

Training

# Cutting Tool Geometries

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Efficient metalcutting requires using the properly shaped tool for the task. These cutting tools are all described by their angles or geometries. To better understand these angles, this short video, part of the Fundamental Manufacturing Processes Video Series by SME, examines single-point turning tool and toolholder geometries, and milling and multi-point tool geometries.

## Video Highlights

- Insert type tool holders for turning are made of steel and consist of a shank, a head, pocket and clamping hardware.
- Tool holder pockets are machined to accurately locate and orient the insert.
- There is a wide selection of tool holders and boring bars. They are designated by the shank size, hand of the tool, method of clamping, insert shape, size, style and rake angle.