



# 04

## Shaping

### 4.1 Spindle Shaper

# 4.1.2 Edge Shaping a Profile

Candidate Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_ Location: \_\_\_\_\_

Completed test successfully:  Yes  No (If no, reason:) \_\_\_\_\_

## Pre-Operation Checklist

### Level 1

**PERFORMANCE STANDARD:**

- ▶ Verifies tool is properly guarded.
- ▶ Demonstrates knowledge of and proper use of all machine specific controls.
- ▶ Ensures paths of in-feed and out-feed have no obstructions to material and operator.
- ▶ Verifies jigs and/or fixtures are secure and operating effectively.
- ▶ Verifies hold-downs are positioned correctly at in-feed and out-feed for clearance to feed material.
- ▶ Verifies dust collection is positioned for effective chip removal.

### Level 2

**PERFORMANCE STANDARD:**

- ▶ Verifies cutting tools are secure and free of defects.
- ▶ Installs cutting tool properly and verifies cutter rotation.
- ▶ Sets spindle rotation correctly.
- ▶ Sets spindle speed correctly.
- ▶ Verifies feed table is free of defects and clean.
- ▶ Verifies spindle height and/or angle are set to specified dimension(s).
- ▶ Installs and properly adjusts required jigs and fixtures.
- ▶ Adjusts In-feed and out-feed fences to yield correct profile with smooth entry into and exit from part.
- ▶ Sets In-feed and out-feed fences with appropriate clearance to cutter head.
- ▶ Meets Level 1 performance standard.

## Considerations:

- ▶ Pre-Operation Checklist is a prerequisite for ANY operation.
  - ▶ Stock is supported at out-feed.
  - ▶ Push stick is used when required.
  - ▶ Stock is fed in smooth continuous motion past tooling with proper feed rate while controlling stock movement and waste removal.
  - ▶ Proper stance and hand position are demonstrated.
  - ▶ Material is fed against the cutter rotation when hand feeding.
  - ▶ Grain direction is correctly identified and appropriately considered for feed to minimize tear-out.
  - ▶ Demonstrate appropriate feed rate to control stock movement and waste removal relative to the size and type of material being shaped.
  - ▶ Stock is held securely against the fence, miter gauge, or fixture as appropriate.
  - ▶ Material is pushed completely past the tooling before releasing it.
  - ▶ Clears machine and cleans work area after operation.
  - ▶ Required OSHA approved personal protective equipment is worn.
  - ▶ Lock-out/Tag-out procedure is in place and followed.
  - ▶ Process is completed in a timely manner.
- Please use back side for additional notes

## Operation Checklist

Level 1:	Performance standard:	
Given material, the machine set up and ready to cut, and a target edge profile, shape the edge of the material to the specified profile.	<input type="checkbox"/> Loads material with appropriate edge and face towards cutter head and table surface. <input type="checkbox"/> Shaped surfaces exhibit a uniform smoothness, 15-25 knife cuts per inch (KCPI), with no burning or hesitation marks. <input type="checkbox"/> Dimension tolerance is $\pm 0.4$ mm (1/64") [0.0156"] along entire length of material.	<input type="checkbox"/> Shaped surfaces are free of snipe. <input type="checkbox"/> Shaped surfaces exhibit minimal tear-out. <input type="checkbox"/> Shaped surface meets target profile. <input type="checkbox"/> Profile is consistent along entire shaped surface, with no visible variation.

Level 2:	Performance standard:	
Given material, set up the machine to cut a target edge profile, shape the edge of the material to the specified profile.	<input type="checkbox"/> Meets Level 1 performance standard.	