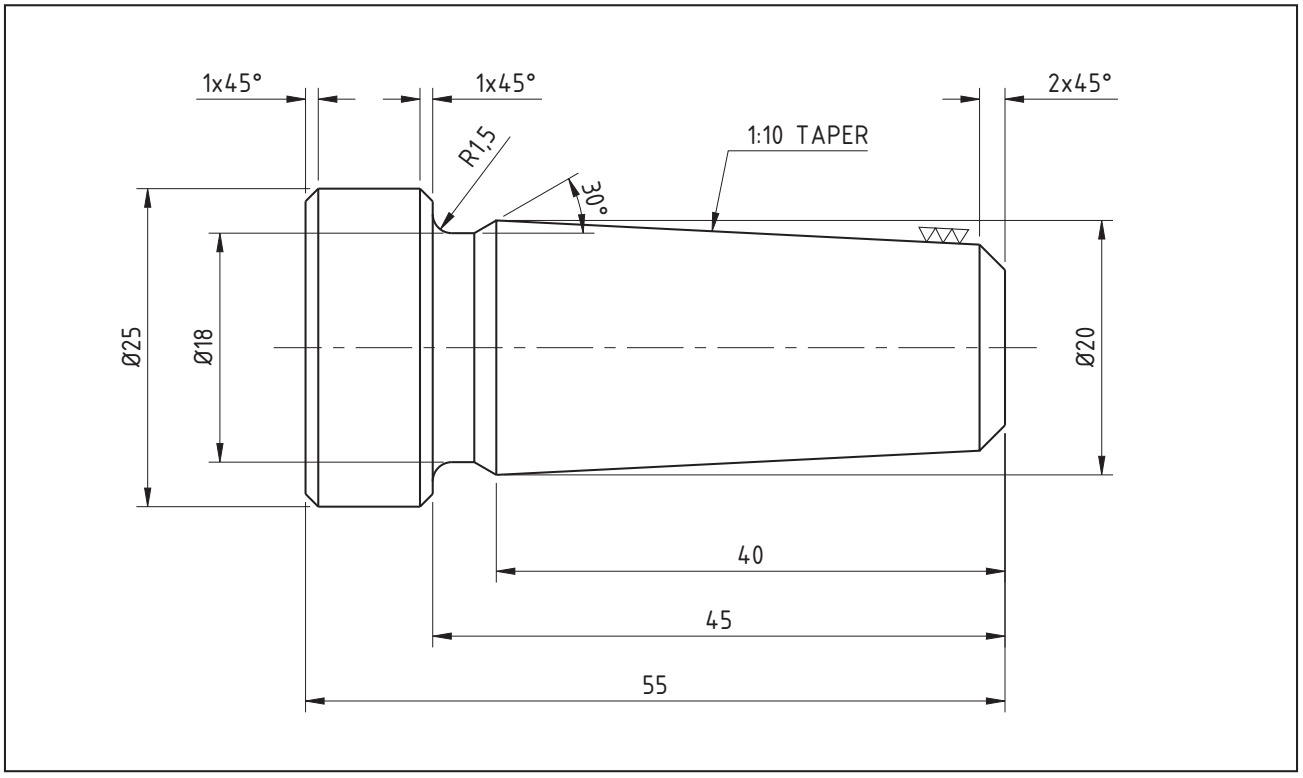
34-10 Taper Pin Metric

Taper machining on a CNC lathe is an operation used for various pins, shaft ends, and as a premachining operation for tapered threads. In the project, a taper is defined by *METRIC* designation, as a *taper ratio*.



➔ To develop the part program, follow these instructions:

1. Use an aluminum bar stock of ∅25.4 (1.0 inch)
2. Use a 55° turning tool with 3° lead angle
3. Use 3 mm wide part off tool (3.175 mm = 0.125 inches can be substituted)
4. Machine to drawing specifications

➔ Questions:

1. Define metric taper ratio _____

_____

2. Develop a formula to calculate the *small taper diameter* (d), based on the *taper length* (L), the *large diameter* (D) and the *taper ratio* (T):