

NEWS RELEASE

04.05.2021

Precision engineering project is measuring up

When you have a large piece of valuable equipment to fit into a tight space using a huge crane, then you need all the help you can get.

And that's just what the latest in 3D laser measurement techniques have been doing as part of our £140m plant upgrade.

We recently reported on our new Regenerator's journey from the Netherlands to Mossmorran, and now the high-tech, more energy efficient monster is preparing to be fitted into its new home.

The only problem is that it is even bigger than its predecessor, measuring 14m by 6m and weighing 175 tonnes!

In addition to its huge bulk, which will be lifted into place using a 1350 tonne crane, it also has to link up exactly with a new gas turbine via pipework sections which will come fully fabricated.

With such exact measuring called for, our engineers and design team worked closely with Origin Metrology Group (OMG) from Texas and Scopus Engineering who have their European headquarters in Aberdeen.

These companies provide laser measurement solutions for the most complex of projects, help which has proven invaluable with the Regenerator installation.

Billy Hogg, FEP's Project Manager, said: "This has helped us with an implementation strategy which we are confident will work in ensuring that all parts of the jigsaw fit perfectly together and will eliminate modifications and rework.

"This has allowed us to shorten the overall duration for this work and minimise risks of misalignment. Because our new Regenerator is bigger than the one it is replacing, it is vital that we do our homework and get it right first time.

"The laser scanning process is a very accurate design and fabrication tool that produces a 3D image that can be input into a model to produce accurate detail drawings.

“The version used here takes all of the scanned readings - GT, Regenerator and fabricated pipe spools and inputs them into a virtual cloud which is used to check that the components will all align”

“It can be ‘walked through’ by operators and designers to check clearances, accessibility to equipment and highlight physical clashes. The image from the scans shows everything within the area, down to weeds on the ground!”

“Using this process gives our team the confidence that everything in this complex project should fit together like a glove.”

