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**Polygon turning**

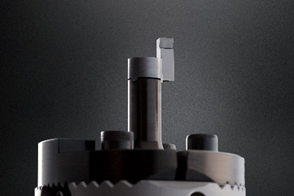
Polygon turning for continuous series production

Paul Horn GmbH is proud to present a technique for turning non-circular contours. By adopting an axial feed approach, the tools enable you to produce non-circular contours on lathes consistently. This technique makes it easier to produce polygon shapes, for example. During operation, the workpiece and tool axes are offset in relation to one another and a specific speed ratio is established between them. The tools are suitable for external or internal machining alike. Together, the axis offset, workpiece-to-tool speed ratio and circle of rotation of the cutting edge define the dimensions of the contour. Every tool system for polygon turning (non-circular turning) is individually tailored to the workpiece contour to be produced in each case.

The technique is highly suitable for series production processes because no jerky movements or reversals of motion occur during machining. Within this context, adjustable fine-boring heads can be used. However, mass balancing and fine adjustment of the cutting edge are absolutely vital to ensuring a reliable process. Horn offers the polygon turning tool system whenever it receives enquiries from customers who are looking to produce splines, polygons and other shapes in a cost-effective manner. To create internal contours with polygon turning, Horn relies on the Supermini and Mini tool systems. External contours, on the other hand, can be created using the 274 double-edged indexable insert or ISO tools.

*1.508 characters incl. spaces*

**Image captions:**

**Image:** The tool system is based on the Mini 114.

**Text:** Paul Horn GmbH, Nico Sauermann

**Image:** Horn/Sauermann

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