

CNC Operator – Responsibilities and Procedures

1 Run the CNC

Material Selection

- Select material based on the **blueprint** and **project name** (species, thickness, finish side).
- Inspect boards/sheets for **defects, warps, or discoloration** before cutting.
- Match **grain direction** with drawings so panels and doors align visually.

Machine Setup

- Change **router bits** and **tool cones** as needed.
 - Verify **tool number** and **diameter**.
 - Set **tool length (Z)** accurately.
 - Ensure each **tool cone is clean** before installation.
- Load the correct **program**, set tools, and adjust if something sounds wrong.
- Perform a **first-piece check**: measure parts and adjust offsets if necessary.
- Make **small program edits** as needed to improve cut quality.

Key Skills

- CNC setup and tool management
- Blueprint reading and **grain/veneer orientation** understanding
- Accurate measurement using **calipers** and **tape measure**

Post-Cut Handling

- **Label parts** with stickers (job name, part number).
- **Stage parts** properly for the next process (edgebanding, sanding, or assembly).

2 Maintenance & Troubleshooting

Daily & Scheduled Maintenance

- Clean the **CNC machine** at the end of every day.
- Follow **preventive maintenance** schedule:
 - Vacuum bed, rails, and toolboard.
 - Blow out tool cones and wipe taper faces.
 - Check **tool runout** and replace worn bits.

Troubleshooting

- If alarms or chatter occur, quickly check:
 - Tool wear or breakage
 - Vacuum leaks
 - Clamping issues
 - For bigger problems:
 - Contact the **technician**.
 - Explain clearly what you've already tried.
-

3 Inventory & Material Flow

Material Handling

- Receive material using the **inventory spreadsheet**:
 - Count, verify, and mark items as received.
- Order new material as needed and **update inventory numbers** regularly.
- Place sheets on the correct rack using the **forklift**.

Material Distribution

- Deliver material to other shop areas (e.g., **Taping, Veneer**) as required.
- Manage **offcuts**:
 - Keep usable sizes.
 - Mark and store them neatly for future use.

Labeling

- Mark all material and parts with the **project name** and **destination area**.
-

General Shop Responsibilities

- **Forklift:** Perform daily safety checks and report issues.
 - **Wood bin:** Keep clean, schedule pickups, and avoid overflow.
 - **Dust collector:** Monitor level, arrange pickups, and ensure no overflow.
 - **Shop KPIs:** Update regularly as assigned.
-

5 **Blueprints & Quality Control**

- Read and understand **drawings** and **cut lists** before cutting.
 - If something doesn't make sense — **flag it immediately**.
 - Measure all parts for:
 - Hole positions
 - Squareness
 - Overall size
 - Veneer direction
 - Maintain proper tolerances.
 - If a part is wrong:
 - Separate it.
 - **Rework or scrap** according to shop rules.
 - **Document** the issue.
-

Skills Summary

- Forklift operation and **safe material handling**
- Basic computer use (spreadsheets, labels, logging)
- Clear communication with **Engineering, Finishing, and Assembly** teams

 **Daily Checklist**

Start of Shift

- Forklift check
- Dust collector and wood bin inspection
- Review today's jobs and blueprints
- Plan grain direction for panels
- Check router bits and tool cones — clean and seated properly

End of Shift

- Clean CNC and surrounding area
- Update inventory and logs
- Report any problems
- Prepare material for the next job