

PRESS RELEASE



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Broaching square holes

Paul Horn GmbH is expanding its broaching product range with the addition of tool geometries for broaching square holes. Users can choose the appropriate size of tool from the N105, N110 and N117 systems according to the size of square they want to produce. The N105 and N110 systems are suitable for WAF sizes from 4 mm (0.157") to 13 mm (0.512"). For WAF sizes from 13 mm (0.512") to 22 mm (0.866"), the N117 system needs to be used instead.

Horn initially enhanced the product range back in 2019 by introducing internally cooled tool holders. The new tool holders allow coolant to flow through the insert seat as well as to the side of it for optimized cooling during broaching. In addition, the geometries have been adapted for use in broaching units and for turret broaching. The targeted cooling reduces tool wear, in turn increasing the tool life and improving the quality of the workpiece surface. Thanks to the internal coolant supply, cooling is ensured in the contact zone even when cutting deep grooves. What's more, the stronger flushing action improves chip removal, reducing the risk of chip build-up.

The ability to carry out broaching on CNC machines offers the user several advantages. Grooves can be cut in a workpiece in a single clamping without having to reclamp the workpiece. This broaching process allows geometries of any kind to be produced, from gears, keyways, squares and helical grooves right through to curved grooves. It represents a cost-effective alternative to conventional broaching because it can be used on virtually any CNC lathe.



Above: Users can choose the appropriate size of tool from the N105, N110 and N117 Horn systems according to the size of square they want to produce.



Above: The targeted cooling on the new Horn tool holders reduces tool wear.