

Name of SOP	Pressure air blower
Effective Date	June 11, 2008
Author	Manickaraj Jeyakumar
Reason for SOP Safety of the operator, people around and equipment	Check All that Apply: <input type="checkbox"/> Procedure/Process could cause critical injury. <input checked="" type="checkbox"/> Procedure/Process could cause occupational illness. <input type="checkbox"/> Procedure/Process could cause environmental impairment. <input type="checkbox"/> Procedure/Process could damage University property. <input type="checkbox"/> Supervisor's discretion. Provide Details:
Approved by (supervisor)	Dr. Sumanth Shankar
Date reviewed by JHSC	June 11, 2008

Definitions

Terms	none
Acronyms	RMM – Risk Management Manual JHSC - Joint Health and Safety Committee EOHSS - Environmental and Occupational Health Support Services EPA – Environmental Protection Act OHSA – Occupational Health and Safety Act

Requirements

Applicable OHSA regulations and / or codes of practice. 1. RMM #101 - McMaster University Risk Management System
Training and Competency 1. Training provided by Light Metal Casting Research Center (LMCRC) and graduate students who operate the facility. 2. Competency is shown by the individual after training

Description of the Task

Location and time of work	JHE 101
Individuals involved	Undergraduate and Graduate Students with adequate training as defined above. PDFs
Equipment and supplies required	
Personal protective equipment required	Safety glasses, coats, leather gloves, face shield, and shoes

Sequential Steps to Complete the Work Safely

Sequential steps to complete the work safely. Before using the pressure blower, ensure that you meet the following protective requirements:

- The notice “Hearing Protection is required in this area” MUST be on the outside of the door and confirm that it is clearly visible to persons entering the lab.
- Make sure everyone in the lab is wearing hearing protection
- Make sure the surrounding area of the pressure blower is clean and there are no object that can be pulled into the intake of the blower
- Check cord condition for cuts and loose connections, do not use if the chord is cut
- Secure to floor mounts
- Turn exhaust fan (NE corner of lab) ON

Operating procedure

- ❖ Flip the circuit breaker labelled “Fed From B107” ON
- ❖ Press the HAND (START) button on the speed controller (black box) where labelled “AC Tech”
- ❖ All the readings will be displayed on the display box in the controller
- ❖ Use the buttons “Δ” or “∇” to increase or decrease the frequency
- ❖ Make sure the load shows constant value in the display box (it takes one or two minutes to stabilize)
- ❖ Use OFF (STOP) button to stop the speed controller after the work is completed

Important:

Shut down the power on the speed control

BEFORE

disconnecting the blower plug from the receptacle

(if the correct sequence is not followed the controller will be damaged)

Turn off the circuit breaker labeler “Fed From B107” OFF.

Contingency Plan and Reporting

Equipment Malfunction

In the event of an equipment malfunction, immediately stop the speed controller , shut down the power and immediately contact the Technical Staff in room JHE 205.

Equipment shutdowns

Use OFF (STOP) button to stop the speed controller after the work is completed

Important:

Shut down the power on the speed control **BEFORE** disconnecting the blower plug from the receptacle

(if the correct sequence is not followed the controller will be damaged)

Turn off the circuit breaker labeler “Fed From B107” OFF

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 (dial 88).

5. In case of critical injury notify EOHSS immediately, ext 24352

In the Case of Critical Injuries

1. Shutdown equipment and secure the area to prevent further injury
2. Immediately arrange for medical and emergency assistance by calling Security at ext. "88".
3. Apply first aid as required
4. Notify EOHSS immediately, ext 24352
5. Notify Technical Staff immediately. Ext. 24628

For all injuries complete a "Injury/Incident Report" and provide a copy to the Chair and EOHSS

Environmental Responsibility

Waste disposal procedures

Procedure does not require disposal

Building air quality

Procedure does not affect air quality

References

1. OSHA/ regulations
2. EPA and Municipal environmental regulations
3. RMM #100 McMaster University Environmental Health and Safety Policy
4. Material Safety Data Sheets (MSDS)
5. RMM #300 Safety Orientation and Training Program
6. RMM #301 Standard Operating Procedures
7. RMM #304 Persons Working Alone
8. RMM #306 Lockout/ Tag-out program
9. RMM #309 Laboratory safety manual
10. RMM #310 Eye Protection Program
11. RMM #403 Noise Control and Hearing Preservation

Distribution

1. Faculty of Engineering JHSC (for review)
2. Technical Staff of Mechanical Engineering JHE 205 ext. 24628