



Case Study:

ISM SOLUTIONS



Programming a rotary axis laser with Lantek makes complex parts easier and quicker to manufacture

Island Sheet Metal Solutions (ISM Solutions) has a variety of different CNC sheet metal machinery including a Trumpf 5kw CO2 laser and a Strippit punch press. Investing in Lantek Expert and Lantek Flex3d Tubes CAD/CAM software has enabled the company to programme all the machines from one system, including the rotary axis on the Trumpf.

A man in a dark blue shirt is standing in a factory, holding a cylindrical metal part. Behind him is a large industrial machine with the TRUMPF logo and a laser warning sign. To his right is a computer monitor displaying a 3D model of a part. The machine has a glass door showing internal components.

Case Study

Will Thomas,
Director of Island Sheet Metal Solutions

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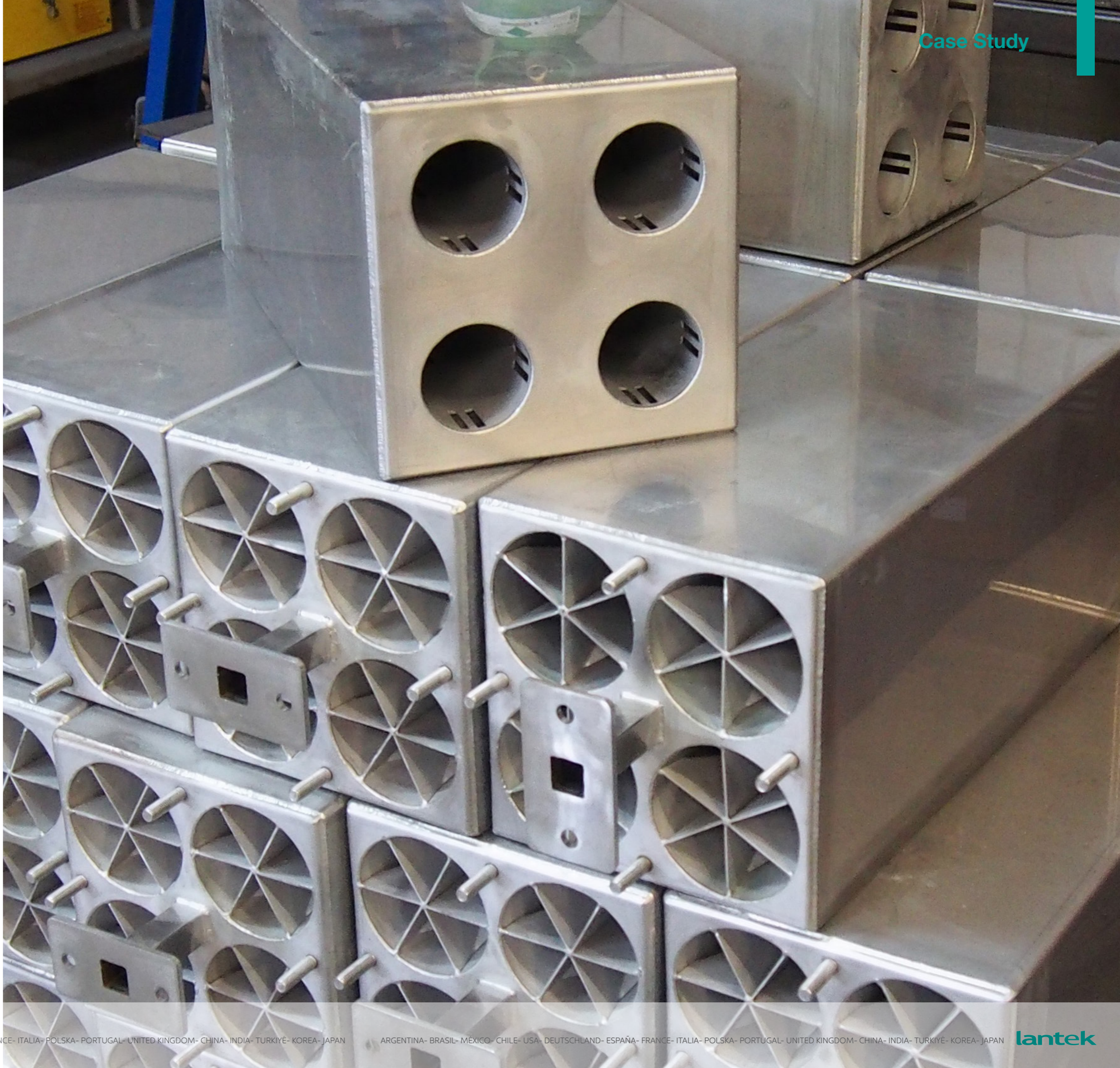
The company operates on the Isle of Wight and serves a wide range of industries including aerospace, petrochemical, wind turbine and construction across the UK. As well as sheet metal cutting and folding, it offers electroplating, powder coating welding and assembly. Will Thomas, Managing Director, says, “We are ambitious for growth and, the rotary axis on the Trumpf laser has opened up new markets and new ways of cutting parts, which we would otherwise have to mill and drill and then hand finish. Now, thanks to the rotary laser programming in Lantek Expert and Lantek Flex3d Tubes, we can produce parts in one operation.”

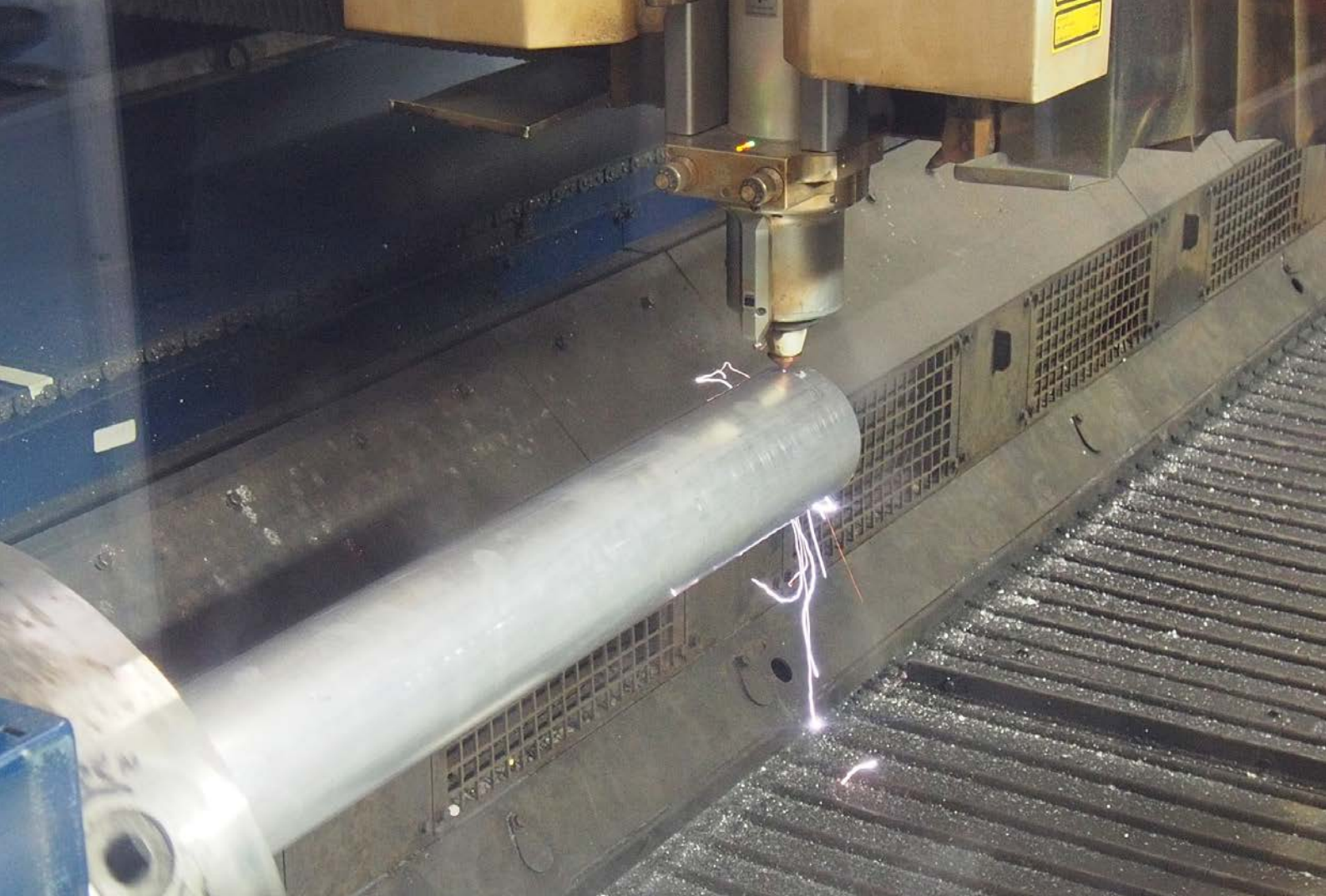
Island Sheet Metal Solutions has several 2D & 3D CAD systems enabling it to work closely with its customers, importing and producing models in a wide variety of formats, and exporting dwg, dxf, IGES or STEPS files into Lantek ready for programming and nesting. The company nests 100s of parts by material specification and thickness every month, so it mixes parts from different customers on the same sheet to maximise material utilisation. There is a database of sheet material offcuts in the Lantek system and the programmers nest into these as well, minimising wastage.

With Lantek Flex3d Tubes, Island Sheet Metal Solutions can visualise and simulate the tube cutting operations, nesting parts on the tube for maximum material utilisation. The software is parametric so changes can update throughout the programming process. Will Thomas, says “The software is very easy to operate and we can modify the profiles where needed. Lantek worked hard on implementing the Trumpf laser’s rotary axis in its software to make it work perfectly when we are cutting tube or box section.” ISM Solutions uses laser profiling technology to make its own jigs and fixtures and, for the products it manufactures designed to separate oil and water it has revolutionised the production methods as these require a significant number of tubular parts.

Will Thomas adds, "A major project for the manufacture of a gondola to allow inspection personnel to access wind turbines, made significant use of the laser rotary axis, and the ease of programming in Lantek helped considerably. The process has enabled us to reduce the manual input, parts are more accurate and they can be produced much faster. For the gondola, TIG welding the kit of parts we cut on the laser produced a lovely job."

To help with the smooth running of the laser in 2D, Lantek Expert enables the programmer to change the datum. Will Thomas says, "By altering where the cutting starts we can even cut the wear on the supporting slats, which makes them last longer. This sounds simple, but it reduces costs and maintenance and helps to increase the available machine time. Using Lantek software has certainly increased the complexity of components which we can easily produce and has also helped us to turn around jobs much quicker, making it a valuable asset to the company. Our relationship with Lantek is very good. We get all the software upgrades and the changes are self-explanatory. Phone support is excellent and where necessary Lantek's engineers can fix any issues we have remotely."





FACT SHEET

COMPANY NAME	Island Sheet Metal Solutions
ACTIVITY / INDUSTRIAL SECTOR	Subcontract design and manufacturing company
LANTEK SOLUTION	CAM 2D CAM 3D Inventor integration
LICENSES	2 Lantek Expert 1 Lantek Flex3d
MACHINES	TRUMPF L3030 Strippit