Metallography Lab (White 502/509) Dept. of Materials Science (DMSE) Case Western Reserve University

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By	Date

Standard Operating Procedure

EQUIPMENT: Struers Labotom-5 Manual Cutoff Saw SIGNIFICANT SAFETY PRECAUTIONS: Machine has fast moving abrasive blade, pinch points, and associated chemicals.

APPROVED BY:		_ DATE:	
PREPARED BY:	Jessica Booth	_ DATE:	1/21/2014
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JOB STEPS

SAFETY KEY POINTS

- material cut, and any issues.
- 1.1 Fill out Logbook Name, date, PI, Use caution when cleaning mesh, small pieces may be sharp. Wash hands to remove any coolant on skin.
- 1.2 Before Use Check coolant level, should be 1-2 inches below top of mesh. If there are large metal pieces in mesh, remove them. If needed, add tap water to tank.
- side of machine, internal light will go stopped.
- 1.3 Prepare the Equipment Release E-stop Hood will not open until power is on and and turn on power switch on back right should not open until saw blade is fully
- 1.4 Mounting Cutting Wheel Select cutoff Be aware of pinch points with spindle stop wheel designed for material being cut. pin and flange. There is a chart of recommended blades in the instruction binder, and Struers.com

nut to remove flange.

- -Push large handle all the way back until cutting unit is all the way back. Depress pin for spindle lock and loosen
- -Mount new cutting wheel, including paper washers on each side of blade for SiC blades. Replace and tighten flange and nut. Clamp back-stops may need to be moved to set blade into position.

1.5 Fixturing Before inserting work piece, Avoid pinch points on clamps make sure back-stops are lined up with

back of cutting table. If they are not, move them into position and tighten nuts.

-Insert work piece between back stops and quick clamping device. Adjust to the needed size and lock in place. Blade should be to the right of work piece.

- and blades are firmly in place.
 - Close hood, depress START button. Coolant will flow and blade will begin spinning.
 - Using grey handle on right machine, slowly feed blade through work piece.
 - Once finished, return handle starting position and depress STOP button.
 - Open hood and remove work piece and blade.
- replace coolant hose.
 - -If debris is allowed to sit, it will corrode machine and cause fixtures to seize!

When rinsed, leave hood open to let coolant evaporate.

1.6 Operation Ensure clamps, work piece, Make sure hood is fully closed. Hood will not open until blade has stopped moving.

1.7 Cleanup Use attached coolant hose to Coolant from hose is pressurized; avoid spray down walls, cutting table, and splashing in eyes or on clothing, safety coolant tray to remove debris. Firmly glasses are advised. If contact occurs, flush with water.

Authorized Operators:

Name:	Signature:	Date:
Name:	Signature:	Date:

CERTIFICATION

I hereby certify that on / / a hazards	
Name of Manager	
assessment of this procedure was performed for the purpose of	
specifying ${f P}$ ersonal ${f P}$ rotective ${f E}$ quipment (${f PPE}$). I also certify that	-
all authorized operators participated in the assessment, and	
received and understood training regarding PPE requirements for thi	S
procedure and that all authorized operators participated in the	
assessment and were trained in the proper PPE for the tasks	
described in this SOP.	
Signature:	
Signature:	
Name of Manager	
Title:	
Date:	

Personal Protective Equipment (PPE) Hazard Assessment Certification

I	hereby certify that o	n/a
I Name of Managers hazards assessment of a:	rea	was performed for
the purpose of specifyinalso	ng ${f P}$ ersonal ${f P}$ rotective ${f E}$	E quipment (PPE). I
certify that the follow	ing employees received a	nd understood training
regarding PPE requireme	ents for this area. (Please Print)	
Name:	Name:	
	Name:	of Managers
	Signature:	
	Title:	
	Date.	