ONTARIO COUNCIL FOR TECHNOLOGY EDUCATION

STANDARD OPERATING PROCEDURES DOCUMENT

PARTS WASHER

Scope and Responsibilities

This standard operating procedure (SOP) applies to all personnel who operate and instruct on the safe operation and use the parts washer. In a school setting this includes,

- **Administrators/Teachers**: Ensure operators are trained and the SOP is followed
- **Students/Teachers/Operators**: Follow the owner/operators manual, industry recommendations, this SOP, guarding is in place, and wear the appropriate personal protective equipment (PPE)

SAFETY IS A PRIORITY ! DO NOT use this machine unless you have received instruction in its safe use and operation and have been given permission by your teacher.

To ensure the safe and efficient operation of the parts washer, this machine requires:

Personal Protective Equipment (PPE)

- Safety glasses or face shield
- Chemical-resistant gloves
- Proper attire, close-fitting clothing and/or protective shop coat or apron
- Closed-toed, skid-resistant footwear (CSA Safety footwear is required on Co-Op placements)

Pre-Operational Checks

- **Always refer to the manufacturer's manual**
- Perform visual inspection of parts washer prior to use, including any electrical cords for damaged prongs, cracked insulation, exposed wire, checking for leaks in the tank, hoses, and fittings
- etc. (Damaged equipment must be locked out)
- Repair or replace worn or malfunctioning equipment immediately
- Ensure the work area is clean and free of obstructions, trip hazards and other materials
- Wear all required PPE
- Verify all guards, lids, and safety switches are installed and operational
- Ensure the parts washer tank is filled with the school board's WHMIS Management Program identified approved solvent and per the manufacturer's specifications
- Review the Safety Data Sheet (SDS) and ensure it is accessible
- Ensure no ignition sources or open flames are present nearby
- Verify emergency stop and power disconnect switches are functional

This SOP provides a general guideline for operating a parts washer. Always refer to the manufacturer's manual, industry best practices, and specific workplace safety protocols for detailed instructions. IF IN DOUBT, STOP! ASK YOUR INSTRUCTOR or SUPERVISOR.

Operational Steps

1. Preparation
    - Make sure you have been authorized to use this parts washer - you have received training, passed the test, have demonstrated the safe use of this parts washer and have a safety passport signed
    - You are “shop ready” – trained, proper clothing, wearing required PPE, etc.
    - Perform a visual inspection to confirm the parts washer it is suitable for operation
    - Refer to the manufacturer’s guidelines to adjust the blade guide assembly and prepare the machine
    - Don any specialized PPE to operate the parts washer (i.e.: chemical-resistant gloves)
    - Ensure the work area is clean and free of obstructions, trip hazards and other materials
    - Ensure solvent levels are correct and proper WHMIS approved chemical is used
    - Confirm ventilation is adequate
    - Clear the area of unauthorized personnel
2. Starting the Machine
    - Depending on the model, open or close the lid ensuring the hose is directed down into the washer basin. Do not override lid safety switches
    - Engage magnetic starter (if equipped)
    - Turn on the power supply and activate the machine controls as per manual
    - Allow the solvent to circulate and reach operating temperature (if applicable)
    - All guards are in place and secured properly
    - Never override or defeat a safety device
3. Washing Operation
    - Load parts carefully, avoiding overloading
    - Use brushes or tools designed for the parts washer to agitate or clean parts
    - Minimize any fume exposure by working efficiently and not leaving the lid open
    - Monitor solvent levels and temperature regularly
    - Avoid direct contact with solvent and moving parts
4. Shutting Down the Machine
    - Turn off the parts washer controls
    - Wait for any residual pressure or spray to cease before opening/closing the lid
    - Open or close the lid slowly and carefully ensuring it is secured
    - Remove cleaned parts using appropriate tools or gloves
    - Clean any spills immediately
    - Turn off the magnetic starter (if equipped) and clean the machine and work area

Post-Operational Checks

- Inspect the parts washer for wear, leaks, fluid discolouration, fluid level, or damage
- Turn off and disconnect power from the machine
- The lid secured closed
- Clean the parts washer surfaces as required and remove debris from the tank and filters
- Dispose of used solvent and waste materials in accordance with environmental regulations
- Store PPE and clean the work area to maintain safety and hygiene
- Report any issues or maintenance needs to the supervisor/instructor

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Common Problems of Operation

- Machine does not power up
- Lid safety switch malfunction preventing operation
- Excessive solvent evaporation or leaks causing spills
- Poor cleaning performance due to clogged nozzles or dirty solvent
- Overheating of solvent or machine components
- Exposure to hazardous fumes due to inadequate ventilation
- Excessive splashing of cleaning chemical

Safety Precautions

- Keep guards and safety switches in place and in working order
- Wear personal protective equipment (P.P.E) such as CSA approved safety glasses, safety goggles, and face shields, shop coats, aprons, and proper clothing
- Wear protective hair covering to contain long hair
- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that may get caught when handling parts
- Check for damaged parts before the use of the parts washer. Components, parts, accessories, or guards that are damaged should be properly repaired or replaced. (Damaged and malfunctioning equipment must be locked out)
- Disconnect and lock out parts washer before changing fluids or accessories
- Never leave the parts washer unattended while it is running
- Keep work area clean and well lit
- Never bypass or disable safety interlocks or lid switches
- Always handle solvents according to SDS instructions
- Store solvents in approved containers away from heat sources
- Avoid inhalation of vapors by ensuring proper ventilation or using respirators
- Use only solvents that are approved for use under your WHMIS Management Program
- Report any equipment faults or safety hazards immediately
- Maintain a stable non-slip footing and your balance at all times
- Follow manufacture instructions for periodic service and maintenance (i.e.: changing chemicals and changing accessories)
- Use recommended accessories. Consult the owner's manual for recommended accessories
- Only operate the parts washer after you have received instruction and permission from the teacher
- Be aware of the positions of the on/off switches and emergency STOP button
- Consider the placement of the parts washer in the shop so that bystanders are not walking by the user and coincidentally creating a hazard

Common Injuries Sustained

- Cuts, punctures, lacerations, and abrasions from handling sharp parts or tools
- Chemical burns or skin irritation from solvent contact
- Eye injuries from splashes or sprays
- Electrical shock from faulty wiring or improper grounding
- Respiratory issues from inhaling solvent fumes

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Maintenance

- Always refer to the manufacturer's manual
- Disconnect from power and lock out tag out when servicing or repairing machinery
- Inspect the electrical cords for damage, cracked insulation, fraying, etc.
- Regularly check and repair or replace damaged or worn equipment immediately
- Clean the machine as required
- Follow manufacture instructions for periodic service and maintenance (i.e.: changing chemicals and changing accessories)
- Keep a maintenance log for the parts washer

Work Zones

- Typically, in front of the machine approximately 1 meter (3 feet)
- Consider marking the floor designating operator work zone(s) or area (i.e.: yellow paint or tape)
- Only the operator shall be in the work zone while the machine is in use

Additional Information can be found at,
Ontario Council for Technology Education SAFEdocs and ToolSAFE Videos: OCTE
Canadian Center for Health and Safety CCOHS: Garages
North American Construction Group Safe Use Of Parts Washers
Workplace Safety and Prevention Services Safety Check: Manual Parts Washer Safety

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