

ECS improves efficiency and safety of Lincolnshire pumping station



Maintaining the land drainage scheme in Lincolnshire is an important task for the Environment Agency (EA) and the pumping stations used to control water levels are protected by weedscreens to prevent damage to the pumps. The equipment at the Dirtness station had been in service for over 60 years and was beginning to pose increased maintenance costs as well as potential health and safety concerns for the operators. The solution required the installation of a new, reliable system that would reduce the overall operating costs and improve safety.

Originally housing a beam engine produced by James Watt, the pumping station at Dirtness is a Grade II listed building which has been performing crucial water level control operations for nearly 150 years. The original steam equipment was replaced in June 1928 with the current equipment being installed in October 1952, which included a rotary screen designed to remove the debris from the water and deposit it on the bridge over the watercourse.

The design of the old rotary screen required a small tractor to regularly remove the debris from the bridge. However, as the tractor equipment has grown in size the mechanised method had become impossible, so the more recent method had involved reverting back to the trusted wheelbarrow. In addition, when the temperatures dropped in winter, ice would build up on the screen and reduce water flow through the

station. This required regular intervention by the maintenance staff to break up the ice to ensure the pumping station operated efficiently.

The EA brought in ECS Engineering Services, with whom it has an on-going working relationship, to deliver an improved, more reliable solution which would reduce maintenance costs and provide an automated weedscreen solution. ECS suggested the installation of a Landustrie automatic screen cleaner which could provide for all the immediate requirements of the EA and would be covered by an initial warranty and continued maintenance support.

ECS delivered a turn-key solution which included the removal of the obsolete equipment, additional civil engineering to prepare the site, complete mechanical and electrical installation as well as testing and commissioning. All of this had to be completed in the most discrete and sympathetic manner so as to follow the guidelines for the Grade II listing.

Having removed the original weedscreen, ECS used divers to modify the bottom of the watercourse to provide a flat base for the new screen. Additional civil engineering works were required to prepare the concrete bases for the overhead gantry and to install underground ducts for the electrical cabling. Once completed, the task of erecting the steelwork could begin and would only take 3 days to complete.

Electrical work to provide power, ultrasonic level control and telemetry was completed and connected to the central control panel. Testing and commissioning

was completed along with operator training to ensure efficient and reliable operation every day. The project was completed with the installation of additional hand-railing and perimeter fencing to secure the site and provide improved operator safety.

The completed project has provided the EA with a much improved weed screen with an automated cleaning system which greatly improves reliability and reduces maintenance costs. The cleaning cycle involves the grab moving to a point above the weedscreen where it is lowered onto the screen to a point below the surface of the water. The grab is then closed hydraulically and raised out of the water before traversing along the gantry to a point above the skip, where the weed is deposited.

The system is built to provide reliable operation, with a minimum of components to simplify the maintenance requirements and as such does not rely on proximity sensors for the control of the carriage and hoist. Instead, it uses counters which are programmed via the control panel and provide a more accurate and reliable system of operation.

Once installed and tested, training has been provided to the EA staff who are working on this and other sites in the area to ensure familiarity and an understanding of its operation. The completed solution has greatly improved the reliability of the site as well as removing the manual handling requirement and its reliance on regular operator intervention.



Inside this issue . . .

Automated weedscreen clearance improves efficiency and safety of Lincolnshire pumping station	P1
MD's comments	P2
Top 6 contract wins	P2
RoSPA Gold Award	P2
Landustrie appoints ECS Engineering Services as UK agent for Archimedes screw pumps	P3
ECS Engineering Services gains Archimedes screw pump expert	P3
Holme Tunnel Case Study	P4/5
Environment Agency fabrication framework contract awarded to ECS Engineering Services	P6
Severn Trent Mountain Challenge	P7
BM Trada Audit	P7
ECS Verify Audit	P7
Near miss reporting	P7
ECS Barbeque	P7
Noticeboard	P8

MD's comments

Welcome to the first issue of our new 6 monthly ECS newsletter.

We have changed the format and look of the newsletter to match the new marketing, website, promotional videos, case studies and press releases for consistency of informing both external and internal customers about the ECS story.

Ex Saatchi & Saatchi vice chairman Rita Clifton stated recently that the principle of brand is the central organising principle within successful business.

It is our continued aim that through marketing, relationship management, a new website and rebranding that we will sell ECS into a wider market.

I hope both you and our valued customers enjoy the new layout and obtain a better feel for some of the magnificent achievements that we as a company have managed over recent months.

I and the rest of the management team at ECS would appreciate your constructive comments and feedback as we prepare the content for future issues.

Come on, tell us what you want to see, good reading.



G M Jordan
Managing Director, ECS



RoSPA Gold Award

Following the annual assessment of our Health and Safety Management systems by RoSPA, ECS has once again been awarded the Gold Award for Occupational Health and Safety,

This is the **sixth** consecutive year that ECS has received this award, which shows our collective commitment to maintaining our high standards of Health & Safety.

This award is a reflection of everyone's contribution over the past year and we would like to thank everyone for their continued effort.

Top 6 contract wins

Environment Agency, Marlow & Romney.

Design, fabricate and install new lock gates and complete maintenance overhaul. **Value > £800,000**

Environment Agency, Trent idle.

Design, fabricate and install a new sluice gate to replace the existing equipment which has reached the end of its service life. **Value > £250,000**

British Sugar.

To remove and replace three centrifuges along with the variable speed drives. **Value > £200,000**

Environment Agency, Kiora.

Design, fabrication and installation of two replacement overhead lifting gantries used for positioning stoplogs. **Value > £75,000**

Environment Agency, River Rhee.

To design and install three new control panels for ground water pumping stations. **Value > £75,000**

Environment Agency, Meadgate.

To remove and replace three motor and gearbox combinations used to drive vertical lift gates. **Value > £75,000**

Landustrie appoints ECS Engineering Services as UK agent for Archimedes screw pumps

Landustrie, a leading Dutch manufacturer of Archimedes screw pumps, has appointed ECS Engineering Services as the exclusive agent for its screw pump related products in the UK. Renowned for designing and supplying extremely reliable screw pumps, Landustrie has selected ECS as an exclusive partner to support UK customers in delivering safe, efficient installation services and quality maintenance and support.

With over 20 years experience working with utilities and the Environment Agency, ECS has a proven track record of delivering engineering solutions to a very high standard, with the capability and resources to design and install bespoke equipment anywhere in the UK. The appointment also includes the service and repair of all existing Landustrie screw pump equipment, which is supported by the network of ECS engineers, on call 24 hours per day, 365 days per year.

Jamie Wesley, Operations Manager at ECS comments, "This partnership will be able to deliver a great service to our clients. Landustrie has an excellent reputation for reliability and quality engineering which fits extremely well with our engineering resources and capacity to deliver bespoke installations. With a wide range of applications and excellent efficiency, the "Landie" screw pump can provide reliable service with very low operational costs."

Landustrie, which is celebrating its centenary year, continues to develop the basic screw pump principle with new drive techniques and improved moulding of the concrete troughs as well as producing the most reliable lower bearing available. When combined with a professional installation and maintenance team, the improvements in overall running efficiency and maintenance costs can be easily demonstrated.

Arie van Steen, Export Product Group Manager at Landustrie says: "We are looking forward to working with ECS, which is well regarded in the industry for reliability and professionalism. The ability of ECS to deliver a complete installation from the drawing board to final hand-over as well as the capacity to provide maintenance support will ensure that our customers, both past and future, will receive the service and the performance we expect from our products."

ECS and Landustrie are able to provide UK wide engineering support for all other manufacturer's Archimedean screw pump equipment, including Jones & Attwood, which was originally manufactured by Landustrie. Full support services are available including retrofitting of stainless steel lower eco-type bearings, refurbishment of traditional lower bearings, screeding services, blade refurbishment, performance upgrades as well as all drive train refurbishments.

ECS Engineering Services gains Archimedes Screw Pump expert

Having been recently appointed as the exclusive UK agent for Landustrie screw pump products, ECS Engineering Services and its Water Control Division has also gained the expert engineering services of Dave Bennion from screw pump manufacturers Landustrie.

Dave will be working with in-house design and manufacturing engineers at ECS to both develop new projects and service existing installations. With over 15 years' experience in the installation and maintenance of Archimedes screw pumps, Dave will be offering manufacturer based expertise that is second to none.

"ECS and Landustrie have developed an excellent reputation within the industry and I am looking forward to meeting the challenges that lie ahead," says Dave Bennion. "Using my expertise with the Landustrie products, I expect to be able to help to deliver complete pumping solutions for a wide range of applications, with the assistance of the design and installation teams at ECS."

Jamie Wesley, Operations Manager at ECS, comments: "Dave's input will be a great addition to our project management team, his experience and specialist technical knowledge will definitely help to develop new business and continue our growth within our target markets."

Archimedes screw pumps are particularly effective at moving large quantities of water and slurry over short distances with very high efficiency; they can also be run in reverse to generate energy. This efficiency and versatility means the technology is in demand from a far more cost and energy conscious marketplace.





New Steel for Holme Tunnel

Starting in November 2013 and finishing in March 2014, Network Rail will be carrying out major engineering work to strengthen and repair Holme Tunnel between Hebden Bridge and Burnley. A key part of this work has been the bending and fabrication of all the structural steel for the project, nearly 100 elegant but extremely strong arches made specifically to fit inside the tunnel which has been pushed out of shape over the years since its creation.



Steel arches in ECS Engineering Service's new 50,000 sq ft Fullwood fabrication site.



About Holme Tunnel

Network Rail is carrying out a programme of work to repair and strengthen the 250m long Holme Tunnel near the village of Holme Chapel. Over time, movement of the ground around the tunnel has led to the tunnel lining becoming distorted. A 20mph speed restriction is currently in place for trains running through the tunnel, but remedial work is needed to make sure trains can continue to use the tunnel in future whilst allowing the speed limit to be raised to 45mph.

As well as relining and strengthening sections of the tunnel, allowing the speed limit to

be raised to 45mph, Network Rail and its engineering partner AMCO, will also be laying new track and installing new drainage. The main contractor for the structural steelwork is Barnshaws, a world leading section bending company based in the UK. Barnshaws specialise in cold bending large sections of structural steel and pipe and required a quality fabricator with enough capacity to handle 90x steel arch supports.

Solution

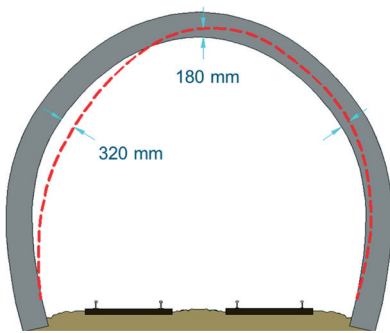
ECS Engineering Services provided the ideal solution, operating from the company's new

50,000 sq ft Fullwood fabrication site; ECS was able to accept the bent arch sections, additional arch support pieces, flanges and feet as component parts. Using its drilling, welding and finishing facilities, ECS was over half way through the assembly and construction of the archways by October 2013.

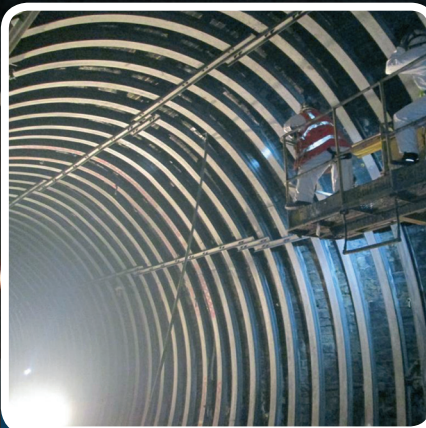
Trusted Supplier

By using a trusted supplier to weld, assemble and finish the structural steel arches, the primary contractor was able to outsource a crucial part of the project. This allowed it to concentrate on sourcing the

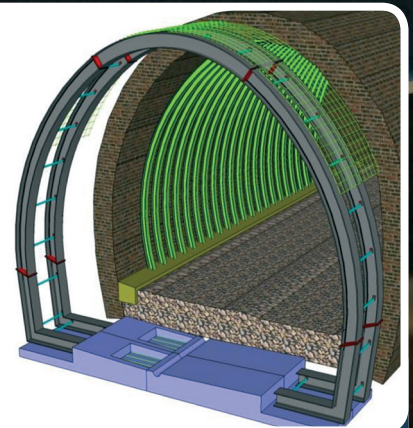
Case Study: New Steel for Holme Tunnel



Holme Tunnel before installation of the new steel arches.*



Holme Tunnel during the installation of the new steel arches.*



The solution was to replace the existing masonry lining with a reinforced concrete lining and strengthening steel.*

materials and components and the bending part of the process which it specialises in for large civil and architectural projects.

Comment

John Cotterill, ECS Fabrication Director comments, 'As two truly international businesses it's easy to see how our two companies worked well together; Barnshaws, having just completed the world's largest ever cold bent arches for the Sopot's Forest Opera in Poland and ECS having just completed the supply of structural steel fabrications for the new and stunning Paris Philharmonic building.'

'The final elements of this part of the Holme tunnel project will be despatched from ECS in December 2013. By operating a delivery and collect service between the main contractor and ECS the efficiency of moving the materials around has also been maximised. In addition to using the key service offerings of both businesses to their maximum operational efficiency, the project costs have also remained under control and we have been able to guarantee both timing and quality.'

Adding Value

ECS was also able to provide added value to the order by passing the initial drawings

through the experienced ECS design office, converting the drawings to CAD files and double-checking all the dimensional details for the bespoke curved arches that are being created. By doing this work before fabrication began the end customer, Network Rail, was able to confirm shapes and tolerances before steel was welded, providing an additional layer of reassurance for the customer, especially important since the task is retrofitting supports to an old and slightly oddly shaped tunnel.

*Image courtesy of Network Rail

Environment Agency fabrication framework contract awarded to ECS Engineering Services



As the latest round of framework contract awards is completed, ECS Engineering Services has secured a contract to deliver fabrication services for the Central Region of the Environment Agency (EA) for the next four years. The award endorses both the quality and value of the services provided by ECS as well as its excellent site health and safety record.

The framework contract requires a complete service to be provided for design, fabrication and installation for structures such as access structures, working platforms and trash screens as well as more bespoke work located on watercourses. As an existing MEICA framework contractor, ECS is experienced at delivering these services and has the skilled workforce required to complete projects to the highest standard and in house.

Based in Pinxton, Notts., ECS has worked with the EA for a number of years providing engineering expertise

and delivering crucial projects as part of the Agency's work on flood defence and water management. Earlier in the year, ECS was awarded the RoSPA Gold Award for Occupational Health & Safety, for a fifth consecutive year, demonstrating its commitment to maintaining excellent standards within the workforce.

Jamie Wesley Operations Manager at ECS, comments: "This is another great contract for our company which has shown that quality always pays. With the recent move of the fabrication facility to the new larger premises at Huthwaite, our capacity to manufacture and install bespoke steel projects has been increased further, ensuring that we have both the skills and delivery teams to fulfil long term Framework Agreements such as these within the Environment Agency.

About ECS Engineering Services

ECS Engineering Services has over 20 years experience in delivering high quality, reliable and cost effective engineering solutions, specialising in bespoke design and construction of water, energy and environmental

processing and management projects.

In partnership with Landustrie Archimedes screw pumps and Waterfront Fluid Controls, ECS has the expertise and capacity to design and install a wide range of water control engineering projects. With in-house fabrication services, which have CE Marking approval to EXC3, well equipped and highly skilled engineers can also complete structural steelwork, bespoke fabrication work and access metalwork to the highest standard.

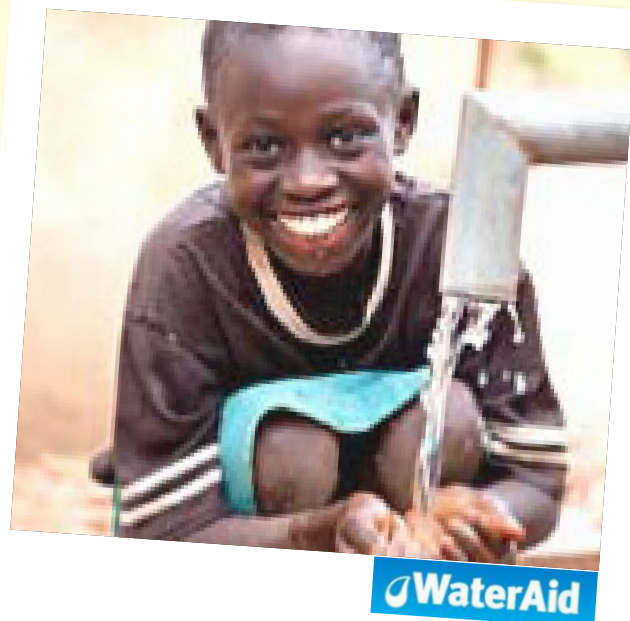
With a complete range of site services available, ECS offers a full turnkey project managed service for mechanical and electrical installations including managing civils contractors and supplying pipework, control and automation work to ensure that every installation is installed and commissioned to the highest standard. Existing clients include the majority of the UK Water Utility companies, Government Agencies and Internal Drainage Boards.

SEVERN TRENT MOUNTAIN CHALLENGE

Just taking the opportunity of reminding you all that we will be entering teams into the Severn Trent WaterAid Mountain Challenge, which is celebrating its 21st year, on Saturday 12th July. It is a great opportunity to join workmates in a very challenging, but enjoyable and rewarding walk or cycle ride in the Derbyshire Peak District. More importantly, the immense effort required by entrants hugely benefits the WaterAid charity, which provides access to safe water, sanitation and hygiene education to the world's poorest people.

Last year ECS raised a respectable £282 and with your help, they will surely be aiming to beat that total this year. If you would like to participate in either the Mountain Challenge or the Cycle Challenge, please contact Amy Chadburn in the Admin Dept. If you do not wish to participate in the event, you could still support it by offering sponsorship to those who do take part. All contributions will be very much appreciated! WaterAid works in 17 of the world's poorest countries in Africa and Asia and is dedicated to helping people escape poverty and disease caused by living without safe water and sanitation.

For every £15 raised in sponsorship, WaterAid is able to help one more person gain access to safe, clean drinking water, effective sanitation and hygiene education.



BM Trada Audit

Our Integrated Management Systems were audited once again by BM Trada in February this year. The audit takes place every 6 months and is carried out over a two day period and checks our management systems for continued compliance with ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007. Compliance with all 3 standards was demonstrated on this occasion. The next audit will be carried out in August 2014.

ECS Verify Audit UVDB Verify empowered by Achilles

Achilles UVDB is the utility industry prequalification system used by the utilities sector in the UK to manage risk within the supply chain and to comply with EU regulations. Joining Achilles UVDB as a supplier provides ECS with an opportunity to showcase our capabilities and access multiple contract opportunities by completing a single prequalification questionnaire (PQQ). Achilles UVDB is used by many utility buyer organisations including National Grid, Scottish Power, SSE, EDF Energy, Severn Trent Water and United Utilities, to source potential suppliers. After registration on to the scheme, we are audited by Achilles; this requires a visit to our office and a designated site by an external assessor to carry out a full and comprehensive assessment of our Health & Safety, Environmental and Quality Management systems and takes place over 2 days every 2 years. An Interim assessment is undertaken every year and involves just a visit to site to ensure continual compliance. Our Interim assessment took place on the 13th January 2013 and the Sollom Pump Project was the subject of the audit. The scores achieved were: H&S 97.4%, Environmental 91%, Quality 94.5%.

ECS BBQ

Due to repeatedly bad summer weather last year the annual ECS barbeque unfortunately had to be cancelled. We are hoping to organize one again this year (weather permitting!) at the usual venue, Clumber Park.

No firm dates have been suggested yet—so watch out for posters on the notice boards later in the year.

As usual, this will be a family occasion and all are welcome.



New Website launched

The new ECS website uses a state-of-the-art multimedia platform and rich content to demonstrate to visitors exactly what the company can offer in terms of products, services and turnkey project management. Typical projects for prominent customers such as the Environment Agency, power companies and the water utilities are brought to life with dynamic HD video feeds for each of the divisions, plus case studies and customer comments throughout.



For further information on all the divisional services visit www.ecsengineeringservices.com

Lankhorst Recycled Products UK Ltd

P.O. Box 378 - Worsley - MANCHESTER - M28 7YW
Telephone 0800 043 0880 - Fax +31 (0)515-487495
www.lankhorst.co.uk - e-mail: sales@lankhorst.co.uk

FAO: Mr Steve Crapper,
ECS Engineering Services.

22nd July 2009

Dear Steve,

I write to you concerning the recent works carried out by ECS Engineering Services for Lankhorst National Trust constructing the new foot bridge at Hardcastle Crag, Hebden Bridge.

I have to say that the final construction looks absolutely fantastic.

The level of detail and finish your construction team put into the bridge is first class. I can also tell that the architect and site warden at Hardcastle Crag are also delighted with the finished product.

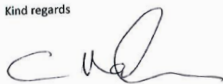
I am aware that your team had to overcome some considerable difficulties, not only in building the bridge, but also in accessing the site on a daily basis.

The level of commitment, professionalism and sheer determination shown by your team to finish the project to a high standard leaves me in no doubt that both Lankhorst and ECS Engineering will have further opportunities to show what can be done using KLP recycled plastics.

I would like you to pass on our sincere thanks and congratulations to all the team.

All that remains is for me to say how much I look forward to working closely with ECS Engineering on future projects.

Kind regards



Carl North, UK Sales Manager.



ABN-Amro Bank United Kingdom - B
Company Registration number: 410

Ref: Covenham WTW Penstock

FAO: Barry Godfrey

Barry,

As you are aware, the works to fit the new penstock at Covenham WTW have now been completed.

May I take this opportunity to thank your company for all the work involved.

I would particularly like to express my gratitude to Karl, for all the hard work he put in to ensure early issues from both AWS and ourselves were quickly addressed and resolved.

I have spoken to Terry Allen (AWS), and he has expressed how impressed he was with the way Karl approached the issues and concerns he had, and the professional manner in which they were resolved by yourselves.

I would also be grateful, if you could pass on my thanks to Bryan, his phone was pretty hot from phone calls from me in the early stages when things seemed to be getting worse and worse, and no one on site could give me any answers as to what was going on.

Again, please accept my thanks for all your hard work, and I look forward to our next contract together.

Regards,

John Dolan

**John Dolan,
Anglian Water Framework Manager,
UCS Civils Ltd**

From: Bob Nix
Sent: 15 July 2013 17:00
To: Amy Chadburn
Subject: Fw: Liner Plates

----- Original Message -----

From: Lane, Gary

To: Bob Nix

Cc: Richard Patterson ; Crowson, Steven ; Goldsbrough, Stephen

Sent: Sunday, July 07, 2013 7:38 AM

Subject: FW: Liner Plates

Bob

I would like to thank ECS on behalf of Doosan for the service you always afford us, but especially this last order for the erosion lining plates, I put my trust in your company delivering this very tight and unusual programme of works, Richard also for managing this project and ensuring its delivery.

Gaz

WATERFRONT
www.waterfrontfc.co.uk

Landustrie



ECS

Engineering Services

ECS Engineering Services Ltd

T: 01773 860001

E: info@ecsengineeringservices.com

W: www.ecsengineeringservices.com

Water Control ■ Site Services ■
Environmental ■ Fabrications ■