

AMCO- GIFFEN

STEEL FABRICATION





AMCO ■
GIFFEN

At AmcoGiffen, we inspire progression through collaborative infrastructure delivery. Working closely with clients and supply chain partners in a one-team approach, we provide trusted insight and innovation alongside robust design and delivery solutions across the transport, energy and environmental sectors.

With over 50 years of industry experience, AmcoGiffen continues to be relied upon as a trusted, collaborative delivery partner across the civil engineering sector.

Our expert teams provide a range of specialist services from bespoke design solutions to steel fabrication manufacturing, site refurbishment, maintenance and installation for a diverse portfolio of clients, schemes and projects across the UK.



| We have expertise and experience in

Bridge structural strengthening

Beam supply (inc. weathering steel)
for composite bridges / structures

Underbridge and overbridge
replacement

Footbridges including staircases,
lift shafts and external cladding

Aqueducts

Railway station platforms
and extensions

Tunnel and mine shaft lining /
strengthening steelwork

Heavy duty water retaining
barriers and stop logs

Canal lock gates

Service pipe and cable ladder
support structures

Watercourse debris screens

Access platforms and walkways

Temporary works structures





EC
CRANE ENG LTD
8 WIND TOWERS
DORSET



AMCO-GIFFEN



| Accreditations and Certifications



Production Standards

BS EN 1090-2:2018

up to and including EXC Class 4 Factory Production Control for load-bearing and welded steel structures (including base materials types S355, S460 carbon steels and 316L stainless steel)



Welding and Inspection Standards

BS EN 3834-2:2005;

ISO 9712;

CSWIP



Welding Processes

MMA Manual Metal Arc;

MAG welding with solid wire electrodes and flux cored electrodes;

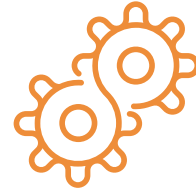
Drawn Arc Stud Welding



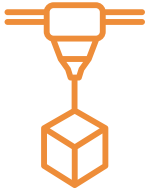


OUR FACILITIES AND CAPABILITIES AT A GLANCE

| Workshop facilities



Two workshops totalling 900m²



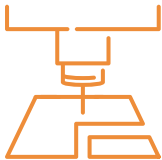
Overhead gantry cranes capable of lifting up to 20 tonnes



5-tonne forklifts on site



Guillotine capable of cutting 10mm plate 3 metres long



Band saw capable of cutting 450mm round at 60 degrees

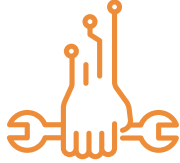


Stud welding capability



Support office and welfare facilities

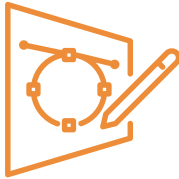
| Design and offsite build capability



Dedicated fabrication design for manufacture



Structural engineering design support – in-house and third party



CAD, modelling and 3D visualisation



3D laser surveying



External hardstanding areas for structures trials and pre-assembly



| Experienced team



38 full-time employees for fabrication works



Dedicated site repair and steel erection team



Apprentice succession programme

| CASE STUDIES

| CP6 – ECM1/312 Gainsborough Road

Description:

Twin U-deck under bridge replacement

Location:

Bawtry

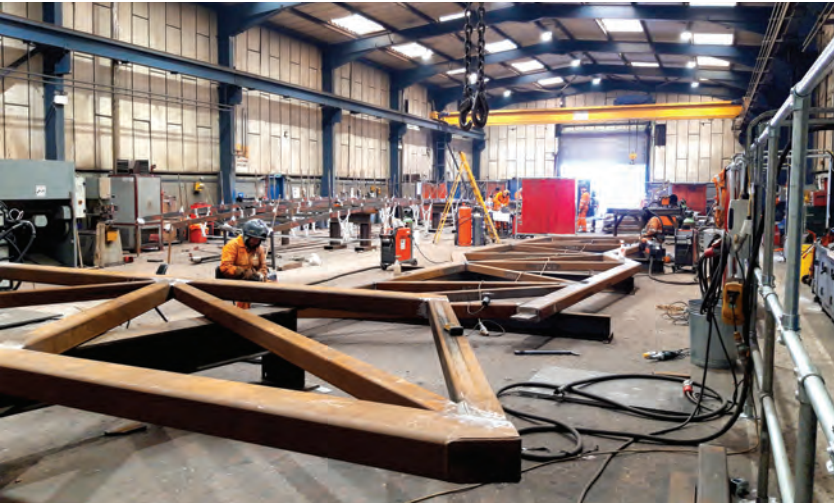
Client:

Network Rail

Overall project value:
c.£1.7m

Restricted by strict installation timescales, our teams fabricated, painted and cast the concrete base and also waterproof coated the twin 3.3 m wide x 14m long U-Decks prior to undertaking a trial erection at our yard. Each fully assembled U-Deck weighed circa 82 tonnes. We utilised a specialist transport company for site delivery via a Self-propelled Modular Transporter (SPMT). The redundant U-Decks were then replaced during OROR (Outside Rule of Route) time constraints.





| CASE STUDIES

| Newton Ings

Description:
New footbridge

Location:
Doncaster

Client:
Doncaster MBC

Overall project value:
c.£1.0m

Measuring 3.5m wide and 45m in length, AmcoGiffen designed and fabricated this painted steel footbridge structure to span the River Don as part of an in-house design and build project for Doncaster MBC. The spliced structure was fabricated, painted and delivered to the site in two sections for erection and lifting into position by our site team. AmcoGiffen also designed and constructed all temporary works and concrete civils works, together with temporary access roads and site laydown areas, enabling the safe delivery and site installation of the footbridge.



| CASE STUDIES

| Caledonian Canal

Description:

**Crinan Canal and
Gairloch Lock Gates
replacement**

Location:

West Scotland

Client:

Scottish Canals

Overall project value:
c.£8.1m

In conjunction with Scottish Canals and Eadon Design Consultants, AmcoGiffen managed this project from design to delivery, providing steel fabricated replacements of the upper and lower lock gate assemblies for Crinan Canal Locks 1 to 4, 14, 15 and Lock 17 at Gairloch.

The Gairloch top lock gates are the largest on the Caledonian Canal network and serve as crucial flood defence. Each fabricated lock gate and quoin structure ranged from 9 to 23 tonnes in weight and was manufactured to stringent straightness and water tightness tolerances. The lock systems originally installed 200 years ago, are listed as heritage monuments, therefore, suitably sympathetic designs and materials were used. We utilised traditional and specialist surveying techniques, including the use of skilled divers, 3D laser surveying and CAD modelling.



| CASE STUDIES

| Stamford Tunnel

Description:
**Tunnel
strengthening works**

Location:
Midlands

Client:
Network Rail

Overall project value:
c.£2.2m

This scheme involved the strengthening and replacement of steelwork roof beams within the existing Stamford rail tunnel. Due to the tight site logistics and working time constraints imposed within the rail tunnel, our steel fabrication team were involved in developing the design for bespoke lifting tooling to allow the safe and effective installation of roof-mounted steel support beams via RRV (Road Rail Vehicle). We fabricated the tooling and strengthening beams that could then be safely rotated and manoeuvred into place, to allow fixing into position with structural anchors.





| CASE STUDIES

| Drax Power Station

**BECCS at Drax (Bioenergy with Carbon Capture and Storage)
enabling works for services diversion**

Description:
**BECCS at Drax
Diversion Routes
A and B**

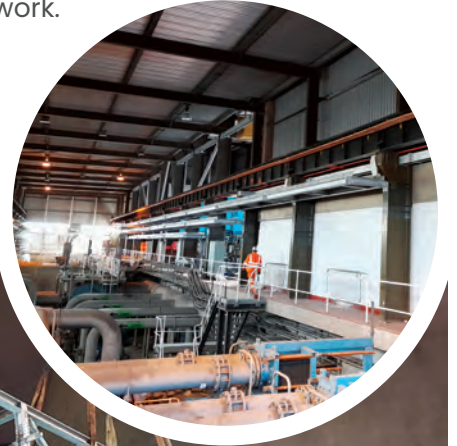
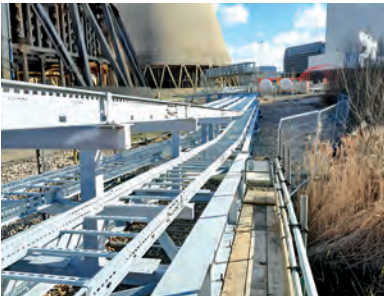
Location:
Yorkshire

Client:
Drax Power Station

Overall project value:
**Route A = c. £750k
Route B = c. £2.8m**

Bespoke steelwork frames, towers, overhead gantry and cantilevered support structures were fabricated and installed as part of the service pipework and cabling diversion works associated with the BECCS at Drax (Bioenergy with carbon capture and storage) project. AmcoGiffen's works also included civils construction of concrete buried cable trenches and above-ground support slabs, together with the installation of heavy-duty cable containment onto the new steelwork.

All works were undertaken within the confines of the operating power station.



| CASE STUDIES

| Teviot Footbridge

Description:

Heritage Bridge restoration

Location:

Scotland

Client:

Historical Railways Estates

Overall project value:
c.£600k



The three-span, wrought-iron Teviot Footbridge, opened in 1850, had been badly damaged by flooding as well as general decay, therefore, major repairs and renovations were needed.

AmcoGiffen surveyed, removed from the site, carefully dismantled and catalogued the bridge into 500 pieces, then restored it where possible and fabricated new replica elements where the original was beyond repair. We then reinstated the renovated bridge structures on the side of the Roxburgh Viaduct in the Scottish Borders.

A sympathetic extension was added to the existing low-level bridge parapet for safety reasons, and the original timber pedestrian deck boards were replaced with wood-effect recycled and anti-slip plastic boards. A 55-tonne mobile crane, positioned on the viaduct, was used to lower the bridge spans into position while skilled rope-access fitters ensured bridge alignment at the bearing points.

| CASE STUDIES

| Underbridge 58 Repair

Description:

**Bridge strike
Emergency Repair**

Location:

Lincolnshire

Client:

Network Rail

Overall project value:

c.£1.6m

Underbridge 58 - located on the East Midlands Route, Peterborough to Manton Junction Line (PMJ) suffered a serious bridge strike which warranted the emergency removal of a deck as a result of unrecoverable damage to the trough girders. The opposite line was quickly assessed, made safe and reopened to restricted traffic within the first 24 hours.

Typically a permanent replacement structure would have taken months to design, fabricate and install. However, thanks to the identification of donor girders, these components were quickly assessed, refurbished at our steel fabrication workshop and modified to create suitable replacements. From the reactive assessment visit, AmcoGiffen replaced the new deck in a period of 15 working days, ready for the line reopening



| CASE STUDIES

| Rolling Stock Maintenance Platform

Description:

High-level rolling stock maintenance platforms

Location:

Upminster Depot

Client:

Transport for London

Overall project value:
c.£1.0m

Transport for London (TFL) required a 150-metre-long elevated working platform, complete with access stairways and handrailing, to allow safe, high-level maintenance access to their train rolling stock. The area was 3D surveyed to ensure accurate interface dimensions between the fabricated platform and the external constraints of the trains being inspected and maintained. Due to limited laydown area space local to the proposed platform area, the steelwork was designed piecemeal to allow manual handling of structural members at the site for erection in-situ. The site installation involved efficient logistics and meticulous planning to ensure that the new platforms were installed within tight operational constraints whilst allowing the continual daily maintenance of the rolling stock.



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Providing consistently robust and reliable solutions for clients across the UK, AmcoGiffen is collaborative by design and successful by nature with its one-team approach and ethos.

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AMCO·GIFFEN

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