

EML2322L Example Tapped Hole Quiz #3

Based on the information presented in the lab and lecture, *explain the exact tools and sequence used to tap a 6mm thread into a steel workpiece on a manual milling machine.*

THREAD SPECIFICATION (i.e. 10-24, 1/4-20, M6x1.0, etcetera): _____

SEQUENCE & TOOLS (be explicit with regard to tool names and sizes):

1. Find part zeros using a(n) _____ and the DRO to locate the sides of the part and set datums
2. Use a(n) _____ to accurately locate and begin drilling the hole
3. Use a(n) _____ (of size _____) to finish drill the hole to final size for threading
4. Load a(n) _____ into the spindle to ensure the hole is tapped normal to the part's surface
5. Thread the hole using a(n) _____, tap handle and cutting oil

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THREAD SPECIFICATION (i.e. 10-24, 1/4-20, M6x1.0, etcetera): M6x0.75

SEQUENCE & TOOLS (be explicit with regard to tool names and sizes):

1. Find part zeros using a(n) edge finder and the DRO to locate the sides of the part and set datums
2. Use a(n) center drill to accurately locate and begin drilling the hole
3. Use a(n) tap drill (of size Ø0.5.50mm or Ø7/32") to finish drill the hole to final size for threading
4. Load a(n) tap guide into the spindle to ensure the hole is tapped normal to the part's surface
5. Thread the hole using a(n) M6x0.75 tap, tap handle and cutting oil