

Pneumatic Tools – Safe Use

Review date: 18/06/12

Document no.	Work description		
SMS-06-SW-0809	This SWI describes the safe work practices for the use of Pneumatic Tools		
Scope	This SWI applies to all compressed air powered (Pneumatic) Tools used in RSD		
Review date	References		
18/06/12	<ul style="list-style-type: none"> • NSW OHS Regulation 2001, Part 5.4 • AS4024.1 Safeguarding of Machinery • SMS-06-PR-0225 Plant • SMS-06-SW-0481 Portable Air Compressors • SMS-06-SW-0839 Compressed Air - Safe Use • SMS-06-PR-0329 Hot work • SMS-16-SR-0057 Inspection and testing • SMS-05-SR-0027 Records management • SMS-06-PR-0173 Plant and Equipment Lock-out Tag-out 		
Responsible Supervisor	PPE and precautions	Competencies or qualifications	Licences or permits required
Line Manager	<ul style="list-style-type: none"> • Safety Eyewear or full face protection • Hearing Protection • Safety Footwear • Long sleeved overalls/shirt or long pants • Operate according to the manufacturer's instructions • Protective Gloves (after risk assessment) 	<ul style="list-style-type: none"> • Competent in the use of this SWI and Compressed Air and Portable Air Compressors SWIs • Site Specific Induction 	Nil additional
Tools and equipment required			
Applicable to pneumatic impact (rattle) guns, pneumatic drills, pneumatic saws, pneumatic angle grinders etc.			
IF CONTROL MEASURES ARE NOT SUITABLE AND MAJOR CHANGES ARE NEEDED, CONDUCT A RISK ASSESSMENT AND DEVELOP NEW CONTROLS ACCORDING TO SMS-06-SR-1479 OHS RISK MANAGEMENT .			
	<p>Warning</p> <p>The following warnings apply throughout this SWI:</p> <ul style="list-style-type: none"> • If pointed at the skin, high pressure air can cause bubbles to form in the bloodstream which can result in death - never point a compressed air source at yourself or others always use compressed air in accordance with SMS-06-SW-0839 Compressed Air – Safe Use • Do not use air, to blast clean equipment as it causes dust particles to become airborne which can cause illness or injury to personnel • High pressure air can seriously injure personnel therefore ensure you always wear eye and hearing protection as well as protective clothing • To prevent injury hand, wrist or neck jewellery as well as loose clothing must not be worn and long hair must be contained while operating pneumatic tools • Failure to ensure hoses and couplings are secure before use could result in unexpected disconnection and injuries from whipping of hoses and/or compressed air release • Failure to ensure that all fittings are rated for air tool use could result in serious injury should they fracture or fail during use • To prevent injury always keep a firm hold of hoses whenever connecting or disconnecting air sources • Prolonged use of pneumatic tools can lead to vibration injuries such as "white fingers". To prevent hand injuries do not use these tools for prolonged periods of time 		
	<p>Note</p> <p>The use of protective gloves such as "Anti Vibration" gloves, should only be done after completing a risk assessment. Never use gloves with pneumatic drills as this greatly increases the injury level should the glove come in contact with a rotating drill bit, due to the twisting force of the tool</p>		

Pneumatic Tools – Safe Use

Site / job planning	Follow all worksite procedures, e.g. induction, Pre-Work Brief Assess the work required; remember that each tool is designed for a particular job. Use the correct tool for the job
Pre-operational checks	If using a portable air compressor always operate as per the manufacturers instructions and in accordance with SMS-06-SW-0481 Portable Air Compressors Before using the tool, always ensure that you: <ul style="list-style-type: none"> • Check that there are no missing or broken parts and that all screws are completely tight • Check that any guarding is in place and securely attached to the tool • Inspect all air hoses for cracks, splits or other forms of deterioration • Check that couplings are not loose or damaged and that threads are not worn • Check that all tool attachments are rated for air tool use (e.g. Impact sockets) • When using grinding attachments, that their maximum Rpm is greater or equal to the maximum Rpm of the tool • Check that isolation fittings are connected where applicable • Check that an adequate supply of filtered air is available for the duration of the work with the tool • Check that any regulators are set in accordance with manufacturer's instructions or, if unavailable or unknown, a maximum of 621 Kpa (90 PSI)
Setting up	Uncoil air hoses and ensure they are free from damage or kinks Ensure the placement of air hoses does not cause a trip hazard to yourself or others Connect the hoses to the air supply, ensuring the ring grips connectors are securely fastened Supply air to tools Check that the pressure guage on the compressor to ensure the correct maximum pressure is being supplied Check the Duty Cycle of the compressor to ensure that the compressor is able to supply the air volume the Pneumatic Tool requires to operate correctly, without causing an incident Carry the tool with the nose pointed down so it cannot inadvertently injure others
	Warning <ul style="list-style-type: none"> • <i>Failure to ensure the correct pressure is being supplied to the tool could result in damage to the equipment and injury to personnel</i> • <i>Failure to check the Maximum Rpm ratings of all attachments fitted to a pneumatic tool could result in an unexpected explosive failure during their use, resulting in serious injury</i>
Using Pneumatic tools	Perform work in accordance with the task requirements, tools capabilities and your training To minimise the likelihood of injury, always ensure: <ul style="list-style-type: none"> • You maintain a firm grip of the tool at all times • You remain free from air hose entanglements • You maintain a comfortable and strong stance and avoid bending, reaching and twisting actions during the use of tools • You keep your hands clear of any moving parts during operation • You wait until the tool has completely stopped before placing it down • You inspect the tool at regular intervals during its operation • You meet the requirements of SMS-06-PR-0329 Hot Work, when using pneumatic grinders or other tools that may create sparks
	Warning <ul style="list-style-type: none"> • <i>Immediately discontinue the use of a tool, if it begins to release air from a crack or other deterioration</i> • <i>Never leave an unattended tool connected to the air supply as it may operate unexpectedly causing injury</i> • <i>If a hose connection breaks, isolate the air supply before trying to recover the hose as you may be injured by the whipping hose or the escaping air</i>
Changing or adjusting fittings	Turn off any equipment being used (i.e. keeping your finger off the trigger of a pneumatic tool) Disconnect the compressed air supply Make the change or adjustment Check fitting is secure Reconnect the compressed air supply

Pneumatic Tools – Safe Use

	Test the tool before reusing it
	<p>Warning</p> <ul style="list-style-type: none"> Never change or adjust fittings while air is supplied to the tool. Doing so could result in serious injury to you
Clean-up	<p>Disconnect the tool from the air supply before removing and transporting</p> <p>Isolate air from the compressor and ensure air has been released before coiling and stowing hoses</p>
	<p>Warning</p> <p>To prevent an incident always:</p> <ul style="list-style-type: none"> Firmly hold all fittings while disconnecting air hoses Point air hoses away from personnel when disconnecting air hoses Ensure air is released from hoses before coiling and stowing
Inspection and maintenance	<p>Inspect the tool and hoses for any damage before stowing</p> <p>Conduct maintenance as per the Manufacturer's Specifications and recommendations</p> <p>Get an authorised dealer to do any repairs or checks / alterations to the tools settings</p> <p>Maintain inspection and test records in accordance with <u>SMS-16-SR-0057 Inspection and Testing</u> and <u>SMS-05-SR-0027 Records Management</u></p>
	<p>Warning</p> <ul style="list-style-type: none"> Never stow equipment that is not safe for the next person to use. Faulty equipment must be tagged with an "Out of Service" tag in accordance with <u>SMS -06-PR-0173 Plant and Equipment Lock-out Tag-Out</u> and notify your Line Manager as soon as practicable Never undertake any maintenance or repairs that you are not qualified and authorised to carry out
Additional Controls	
Additional controls may be required, depending on the work being done with the tool	