

COMPETENCY ASSESSMENT: Pedestal Grinder

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

- Read Pedestal Grinder Risk Assessment, **Task ID. 2051** and associated Standard Operating Procedure, **SP-008**,
- Complete local Workshop Induction.

**Competency:** Utilize a Pedestal Grinder to grind 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 Pedestal Grinder. 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 grinding of 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.

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**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 Pedestal Grinder main electrical box and controller and ensure that the equipment is not tagged out of service. | 1                   |                 |                   |                 |                   |                                       |
|                        | The individual must be able to correctly identify, describe and set/adjust:<br><br>Grinding wheel:                     | 1                   |                 |                   |                 |                   |                                       |
|                        | Work rest:<br>(Ensure gap of 1.5mm between the edge of the work rest and the wheel).                                   | 1                   |                 |                   |                 |                   |                                       |
|                        | Wheel guard: Fitted and correctly adjusted.  | 1                   |                 |                   |                 |                   |                                       |
|                        | Start and stop controls:   | 1                   |                 |                   |                 |                   |                                       |

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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 Pedestal Grinder | Select piece of suitable mild steel and demonstrate the following process:                               | 2                   |                 |                   |                 |                   |                                       |
|                               | Check that the grinding wheel is suitable for the material that is to be ground, change wheel if needed. | 2                   |                 |                   |                 |                   |                                       |
|                               | Check that the wheel face is in good condition, dress wheel if needed.                                   | 2                   |                 |                   |                 |                   |                                       |
|                               | Start grinder correctly.   | 2                   |                 |                   |                 |                   |                                       |
|                               | Grind material showing the correct posture and applying the correct pressure and grinding action.        | 2                   |                 |                   |                 |                   |                                       |
| Shut down Machine             | Follows correct shut down and clean up procedure.  | 3                   |                 |                   |                 |                   |                                       |

## 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 Always stand to the side when turning on the grinder. This will prevent the operator from being hit by wheel fragments if the grinding wheel should disintegrate when the grinder is turned on. True or False?**

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**2.2 Which of the following grinding wheels would produce the smoothest grinding surface? (*Circle the correct answer*)**

1) 30 grit

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2) 40 grit

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3) 60 grit

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4) 90 grit

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**2.3 The metal being ground should be moved back and forth across the grinding wheel to produce an even wear pattern. Do not continuously grind in one spot on the grinding wheel. True or False?**

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**2.4 If the arbor revolutions per minute (RPM's) of a given grinder is 3400, which grinding wheel would be safe to use with the maximum RPM of the wheel shown below? (*Circle the correct answer*)**

1) 1700 RPM grinding wheel

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2) 2400 RPM grinding wheel

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3) 2800 RPM grinding wheel

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4) 4600 RPM grinding wheel

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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                 |                            |   |