

**MECHANICAL ENGINEERING UNDERGRADUATE LABROTORY
STANDARD OPERATING PROCEDURE (SOP)**

Name of SOP	P5 Plastic Properties of Sheet Metal (Hille Press)
Effective Date	April 1, 2004 Rev. January 21, 2008
Author	Joe Verhaeghe
Reason for SOP	Risk of Pinching hand, fingers
Approved by (supervisor)	Ron Lodewyks
Date reviewed by JHSC	February 13, 2008

Definitions

Terms	none
acronyms	RMM – Risk Management Manual JHSC - Joint Health and Safety Committee Chair - Chair of Mechanical Engineering EOHSS - Environmental Occupational Health & Safety Service

Requirements

Applicable OSHA regulations and / or codes of practice.
Training and competency.
<ol style="list-style-type: none"> 1. Training provided by technical staff in the Mechanical Engineering Department. 2. Competency is shown by the individual after training

Description of the Task

Location and time of work	JHE106
Individuals and skills required	Graduate Students, none
Equipment and supplies required	Hille Cupping Press
Personal protective equipment required	none
Sequential steps to complete the work safely.	
<ol style="list-style-type: none"> 1. Obtain lockout key from technicians in JHE205 2. Open lid 3. Turn on Power by inserting key and rotate to position “1”. 4. Press “CLAMP ON” and wait till movement stops. KEEP HANDS CLEAR 5. Turn off power by rotation key to position “0” 6. Lubricate specimen and place on ram. 7. Center specimen with 3 centering fingers. 8. Return centering finger to clear clamp. (rotate clockwise) 9. Close lid and lock by rotating clockwise. 10. Ensure “FLOW CONTROL VALVE” is set to 2.5. 11. Turn on Power by inserting key and rotate to position “1”. 12. Clamp specimen by pressing “CLAMP ON” 13. Set clamping pressure as required. 14. Start test by pressing “RAM UP” 15. When test is complete press “RAM STOP” 	

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16. Return ram to retracted position by pressing "RAM DOWN" and wait for ram to stop.
17. Remove clamping force by pressing "CLAMP OFF"
18. Turn off power by rotation key to position "0"
19. Remove specimen.

Contingency Plan and Reporting

Accident / injury response

1. Apply first aid as required
2. Notify Mechanical Engineering technical staff immediately
3. For all injuries complete a "Injury/Incident Report" and provide a copy to the Chair and EOHSS
4. In case of critical injury call security (dail 88).

In case of critical injury notify EOHSS immediately, ext 24352

Spill response

1. Cover any oil spills with absorbent material provided.
2. Notify Technicians immediately

Equipment shutdowns.

1. Press "RAM STOP"
2. Turn off power by rotation key to position "0"

Environmental Responsibility

Waste disposal procedures

Place waste samples in the recycle bin located behind the machine

In case of oil spills see "Spill response" above.

Building air quality

Procedure does not effect air quality

References (OHSA/ regulations, EPA and Municipal environmental regulations, McMaster University Program/ Policy, Material Data Sheets (MSDS).

1. RMM #301 Standard Operating Procedure
2. RMM #300 Safety Orientation and Training Program
3. RMM #310 Eye Protection
4. RMM #309 Laboratory safety manual
5. RMM #502 Hazardous Waste Management

Distribution

1. Trained teaching assistant who is the lab operator
2. Technical Staff of Mechanical Engineering
3. Mechanical Engineering Chair
4. Faculty of Engineering JHSC