

## EML2322L Example Tapped Hole Quiz #2

Based on the information presented in the lab and lecture, *explain the exact tools and sequence used to tap a #8 thread into an aluminum workpiece on a manual milling machine.* A similar quiz must be correctly completed by all team members to use the CNC milling machine to drill and tap the holes in your second lab hub; otherwise you must perform these operations on the manual machines for the necessary practice.

**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):** 8-32 UNC

**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 Ø0.136") 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) 8-32 UNC tap, tap handle and cutting oil