

▼ Project specification

General

Project name	Vertical Pump Transport Frame
Purpose of project	<p>Amarinth’s manufacturing facility is split over two buildings: one for assembly and the other for testing; they are 20 metres apart. After a pump is built, it is transferred from the Assembly building to the Testbay and, following testing, back to the Assembly building for final checking and packing.</p> <p>Pumps come in two formats: horizontal and vertical. The horizontal pumps are transferred between the buildings using a forklift truck but the vertical pumps are more of a challenge as they can be up to 7m long and weigh 2 tonnes. This project involves designing a method of transferring vertical pumps in a safe and practical manner between the two buildings.</p>
Ideal profile	<p>This would suit an Engineering undergraduate with an interest in heavy engineering.</p> <p>The successful applicant will have the satisfaction of having designed a piece of specialist heavy-duty equipment for regular use by a world-class engineering company in a real-world environment. They will also gain knowledge of pump componentry and engineering practices.</p>
Expected delivery date	2- 3 months

Details

Project description	<p>Amarinth is a medium to heavy engineering company which produces high-specification, high-quality pumps to customer requirements. More than 60% of its output is exported, finding its way onto oil platforms and oil refineries where, in addition to the more commonly used horizontal pumps, vertical pumps are often employed to empty deep sumps. The pumps are generally a few metres long, although the company has made some that were 15m long. Moving fully built vertical pumps from the Assembly facility to the Testing one is a challenge, and can take considerable time and effort to achieve in a safe and controlled manner. Due to its specialised nature, an off-the-shelf transport solution is not available, so Amarith has decided to design and build its own.</p> <p>The project is not straightforward, as the design will need to cater for a variety of different sizes of vertical pumps (length is not the only variable). It will also need to consider how the ‘transporter’ will be moved, steered and stored, what safety systems should be implemented and whether it could be put to other uses. It’s a challenge, but one that will give you a real sense of achievement together with something that will look very good on your CV.</p> <p>You will be working as part of the Applications Engineering team, but you will need to talk to the specialists in the Assembly and Test teams who work with, and move, the pumps: they will have significant amounts of practical knowledge, together with requirements and suggestions. They will be the end-users.</p> <p>The project can be split into a number of phases:</p>
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Phase 1 – Define the scope

Investigate, discuss and agree the practicability of transporting various sizes of fully assembled vertical pumps, between the Assembly and Testbay facilities.

Phase 2 – Collate the raw data

For all of the pump variants, create detailed matrices to capture the key dimensions to determine the overall size of the transport frame. This may involve some layout work to assess if everything will fit and possibly some research into capturing/calculating certain dimensions.

Phase 3 – CAD Model

Using a state-of-the art 3D CAD package, produce a model of the transport frame and all associated detailed assembly and component drawings, for quoting/manufacturing purposes.

▼ Duties and responsibilities

Details

Individual	<p>You will be responsible for the day to day progress of the project.</p> <p>You will report to an assigned manager at regular intervals who will support you and help keep the project moving.</p> <p>You will need to be able to analyse data, solve problems, and suggest solutions.</p> <p>You will need to be able to be familiar with 3D CAD</p> <p>You will need to be able to interact and communicate efficiently with staff and suppliers</p>
Supervisory	n/a
Other	n/a

▼ Person specification

General

Job title	Engineering assistant
Remuneration	£80 - £90 / day
Reports to	Engineering manager
Hours of work (total)	37.5 hrs / week – 9:00 – 5:00pm Monday to Friday

▼ Competency requirements

Key Competencies	How often required to successfully fulfill day-to-day role						
	Never	Sometimes	Moderately	Regularly	Frequently	Often	Always
Working together				X			
Communicating				X			
Valuing People				X			
Analysing, Understanding and Deciding					X		
Planning and Prioritising					X		
Demonstrating Resilience					X		
Integrity			X				
Contributing to Change			X				
Self-Determination					X		
Leadership				X			
Customer Focus					X		
Business Excellence				X			

▼ Other requirements

	Minimum requirement	Desirable requirement/potential
Qualifications	<ul style="list-style-type: none"> 5 GCSE's or equivalent (including English and Maths at Grade C or above). 2 A levels or equivalent preferably one in one of the sciences or maths 	<ul style="list-style-type: none"> Studying towards or already completed an Engineering degree
Experience	<ul style="list-style-type: none"> 3D CAD modelling & drawing (Solidworks) Understanding of basic technical drawings & terminology Presenting to others Teamworking – working as part of a team to achieve results 	
Circumstances	<ul style="list-style-type: none"> Available to take up position with the Company, if offered the role, within 3 months. 	<ul style="list-style-type: none"> Available immediately.

Note

Whilst the above depicts the perfect candidate, Amarith is aware that many applicants will not currently possess all of the requirements. However, Amarith is committed to the continuous development of all its employees and will be looking for an applicant's potential to meet the requirements.

If you would like to apply for this position, please download and complete an application form and equal opportunities monitoring form (which will be detached from your main application form and be used for monitoring purposes only), from <http://www.amarith.com/downloads/job-vacancies> and return to: David Woollard, Amarith Ltd., Bentwaters Parks, Rendlesham, Woodbridge, Suffolk, IP12 2TW.