Benefits of Angular Heads

How to increase machining productivity

If you have experienced poor machining productivity, there is an accessory that could help you improve productivity and increase profits: angular heads.

Here’s why.

One-touch
When starting machining, you have to load the heavy workpiece onto the table, set up tools, calibrate, program, clamp the head, position and tool change by yourself. This may take 20 to 30 minutes. When the first face is machined, you have to reverse the workpiece to machine the other sides. Suppose the workpiece has five faces for cutting, you have to repeat this process four times. This wastes time doing a job that does not increase productivity.

An automatic angular head can eliminate machining downtime.

An automatic angular head can eliminate this problem. With an angular head, you load your workpiece onto the table, finish all the setup then “cycle start” and your workpiece is machined with one touch. All changing processes, including clamping the head, positioning, tool change and more, can be done automatically. You don’t waste time on reversing heavy workpieces, tool changes, and tool clamping and unclamping. All you need is the automatic angular head equipped on your machine.

Types of heads
There are various heads on the market, such as automatic, manual and semi-auto universal and 90° models. The functions of angular heads for various manufacturers are different; some may have more specific functions for your machine.

- 90° head: five-face cutting
- Universal head: multi-face cutting at any angle

Indexing of heads can be divided into three types: 5°, 2.5° and 1° with this last one being the latest technology on the market.

For example, today you have a workpiece with 36° for cutting. If your head is 5° and 2.5°, then it is impossible for your machine to cut. But if your head is indexing 1°, you can do it, and you can cut any angle that you need. So when you select the angle head, purchase one that is suitable for your cutting operations. If you are confused, just ask your application engineer and they will provide you with the best choice.

Where angular heads work best
Angular heads are used primarily for double column machining centres. They are well suited to industries such aerospace, die and mould and energy, where workpieces typically require heavy cutting. If the machine does not have an angular head, the machinist will have to spend more time reversing the workpiece.

Angular heads can help to increase productivity in multi-face milling for some complex and heavy workpiece, side milling and many other machining operations.

If you want to increase machining productivity and profits, angular heads may be a good option to consider. SMT