



**alpha plus** 

PIPEWORK & MECHANICAL SERVICES

[www.alphaplusltd.co.uk](http://www.alphaplusltd.co.uk)

**Alpha Plus Ltd**

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Experience – Quality – Innovation

## Introduction

- Founded in 1987
- Providing quality pipework, fabrication and installation
- For the Utility, Waste Management, Industrial/Commercial and Manufacturing sectors
- Offering an experienced flexible approach, undertaking contracts from £10,000 to £3 million plus
- Throughout the UK and Abroad




**“Alpha Plus management and project teams offer an experienced, flexible and innovative approach”**

## Our services

We provide a wide range of services with a wealth of experience in each area. Listed below are a range of areas in which we can help. For further information on the services we can provide, please call us on +44 (0) 114 243 3594

- Mechanical Installation of plant and equipment
- Pipework Installations (all sizes up to 2000mm diameter)
- Hydraulic Pipework Installations
- Structural Steelwork
- Welding to class 1 standards, third party approved
- Project Management – Design
- Workshop Facilities
- Site Maintenance and Repairs



For further detailed information on our services visit [www.alphaplusltd.co.uk](http://www.alphaplusltd.co.uk)

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## Areas of work

- Utilities - Clean Water
  - Waste Water
- Waste to Energy / Power Generation
- Industrial/ Commercial
- Hydraulic
- Workshop Facilities



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 **MADE IN  
SHEFFIELD**



## Hydraulic Experience

Steelworks, Paper mills, Power Stations, Petro Chemical.  
Manufacture and installation of hydraulic pipework systems for:

**Corus Aldwarke**, New primary steel mill

**Corus Scunthorpe**, Libra project, New rail making facility

**Corus Scunthorpe**, Scorpio project, continual casting facility

**British Waterways**, Canal lock gate systems

**ABP**, Port lock gate systems

**St Regis**, New paper mill including lubrication system

**Offshore**, Tubular handling gantry crane

**Offshore**, Pipe handling facility

**Offshore**, Rig-less Intervention System

**Windmill Piling**, Drill Rig

### Hydraulic Pipework Installations in:

Mild Steel

Tungum

Stainless Steel

Welded, socket weld, silver solder

Mechanical non-welded systems for example Walform up to 42mm dia

Mechanical non-welded systems up to 300mm dia

Fully Welded Systems – Socket Weld & Butt Weld – Welding to EN 15614 3<sup>rd</sup> Party inspection

Pressure Testing Flushing



# Pipe Handling Case Study

Alpha Plus was contracted to provide the hydraulic package to the clients specification for off shore equipment on a “Seadrill Pipe Handling Facility” consisting of three distinct stand alone sections:-

- PIPE HANDLING CRANE
- CONVEYOR AND FEED TABLE
- SUB STRUCTURE

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Each area was constructed using stainless steel grade 316 pipework and “Stauff FORM” connector system also in grade 316 stainless from 8mm outside diameter up to and including 42mm outside diameter pipework. Hoses complied with EN853 2SN or EN856 R13 and had grade 316 stainless JIC end fittings.

“Compri Clean” system was used to clean the pipework as it was being installed. Final flushing of the individual systems to achieve a cleanliness level of NAS 5 was carried out using our flushing rig and analysis (Stauff Laspac) equipment.

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Pipe handler crane hydraulic circuit had a working pressure of 300 bar  
(test pressure of 450 bar).  
Conveyor and sub structure had a working pressure of 210 bar  
(test pressure of 315 bar).



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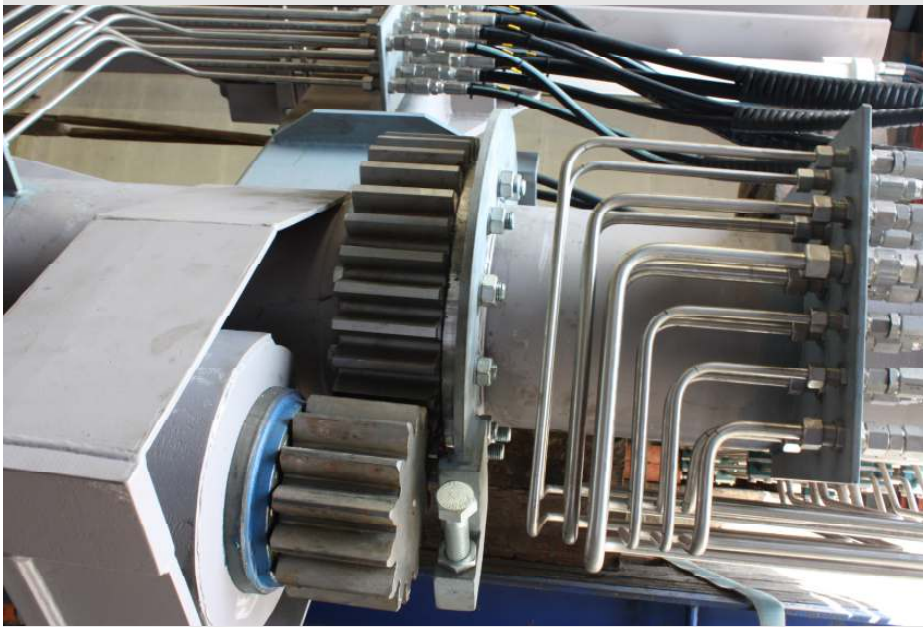


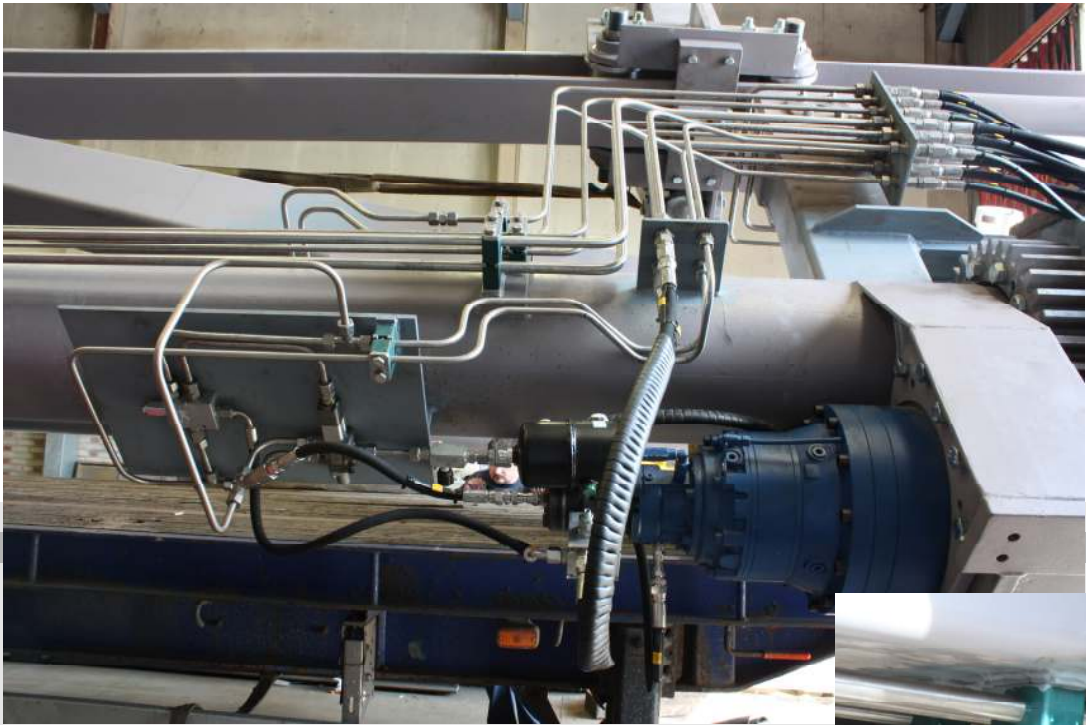


Individual units were assembled onto a purpose made test track where factory acceptance tests were carried out.

Following successful completion of factory acceptance tests, nitrogen was injected to remove oil from each section after which pipework was tagged, stripped and plugged before being packaged and transported to site.

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## **Rigless Intervention System Hydraulic Package**



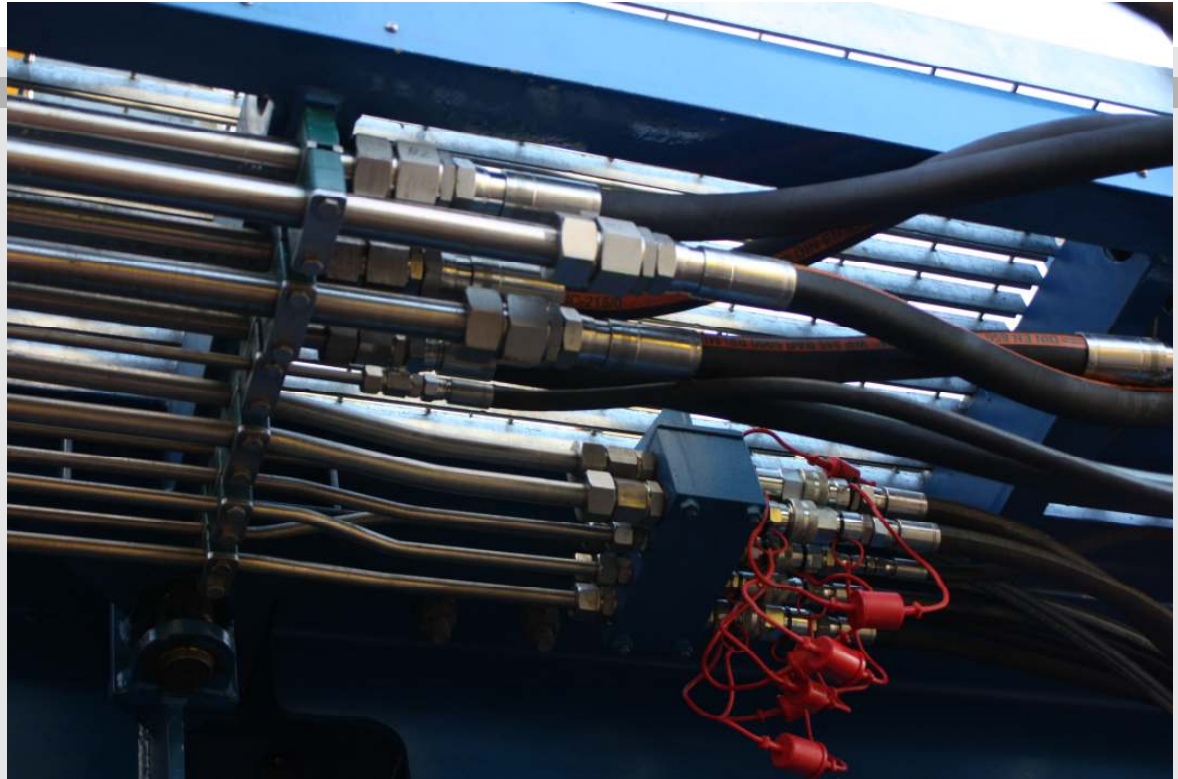
Self Erecting Drilling Rig.

316 st/st Walform System to  
Offshore specifications.

Installation, Flushing & Pressure  
Testing and Documentation

Installation of the various section  
required for the full rig.





# Corus – Scunthorpe, Libra & Scorpio Project – Walking Bed and Caster for new Rail Rolling Facility 2006/7





## Windmill Piling Drill Rig



### LD5000 Drill Rig Specifications

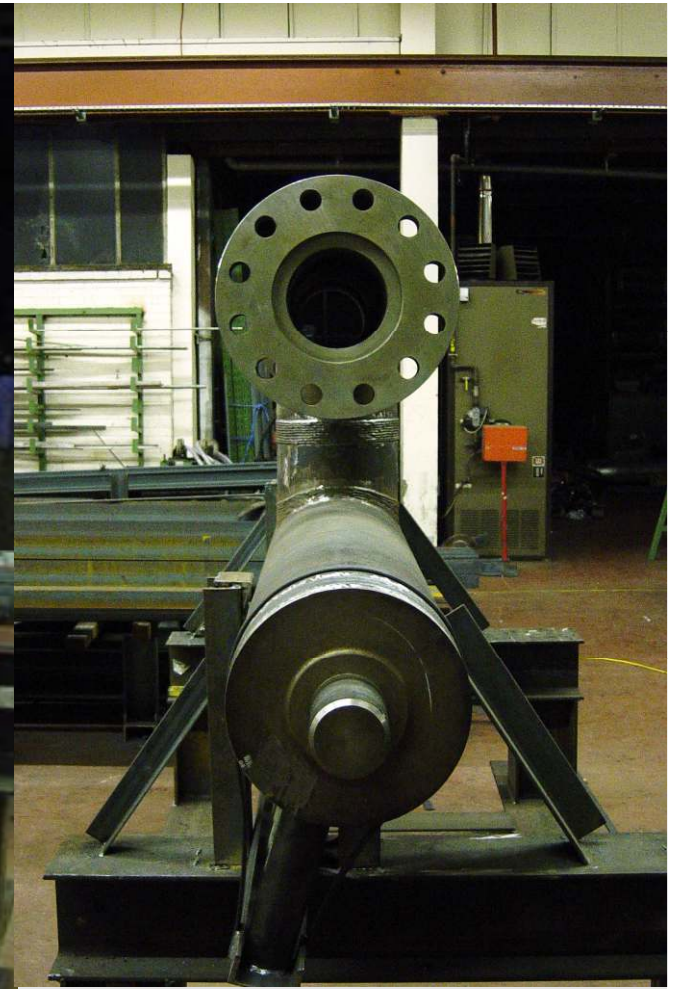
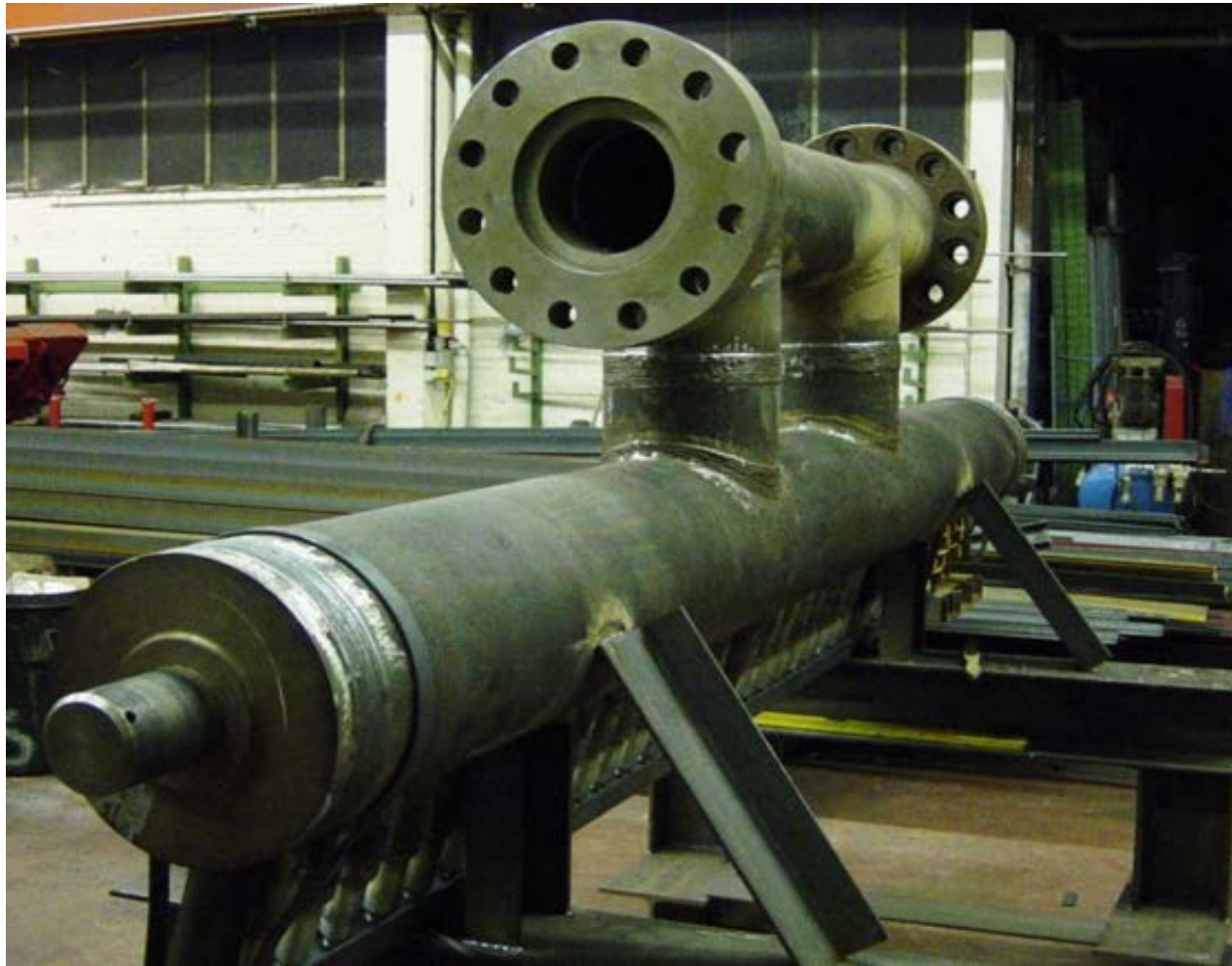
- Max drilling diameter 8000mm
- Max power swivel torque 1100kNm
- Drill speed 0-8rpm variable
- Max drill string weight 350t
- Max pull back 500t
- Thrust limited to 50t
- Weight (incl. rigging and gripper) 138t
- Drill pipe LDD bespoke 14"
- Electro-hydraulic control system c/w pilot operated valve backup.
- Digital control capability
- Market leading safety features and controls
- Modular design – assembly 7 days
- Remotely operated pipe handling and man riding crane



Welding to BS EN 15614 – 3<sup>rd</sup> Party  
Inspection through Lloyds Register



# High Pressure Descaling Spray Manifold







## Flushing & Pressure Testing & Analysis

**On completion of Hydraulic installations we have the necessary equipment and experience to flush systems to the necessary cleanliness levels required by our customers and have recently introduced Laspac 11 Contamination Counter and Diagtronics equipment which means we can offer flushing results /reports and pressure test packs in whatever format our customer requires.**







**Laser Particle Analyser LasPaCII-P  
Manual**  
Language: English

Local solutions for  
individual customers  
worldwide

The LasPaC II Contamination Counter is designed to measure and quantify the numbers of solid contaminants in Hydraulic, Lubrication and Transmission applications. The LasPaC II is designed to be a laboratory accurate instrument suitable for 'on-site' applications utilising mineral oil as the operating fluid.

The instrument uses the light extinction principle whereby 2 laser light systems shine through the fluid and lands on photodiodes. When a particle passes through the beam it reduces the amount of light received by the diode, and from this change in condition, the size of the particle can be deduced.

This portable multi-function measuring instrument is used in hydraulic applications for measuring pressure, temperature, volumetric flow, and flow. It is capable of measuring, monitoring, analyzing and saving data. Applications are available for machine optimization and service/maintenance tasks. The instrument can simultaneously record and process measurements from up to 54 channels or up to 26 sensors



## Workforce & Training

We employ apprentice trained skilled craftsman in various trades. Our tradesman are backed up by our on-site supervisors / management and our project teams with vast experience of the industries we work in.



“We have an **ongoing training** programme to teach new skills and keep up with **current legislation**”

### Approvals & Accreditation

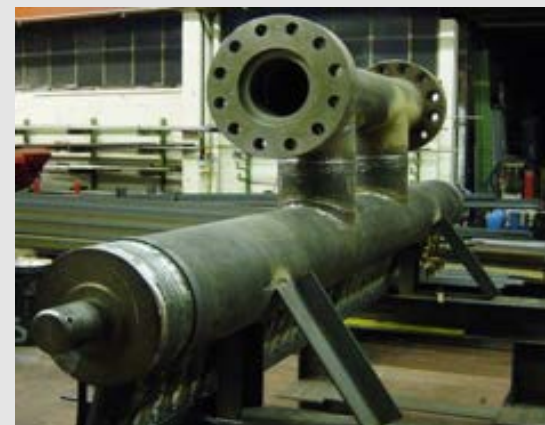
- ECITB
- HVCA / B&ES
- GAS Safe Register
- Achilles Verify
- CHAS
- DWI
- ISO9001:2008 Approved
- Safe Contractor





## Sustainability ; SHEQ ; Corporate Social Responsibility

- Strong apprentice recruitment programme- design; project management; tradesman. NVQ level 3,4&5
- Approved QM System to ISO 9001:2008
- Carrying out carbon footprint analysis & environmental impact analysis
- Support the local community through environmental and sports projects





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