Proper tapping speeds are very important in obtaining efficient tapping results. There are many factors which affect proper tapping speeds, some of which are listed below:

MATERIAL FACTORS:
- Thermo-conductivity of the material and wall thickness as it affects heat dispersion
- Variations in carbon content of steel
- Hard spots in material
- Depth of hole to be tapped
- Percentage of full thread to be tapped

TAP FACTORS:
- Major diameters, pitch and lead
- Style of tap
- Width of lands
- Amount of hook or rake
- Length of chamfer
- Bottoming Taps normally require slower speeds than Plug Chamfered Taps

MECHANICAL FACTORS:
- Type of tapping machine and holder
- Speeds for small diameter taps are often governed by the limitations of the machine
- Condition of tapping machine and spindle
- Type of fixture
- Vertical or horizontal tapping (faster speeds for vertical tapping)
- Method of feeding the tap
- Cutting fluid used and method of application

The optimum speed for tapping is the highest speed that conditions permit, consistent with economic tool life.

Proper tapping speeds are determined best by experiment. In the table above, speeds shown should be used as a guide only, and the suggested surface feet per minute adjusted upward or downward until the best results are obtained.