

Tool List Checklist

The following items must be present on the tool list that the Trainee submits for evaluation.

Item	Present?	Notes
Part number/ID/name		
Date		
Programmer name		
Machine used for operation <i>Separate tool lists will be needed if different machines are used for different operations.</i>		
Operation number <i>Ex. Op1 or All Operations</i>		
CNC file name (program name) <i>Can serve as operation number ID as well if clear</i>		
Tool number		
Cutter compensation details <i>Is cutter compensation used? Type of compensation? Offset number?</i>		
Tool short description <i>Ex. .500 3FL EM 1.25 LOC (also note if it is rougher or finisher if multiple of the same tool are used)</i>		
Tool assembly geometry fully defined <i>By dimension table or dimensioned sketch or combination of both (Diameter, number of Flutes, Length of cut, Length below shank, extension out of holder, hold geometry, etc.)</i>		
Exact tool holder part number/name <i>If needed for clearance, typed and or sketched with dimensions</i>		
Tool manufacturer part number/ other needed info <i>Ex. modifications made to off-the-shelf tool such as neck relief, corner radius, etc.</i>		

Process Plan Checklist

The following items must be present on the process plan that the Trainee submits for evaluation.

Item	Present?	Notes
Part number/ID/name		
Date		
Planner/programmer name		
Machine used for operation <i>Ex. Vertical CNC mill, Knee mill, etc.</i>		
Material <i>Type, heat treat condition if applicable, size</i>		
Fixturing used and method of holding for each operation <i>Ex. Hold in 6" vise with steel hard jaws</i>		
Describe orientation of part for each operation <i>Ex. Datum A facing down on parallels, clamping parallel to datum B in vise jaws</i>		
Describe what will be used to locate part if needed <i>Ex. Using outside profile or boss/hole to locate part</i>		
Describe major features being finished in each operation and if stock is left on roughed features <i>Ex. Finish face, finish profile, leave thru bore $+.010"$ on diameter for op2</i>		

Setup Sheet Checklist

The following items must be present on the setup sheet that the Trainee submits for evaluation.

Item	Present?	Notes
Part number/ID/name		
Date		
Programmer name		
Machine and Control <i>Ex. Haas VF-2 CNC mill</i>		
Operation number <i>Ex. Op1</i>		
Stock size and type <i>For named operation only</i>		
Sketch(es) <i>Showing stock, holding method (vise jaws etc.), program zero location relative to stock, multiple orthographic views if needed</i>		
Work offset (if used) <i>Ex. G54</i>		
Work offset zero locations for each programmed axis <i>Ex. x0 = left edge of stock, y0 = fixed jaw edge of stock, z0 = bottom of stock</i>		
Description of fixturing (if used) <i>Include sketch if needed for detail</i>		
Describe holding depth or extension (if applicable) <i>Ex. Hold no more than .200" in vise jaws</i>		
Clamping pressure if applicable <i>Ex. Vise torque.</i>		
Description of work stop location (if used) <i>Ex. Set vise stop off left edge of stock below top of vise jaws</i>		
Short operation summary <i>Ex. Op faces top to finish, finishes outside profile, drills holes on datum A face</i>		