

An effective relationship with its cutting tool supplier gives an injection mould specialist the competitive edge in delivering quality tooling on time and on budget.



Right tool, right time

A set of inserts and strips that are now produced considerably quicker thanks to Amtek's choice of MCR cutters from WNT.

Amtek's Adriano Ruocco vends the next tool from the WNT Tool-o-Mat vending system.

AS a specialist designer and manufacturer of high-quality, high-volume, multi-cavity injection moulds for the plastics industry, Amtek Precision Engineering supplies a wide-range of customers in the medical and pharmaceutical, packaging, cosmetics and personal care industries. Its customers demand

To achieve this Amtek has invested more than £600,000 over the past 12 - 18 months. A high percentage of this investment has been targeted at the latest machine tool technology that has given Amtek the ability to turn or mill mould steels up to 60 HRC. These investments complement the traditional toolmaking processes of grinding, spark erosion and wire erosion to provide optimum manufacturing capability. Much of Amtek's success has been based on its ability to respond to customer demands in a very short space of time, an ability that is enhanced by its partnership with cutting tool specialist WNT (UK). 'We have worked with WNT for quite a few years,' says Mike Lawes, Amtek's Production Manager. 'Their ability to supply the right cutting tool at the right time has been an important factor in our success in meeting delivery targets.'

The installation of WNT's Tool-O-Mat tool vending system is delivering numerous benefits to Amtek, among which are a greater control over tool usage, a reduction in administration and considerable time savings on the shop floor due to operators having open access to the tool stocks. 'The freedom that Tool-o-Mat brings is a major benefit to us,' says Mike Lawes, 'because we can monitor who is using what, we no longer need supervision over the issuing of cutting tools. This frees up a considerable amount of time on the part of the management.'

The system itself acts as a hub for all of Amtek's rotating tool requirements and stores a wide selection of

cutting tools from which all base machining strategies are evolved. In doing this Amtek knows that any part can be machined at any time as the correct tools will be in place. Any tool used is replaced during the weekly visit by WNT's Technical Sales

Engineer, and Amtek receives a consolidated invoice at the end of each month, keeping accounting paperwork to a minimum. 'As our tool usage changes on a weekly basis these regular visits enable us to monitor what is being used and highlights any potential issues. The system makes my life so much easier,' says Lawes.

Given the type of work that Amtek produces, the majority of the tooling supplied by WNT is milling-related and the two companies work together to find the best and most efficient cutting solutions. A typical case in point is the machining of inserts and strips from 2767 toolsteel. 'The method that we have traditionally used to machine these parts has involved an indexable insert cutter,' says Adriano Ruocco, one of Amtek's skilled Development Engineers. 'We have now switched this to WNT's solid carbide MCR cutters for roughing and finishing operations. The difference is amazing. We are running the 12mm diameter MCR cutters at 5300revs/min and 1900mm/min feedrate with a 12mm depth of cut at full width. The result is that we can now get seven inserts from each strip of material where we only achieved six before, and we have reduced the process time by three hours.'

These productivity gains are further enhanced by the consumable cost savings being made since the switch to solid carbide cutters. 'To complete a set of mould inserts would require at least two changes of inserts,' says Adriano Ruocco. 'With 12 inserts involved at £6.00 each the cost was becoming an issue. Now, we can complete the same work with one MCR cutter. Not only that, because of the confidence we have in the cutter completing the machining process without failing, we can leave the machine running at the end of the shift, thus gaining even more time back.'

The ability to run unmanned with these cutters is also allowing Amtek to use its dayshift much more efficiently and machine downtime is being reduced dramatically. MCR cutters are the third new product that has been introduced by Amtek in recent months, and this willingness to try new cutting strategies, and the ability of WNT with its technical support to deliver the product and know-how, is creating a successful partnership that will continue to deliver improvements.

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