

Process Sheet CAM 1109 Lab 4 - Surface Grinding

Safety and Procedure

- 1) Use safety glasses when entering shop
- 2) Review all safety measures discussed in classroom
- 3) No long sleeves. No jewelry. No hoodies. No shorts. No open shoes, etc.
- 4) Remove wheel if on grinder & do ring test & check for blotters on both sides
- 5) Turn on exhaust system & install wheel with left hand nut
- 6) Move table to right & lock & clean chuck with brush, then wipe with hand
- 7) No rags on grinder ... **DANGEROUS!!!!!!!!!!**
- 8) Dressing Wheel – make sure table is locked
- 9) Place diamond on chuck slightly left of center of wheel & turn on magnet
- 10) If your diamond is on an angle, have it pointing left & left of center of wheel
- 11) Turn on wheel & turn downfeed wheel until it just touches wheel & clean up wheel
- 12) Take 3-4 cuts of .003 - & 1 more of .001
- 13) Move crossfeed away from wheel & then move table to right & lock
- 14) Remove diamond & clean up chuck as you did to **prepare** for dressing
- 15) Place part on chuck, turn on magnet, and touch off lightly & go across entire piece to clean up 1 side
- 16) Remove part, cleanup table again & stone ground side & lay down on chuck
- 17) Turn on magnet & go across entire surface of part
- 18) Make sure you are off part & feed down .001 & make another cut
- 19) Continue same until part is to print dimensions
- 20) You may need to dress wheel again if finish looks poor

FINISH IS CONTROLLED BY PROPER WHEEL DRESS, SLOW CROSS FEEDS & FAST TABLE SPEEDS. NO MORE THAN ¼ TURN ON CROSS FEED WHEEL.

Lab Video Resources

4.1 – Safety & Wheel Selection

ADD A QR CODE
HERE TO PROVIDE
EASY ACCESS TO
THE LAB VIDEO

4.2 – Wheel Installation & Magnetic Chuck

ADD A QR CODE
HERE TO PROVIDE
EASY ACCESS TO
THE LAB VIDEO

4.3 – Wheel Dress

ADD A QR CODE
HERE TO PROVIDE
EASY ACCESS TO
THE LAB VIDEO

4.4 – Preparing to Grind

ADD A QR CODE
HERE TO PROVIDE
EASY ACCESS TO
THE LAB VIDEO

4.5 – Grinding

ADD A QR CODE
HERE TO PROVIDE
EASY ACCESS TO
THE LAB VIDEO

NO PRINT IS INCLUDED IN THIS LAB PROJECT SINCE THE STUDENT WILL BE SURFACE GRINDING ONE OF THE WIDGETS FROM THE PREVIOUS LABS.



This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The U.S. Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.



Unless otherwise noted, this work is licensed under a [Creative Commons Attribution 4.0 International License](http://creativecommons.org/licenses/by/4.0/). It is attributed to Ohio Technet. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.