

Work Piece - All Applications:

- ✓ What are the size and depth of the hole ?
- ✓ Will it be a through or blind hole ?
- ✓ Is the hole drilled to the correct size ?
- ✓ Is the work piece rigidly held against rotation and upward movement ?
- ✓ If tapping a bottom-hole, does drilled depth allow for chamfer teeth of tap and sufficient clearance to keep tap from bottoming out in hole ?
- ✓ What is material and hardness of the work piece ?

Tap - All Applications:

- ✓ Do you have the correct tap design for the application?
 - ✓ What are the tap sizes and styles ?
 - ✓ What material is the tap made from ?
 - ✓ Is the tap sharp ?
 - ✓ Is the tap properly aligned with the drilled hole ?
 - ✓ Is there sufficient clearance between the tap and the hole to allow for retraction ?
 - ✓ Who is the tap manufacturer ?
- What speed do they recommend for optimum performance of their tap in this material ?

Machine Tool Manual - Applications

- ✓ Is machine stop set so the tap releases in neutral to prevent bottoming ?
- ✓ Is the machine retraction correct for tapping attachment being used ?
- ✓ Is the torque control set to prevent tap breakage ?
- ✓ Is depth control set to correspond with machine stop to provide the total thread depth required and prevent bottoming ?

Manual - Applications

- ✓ Is machine stop set so the tap releases in neutral to prevent bottoming ?
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CNC Applications

- ✓ What type of machine is in use ?
- ✓ What is the horsepower ?
- ✓ What is the spindle taper ?
- ✓ What is the method of fixturing ?
- ✓ Are machine feed and speed set correctly ?

The machine retraction must be correct for the tapping attachment being used.

- ✓ What is the feed rate ?
- ✓ What is the actual tapping speed ?
- ✓ What is the clearance plane height ?
- ✓ Is the potentiometer canceled ?
- ✓ Be sure to follow programming instructions for the tool.
- ✓ When using a self-reversing head, has the ramp, dwell or exact stop been disabled ?

COARSE THREADS - - - Advantages:

- Easier and faster assembly, providing a better start with less chance of cross threading.
- Nicks and burrs from handling are less liable to affect assembly.
- They are less likely to seize in temperature applications and in joints where corrosion will form.
- Less prone to strip when threaded into lower strength metals.
- More easily tapped in brittle materials and or materials that crumble easily.

FINE THREADS - - - Advantages:

- They are about 10% stronger than coarse threads due to their greater cross-section area.
- In very hard materials, fine threads are easier to tap.
- They can be adjusted more precisely because of their smaller helix angle.
- Where length of engagement is limited, they provide greater strength.
- Thinner wall thickness can be used because of their smaller thread cross section.

TAPPING CHECKLIST

1-800-328-4655 (Personnally answered) • **1-800-328-4654** (Electronically answered)

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