

L&N Scotland Pipe Cladding Systems



the **subsea** specialists

Introduction

L&N Scotland are proud to operate a continual improvement and development culture, in line with our core values. As part of our on-going business development strategy we have made significant investment in facilities and equipment, in order to compliment the manufacturing activities and suite of products / services we provide from our Aberdeen plant.

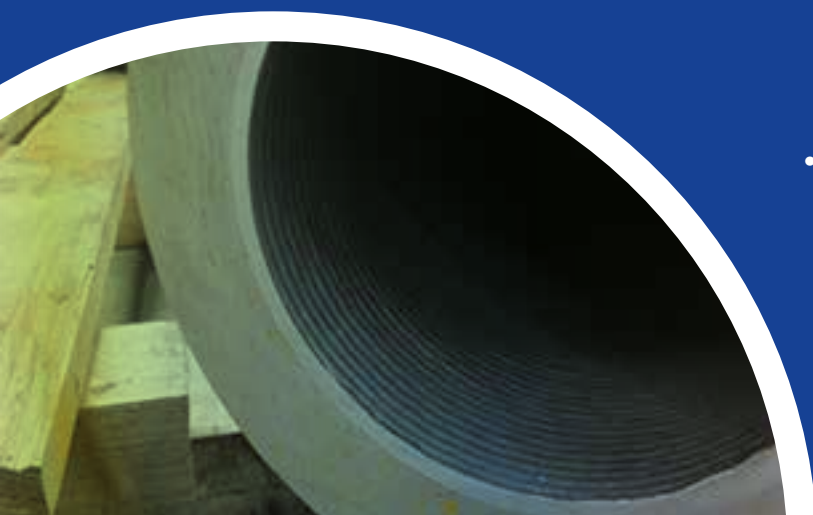
Qualifications

L&N Scotland currently hold an extensive library of pre-qualified weld procedures relating to butt weld fabrication and CRA weld overlay, in various material grades common to the subsea sector. L&N Scotland utilise our in-house welding engineers to research, develop and qualify project specific weld overlay procedures and processes. Our highly skilled team of operators have a vast range of skills and knowledge to assure that the most demanding of customer applications can be met, whilst safeguarding the integrity and quality of the finished product.

Equipment / Facilities

Details below relate to our pipe cladding systems, installed and commissioned at our facility in Dyce, Aberdeen. The systems are utilised to support our component CRA weld overlay equipment and turnkey Flow spool manufacture of subsea applications, and can accommodate pipe of length / sizes as follows:

- 3 jaw self-centring chuck, capable of 3-36" OD pipe clamping range
- Can accommodate pipe bore sizes from 38mm
- Hollow bore head stock
- Large bore unit capable of cladding 6M pipe lengths
 - o 6M twin head, twin wire feed torch CW wire feeder system and fully automated windows based operating system
- Small bore unit capable of cladding 3M pipe lengths
 - o 3M single head, single wire feed torch CW wire feeder system and fully automated windows based operating system
- R&D / weld procedure qualification in-house, to suit all common grades of pipe utilised for subsea application



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Cladding Systems Consisting of:

- RDA Touch Screen System complete with visual displays which includes alarms & warning limits.
- Linear rail servo motor control travel car, by far the most accurate available, complete with anti-backlash gearboxes, allowing accurate retake position options.
- Welding equipment travels with torch & carriage. No long power cables required, minimising voltage drop.
- Floating Pipe supports which protect the headstock from 'out of line pipe', which also results in a constant weld speed.
- In line torch position for torch's A & B.
- Controller complete with built in modem.
- All equipment UK manufactured, apart from Miller Welding Power Sources.

RDA 1250 Controller

- Programmable PLC Controller 1250.
- Industrial windows based PC for data input, data recording and monitoring.
- 15" XGA TFT display for visualisation with Touch Screen (resistive) 12 soft keys, 20 Function keys, 92 Systems keys – 2x RS232, 3 x USB, 2 x Ethernet IP65 protection.
- Integrated screen key board and additional desk top key board.
- Integrated USB Port for data transfer.
- Network facility for LAN Ethernet connection.
- Windows XP SP3 operating system.
- Software operation language ENGLISH.
- Hand Held pendant with 15m of cable.

- Control of - Fronius power source.
 - Control of rotation axis (Turntable or Positioner)
 - Control of speed adjustment.
 - Control of Motorised Slides.
 - Control of AVC function.
 - Control of Travel Car.
- Software included :
 - automatic reposition
 - Programme TIG cold and hot wire.
 - Auto Gap Function
- Modem Included: For on-line support.
- Adjustable Height Hollow Bore Head Stock.
- Floating Idler Supports x 2.
- Main Base Frame.
- Automatic Wire Rope Tension System.
- Integrated Welding Equipment.

Miller Maxstar 700 Tig

Power Source x 2

- Interface Connection Kit.
- Gas Flow Sensor.

Miller Maxstar 200

Hot Wire Power Source x 2

- Miller Maxstar 200 HD inverter power source.
- Integrated Hot Wire Shunt.

Water Cooler

- Chiller Cooling Unit.

Miller Wire Feed Unit x 2

- Red-o-Arc/Schnieder electric wire feed unit x2.
- Manifold Hot Wire Kit
- Manifold Torch Kit.
- Wire Feeder System with built in Encoder.
- Wire Spool System for Single Wire – 15kg Spool.
- Welding Torch Holder.

Hot Wire Torch x 1

- 6 meter torch twin head Twin Wire, capable of welding pipe down to 150mm.
- Twin Head, Single Wire.
- 2 x AVC motors.

Hollow Bore Head Stock x 1

- Complete with 3 jaw self-centring chuck.
- Pipe diameter clamping range 150mm – 750mm.
- Adjustable Height Manual.

Floating Pipe Supports x 2

- Pipe diameter support range 150mm – 750mm.
- Vertical & Horizontal floating movement.
- Adjustable cable support included.

If any additional information is required in relation to our CRA overlay capabilities or equipment, and for any further enquiries, please do not hesitate to contact our offices utilising the following contact details. Many thanks.



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