

Training Guide

Hammond Pedestal Grinders

Training Guide Objectives: After completing the training the student will be able to;

- Safety check the equipment
- Prepare the grind.
- Grind the material.

Approximate Time: 2 Hours

Lab: 1 hour.

Written Test: 30 min.

Review Test: 30 min.

Student Reference: Maint Procedure MNT-WELD-010, actual Hammond pedestal grinders, and grinding wheel dressing tool. STS Grinding video, 5:20.

Training Guide Outline.

1. Check the equipment.
 - Checking the grinding wheel for damage.
 - Checking the material support rests.
 - Grinder power switches.
 - Dressing the grinding wheel.
2. Preparing to grind.
 - Securely holding small pieces of material.
3. Grinding the material.
 - Proper grinding procedures.
 - Use of material cooling water.



Hammond pedestal grinder LAB.

The most important thing to do before using the Hammond pedestal grinder is the inspection of the grinding equipment before operation. Grinders can be dangerous if used with worn or damaged parts. Always make sure the grinder is in safe operating condition. Failure to do so could result in serious personal injury.

1. Checking the equipment.

Before using the Hammond pedestal grinder you must inspect the grinding wheel for cracks and/or chips.

To check the grinding wheel for cracks and/or chips you must rotate the wheel by hand and give it a visual inspection. If cracks and/or chips are detected **DO NOT** use the grinder. Report the damaged wheel to the Tool Room for replacement.

Warning: Using a grinding wheel that has cracks and/or chips may cause the wheel to come apart, resulting in serious personal injury.

After checking the grinding wheel for cracks and/or chips you must make sure that the wheel is properly dressed. The grinding wheel should be flat across the face.

To dress the grinding wheel you must use the dressing tool that is attached to grinder pedestal.

To use the dressing tool you must first turn the grinder on using the black "ON" button located on the front of the grinder pedestal.

With the grinder running you must take the dressing tool and press it up against the grinding wheel. Apply enough pressure to the dressing tool to take the high spots off of the wheel. Move the tool from side to side across the face of the grinding wheel, to insure covering the whole face.

After dressing the grinding wheel, shut the grinder off using the red “OFF” button located on front of the grinder pedestal.

Warning: Using a grinding wheel that is not properly dressed may cause the wheel to come apart, resulting in serious personal injury.

After checking the grinding wheel for proper dressing you must make sure that the material support rest is set in the right position.

The material support rest is located just forward of the grinding wheel. The gap between the face of the grinding wheel and the back edge of the material support rest must not be more than 1/8” inch. If the gap is more than 1/8” inch **DO NOT** use the grinder. Report it to the Tool Room for adjustment.

Warning: Operating the grinder with more than 1/8” inch gap between the face of the grinding wheel and the back edge of the material support rest could result in the material being pulled into the equipment causing serious personal injury and/or damage to the grinder.

2. Preparing to grind.

If the material to be ground is a small piece, it should be held with a pair of vise-grips to avoid injury to the hands.

3. Grinding the material.

Warning: The wearing of gloves is optional when operating the Hammond pedestal grinder, however the wearing of gloves is **NOT** recommended. Gloves may allow the material to slip out of the hands and be pulled into the grinder, resulting in serious personal injury, and damage to the grinder.

Warning: A face shield and ear protection are required to be worn when operating the Hammond pedestal grinder. Failure to wear the required

safety equipment may result in serious personal injury.

When grinding material it is not necessary to apply extreme pressure to the piece being ground. Apply just enough pressure to do the job. Applying extreme pressure to the piece may cause damage to the grinding wheel.

Warning: Never grind on the sides of the grinding wheel. Grinding on the sides of the grinding wheel may cause the wheel to come apart, resulting in serious personal injury.

The Hammond pedestal grinder is equipped with a stainless steel water trough. This trough is located on the front of the grinder pedestal. When the material becomes too hot to hold you may dip the piece into the water to cool it off.

Caution: **DO NOT** grind aluminum, copper or brass on the Hammond pedestal grinder. Grinding aluminum, copper or brass may cause damage to the grinding wheel.

Hammond Pedestal Grinder Qualification Signoff Sheet

Name: _____
Date: _____
Instructor: _____

Needed Equipment: Maint Procedure MNT-WELD-010, Hammond Pedestal grinder, grinding wheels.

Lab Exercise:

- Step 1: Check the grinders for safety.
- Step 2: Prepare to grind material.
- Step 3: Grind material
- Step 4: Contact instructor for verification of lab completion

Criteria:

This lab exercise will be graded on how well instructions are carried out, the safe workmanship of the student, and the knowledge obtained from the Training Guide. This equipment must be set-up and operated as per BP Maint Procedure MNT-WELD-009.

LAB

Pass		Fail	Signature: _____
			Signature: _____

Written Test (80% passing) Score: _____