Tapping Formulas

Formula for Obtaining Tap Drill Sizes for Cutting Taps:

$$\text{Major Dia. of Thread} - \frac{.01299 \times \text{Amt. of percentage of full thread}}{\text{No. of threads per inch}} = \text{Drilled Hole* Size}$$

Note: Select nearest commercial stock drill.

Percentage of Full Thread for Other Drill Sizes

$$\text{No. of Threads per Inch} \times \frac{\text{Major Dia. Selected of Thread} - \text{Drill Dia.}}{.01299} = \text{Percentage of Full Thread}$$

Formula For Obtaining Tap Drill Sizes For Thread Forming Taps:

$$\text{*Drill Hole Size (inches)} = \text{Basic Major Dia. of thread (inches)} - .0068 \times \frac{\text{Percentage of Full Thread}}{\text{No. of Threads per Inch}}$$

$$\text{*Drilled Hole Size (mm)} = \text{Basic Major Dia. of thread (mm)} - \frac{\text{Percentage of Full Thread X mm Pitch}}{147.06}$$

*Note: Drill size should be smaller than hole size by the probable amount the drill will cut oversize.