiFab was responsible for the fabrication of the two deepwater light-weight support structures and piles which are installed in water depths of 45 metres. **BiFab** also supplied the critical transition piece which will transfer the dynamic loads from the turbines to the seabed. In addition the company also constructed the lower half of the soft landing system which will ensure that operational tolerances are maintained during the installation of the turbine units onto the support structures.



FOR ADDITIONAL INFORMATION PLEASE CONTACT MR JOHN ROBERTSON OR ROY LASCELLES



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DOWNVIInD PROJECT

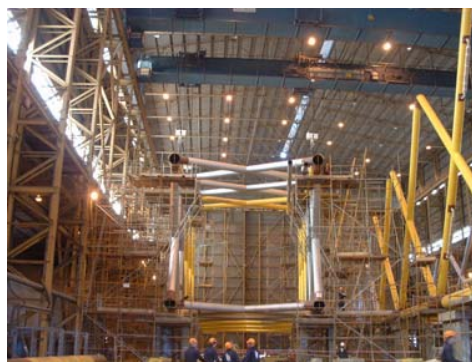


Fabrication of each of the substructure elements was carried out undercover at the companies two facilities in Fife, Scotland.

Work on the two 340 tonnes support structures (which are over 60 metres high) was undertaken at **BiFab's** Methil facility in the Fife Energy Park. Here the main assembly hall was utilised to fabricate both structures in parallel. Once the transition frames were integrated with these structures, they were moved to the adjacent quayside to await the arrival of the transportation barges.

Work on the two 180 tonne transition structures and the soft landing device was undertaken at **BiFab's** Burntisland yard, some 20 km from Methil. Here one of two main assembly halls was allocated to the project. The transition structures not only transfer forces from the operational turbine to the support structure, but also ensure accurate alignment of the components. The structures also contain connectivity equipment as well as emergency accommodation for visiting maintenance crews.

BiFab is also involved in studying the supply chain and mass production techniques with a view to reducing unit build costs for a full commercial development.



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