

Some Reamer Nomenclature

(According to ANSI Standards B94.2)

Axis	The imaginary straight line which forms the longitudinal center line of a reamer, usually established by rotating the reamer between centers.
Back Taper	A slight decrease in taper, from front to back, in the flute length of the reamer.
Chip Breakers	Notches or grooves in the cutting edges of some taper reamers designed to break the continuity of the chips.
Circular Land	See Margin below.
Chamfer	The angular cutting portion at the entering end of a reamer. See Fig. 4 on page 42.
Core	The central portion of the reamer below the flutes which joins the lands.
Flutes	Longitudinal channels formed in the body of the reamer to provide cutting edges, permit passage of chips, and allow cutting fluid to reach the cutting edges.
Guide/BackPilot	A cylindrical portion following the flutes of a reamer to maintain alignment.
Hand of Cut (Left)	When viewed from the cutting end, the reamer must revolve clockwise to cut.
Hand of Cut (Right)	When viewed from the cutting end, the reamer must revolve counter clockwise to cut.
Helix Angle	The angle which a helical cutting edge at a given point makes with the axial plane through the same point. See Fig. 4 on page 42.
Land	The section of the reamer between adjacent flutes.
Lead of Flute	The axial advance of a helical or spiral cutting edge in one turn around the reamer axis.
Margin	The unrelieved part of the periphery of the land adjacent to the cutting edge. See Fig. 1 on page 42.
Pilot	A cylindrical portion preceding the entering end of the reamer body to maintain alignment.
Rake	The angular relationship between the cutting face, or a tangent to the cutting face at a given point and a given reference plane or line. See Fig. 1 on page 42.
Relief	Result of the removal of tool material behind or adjacent to the cutting edge to provide clearance and prevent rubbing (heel drag).
Taper per foot	The different in diameter between two points 12 inches apart measured along the axis.

Hand of Flute Helix

A reamer has *Right Hand Helix* when the flutes twist away from the observer in a clockwise direction when viewed from either end of the reamer.

A reamer has *Left Hand Helix* when the flutes twist away from the observer in a counter clockwise direction when viewed from either end of the reamer.