

HAZARD IDENTIFICATION AND RISK ASSESSMENT

STEP 1: IDENTIFY HAZARDS

WHAT IS A HAZARD? – A **hazard** is something with the potential to cause harm.

HAZARD	RISK
Work Environment	The likelihood that a worker might suffer carbon monoxide poisoning because they are using a petrol driven pump in a well.
Energy – electricity	The likelihood that a worker might be electrocuted because they are exposed to electrical wires whilst using a deep fryer that has inadequate insulation
Manual Handling	The likelihood that a worker might suffer back strain from manually lifting 40kg bags.
Noise	The likelihood that a workers and others in the area might suffer irreparable hearing damage because they work near someone continuously using a jack hammer > 85 d(B) A
Substance	The likelihood that a worker might sustain a needle stick injury and become infected whilst taking a blood sample from a patient with infected blood
Plant	The likelihood that a worker workers hand might be crushed whilst using a printing machine because the unguarded rollers drew in the workers hand

WHAT IS A RISK? - A **risk** is the likelihood that death, injury or illness might result because of the hazard.

STEP 2 – ASSESS THE RISK

Risk Assessment Method (a) For each of the risks: - Estimate the likelihood of an incident occurring at your workplace. - Estimate the consequence of an incident occurring at the workplace - Combine your likelihood and consequence estimates to the risks. Using the ratings of each risk develop a prioritized list of workplace risks requiring action.
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Likelihood Rating

1	Extremely likely	Could happen frequently
2	Likely	Could happen occasionally
3	Unlikely	Could happen but rarely
4	Very unlikely	Could happen, but probably never will

Consequences

Extreme	Death or permanent disablement
Major	Serious bodily injury or serious work caused illness
Moderate	Moderate injury illness requiring casualty treatment
Minor	Minor injury or illness requiring first aid only, no lost work time

Risk Ranking Method

For each identified hazard, the appropriate likelihood and consequence rating is selected. These are a guide only and different situations or operating environments may alter the predicted outcome.

Risk Priority Chart

LIKELIHOOD How likely it could occur?	CONSEQUENCES: How severely it could affect health and safety			
	EXTREME –death - or disablement	MAJOR - Serious bodily injury or serious work caused illness	MODERATE - Injury or illness requiring casualty treatment	MINOR - Injury or illness requiring first aid only, no lost time
VERY LIKELY – could happen frequently	1	2	3	4
LIKELY – could happen occasionally	2	3	4	5
UNLIKELY – could happen, but rare	3	4	5	6
VERY UNLIKELY Could happen, probably never will	4	5	6	7

This stage of the Risk Assessment gives a basis for ranking risks in terms of their priorities.

It is important to note that the risk scores obtained have no absolute value. This chart provides a means for ranking the risks only.

The scores 1-7 in the risk priority chart indicate how important it is to do something about each risk, as follows:

Score	Action
1, 2 or 3	Do something about these risks immediately
4 or 5	Do something about these risks as soon as possible
6 or 7	These risks may not need immediate attention

PRIORITISE RISKS

Prioritise risks based on their score

Remember, the risk scores are useful for comparison purposes ONLY. When the risk scores for all risks in the workplace are compared, the resulting ranking will be a guide to the order in which the risks should be addressed.

Step 3 DECIDE ON CONTROL MEASURES

CONTROL PRIORITIES
Firstly, try to eliminate the hazard If this is not possible, prevent or minimize exposure to the risk by one a combination of: • <i>Substituting</i> a less hazardous material, process or equipment • <i>Redesigning</i> equipment or processes • <i>Isolating</i> the hazard Note: These measurers may include engineering methods As a last resort, when exposure to the risk is not (or can not be) minimized by other means: • Introduce <i>administrative controls</i> • Use appropriate <i>personal protective equipment</i>

1.0 Machine Description

1.1 100CM GAS BURNISHER

2.0 Construction

The 100cm propane burnisher is a state of the art hard floor burnishing machine. It features either a 13HP single cylinder or 16HP twin cylinder 4 stroke overhead valve high performing Honda engine which has been engineered for long life and optimum performance.

A durable floating skirt is positioned within the machine body for greater efficiency and works to contain the dust so that the active vacuum system can leave the floor dust free.

The push button 12-volt battery starting system facilitates easy starting every time. A bias control allows the machine to be aligned to prevent any sideways drag, making the burnisher a dream to use.

Maximum floor adhesion is achieved with the use of the Rubbermaid pad holder. It is designed to follow the contours of the floor surface while maintaining a consistent 50cm burnishing path. The ergonomically designed adjustable handle is fitted with a throttle control which is located within reach of the operator's fingertips. The handle can be folded down for shipping and easy transport.

The metal base of the propane burnisher is powder coated and offers long life and durability. It is fitted with a full wrap around bumper for added protection. All gas hoses and fittings used comply with Australian Safety Standards.

3.0 What is a hazard - A hazard is something with the potential to cause harm?

Potential Hazards

3.1 Gas leak

- (1) Incorrect fitting of gas bottle
- (2) Damage to hoses or fittings

3.2 Injury due to burns, fire or explosion when operating machinery

3.3 Property damage due to colliding with fixtures or damage to machinery

3.4 Injury due to trips, slips and falls

3.5 Respiratory damage/illness due to inhalation of exhausts or dust hazards

3.6 Joint and bone disorder due to machine vibration

3.7 Hearing impairment due to excessive machine noise

3.8 Muscular skeletal damage due to incorrect operation of machine

4.0 Risk Priority Chart

Hazard	Likelihood	Consequence	Control Priorities
Gas Leak	3	5	Ensure gas hose connection is securely tightened
Damage to Equipment	3	5	Ensure fittings are in serviceable condition and correctly fitted
Burns, Fire or Explosion	3	5	Machine must not be operated in an area where flammable goods are stored
Property Damage	3	6	Ensure machine is always operated by competent persons
Slips, Trips or Falls	3	6	Machine must not be operated on a wet floor. Correct footwear must always be worn.
Respiratory	3	6	Machine must not be operated in a confined area. Ensure machine is always correctly tuned.
Vibration	3	6	Don't operate machine for prolonged periods.
Hearing loss	3	6	Hearing protection must always be worn
Muscular Skeletal	3	6	When turning – do not twist. Ensure handle is correctly adjusted for operator

HAZARDS AND CONTROLS

5.0 SAFE USE

The machine operations manual should be read and fully understood prior to machine operation. This machine is not designed for use by young children.

5.1 GAS LEAK

5.1.1 Hazard (1) Incorrect fitting of gas bottle

5.1.1.1 Ensure the gas hose connection is securely tightened into the gas bottle. Failure to do so can cause gas to escape from the bottle once the regulator is opened leading to:

- Possible explosion or inhalation injury
- Freezing of the gas bottle and gas hose connections
- Burns caused by contact with freezing liquid
- **Ensure test date on gas bottle has not expired when filling.**

5.1.2 Hazard (2) Damage to hoses and fittings

5.1.2.1 Ensure that gas hose and connectors are checked prior to each use. Faulty or damaged equipment needs to be replaced prior to each operation

5.2 Hazard (3) Injury due to burns, fire or explosion when operating machinery

5.2.1 Do not use this machine in areas where flammable or combustible liquids, vapors or gases are present. The motor used in this machine can cause explosions when used in areas containing these.

5.2.2 Ensure that all body parts are kept away from the machines motor and exhaust during operation and for at least 30 minutes after operation.

5.2.3 Ensure that gas bottle is correctly fitted to the gas hose and connector

5.2.4 Ensure that body parts are kept away from the buffing pad during operation as friction burns can be caused

5.3 Hazard (4) Property damage due to colliding with fixtures or damage to machinery

5.3.1 Ensure that machine is operated according to operating instructions

5.3.2 Ensure that area in which machine is to be operated is clearly identified with correct signage and clear of obstacles

5.3.3 Ensure that bias control has been correctly aligned by a qualified technician for straight tracking

5.3.4 Ensure that the area that the machine is to be used in is greater than 600mm wide

5.4 Hazard (5) Injury due to trips, slips and falls

5.4.1 Operators should not wear open top shoes when using this equipment

5.4.2 Plan the work path based on obstacles within the work area

5.4.3 Never operate burnisher when the surface to be buffed is wet

5.5 Hazard (6) Respiratory damage/illness due to inhalation of exhaust or dust hazards

5.5.1 Machine must not be operated in an enclosed environment for prolonged periods without correct respiratory equipment.

5.5.2 Ensure that floor surface is thoroughly cleaned to remove dust and dirt prior to operating machine

5.5.3 Ensure that motor is correctly tuned and serviced as per operating instructions

5.6 Hazard (7) Joint and bone disorder due to machine vibration

5.6.1 Ensure that machine is correctly maintained and serviced as per operating instructions

5.6.2 When operating correctly the machine should pose no risk of vibration expose to the operator

5.7 Hazard (8) Hearing impairment due to excessive machine noise

5.7.1 Machine noise for the gas burnisher measured at the operator's ear level is 92dBA. Thus, the noise level readings exceed the 8-hour noise level equivalent of 85dBA referred to in the Code of Practice.

5.7.2 Hearing protection with an attenuation rating of 10 Db(A) **must** always be worn when operating this machine

5.8 Hazard (9) Muscular skeletal damage due to incorrect operation of machine

5.8.1 Operate machine as per operating instructions

5.8.2 When turning do not twist at the waist, turn using your feet

5.8.3 Ensure that handle assembly is correctly adjusted to suit the operator

5.8.4 Never run whilst operating the machine. Machine only to be operated at walking pace

5.8.5 Exercise great care when operating machine on raised platforms or close to stairs

CONCLUSION

Polivac International Gas Propane Burnishers are manufactured to the highest possible standards and meet the requirements of Australian Standards. Polivac International is a quality endorsed company, committed to meeting the requirements ISO 9001:2000 – Quality Management Systems, and providing customer assurance that manufactured product, will continue to meet Australian Standards.

Polivac International is committed to adhering to all Occupational Health and Safety Codes of Practice and Legislation, and is proud of its commitment to providing a safe work environment for its employees and machine operators.