

# Partnership progress

Sheetmetal processor KMF has extended its strategic investment programme to meet the specific demands of two large customers that fall into what KMF describes as 'advanced products'.

For one customer this consists of chassis manufacture (for mass spectrometers) and for another it is the supply of seat structures for business and first

class cabins on commercial aircraft operated by major international carriers.

While its customer base already demands high repeatability and reproducibility with these attributes ingrained in the culture of its 250 employees, for a select group of customers the Newcastle under Lyme-based company is taking its fully integrated bespoke

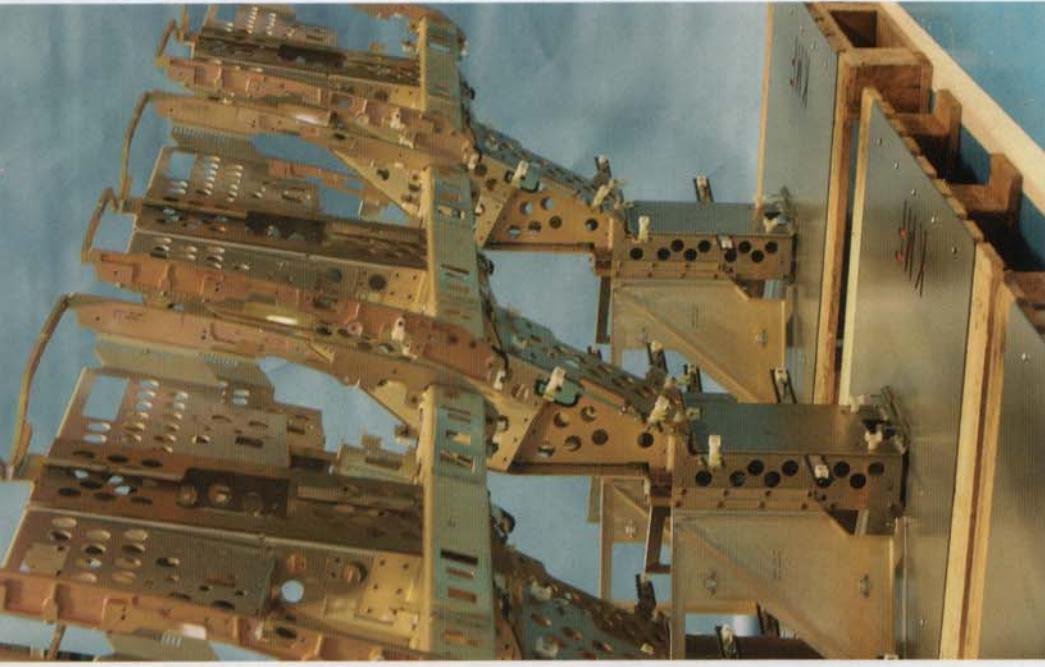
metalwork to a new level. "We have been acutely aware for some time that although the majority of products can be easily accommodated within our 80,000ft<sup>2</sup> manufacturing facility, some more demanding products have necessitated their own dedicated resources," says Keith Nicholl, KMF's business improvement manager. "This has previously been achieved by creating customer focused product cells located within the main workflows."

However, the ongoing development of the partnerships with these two key customers brought challenges that set them apart from the more conventional precision sheetmetal work that KMF produces. For example, the mass spectrometer chassis required specialised CNC piercing (utilising a Trumpf PL6000 combined laser profiler and CNC punch) to achieve complex product nests outside of normal punch tooling capability. The blank components had to be prepared with a scratch-free surface finish that meant investment in new surface treatment equipment from Timesavers.

Other processes such as folding and insert fixing had to be addressed with further investment in more specialised machinery and equipment to ensure repeatability and high aesthetic finish. As well as taking care of the hardware, KMF also instigated a final inspection system that incorporated many poka-yoke

attributes to assist with complex but critical build characteristics. This technique is also relied upon to ensure high levels of control during the integration of the mass spectrometer chassis in terms of cable sets, components and final testing. Similar challenges faced KMF in the production of the complex aircraft seat assemblies. To comply with civil aviation requirements it has to be able to provide full material traceability for every seat it produces, and this extends to all materials such as sheet steel, fasteners, chemical adhesives, and specialised surface coatings. In addition, the seat chassis also required complex CNC cutting, folding (in this case using a TruBend 7036 electronic press brake) and specialised parts marking using a laser inkjet system.

"When we took all of the above into consideration, and with a view to build on our success with advanced products, KMF took the decision to create a standalone 'advanced products facility' located within a newly purchased 10,000ft<sup>2</sup> building immediately adjacent to its main manufacturing site," says Mr Nicholl. "Having this new facility allows us to provide dedicated machinery and resources to complete the specialised tasks required for these customers whilst ensuring that quality and delivery targets are achieved. The facility is enhanced with a computer controlled tower inventory control and an electrostatic discharge (ESD) compliant



integration suite with special flooring and benches designed to protect delicate/sensitive components from static build up."

The development of this site will play a major part in KMF's future expansion plans and help to drive turnover beyond the current £24 million. The ability to service niche markets and customers in the demanding areas of medical and aerospace manufacturing through this dedicated facility will also allow the original manufacturing site to expand. A

prime example of this main site development can be seen with the future plan to incorporate a specialised kiosk build and integration facility to better support existing customers across the retail, point of sales and leisure sectors.

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