

## Specification – Compressor and air ring: Reference BUS003\_0081\_4.2



## Background

Penzance Dry Dock (PDD) is famously steeped in history, currently being the oldest operational dry dock of its type in Europe but requires drastic investment after decades of neglect and dilapidations. While the surrounding shipyards, across the county and country have seen investment, PDD has slipped through the net time and time again.

PDD plans to complete a large refit by March 2025. PDD will become the engineering powerhouse that it once was, but with more abilities than ever before.

This facility has primally been ship repair only, but now we are supporting multiple areas of the market, ship repair, ship building, mass fabrication and most importantly training and skill development.

This capital investment, part-funded by the UK Government through the UK Shared Prosperity Fund, will see the site brought up to an even playing field with the rest of industry, with new, safer lifting systems and the dilapidations being rectified. We will see our efficiency drastically increased which in turn will assist in reducing our carbon footprint.

## General Specification

Penzance Dry Docks is seeking the supply, installation and commissioning of the air ring arrangement at Penzance Dry Dock.

Items to be installed within the workshops and dry dock and to consist of the following items:

### **COMPRESSOR**

30 KW compressor with optimum operating bar of between 5 – 13 bar producing 33 cubic feet per minute (cfm) to 212 cfm at 8 bar.

Key features

- Energy efficiency
- Easily accessible and readily available parts
- Low noise operating levels

### **REFRIGERATION AIR DRYER**

Refrigeration Air Dryer optimum flow of 510 cubic metres per hour and a flow rate of 300 cfm.

### **AIR REVIVER**

Compatible 1000 litre air reviver and accompanying fittings.

## **PIPEWORK**

54mm carbon steel factory pipework with connections with compatible valves and fittings.

Pipework connections to be at between 1.2 – 1.5m above floor level for fitted hoses and air receiver.

## **OIL / WASTE SEPARATION UNIT**

Compatible oil and water separation unit compatible with wastewater regulations for condensation from dryer and compressor.

## **ACCESSORIES**

60 x 13mm air hoses 10 metres in length.

Pneumatic air tools e.g. needle guns, cutters, spray guns

As part of the installation to include commissioning of the products which will also require the necessary electrical wiring and certification. This will include ensuring all relevant safety tests are undertaken on the electrical infrastructure.

All electrical components shall be tested and all wiring, connections etc. should be certified safe and carried out by a suitable qualified technician, in line with suitable trade body such as National Inspection Council for Electrical Installation Contracting (NICEIC) <https://niceic.com/>.

Prior to connecting with any electrical supplies all necessary checks and tests must be carried out.

Products to have a minimum warranty of 1 year from being commissioned. Overall air ring system to have a minimum design life expectancy of 10 years subject to maintenance in line with the manufacturer's recommendations.

Installation of the items is to be within an internal building but within a busy commercial dry dock set in a coastal marine environment continually open to the elements. The products supplied and how installed must bear this in mind for such a setting.

Specific requirements of this tender, which the tenderers will need to satisfy, and the successful tenderer will be required to deliver on are:

- A key feature for any supply provided will be the provision of spare parts being readily available.
- Details of lead time is essential.
- Evidence that the proposed products are proven concept which can operate in the marine environment akin with the drydock site.
- Costs to include:
  - Supply
  - Installation
  - Commissioning, including electrical wiring.
- The products, materials, installations, inspections, to comply with all relevant Regulatory requirements and standards e.g. British Standards (BS), European Standards / Norm (EN), international Standards Organisation (ISO) or equivalent.
- Work to be carried out during normal working hours.
- Installation to be completed by March 2025.