

COMPETENCY ASSESSMENT: CNC Router

**Prerequisites:** All personnel undertaking this assessment must have previously completed the following;

- Read CNC Router Risk Assessment, **Task ID. 36697** and associated Standard Operating Procedure, **SP-091**,
- Complete local Workshop Induction.

**Competency:** Utilize a CNC Router to rout material within a workshop in accordance with occupational health and safety standards.

**Operations:** This assessment should take place in any EAIT Faculty Workshop equipped with a CNC Router. The assessor is required to assess all aspects of the competency regarding the following operations;

1. *Pre-operational checks,*
2. *Operation\Startup of equipment and rout material,*
3. *Housekeeping.*

**Instructions:** Each intended user of the equipment is required to complete an individual competency assessment, detailed in Section 1 below. Each element is to be assessed and the results recorded below. The actions used and evidence gained to assess competency (listed in Appendix A) are recorded against each criteria. Users are then required to answer the questions in Section 2 and then sign and date this document.

**Notes:**

Evidence of competency allows the user access to the equipment only for the tasks assessed. Proof of competency does not permit the assessment of untrained personnel's competency using this equipment. Only authorised persons are permitted to assess the competence of others in this process. Competent users will be required to be re-assessed on any related changes to the operating procedures of this equipment.

## 1. Operational Assessment

Element of competency	Performance criteria	Operation /Scenario	Self-assessment		Assessor review		Action/evidence (Refer to Appendix A)
			Competent	Not yet competent	Competent	Not yet competent	
Pre Operational Checks	Locate the GPO and ensure that the equipment is not tagged out of service.	1					
	Locate on / off button	1					
	Emergency Stop	1					
	Air supply shut off valve	1					
	Locate pinch points	1					
	Check condition of sacrificial sheet and surrounding work area is clean	1					
	Tool carousel	1					
	Main spindle	1					
Create, save and send job file	Define plate values	2					
	Import job file geometry and position on plate	2					
	Assign cutting paths with feed speed, spindle speed and tool compensation ( internal external cut )	2					
	Output, to file and save to CNC	2					

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Element of competency	Performance criteria	Operation /Scenario	Self-assessment		Assessor review		Action/evidence (Refer to Appendix A)
			Competent	Not yet competent	Competent	Not yet competent	
Operation of CNC Router	Use control jog to move gantry	3					
	Select piece of suitable material and position against X Y stops	3					
	Select file and load	3					
	Preview file to check geometry	3					
	Press start key to engage vacuum suction on table	3					
	Ensure the correct tool is selected to start job	3					
	Ensure material is secure	3					
	Press start to cutting your job out	3					
	Supervise machine whilst running	3					
Shut down Machine	Follows correct shut down and correct clean up procedure of the timber and sawdust.	4					

## 2. Review Questions

Answer the following questions in the spaces provided. If you have any questions please ask the assessor. You may refer to the Risk Assessment, Standard Operating Procedure (SOP) or your notes if required. Once complete, insert your name and details in the space provided and return the completed form to the assessor.

**2.1 Which personal protective equipment is mandatory when using the CNC Router?**

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**2.2 Press PAUSE, & wait for spindle to retract and come to a complete standstill before reaching in/over table? True or False?**

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**2.3 Why is a sacrificial board used?**

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**2.4 Name four potential hazards associated with using the CNC Router?**

1)

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2)

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3)

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4)

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Authorisation					
Employee\Student name	Employee\Student signature	Date	Unit	Assessor name	Assessor signature

**Appendix A**

Possibilities for Action items		Possibilities for evidence	
<b>A</b>	Watch video	<b>1</b>	Direct observation of performance during work
<b>B</b>	Review procedures	<b>2</b>	Direct observation of performance during simulation
<b>C</b>	Attend central training	<b>3</b>	Return demonstration during training
<b>D</b>	Observe other staff	<b>4</b>	Completed end product, form or document
<b>E</b>	On the job training	<b>5</b>	Verbal assessment
<b>F</b>	Be mentored by person with these skills	<b>6</b>	Written assessment
<b>G</b>	Role play with other staff	<b>7</b>	>1 year Post-training trade experience
<b>H</b>	Online course	<b>8</b>	Other – Provide details
<b>I</b>	Technical trade training		
<b>J</b>	Other – Provide details		