Company Brochure 2022

WCEL
West Cumberland
Engineering Ltd

West Cumberland Engineering.

A proud member of the Shepley Group

West Cumberland Engineering are a well-established and experienced fabrication company focusing on the manufacture and installation of high quality welded fabrications such as process pipework, tanks, vessels, modules, waste containers and high integrity ductwork mainly for the nuclear and petrochemical industries.

Developing high performing people, building a legacy of excellence.

About us.

West Cumberland Engineering are a well-established and experienced company, with thirty years' experience focusing on the manufacture of high quality fabrications. We are renowned for providing exemplary, bespoke solutions and working to our clients' precise specifications and requirements. We have been recognised for our dedication to safety and quality standards, recently being awarded a President's Award for achieving ten consecutive RoSPA Gold Medal Awards. We were also the first to be awarded the Approved Supplier Certificate from Sellafield Ltd.a President's Award for achieving ten consecutive RoSPA Gold Medal Awards. We were also the first to be awarded the Approved Supplier Certificate from Sellafield Ltd.

Our management and workforce have decades of experience in delivering Class A welded fabrications constructed within the highly regulated environments of the nuclear and petrochemicals industries, including but not limited to; process pipework, tanks, vessels, gloveboxes, modules, waste containers and high integrity ductwork. We have an extensive range of capabilities and services such as welding, cutting, forming, machining, inspection and non-destructive testing across our three workshops, working with a wide array of materials in thickness ranging from 0.5mm to 200mm.

Our vision

Continue to develop high performing people & strive to build a legacy of excellence within our sectors.

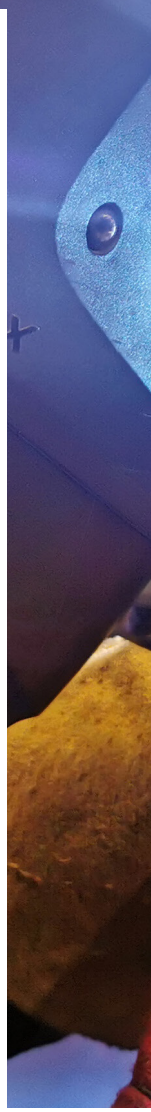
Our group in numbers

Professional Team
242

Tradespeople
399

Enhanced Cleared
52%

Our values, vision and ethos are at the heart of what we do.



Our ethos.

Whether we're working alongside our Group members or operating independently, our culture remains consistent. We put our clients first, supporting their business needs and delivering engineering solutions with commitment, care and consideration. Long term relationships are key to our business model and our people are at the heart of everything we do. Our high performing employees dedicate themselves to delivering customer requirements and we promote an environment that stimulates diversity, innovation, teamwork and continuous improvement.

The strength of our business comes from the wide range of complementary services that we offer. We have core capabilities in Manufacturing and fabrication, mechanical and electrical installation works, E&I panel manufacture, HVAC installation, Decommissioning, decontamination services and specialist restoration & renovation - operating across the United Kingdom.

Our experience of delivering complex projects in some of the UK's most challenging environments is what sets us apart. Delivering safe and sustainable solutions to todays engineering challenges while operating to the highest levels of safety and quality, our dedicated teams can manage integrated solutions from engineering support to manufacturing and installation to commissioning.

The core values of our group »

We are customer focused

Our business model is based on a partnership with our customer to ensure that every interaction is intended to support the customer which in turn assists our business to learn and grow. Our organisation thrives from successful delivery for our customers, we make every decision and measure every outcome based on how well it serves them.

Our people are key to our success

Our employees and the relationships developed over time are the beating heart of Shepley Engineers, this significantly contributes to our ongoing success. We continually develop our employees to enable them to achieve their full potential and have a proven history of internal progression.

Committed to Right First Time

We have a passion for accuracy and getting it right first time, every time.

Our teams work diligently to implement our proven processes and procedures throughout the lifecycle of a project, and by doing so we believe we provide excellence by all of our people throughout our organisation.

We are proactive and adaptable.

Our success stems from the ethos across the business to drive projects and achieve positive outcomes for our customers and partners.

Our agile structure allows us to quickly adapt to situations and respond positively to our customers needs whilst continuously looking for ways to improve what we do.

What we do.

Welding and Fabrication

- Renowned for providing high quality bespoke solutions

- Working to precise specifications to achieve our clients' individual requirements Complex, high integrity fabrications to exacting standards

- Produce a diverse range of products manufactured from numerous common and exotic materials

Pipework

- Earned an enviable reputation within the industry for delivery of complex fabricated pipework spools and piping systems

- Our customers look to us for solutions and early contract involvement covering a diverse range of process plant applications

- We are focussed on but not limited to the Nuclear, Chemical, Oil and Gas sectors

Tanks and Vessels

- Supply pressure vessels, tanks, heat exchangers, condensers and pipe systems to the UK nuclear industry's

- Stainless steel is the most common construction material

- Equipment is manufactured to the highest specification, ensuring all technical and safety aspects of each project are followed

Precision Machining

- In-house machining capability that provides precision machining, assembly and testing

- Enables us to provide a fully developed manufacturing process

- We are adept at upgrading existing clients components to new, more effective solutions

HVAC

- Manufacture and test complex High Integrity Containment systems

- Filter contaminated air to ensure the safety of those working in some of the most hazardous plants on the Sellafield site

- The scope can include all plant & equipment ranging from HEPA filter banks , air handling units, fans, extract cabinets , dampers , manufactured s/s ducting and impellors.

Volume Manufacturing

- Venturing into high-volume manufacturing with Bendalls as CMA

- Secured the 80 off 63 Can Fuel Racks project

- Developing volume manufacturing processes to ensure most efficient turn around of large order parts or products

- Look to de-skill the processes and increase technical solutions that will increase efficiencies reducing costs

Accreditations.

ISO 3438-2
Quality Requirements for the Fusion Welding of Metallic Materials

EN 1090-2
Fabricated Steel Components for use in Building and Construction up to EXC 4

ES_0_5391_2
Sellafield Certificate of Approval

ISO 9001
Quality Management

Specifications.

West Cumberland Engineering are committed to manufacturing within industry specifications and to the standards set by our clients and the industries they represent. We have been recognised for our dedication to adherence, recently being awarded the ROSPA Gold Medal Award and the first in the country to be awarded the Approved Supplier Certificate (Build 1) from Sellafield Ltd.

Detailed below is a comprehensive list of the Standards and Specifications that we work to;

Welders

BS EN 287-1: Qualification of Welders – Fusion Welding: Steels
BS EN ISO 9606-1: Qualification of Welders – Fusion Welding: Steels
BS EN ISO 9606-2: Qualification of Welders – Fusion Welding: Aluminium

ASME

ASME B313.3: Process Piping
ASME VIII: Boiler & Vessel Code

Nuclear Specific

ES_0_5391_2: Fabrication of Plant & Equipment (Stainless Steel) – Builds 1 & 2, Pipework; Build 1, Tanks; Builds 3 & 4, Pressure Vessels and Heat Exchangers
ES_0_5393_2: Fabrication of Plant & Equipment (Stainless and Carbon Steels) – Builds 3 to 6, Pipework
ES_0_5394_2: Fabrication of Plant & Equipment (Stainless and Carbon Steels) – General Duty
ES_0_5395_2: Fabrication of Plant & Equipment (Nickel Alloys)

Weld Procedures

BS EN ISO 15614-1: Qualification of Welding Procedures – Arc Welding: Steels and Nickel Alloys
BS EN ISO 15614-2: Qualification of Welding Procedures – Arc Welding: Aluminium
BS EN ISO 14555: Arc Stud Welding of Metallic Materials

Welding Processes

111 MMA (Manual Metal Arc Welding)
121 SAW (Submerged Arc Welding)
131 MIG (Metal Inert Gas Welding)
135 MAG (Metal Active Gas Welding – Solid Wire)
136 MAG (Metal Active Gas Welding – Flux Cored Wire)
141 TIG (Tungsten Inert Gas Welding – Manual)
141 Orbital TIG (Tungsten Inert Gas Welding – Liburdi Diametrics/AMI Arc)
141 Semi-Automatic TIG (Tungsten Inert Gas Welding – TIP-TIG)
783 Drawn Arc Stud Welding with Ceramic Ferrule

Inspection

All inspection personnel carrying out visual inspection and non-destructive testing are qualified to one or more of the following recognised certification schemes; PCN Level 2, CSWIP 3.1/3.2 and ICorr Painting Inspection Level 1

Non-Destructive Testing

Visual Inspection
Ultrasonic Testing
Radiography
Liquid Penetrant Testing
Magnetic Particle Testing

Cutting Processes

Air Plasma 1: up to 12mm
Air Plasma 2: up to 38mm
Oxy-propane/acetylene cutting
Reciprocal Saws
Guillotine 1: Width 3m, 12.5mm C/S 8mm S/S
Guillotine 2: Width 2.5m, upto3mm
Pipe Cutter: Square cut, up to 80NB 3D and 4D

Forming Equipment

Break Press: Width 3.1m, 150 Ton
Plate Rollers: Width 3m, 3-20mm
Pipe Bending: 15NB to 50NB

Jigs / Fixtures

Rotary Manipulators (various sizes)
Column and Boom: 4m x 4m,
Vessel/Tank Rollers: 20 ton, Width 3m

Materials

Austenitic Stainless Steels (NAG, 304L, 316L, 316Ti, 321, 18-13-1, 235MA, 254SMO, Nitronic 60)
Precipitation Hardened Stainless Steels (17/4 PH, FV520B)
Martensitic Stainless Steels (S416S21)
Duplex Steels (2205, Ferralium 255)
Nickel Alloys (NiCu)
Aluminium (6086 T6, 5083)
Quenched and Tempered Steels (Dillimax 890T)
Carbon Steels (S275/S355J2/S460, API 5L)
Dissimilar: Combinations of the above materials

The proof is in the pudding.

Case Studies.

Tanks and Vessels

Duration
2 years

Vessels
8

Project Value
£665,848.28

This project had a early contractor engagement phase which was held over a period of 5-6month period where PPP engaged with us over the vessel designs for the opportunity to highlight any downfalls/areas which would be unachievable and for recommendations for any changes/improvements to be implemented before issue for manufacture, it was also used to engage with the estimators for pricing of each vessel identified to be supplied by WCEL and for the production of any paperwork, procedures and processes to be produced and implemented. Following on from this and after agreement of cost and schedule we then moved into the manufacturing phase which kicked off in October 2020 and ran through until April 2022, the peak of which ran from August 2021 – March 2022.

Since commencement of the phase 1 works we were awarded a second phase of works for an additional 14 tanks and vessels in March 2021 of which the manufacture of one vessel commenced August 2021 which is currently awaiting sign off and release, the remaining works entered into production in April 2022 with an estimated completion date of February 2024 and we have since been awarded an additional vessel through a contract variation due to commence manufacture in July 2022 with an estimated completion date of November 2022.

The original order value of this second phase of works is £1,479,100.00 with an additional £67,108.00 awarded in the variation for the additional 15th vessel.

More Case Studies?

Read our full case studies online at
www.westcumberlandengineering.co.uk/case-studies
or scan the QR code

Case Study

Evaporator D

Project Value	£6,400,000
Pipework Installed	20,000km
Butt Welds	10,000
Right First Time Weld Rate	100%

Overview.

At the time of construction, Evaporator D was the largest nuclear decommissioning project in the UK. It was designed to continue reduction of the volume of highly active legacy waste.

With Evaporator C having outlived its shelf life, Evaporator D was designed to reduce the volume of Sellafield's most radioactive waste product – highly active liquor. The plant is the only evaporator on the site able to process high-level liquid waste created during the clean-out of the Sellafield's reprocessing plants. It reduces the volume of liquor so it can be turned into gas form and safely stored.

West Cumberland Engineering completed over one hundred contracts directly associated with Evaporator D. The majority of these were associated with pipework in some capacity, ranging from small spools to large vessels.

Approximately 20km of pipe & 860 pipe support were fabricated including a modularised pipebridge. The pipebridge featured 12 modules, weighing a combined 150 tonnes of structural steelwork. These modules were pressure tested, and the largest was over 35 metres in length.

Get in touch.

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Shepley Group

West Cumberland Engineering Ltd

A wholly owned subsidiary
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