# SELF-ASSESSMENT GUIDE

## Qualification

**MACHINING NC I**

<table>
<thead>
<tr>
<th>Units of Competency Covered</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform bench work (basic)</td>
<td></td>
</tr>
<tr>
<td>Turn workpiece</td>
<td></td>
</tr>
<tr>
<td>Mill workpiece</td>
<td></td>
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<tr>
<td>Grind workpiece</td>
<td></td>
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<tr>
<td>Shape workpiece</td>
<td></td>
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<tr>
<td>Repair workpiece</td>
<td></td>
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</tbody>
</table>

**Instruction:**
- Read each question and check the appropriate column to indicate your answer.

## Can I?

### PERFORM BENCH WORK (BASIC)

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
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</thead>
<tbody>
<tr>
<td>Interpret drawing and check benchwork materials, tools and supplies as required</td>
<td></td>
<td></td>
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<tr>
<td>Sharpen cutting and marking tools according to industry procedure and work safety standards</td>
<td></td>
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<tr>
<td>Check dimensions of materials needed using appropriate measuring tool/s</td>
<td></td>
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<tr>
<td>Perform required bench work operations based on drawing, and according to industry standards</td>
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<tr>
<td>Measure workpiece according to drawing specifications</td>
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</tbody>
</table>

### TURN WORKPIECE

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
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</thead>
<tbody>
<tr>
<td>Interpret drawing of turning work and clarify the task required</td>
<td></td>
<td></td>
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<tr>
<td>Plan sequence of turning operation according to drawing specifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepare and inspect materials, tools and supplies based on drawing</td>
<td></td>
<td></td>
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<tr>
<td>Test run machine to be used</td>
<td></td>
<td></td>
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<tr>
<td>Prepare cutting tools and measuring tools needed in operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify defective turn work piece and tools</td>
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<tr>
<td>Determine material suitable to the machine</td>
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<tr>
<td>Mount material on chuck according to work requirements</td>
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<td></td>
</tr>
<tr>
<td>Use centering instruments according to material requirements</td>
<td></td>
<td></td>
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<tr>
<td>Select cutting tools and holders according to job requirements</td>
<td></td>
<td></td>
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<tr>
<td>Mount cutting tools to the holder following industry standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount tool holder on the tool post following established industry practices</td>
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</tbody>
</table>
- Align cutting tool to the tail stock and centering gauge following established industry practices *
- Set-up lathe accordingly to calculated speeds and feeds *
- Use lathe accessories, if required
- Operate lathe according to job specifications *
- Monitor performance of the machine and cutting tools based on the manufacturer's manual *
- Check and measure workpiece during turning operation, according to work specifications *
- Perform quality check of finished workpiece according to industry procedure *

**MILL WORKPIECE**

- Interpret drawing of vertical milling work and clarify the task required *
- Plan sequence of milling operation according to drawing specifications *
- Prepare and inspect materials, tools and supplies based on drawing *
- Test run machine to be used *
- Prepare cutting tools and measuring tools needed in operation *
- Determine material suitable to the machine *
- Mount, align and clamp machine vice to machine table *
- Mount and center workpiece on machine vice according to industry standards *
- Select cutting tools and holders according to job requirements *
- Mount cutting tools to the holder following industry standards *
- Set-up milling machine according to calculated speeds and feeds *
- Use milling machine accessories, if required
- Operate milling machine according to job specifications *
- Monitor and identify performance of the machine and cutting tools based on the manufacturer's manual *
- Check and measure workpiece during milling operation, according to work specifications *
- Perform quality check of finished workpiece according to industry procedure *

**GRIND WORKPIECE**

- Interpret drawing of grinding work and clarify the task required *
- Plan sequence of grinding operation according to drawing specifications* 
- Prepare and inspect materials, tools and supplies based on drawing *
- Determine workpiece suitable to grinding machine *
- Prepare grinding wheels and measuring tools needed in operation *
- Test run machine to be used *
- Mount workpiece on magnetic plate according to work requirements *
- Use precision vise to hold workpiece, if required *
- Use grinding machine accessories, if required *
- Operate grinding machine according to job specifications *
- Monitor and identify performance of grinding wheel based on the industry standards *
- Check and measure workpiece during grinding operation, according to work specifications *
- Perform quality check of finished workpiece according to industry procedure *

**SHAPE WORKPIECE**

- Interpret drawing of shaping work and clarify the task required *
- Plan sequence of shaping operation according to drawing specifications *
- Prepare and inspect materials, tools and supplies based on drawing *
- Test run machine to be used *
- Prepare cutting tools and measuring tools needed in operation *
- Determine appropriateness of material to machine *
- Mount material on vise according to work requirements *
- Select cutting tools and holders according to job requirements *
- Mount cutting tools to the holder following industry standards *
- Mount tool holder on the tool post following established industry practices *
- Set-up length of stroke of shaper according to workpiece length *
- Use shaper accessories, if required *
- Operate shaper according to job specifications *
- Monitor performance of the machine and cutting tools based on the manufacturer’s manual *
- Check and measure workpiece during turning operation, according to work specifications *
- Perform quality check of finished workpiece according to industry procedure *

**REPAIR WORKPIECE**

- Identify job repair needed based on drawing *
- Prepare workpiece, tools, materials, and electric welding machine according to industry standards *
- Set-up welding machine in accordance with manufacturer’s instructions *
- Position holding devices in conformity with job requirements *
- Demonstrate tack welding and root pass in accordance with drawing *
- Clean root pass from slugs and defects *
- Inspect welded workpiece based on work specifications
- Repair defective weld in workpiece following work specifications *
- Check quality of welded workpiece according to specifications *

**PERFORM POST- ACTIVITIES**

- Shutdown machine according to manufacturer’s manual *
- Maintain and store tools based on established procedures *
- Tag and report defective tools and machines according to workplace procedures, if any *
- Perform good housekeeping following 5S *
- Dispose wastes according to waste management procedures and environmental regulations *
- Accomplish checklist of workpiece specifications *
- Practice works safety and health measures when performing tasks *

I agree to undertake assessment with the knowledge that information gathered will only be used for professional development purposes and can only be accessed by concerned assessment personnel and my manager/supervisor.

<table>
<thead>
<tr>
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<th>Date</th>
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</table>
# SELF-ASSESSMENT GUIDE

## Qualification

**MACHINING NC I**

## Certificate of Competency (COC 1)

**Perform Turning Operation**

## Units of Competency Covered

- Perform bench work (basic)
- Turn workpiece
- Repair workpiece

## Instruction:

- Read each question and check the appropriate column to indicate your answer.

### Can I?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td><strong>PERFORM BENCH WORK (BASIC)</strong></td>
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<td>Interpre...</td>
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<td>Sharpen cutting...</td>
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<td>Check dimensions...</td>
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<td>Perform required...</td>
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<tr>
<td>Measure workpiece</td>
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<tr>
<td><strong>TURN WORKPIECE</strong></td>
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<tr>
<td>Interpret drawing...</td>
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<tr>
<td>Plan sequence...</td>
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<tr>
<td>Prepare and inspect...</td>
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<tr>
<td>Test run machine...</td>
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<tr>
<td>Prepare cutting...</td>
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<tr>
<td>Identify defective...</td>
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<tr>
<td>Determine material...</td>
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<tr>
<td>Mount material...</td>
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<tr>
<td>Use centering...</td>
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<tr>
<td>Select cutting...</td>
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<tr>
<td>Mount cutting...</td>
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<tr>
<td>Mount tool holder...</td>
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<tr>
<td>Align cutting tool...</td>
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</tr>
</tbody>
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**References**

- Reference No.
- TESDA-OP-QSO-02-F07
- Rev. No. 00 03/01/17
- Set-up lathe accordingly to calculated speeds and feeds *
- Use lathe accessories, if required
- Operate lathe according to job specifications *
- Monitor performance of the machine and cutting tools based on the manufacturer's manual *
- Check and measure workpiece during turning operation, according to work specifications *
- Perform quality check of finished workpiece according to industry procedure *

**REPAIR WORKPIECE**

- Identify job repair needed based on drawing *
- Prepare workpiece, tools, materials, and electric welding machine according to industry standards *
- Set-up welding machine in accordance with manufacturer’s instructions *
- Position holding devices in conformity with job requirements *
- Demonstrate tack welding and root pass in accordance with drawing *
- Clean root pass from slugs and defects *
- Inspect welded workpiece based on work specifications
- Repair defective weld in workpiece following work specifications *
- Check quality of welded workpiece according to specifications *

**POST- ACTIVITIES**

- Shutdown machines according to manufacturer’s manual *
- Maintain and store tools based on established procedures *
- Tag and report defective tools and machines according to workplace procedures, if any *
- Perform good housekeeping following 5S *
- Dispose wastes according to waste management procedures and environmental regulations *
- Accomplish checklist of workpiece specifications *
- Practice works safety and health measures when performing tasks *

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## SELF-ASSESSMENT GUIDE

**Qualification:** MACHINING NC I  
**Certificate of Competency (COC 2):** Perform Milling Operation

### Units of Competency Covered
- Perform bench work (basic)
- Mill workpiece
- Repair workpiece

### Instruction:
- Read each question and check the appropriate column to indicate your answer.

#### Can I?  
**YES**  
**NO**

### PERFORM BENCH WORK (BASIC)
- Interpret drawing and check benchwork materials, tools and supplies as required *
- Sharpen cutting and marking tools according to industry procedure and work safety standards *
- Check dimensions of materials needed using appropriate measuring tool/s *
- Perform required bench work operations based on drawing, and according to industry standards *
- Measure workpiece according to drawing specifications *

### MILL WORKPIECE
- Interpret drawing of vertical milling work and clarify the task required *
- Plan sequence of milling operation according to drawing specifications *
- Prepare and inspect materials, tools and supplies based on drawing *
- Test run machine to be used *
- Prepare cutting tools and measuring tools needed in operation *
- Determine material suitable to the machine *
- Mount, align and clamp machine vice to machine table *
- Mount and center workpiece on machine vice according to industry standards *
- Select cutting tools and holders according to job requirements *
- Mount cutting tools to the holder following industry standards *
- Set-up milling machine according to calculated speeds and feeds *
- Use milling machine accessories, if required *
- Operate milling machine according to job specifications *
**MACHINING NC I**

- Monitor and identify performance of the machine and cutting tools based on the manufacturer’s manual *
- Check and measure workpiece during milling operation, according to work specifications *
- Perform quality check of finished workpiece according to industry procedure *

**REPAIR WORKPIECE**

- Identify job repair needed based on drawing *
- Prepare workpiece, tools, materials, and electric welding machine according to industry standards *
- Set-up welding machine in accordance with manufacturer’s instructions*
- Position holding devices in conformity with job requirements *
- Demonstrate tack welding and root pass in accordance with drawing *
- Clean root pass from slugs and defects *
- Inspect welded workpiece based on work specifications
- Repair defective weld in workpiece following work specifications *
- Check quality of welded workpiece according to specifications *

**PERFORM POST-ACTIVITIES**

- Shutdown machines according to manufacturer’s manual *
- Maintain and store tools based on established procedures *
- Tag and report defective tools and machines according to workplace procedures, if any *
- Perform good housekeeping following 5S *
- Dispose wastes according to waste management procedures and environmental regulations *
- Accomplish checklist of workpiece specifications *
- Practice works safety and health measures when performing tasks *

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MEEMCG119-0719 ver. 1.00
Machining NC I
**SELF-ASSESSMENT GUIDE**

<table>
<thead>
<tr>
<th>Qualification</th>
<th>MACHINING NC I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate of Competency (COC 3)</td>
<td>Perform Surface Grinding Operation</td>
</tr>
</tbody>
</table>
| Units of Competency Covered | • Perform bench work (basic)  
• Grind workpiece  
• Repair workpiece |

**Instruction:**
- Read each question and check the appropriate column to indicate your answer.

**Can I?**

**PERFORM BENCH WORK (BASIC)**
- Interpret drawing and check benchwork materials, tools and supplies as required *
- Sharpen cutting and marking tools according to industry procedure and work safety standards *
- Check dimensions of materials needed using appropriate measuring tool/s *
- Perform required bench work operations based on drawing, and according to industry standards *
- Measure workpiece according to drawing specifications *

**GRIND WORKPIECE**
- Interpret drawing of grinding work and clarify the task required *
- Plan sequence of grinding operation according to drawing specifications*
- Prepare and inspect materials, tools and supplies based on drawing *
- Determine workpiece suitable to grinding machine *
- Prepare grinding wheels and measuring tools needed in operation *
- Test run machine to be used *
- Mount workpiece on magnetic plate according to work requirements *
- Use precision vise to hold workpiece, if required *
- Use grinding machine accessories, if required *
- Operate grinding machine according to job specifications *
- Monitor and identify performance of grinding wheel based on the industry standards *
- Check and measure workpiece during grinding operation, according to work specifications *
- Perform quality check of finished workpiece according to industry procedure *

**REPAIR WORKPIECE**

- Identify job repair needed based on drawing *
- Prepare workpiece, tools, materials, and electric welding machine according to industry standards *
- Set-up welding machine in accordance with manufacturer’s instructions *
- Position holding devices in conformity with job requirements *
- Demonstrate tack welding and root pass in accordance with drawing *
- Clean root pass from slugs and defects *
- Inspect welded workpiece based on work specifications
- Repair defective weld in workpiece following work specifications *
- Check quality of welded workpiece according to specifications *

**PERFORM POST- ACTIVITIES**

- Shutdown machine according to manufacturer’s manual *
- Maintain and store tools based on established procedures *
- Tag and report defective tools and machines according to workplace procedures, if any *
- Perform good housekeeping following 5S *
- Dispose wastes according to waste management procedures and environmental regulations *
- Accomplish checklist of workpiece specifications *
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# SELF-ASSESSMENT GUIDE

## Qualification

**MACHINING NC I**

## Certificate of Competency (COC 4)

**Perform Shaping Operation**

## Units of Competency Covered

- Perform bench work (basic)
- Shape workpiece
- Repair workpiece

### Instruction:

- Read each question and check the appropriate column to indicate your answer.

### Can I?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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#### PERFORM BENCH WORK (BASIC)

- Interpret drawing and check benchwork materials, tools and supplies as required *
- Sharpen cutting and marking tools according to industry procedure and work safety standards *
- Check dimensions of materials needed using appropriate measuring tool/s *
- Perform required bench work operations based on drawing, and according to industry standards *
- Measure workpiece according to drawing specifications *

#### SHAPE WORKPIECE

- Interpret drawing of shaping work and clarify the task required *
- Plan sequence of shaping operation according to drawing specifications*
- Prepare and inspect materials, tools and supplies based on drawing *
- Test run machine to be used *
- Prepare cutting tools and measuring tools needed in operation *
- Determine appropriateness of material to machine *
- Mount material on vise according to work requirements *
- Select cutting tools and holders according to job requirements *
- Mount cutting tools to the holder following industry standards *
- Mount tool holder on the tool post following established industry practices *
- Set-up length of stroke of shaper according to workpiece length *
- Use shaper accessories, if required *
- Operate shaper according to job specifications *
- Monitor performance of the machine and cutting tools based on the manufacturer’s manual *
- Check and measure workpiece during turning operation, according to work specifications *
- Perform quality check of finished workpiece according to industry procedure *

### REPAIR WORKPIECE
- Identify job repair needed based on drawing *
- Prepare workpiece, tools, materials, and electric welding machine according to industry standards *
- Set-up welding machine in accordance with manufacturer’s instructions *
- Position holding devices in conformity with job requirements *
- Demonstrate tack welding and root pass in accordance with drawing *
- Clean root pass from slugs and defects *
- Inspect welded workpiece based on work specifications *
- Repair defective weld in workpiece following work specifications *
- Check quality of welded workpiece according to specifications *

### PERFORM POST-ACTIVITIES
- Shutdown machine according to manufacturer’s manual *
- Maintain and store tools based on established procedures *
- Tag and report defective tools and machines according to workplace procedures, if any *
- Perform good housekeeping following 5S *
- Dispose wastes according to waste management procedures and environmental regulations *
- Accomplish checklist of workpiece specifications *
- Practice works safety and health measures when performing tasks *

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MEEMCG119-0719 ver. 1.00
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