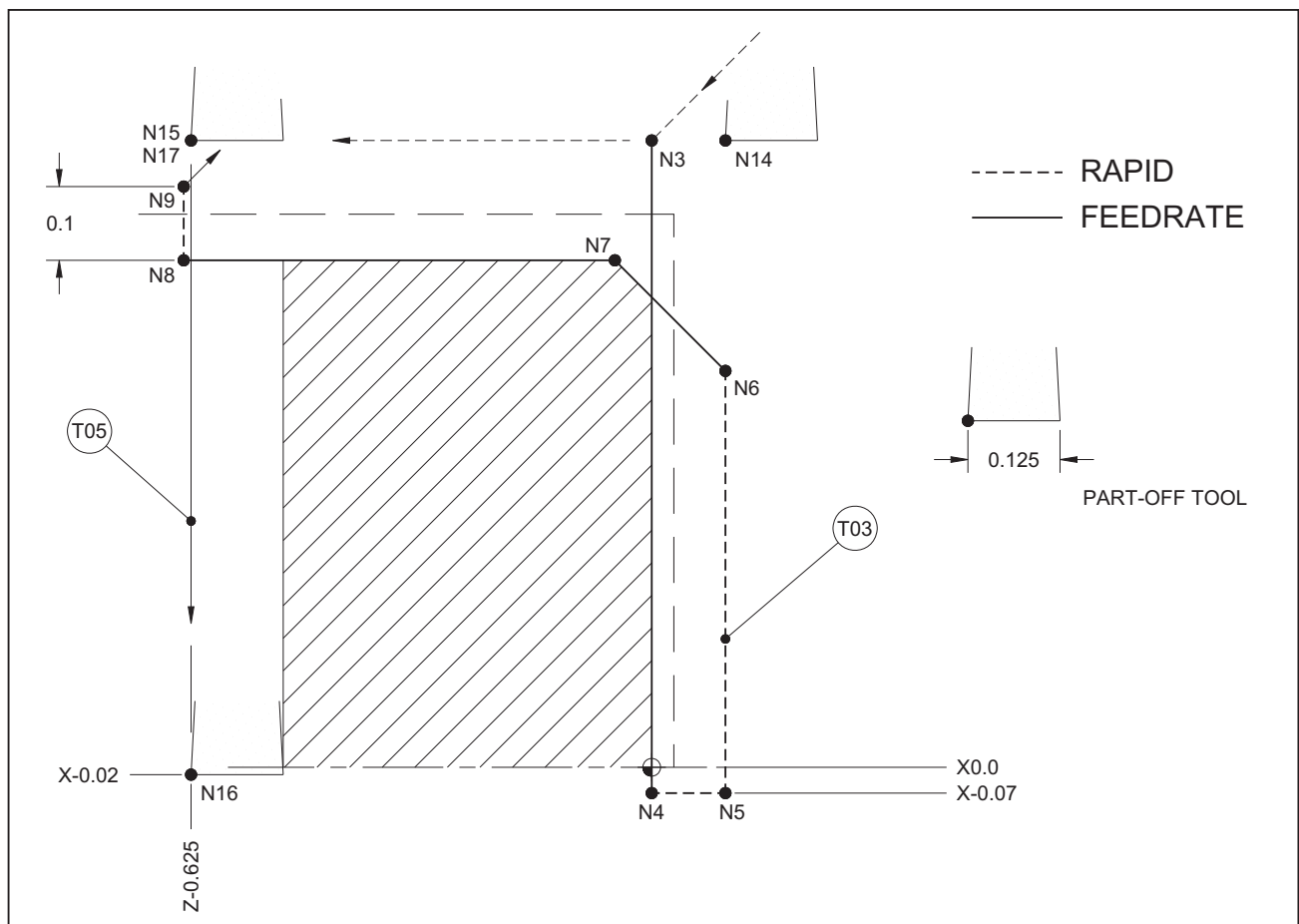


Simple Lathe Project - 1 of 4

The illustration shows the block numbers corresponding to those in the program. In the *Part 1* of the *Simple Lathe Project*, the operations include:

- ➡ FACING ... identified by blocks N3-N5
- ➡ CHAMFERING ... identified by blocks N6-N7
- ➡ TURNING outside diameter ... identified by blocks N7-N9
- ➡ PART-OFF ... identified by blocks N14-N17



(SIMPLE LATHE PROJECT - PART 1 OF 4)
(TO BE USED IN ORDER OF PART 1 TO PART 4)
(PROJECT ILLUSTRATES THE CONCEPT OF CNC LATHE PROGRAMMING)

(34-05 - PART 1 OF 4)
(1.5 DIA ALUMINUM BAR - EXTEND BAR 1.0 OFF FRONT JAWS FACE)

| | |
|----------------------------------|---------------------------------------|
| (T03 - FACE & TURN - OD) | |
| N1 G20 G50 S2500 T0300 | (INCHES - 2500 RPM MAX - T03) |
| N2 G96 S450 M03 | (450 SFPM - SPINDLE CW) |
| N3 G00 X1.7 Z0 T0303 M08 | (START FOR FACING-OFFSET 03-COOLANT) |
| N4 G01 X-0.07 F0.004 | (FACE OFF TO BELOW CENTER LINE) |
| N5 G00 Z0.1 | (CLEAR AWAY 0.1) |
| N6 G42 X1.075 | (COMPENSATION RIGHT-START OF CHAMFER) |
| N7 G01 X1.375 Z-0.05 F0.003 | (CUT CHAMFER 0.05 X 45 DEG) |
| N8 Z-0.635 F0.005 | (CUT DIA 1.375) |
| N9 G00 U0.2 | (CLEAR 0.1 ABOVE DIA) |
| N10 G40 X4.0 Z5.0 T0300 | (COMP OFF-CLEAR TOOL CHG POS) |
| N11 M01 | (OPTIONAL STOP) |
| | (BLANK LINE FOR CLARITY) |
| (T05 - 0.125 WIDE PART-OFF TOOL) | |
| N12 T0500 | (TOOL CHANGE - T05) |
| N13 G97 S1750 M03 | (1750 RPM - SPINDLE CW) |
| N14 G00 X1.7 Z0.1 T0505 | (CLEAR POSITION AT FRONT) |
| N15 Z-0.625 | (START POS AT END OF PART) |
| N16 G01 X-0.02 F0.0015 | (PART-OFF TO 0.02 BELOW CENTERLINE) |
| N17 G00 X1.7 | (RAPID TO CLEAR ABOVE PART) |
| N18 X4.0 Z5.0 T0500 | (RAPID TO TOOL CHG POSITION) |
| N19 M30 | (END OF PROGRAM) |
| % | (END OF FILE TRANSFER) |