

Bottoming Tap - A tap having a chamfer length of 1-2 Threads

Chamfer - The tapering of the threads at the front end of each land of a chaser, tap or die by cutting away and relieving the crest of the first few teeth to distribute the cutting action over several teeth.

Chamfer Angle - The angle formed between the chamfer and the axis of the tap or die by cutting away and relieving the crest of the first few teeth to distribute the cutting action over several teeth.

Crest - The surface of the thread which joins the flanks of the thread and is farthest from the cylinder or cone from which the thread projects.

Flank - The part of a helical thread surface which connects the crest and the root and which is theoretically a straight line in an axial plane section.

Flute - The longitudinal channel formed in a tap to create cutting edges on the thread profile and to provide chip spaces and cutting fluid passage.

Hand of Threads - A thread, when viewed axially, winds in a clockwise and receding direction for LEFT HAND THREADS and counterclockwise and receding direction for RIGHT HAND THREADS.

Hook, Chordal - A concave face having an angle of inclination specified between a chord passing through the root and crest of a thread form at the cutting face, and a radial line through the crest at the cutting edge.

Hook, Tangential - A concave face having an angle of inclination specified between a line tangent to the hook surface at the cutting edge and a radial line to the same point.

Hook Angle - The angle of inclination of a concave face, usually specified either as CHORDAL HOOK or TANGENTIAL HOOK.

Interrupted Thread Tap - A tap having an odd number of lands with alternate teeth in the thread helix removed. In some cases alternate teeth are removed only for a portion of the thread length.

Land - One of the threaded sections between the flutes of a tap.

Lead of Thread - The distance a screw thread advances axially in one complete turn. On a single start tap the lead and pitch are identical. On a multiple start tap the lead is the multiple of the pitch.

Major Diameter - The diameter of the major cylinder or cone, at a given position on the axis, that bounds the crests of an external thread or the roots of an internal thread.

Minor Diameter - The diameter of the minor cylinder or cone, at a given position on the axis, that bounds the roots of an external thread or the crests of an internal thread.

Pitch Diameter - The diameter of an imaginary cylinder or cone, at a given point on the axis, of such a diameter and location of its axis that its surface would pass through the thread in such a manner as to make the thread ridge and the thread groove equal and, therefore, is located equidistant between the sharp major and minor cylinders or cones of a given thread form. On a theoretically perfect thread, these widths are equal to one half of the basic pitch (measured parallel to the axis).

Plug Tap - A tap with 3 to 5 chamfered threads.

Spiral Point - The angular fluting in the cutting face of the land at the chamfered end. If is formed at an angle with respect to the tap axis of opposite hand to that of rotation. Its length is usually greater than the chamfer length and its angle with respect to the tap axis is usually made great enough to direct the chips ahead of the tap. The tap may or may not have longitudinal flutes.

