

# Newsletter

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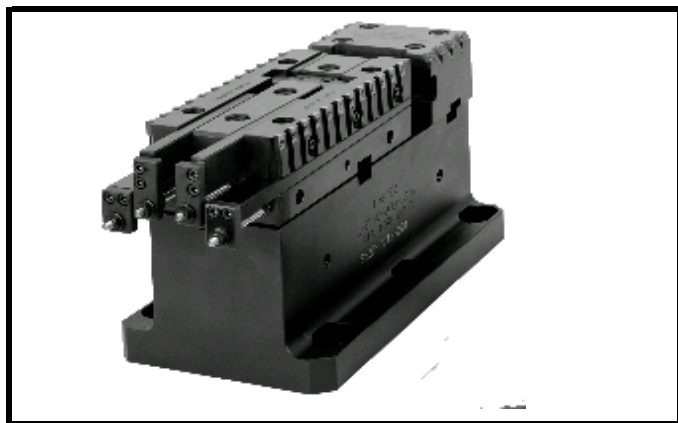
# Master Tool

**Innovators of Special Design & Build Tooling Systems**

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A few months ago, Master Tool was asked by General Motors de Mexico to provide a simpler solution for their existing bearing cap broaching operation at their Toluca plant.

Their existing broach consisted of 28 individually adjusted triangle inserts. These inserts sat in an angled pocket with a wedge clamp. Among the many problems with this style included the fact that when adjustment was made in one direction (ie. radially) movement was also automatically made in the axial direction - even though no movement was necessary axially.

Tool life on the existing broach was not bad (approximately 10,000 hits) but when new inserts were changed or indexed to a new edge a minimum of 10-12 hours was necessary to set the broach. Any adjustment on-line to adjust for tool wear was virtually impossible.

Master Tool suggested a broach design that consisted of fixed pocket inserts in the leading pockets with adjustment only in the last two (2) pockets on each side of the broach.

The adjustable pockets utilized a simple cam adjustment for the insert. These last few finishing inserts are mounted to quick change blocks with a DIN HSK connection and are pre-settable off-line with a pre-set gage.

This new concept broach block is currently running production parts in Mexico with great success. It now takes less than one (1) hour to preset the tools. It is also possible to make minor adjustments on-line to adjust the finishing inserts for tool wear. The tool life projection is far greater than the old competitor's design.

If you are currently broaching with either brazed or antiquated insert designs, contact Master Tool for a solution.