

# Designs on competitiveness

**Graham Leese**, engineering manager at KMF (Precision Sheet Metal), explains how the subcontractor is engaging with designers in an effort to further drive down part manufacturing costs



**K**MF has worked closely with key technology partners (Wilson Tool International; Trumpf; Salvagnini UK & Ireland; and Amada UK), to ensure we have the most up-to-date manufacturing environment.

However, we are limited in what we can achieve once a component design has been finalised. At this stage, approximately 80 per cent of the cost of manufacture is 'locked in'. Our challenge is to take cost out of the remaining 20 per cent by applying value analysis/value engineering activities. This could be so different, if designers consulted manufacturers at an earlier stage.

We are aware that the true potential of manufacturing technology can only be realised if customers and, more importantly, their design engineers know what's possible and understand how we can utilise that technology to their advantage. Once designers are aware of the capabilities of machines, such as the latest panel benders, they can design accordingly, and the potential to reduce

manufacturing costs through reduced secondary operation work and manpower is significant.

Another example is that of laser profiling versus punching technology. KMF has both and each has its virtues, but, if a designer is not aware of them, they could be wasting our time and their money. Even with more conventional processes, such as press brakes, there is the potential to design out cost through a better understanding of bend allowances, due to different bottom tools and the relationship to the internal radii produced.

Here in the UK, we must make full use of the manufacturing technology available and be prepared to take advantage of any opportunity that may arise to maintain existing and win new business. However, if we are not ahead of the game, in terms of designing for manufacture, we will continue to struggle to be competitive. If there is no interaction between component manufacturers, machine tool, tooling suppliers and design engineering departments, we are ignoring a vital weapon in the drive to improve the competitiveness of UK manufacturing as a whole.

In partnership with our suppliers, we are playing our part and making a determined effort to advise and educate design engineers, making them fully aware of the benefits of working with manufacturing companies to ensure that, between us, we can deliver a smarter manufacturing solution, reduce manufacturing costs, shorten lead times and increase profitability for all

concerned.

As part of that process, we have organised a number of Design Engineering Workshops. The first of these was a great success, with over 30 delegates, representing 19 companies, interacting with our technology partners and drawing on the expertise of KMF's design and engineering teams.

Designers often sit in isolation from the technology that their supply chain partners utilise and sometimes do not get the opportunity to witness new techniques and processes first hand. This is something we at KMF intend to change. □

**If we are not ahead of the game, in terms of designing for manufacture, we will continue to struggle to be competitive**

Note: Designers interested in attending the next Design Engineering Day, to be held at KMF's training centre, located next to its Newcastle under Lyme manufacturing facility, on 29 September 2010, should contact Graham Leese on 01782 569060 or e-mail: [g.leese@kmf.co.uk](mailto:g.leese@kmf.co.uk) to book a place.

□ Got an opinion or viewpoint you'd like to share with *Machinery's* readers? It could be about your own company's activities or experience, as here, or a more general view on support for manufacturing, training, investment, or just a quirky observation. Just send it to [aalcock@findlay.co.uk](mailto:aalcock@findlay.co.uk). Please also send a current image of the author.