



CAVENDISH NORTHERN LIMITED

Pipework Fabrication & Erection
Mechanical Installation
Structural Steelwork Supply & Erection
Bulk Liquid Storage Tank Repair
Contract Lift & Crane Hire
Equipment Disinvestment
Project & Sub-contractor Management
Pipework Fabrication
Process Skid manufacture
Pressure Vessel Manufacture
Full Carbon and Stainless Steel Fabrication shops

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Cavendish Northern have been established since 1983. Over three decades we have developed a reputation for quality and value for money.

We operate from our state of the art head office and fabrication facility which is ideally situated in Teesside, North East England.

Over 3 decades we have developed a reputation for quality and value for money. From rapid response situations to multi discipline construction projects our clients have the confidence that we will manage and produce on-time within budget and in a safe and conscientious manner.

The Services we offer are:

- Offsite Pipework & Vessel Fabrication
- Process Skid Manufacture and Installation
- Pipework Erection
- Pressure Testing
- Mechanical Equipment Installation
- Bulk Liquid Storage Tank Manufacture and Repair
- Storage & Pressure Vessel Manufacture and Repair
- Contract Lift Management & Execution
- Crane Hire
- Plant Hire
- Labour supply

for:

- Fabrication Supply contracts,
- General Plant Maintenance
- Construction Projects and Plant Upgrades.

Contract Values:

£100 to £10 Million

Our work is predominantly for major Blue Chip companies for clients in the following industrial sectors:

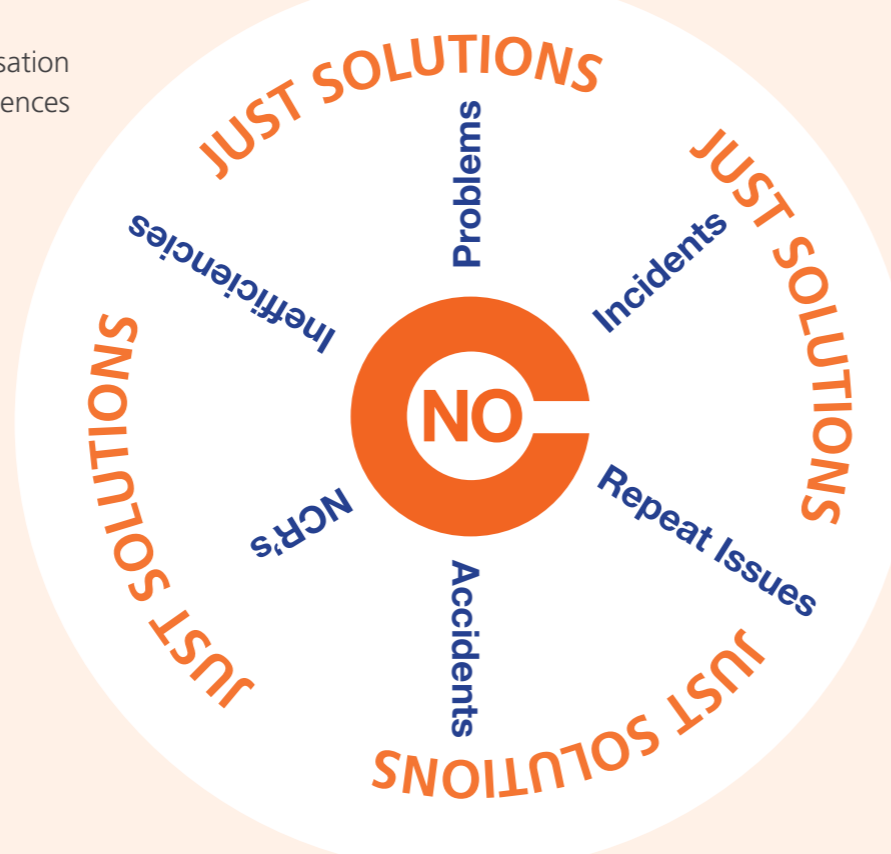
- Nuclear Fuels
- Oil and Gas
- Petrochemical
- Pharmaceutical
- Green Fuels
- Waste & Water
- Power Generation
- Bulk Liquid Storage
- Food and Clean Room





VISION

Our Vision is to provide a proactive organisation capable of learning and building on experiences and challenges to provide a high quality reliable solution to our clients.



As a team if **we see** a problem we address it, if **we have** a problem **we learn** from it and prevent it happening again.

SAFETY, ENVIRONMENTAL QUALITY & EFFICIENCY



Members of:



Cavendish Northern Ltd are class winners when it comes to Quality, Reliability and SHE.

Their everyday business culture is one of:

Leadership, Ambition and Teamwork

CNL management always lead by example and offer help, direction and listen.

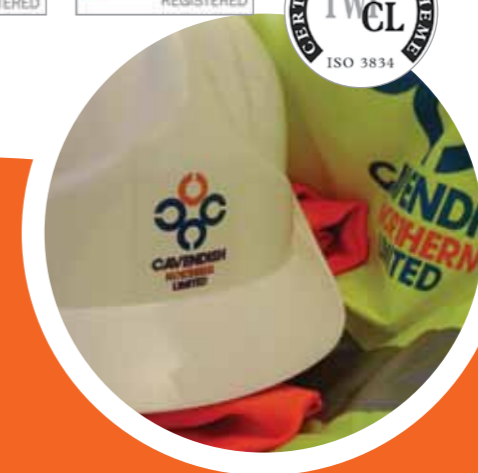
Innovation, Efficiency and Transparency

CNL embrace new technology and constantly amend and perfect their systems in order to maximise efficiency and the technology of modern times.

SHE, Quality and Reliability

CNL are perfectionists their culture of attention to detail emulates throughout their business and believe SHE, quality and reliability are key to their success.

CNL are Certified to: ISO 9001, ISO 14001, OHSAS 18001, ISO 3834.



"By educating our personnel we can change the way they see hazards both at home and in the workplace".

CNL HS & E Manager





CAVENDISH NORTHERN'S TEAM INCLUDES

Management:

- Project Managers
- Estimators
- Mechanical Engineers
- Quantity Surveyors
- Contract Managers
- CSWIP Welding Inspectors
- Contract Lift Specialists
- Appointed Persons
- Supervisors

Labour:

- Pipefitters
- Welders
- Mechanical Fitters
- Labourers
- Banksmen
- Crane Drivers
- Riggers
- Platers
- Steel Erectors
- Apprentices Erectors



No of Employees: 200

Founded: 1983

Plant & Equipment:

- Fleet of All-terrain craneage
- Telehandlers
- Site transport
- Weld Generators
- Socket, Butt and Electro Fusion Machines
- Mobile Elevating Work Platforms
- Mobile Lighting Towers
- Porta-scaffold
- Temporary Power Generators

Off-site Fabrication Facilities:

- 37,200 sqft Head Office and Fabrication Facility
- 10T Overhead crane
- Separate Ferrous and Non-ferrous/Exotic Alloy Fabrication Shops
- 100% Material Traceability and Segregation
- Secure laydown area and material and equipment storage

On-site Accommodation & Infrastructure

- Temporary Messing, Office and Fabrication Facilities
- Storage containers
- Temporary Lighting
- Materials Storage, incoming Goods management and distribution.



INTRODUCTION TO CNL SERVICES

We operate under client specific or generic construction industry contracts (NEC, IChemE etc) and tailor our services to suit our client's requirements. All our employees are employed in accordance with NEACI CAT4, 1 or client specific working agreements.

Our day to day contracts range from supply of a couple of men for a couple of days for minor maintenance to multi discipline construction projects.



Our team of project managers will manage your contract safely and efficiently in accordance with the Construction design and management regulations 2007 and to the requirements of the Pressure Equipment Directive ("PED" 97/23/EC).

CNL can operate under various types of supply agreements and can tailor thier services to suit clients requirements.





PROJECT MANAGEMENT

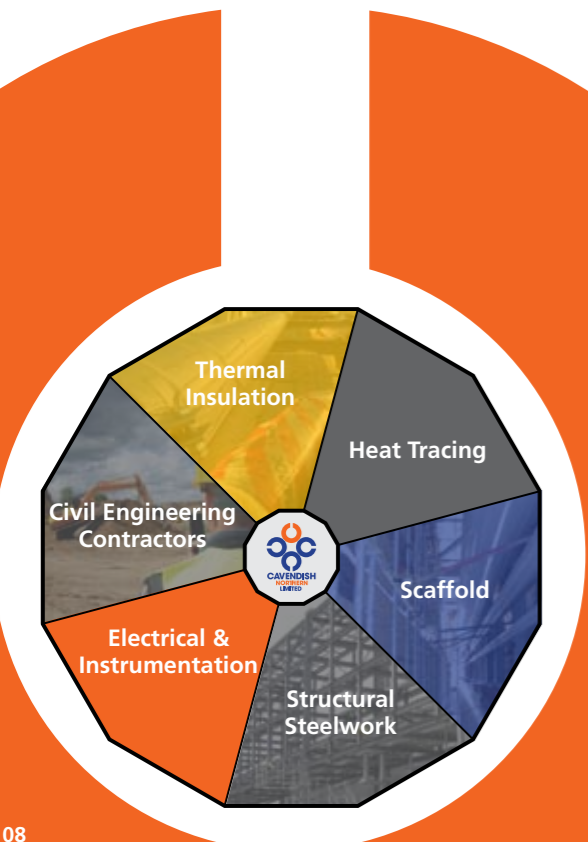
Project Construction Management and Single Point of Contact Sub –Contractor Management:

CNL have over 30 years of experience managing and improving sub-contractors to ensure they complement our final product. We have proven management systems, relationships and experience to manage your project as a CDM Coordinator or Principle Contractor to offer a single point of contact.

Typical Sub-contracted works:

- Detailed Design
- Stress Analysis
- Civil Engineering
- Electrical & Instrumentation
- Scaffold
- Thermal Insulation & Heat Tracing
- NDT
- Painting & Surface Coating
- Chemical Cleaning
- Heat Treatment
- Structural Steelwork

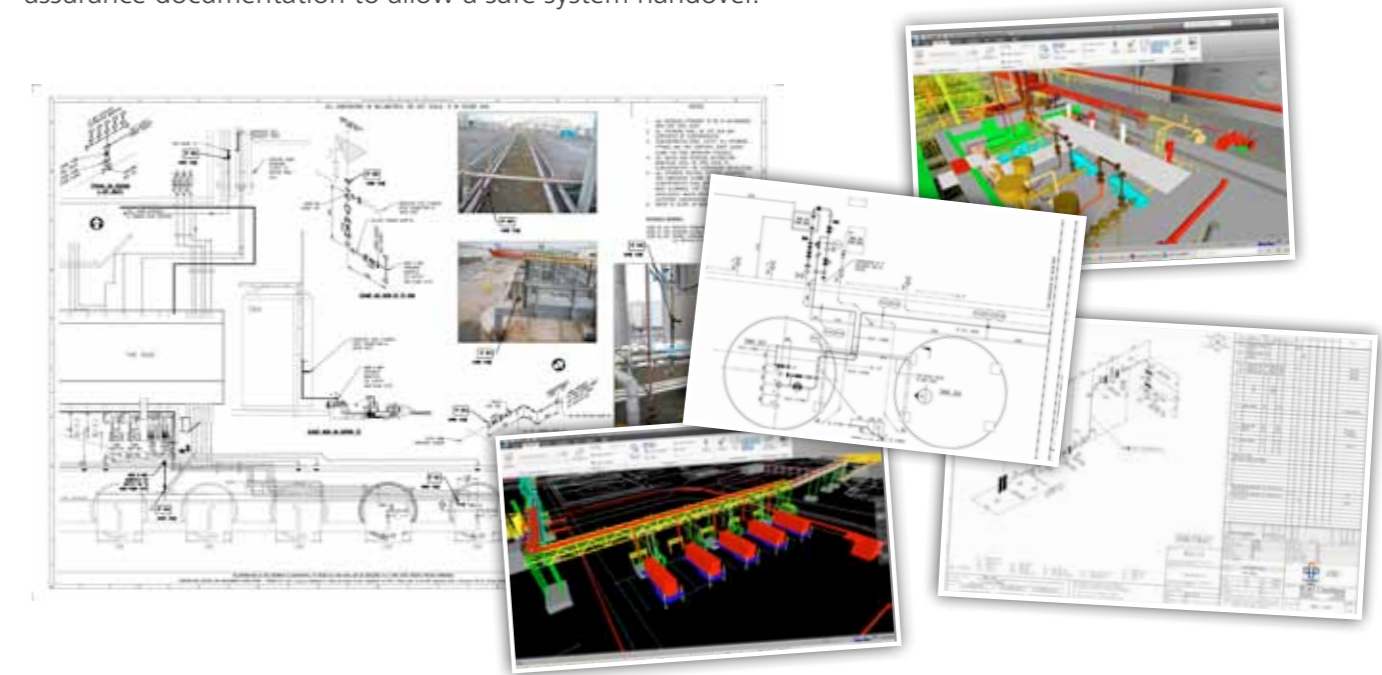
We always deliver projects safely, efficiently and within budget, policies adopted throughout our everyday operations.



CNL EPC / DESIGN AND BUILD:

CNL have the expertise and management procedures to manage Engineering, Procurement and Construction packages. We will carry out site surveys, design, procure materials and source, plan and manage sub-contractors. All systems are commissioned and handed over with full life time quality records and quality assurance documentation to allow a safe system handover.

We always provide a safe system handover.



TERM MAINTENANCE AND SHUTDOWN SERVICES

CNL provide clients with labour, plant and materials for maintenance and planned shutdowns. We provide safe, quality labour, plant and materials when you require it most.

We pride ourselves on our ability to react and perform to a client's request regardless of size or complexity.



LABOUR, PLANT AND MATERIAL SUPPLY

CNL supply time served tradesmen on a short term basis or on an ongoing basis. All our tradesmen are employed directly, time served, hold a CCNSG Safety Passport and have experience working on top tier COMAH sites.

- Supervisors
- Chargehands
- Pipe Fitters
- MIG / TIG / MMA – 6G Coded Welders
- Riggers / Erectors
- Mechanical Fitters
- Plater's
- Crane Drivers
- Telehandler / Fork Lift Drivers
- Standby / Confined Space Trained
- MEWP Drivers
- Mates / Labourers

All labour can be supplied with all the plant, equipment and materials required to carry out your works dependent upon client requirements.

All tradesmen hold a CCNSG Safety Passport and are experienced with working on top tier COMAH sites.



OUR FABRICATION FACILITY

CNL operate a class leading fabrication facility with full electronic progress monitoring, 100% material segregation, 100% traceable quality management system and 22,000sqft separate Carbon Steel and Stainless steel / Exotic Alloy fabrication facilities and 6000sqft Office facility.



Carbon Steel Fabrication Shop

- 14,000 sq ft workshop
- 10T Overhead Crane
- Integrated Argon Header
- 17 fully serviced fabrication bays
- Capacity for 2,856hrs/wk single shift working; 5,712hrs/ wk double shift working



Stainless Steel and Exotic Alloy Fabrication Shop

- 8,000 sq ft workshop
- 11 fully serviced fabrication bays
- Integrated Argon Header
- Capacity for 1,848hrs/wk single shift working; 3,696hrs/ wk double shift working





STORAGE AND PRESSURE TESTING FACILITY

- 15,200 sq ft, secure storage/call off facility
- 50T Yard craneage and loading plant



LOCATION AND TRANSPORT LINKS

CNL are ideally situated with excellent transport links and can ship goods via Road, Sea or Air according to client requirements.

CNL's Head Office and Fabrication Facility is located in the heart of Teesside which has the UK's largest concentration of Blue Chip Petrochemical, Pharmaceutical, Power, Oil and Gas and Industrial processing plants. Consequently, there are an abundance of highly skilled labour and service industries. CNL utilise this resource to offer high quality fabricated Pipework and process skids for delivery throughout the UK, Europe and the world.

ROAD



CNL are located in the North East of England centrally located to transport goods throughout the UK via Haulier.

AIR

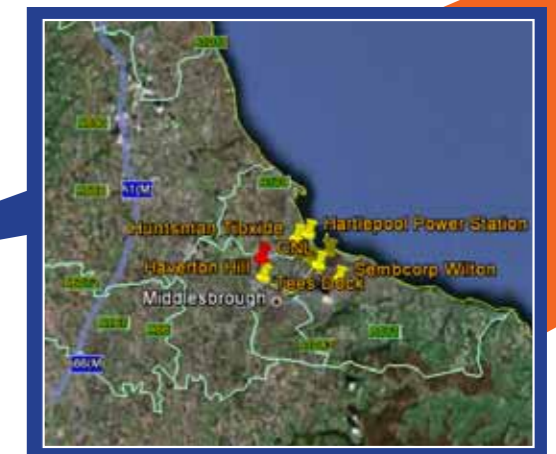


CNL are located 13 miles from Teesside Airport for air freight around the world.

SEA



CNL are located 8 miles from Tees Dock for Shipping throughout the world





CNL has the facilities, welding qualifications and expertise to fabricate pipework in a range of different sizes, thicknesses and materials for clients in a range of different industries.

PIPEWORK FABRICATION

Cavendish Northern fabricate high quality pipework in accordance with ASME B31.3, BS EN13480 and client specific specifications. Our manufacturing facility is managed and certified in accordance with quality standards EN3834-2 & ISO9001. All works are planned and tracked electronically to meet a client's programme requirements and enable day by day accurate progress reporting.



Our CSWIP qualified inspection team manage the inspection and test plan and ensure checks and hold points are monitored and recorded to ensure our pipework is manufactured to the highest standards and has the required quality documentation to accompany it.

Typical Size Range

From Small bore instrument tube to 1/2" to 72" Nominal Bore Pipework.

Typical Pipework Applications

- General Process and Utilities Pipework
- Nuclear
- High temperature High Pressure Steam Pipework
- Jacketed Pipework
- Firewater Systems
- Cryogenic
- Ducting
- PTFE & Glass Lined
- Small Bore Instrument Tubing
- Subsea and Offshore

Typical Thickness Range

Between Thin Wall Sch 5 to XXS or bespoke thicknesses greater than XXS.

Typical Materials

- Carbon Steel
- Low Temperature Carbon Steels
- Chromium Molybdenum (P11, P22, P91)
- Stainless Steels (304L, 316L, 316Ti, 321)
- Exotic Alloys:
 - Inconel 625, 825
 - Hastalloy
- PTFE Lined Pipework
- High and Medium Density Polyethylene
- PVDF
- PVC
- ABS

Pipework is fabricated, NDT, heat treated, coated to clients specifications.





PROCESS SKID MANUFACTURE

Cavendish Northern manufacture process skids for a range of different industrial applications.

Skids are fitted out in house with all pipework, vessels, pumps, filters, valves and other mechanical equipment as well as installation of control, instrumentation and electrical equipment.



The completed skids are tested and commissioned in our designated testing and commissioning facility.

Commissioning can either be dry run or by using a simulant to mimic it's in service environment. Units can be boxed up and shipped via road, rail, air or sea to clients throughout the UK & the world.



Typical Process Skids - Road Loading, chemical dosing, vapour recovery, diesel blending and heat transfer etc.

Typical Sizes - range from 1m square palletised skids to 40 ft shipping container skids.



STORAGE TANKS AND PRESSURE VESSEL, HOPPERS, SILO'S PIG LAUNCHERS, HEAT EXCHANGERS ETC

Cavendish Northern specialise in manufacturing small to medium sized pressure vessels and Storage vessels. All vessels can be manufactured in accordance with PED Regulations and CE marked. All pressure vessels are fabricated in accordance with ASME VIII and PD5500:2012 standards and in line with Pressure Equipment Directive Regulations with accompanying CE mark. All welding is carried out in accordance with ASME IX and European standards.

Our quality management system is in accordance with BS EN3834-2 and ISO9001 and all products are accompanied by a full 100% Traceable documentation packages which is issued with the product upon handover.



Typical Materials:

- Carbon Steel
- Low Temperature Carbon Steels
- Chromium Molybdenum (P11, P22, P91)
- Stainless Steels (304L, 316L, 316Ti, 321)
- Duplex & Super Duplex
- Exotic Alloys:
 - Inconel 625, 825
 - Hastalloy

Typical Capacity:

Diameters up to 3000mm
Weight up to 10,000kg
Length up to 12,000mm
Wall Thickness 1mm to over 50mm



Typical Applications:

- Pressure Vessels
- Pig Launchers and Receivers
- Storage tanks
- Hoppers
- Silo's
- Tube Bundle Heat Exchangers
- Hyperbaric Chambers
- Diving Chambers and Systems
- Evaporators
- Condensers
- Steam Accumulators
- Deaerators
- Calorifiers
- Autoclaves
- Test equipment
- Separators
- Cyclones
- Hot water tanks



INSPECTION AND TESTING

CNL test and inspect pipework, vessels and process and pressure equipment in house. Our CSWIP qualified inspection team inspect the dimensional accuracy, weld quality, coating quality and NDT execution quality.

Pressure testing is carried out in house in our testing facility using a range of different test mediums and test pressures.



- Typical Test Mediums Used** - Water, Nitrogen, Air, Demineralised Water.
- Typical Pressure** - 2 to 400 bar.
- Typical Durations** - 1 hour to 24hour.

All inspections are recorded stamped and certified by our quality assurance team and can be endorsed by 3rd Party and client representatives.

WELDING AND HIGH QUALITY WELD REPAIRS

Cavendish Northern provide high quality 6G coded welders. We currently hold hundreds of in house Weld Procedures for a range of different material thicknesses, grades and welding processes. Our in house Responsible Welding Coordinator's can generate bespoke welding procedures to your requirements. Typical welding procedures are in accordance with ASME IX, NACE, EN15614, BS4515 and client specific specifications. All welding operations are managed in accordance with BS EN3834-2:2005.

Typical Materials:

- Carbon Steel
- Low Temperature Carbon Steels
- Chromium Molybdenum (P11, P22, P91)
- Stainless Steels (304L, 316L, 316Ti, 321)
- Duplex & Super Duplex
- Exotic Alloys:
 - Inconel 625, 825
 - Hastalloy

Thickness Range

- 1/2" to 40mm

Welding Processes:

- MMA
- TIG
- MIG / MAG
- Orbital Welding



We have the safety culture, training and experience to operate in such hazardous environments.

PIPEWORK INSTALLATION

CNL are a market leading industrial Pipework installation contractor. We have the managerial experience, tradesmen and in-house plant and craneage to install pipework in a range of different sizes, work environments and meterages ranging from ten to tens of thousands.

Pipework progress is monitored electronically to plan and manage isometric progress from initial receipt of spool through the erection and testing to the final handover and client signoff.

We operate on Nuclear, Oil & Gas and High Hazard top Tier COMAHH sites and have the safety culture, training and experience to operate in such hazardous environments.

Typical Working Conditions:

- New build Construction Sites
- Existing Live Plant breakins
- Plant Breakdowns and Overhauls
- Confined Space
- Chemical Suit and Breathing Apparatus



CAVENDISH NORTHERN LTD ONSITE WORKS

All pipework is fabricated, tested and inspected which conforms to the general requirements described in the Pressure Equipment Regulations.



Typical Size Range:

- From Small bore instrument tube to 1/2" to 72" Nominal

Typical Thickness Range:

- Between Thin Wall Sch 5 to XXS or bespoke thicknesses greater than XXS.

Typical Pipework Applications:

- General Process and Utilities Pipework
- Nuclear
- High temperature High Pressure Steam Pipework
- Jacketed Pipework
- Firewater Systems
- Cryogenic
- Ducting
- PTFE & Glass Lined
- Small Bore Instrument Tubing
- Subsea and Offshore
- GRP

Typical Materials:

- Carbon Steel
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 - Inconel 625, 825
 - Hastalloy
- PTFE Lined Pipework
- High and Medium Density Polyethylene
- PVDF
- PVC
- ABS



As part of the Pipework Installation CNL manage:

- NDT
- Pressure Testing
- Heat Treatment
- Chemical Cleaning
- Surface Coating and Insulation.

Typical handover Quality Package contents:

- Punch Lists
- NDT Reports
- Pressure Test Certificates
- Red Line Isometrics
- Weld History Sheets
- Material test certificates
- Weld procedure qualifications
- Welder qualification procedures
- Paint and insulation inspection reports.

CAVENDISH NORTHERN LTD ONSITE WORKS

MECHANICAL EQUIPMENT INSTALLATION AND MAINTENANCE

Our work is predominantly for major Blue Chip companies and on Nuclear and High Hazard top Tier COMAHH sites and all personnel have the experience and training required to operate in such hazardous environments.

Each Item of equipment is installed, lined and levelled and checked for alignment prior to handover.

Typical Installation:

- Pumps
- Vessels
- Heat Exchangers
- Storage Tanks
- Filters
- Bellows
- Cyclones





PIPE SUPPORTS, SECONDARY STEELWORK AND STRUCTURAL STEELWORK ERECTION

CNL have the in-house labour, plant and craneage to install a range of different steelwork.

Each item is installed, snagged and hand over to the client with the relevant life time quality records.

Typical Steelwork Erected consists of:

- Pipe Supports
- Secondary Supporting Steelwork
- Structural Steelwork
- Walkways
- Stairs
- Access Ladders
- Gantries
- Loading arms



PRESSURE VESSEL & STORAGE TANK REPAIR

CNL have the in-house labour, plant and welder qualifications to carry out Inspection and repairs to Storage Tanks and Pressure Vessels in accordance with BS EN14015:2004, EEMUA 159, API650 & API 653 and BS2654.



Typical Repairs consist of:

- Weld repairs
- Over plating
- Roof Plate repairs.
- Floating Roof repairs
- Annular Ring Replacement
- Tank floor Replacement
- Cut out and Replace Strake plates or entire strakes
- Nozzle removal and replacement.
- New Nozzle installation
- Installation of Heating Coils
- Installation of Floating Roof Pivot type Drain systems

All our team are confined space trained and we can offer qualified standby cover to facilitate the safe execution of the works. Upon completion of the repairs the a final handover QA package is generated detailing the repairs, their locations, the material certification for the plate and consumable and welder qualifications and procedures used.



Each project is checked for quality and handed over with a certificate of conformity and life time quality QA/QC documentation package to accompany the repair.





CONTRACT LIFT MANAGEMENT, CRANE HIRE, RIGGING AND LIFTING

CNL have the in-house craneage, appointed persons and time served riggers and erectors to ensure all lifts are managed and executed in accordance with the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER).

Our company owned fleet of all-terrain craneage allows us to react to clients requests in a timely manner without involving a third party.

We are familiar with client safety culture and permit systems and can carry out Lifting Plans, Risk Assessments and Method statements and manage the whole works.

Unlike many crane hire companies CNL insure the hook load as well as the crane giving clients piece of mind.

Typical Services:

- All terrain Cranage Supply
- Contract Lift Management
- Lifting Plan Execution
- Crane Size Determination
- Appointed Persons Supply
- Familiar with Permit To work requirements
- Execution of Risk Assessments and Method Statements
- Safety Passport trained personnel
- Supply of Rigging and Lifting Tackle



Typical Lifts:

- Top and Tail of Vessels
- Crane sizes Range from 10T to 800T
- Rigging Equipment into Position using Chain Blocks
- Skating and Jacking
- Turfing and Pull Lifts



DECOMMISSIONING AND DISINVESTMENT

CNL have the in-house Labour and Plant to decommission and dismantle process plants in a safe and controlled manner. We can manage the decommissioning and transport and reassemble any plant or simply dispose of plant in a controlled safe and environmentally friendly manner.



We decommission and dismantle process plants in a controlled safe and environmentally friendly manner.

RAPID PROCUREMENT AND STORAGE OF MATERIALS AND EQUIPMENT

Clients are free to use our experience, efficiency and supplier discount to purchase items through Cavendish Northern's procurement department. We also have external and undercover storage facilities to house materials and equipment for up and coming projects or term maintenance schemes.



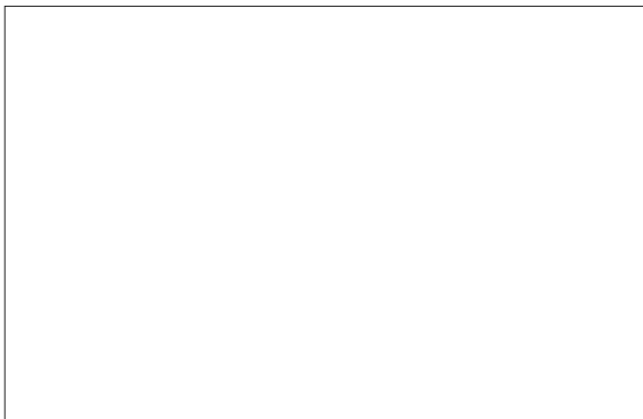


PLANT AND EQUIPMENT HIRE

As well as craneage CNL have a vast array of plant and equipment available for clients to hire on a temporary or permanent basis.

Typical hire items are:

- Craneage and Site Transport
- Rigging and Lifting Tackle
- Testing and Inspection Equipment
- Power and Welding Equipment
- Lighting and Confined Space Emergency Rescue Equipment
- Site Transport
- Site Establishment and Accommodation
- Site Safety Equipment



For further information please do not hesitate to contact us:

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'The difference between mediocrity and excellence is attention to detail'



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