

MANU150 Lathe Test Process Plan

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Stock selection

1. Start with $\phi = 1.675$ " Aluminum round bar, length max/min = $2'/3$ ".

Bandsaw

2. If necessary, cut off 2' length of round bar.

CNC Lathe

3. Load material into 3-jaw chuck with 2.25" stickout.
4. Face material.
5. Turn first outer diameter to $\phi = 1.510$ " rough dimensions.
6. Turn second outer diameter to $\phi = 1.010$ " rough dimensions.
7. Turn first chamfer to rough dimensions.
8. Turn second chamfer to rough dimensions.
9. Take contour pass to finish to final dimensions.

Bandsaw

10. Cut off part at shoulder.

Manual Lathe

11. Face to final length.
12. Deburr as needed.

Table 1: Inspection Report

Dimension	Value	Max	Min	Actual	In Tol?
Outer Diameter	1.500"	1.505"	1.495"		
Length	2.000"	2.005"	1.995"		