1.0 Policy

Tools provided by both Sunbelt Controls and employees, shall be in good working order and shall be safely used for their intended purpose in accordance with manufacturer specifications.

2.0 Purpose

To define the procedures for the safe use, care, and inspection of Sunbelt Controls and employee-provided tools.

3.0 Scope

Applies to all Sunbelt Controls work sites.

4.0 Definitions

None

5.0 Requirements

5.1 General

Appropriate personal protective equipment (PPE) shall be used with all tools (reference Personal Protective Equipment (PPE) under Section Six [6] of this manual).

Electrically powered tools shall not be carried, toted, hoisted, lowered or handled by their electrical cords.

Practical tools or devices should be used to hold chisels, stakes, and other implements driven or struck with a hammer. Hands shall be kept clear of impact tools.

Guards:

- Shall not be removed from tools.
- Shall not be modified beyond original specifications or intentions
- Any tool found without guards must be returned to original configuration or returned for repair

With ladder use, tools such as grinders, drills, and large pipe wrenches that cannot be carried safely in a tool belt shall be transported to/from elevation by a rope or by other means.

Tools, except for small tools within a waist tool belt, shall not be carried while climbing ladders, platforms, and other structures where the hands are required for gripping, stability, movement and balance.

Precautions shall be taken to prevent tools from dropping onto others and equipment that could be damaged by falling objects. Protective devices such as netting, barricades, signs, and wire mesh shall be used to provide protection and warn others of the danger of falling objects.

Only authorized persons shall be permitted to repair tools. All tools must be maintained in a safe operating condition. Any tool that is in disrepair must be tagged out and returned for repair immediately or rendered inoperative and disposed of properly.

Tools shall not be altered from their original design.

Authorized personnel according to established procedures shall decontaminate tools that are contaminated.

Tools shall not be tossed from person to person.

Tools shall not be dropped or thrown.

Tools shall be used according to their design. Handles shall be in place and used during the operation.

All 120 Volt A.C operated tools shall be used in conjunction with a Ground Fault Interrupter (GFI). GFI's shall be tested before each use (reference Electrical – General under Section Fourteen [14] of this manual for GFI's).

Tools shall not be left on scaffolds or elevated workspaces.

On-off switches controlling the operation of hand-held powered tools shall conform to the following requirements:

- All hand-held powered platen sanders, grinders with 2-inch or less diameter wheels, routers, planers, laminate trimmers, nibblers, shears, scroll saws, and jigsaws with blade shanks 0.25 inch wide or less may be equipped with only a positive on-off control
- All hand-held powered drills; tappers; fastener drivers; horizontal, vertical, and angle grinders with wheels exceeding 2 inches in diameter; disk sanders; belt sanders; reciprocating saws; saber saws; and other similar tools shall be equipped with a momentary contact on / off control. They may have a lock-on control provided the turnoff can be accomplished by a single motion of the same finger or fingers that turn it on
- Jackhammers, with exception of concrete vibrators, and similar pneumatic-powered hand tools and other hand-held power tools including chainsaws, circular saws, and percussion tools shall be equipped with a constant pressure switch that shuts off power when pressure is released

Only non-sparking tools shall be used in locations where sources of ignition may cause an explosion or fire.

Employees shall not work under areas where hand-held tools are being used unless the tools are equipped with restraining straps or appropriate decking, planking, and netting are provided for employee protection.

When the periphery of the blades of a fan is less than seven (7) feet above the floor or working level, the blades shall be guarded. The guard shall have openings no larger than 1/2 inch.

Machines designed for a fixed location shall be securely anchored to prevent walking or moving.

In locations where the use of a portable power tool is difficult, the tool shall be supported by means of a rope or similar support of adequate strength.

Loose or frayed clothing or long hair, dangling ties, finger rings, etc. shall not be worn around moving machinery or other sources of entanglement.

5.2 Inspections

Only authorized persons shall, inspect or test or repair hand or power tools.

Users shall be trained to visually inspect the tools they are assigned to use.

Users are responsible for visually inspecting the tools they use each day for visual defects. Defective tools shall be reported to the appropriate supervisor, and taken out of service.

Tools shall be thoroughly inspected by a competent person at least quarterly (unless dictated by regulation, manufacturer's recommendation or local policy) for defects, adequate guards, handles, electrical integrity, and general working condition. These inspections shall be documented and kept on file. The minimum information recorded shall be Type of tool, tool number or identification number, what was inspected, adequacy of tools, and repairs required.

"Do Not Use" tags shall be attached to defective tools. The tag shall have the name of the person who attached it, date, and a description of the defect. The appropriate supervisor shall be notified when a defective tool is tagged out of service.

Defective tools shall be stored where they cannot be used until they are repaired.

Non-repairable tools shall be destroyed.

5.3 Abrasive Blasting Tools

The blast cleaning nozzles shall be equipped with an operating valve, which must be held open manually. A support shall be provided on which the nozzle may be mounted when it is not in use.

Abrasive blasting suits shall be inspected at least monthly for leaks, tears, and general conditions.

Users shall inspect blasting suits daily for defects. Defective equipment shall be taken out of service until repairs are completed, or the suit is replaced.

5.4 Air hoses

All hoses exceeding 0.5-inch inside diameter shall have a safety device at the source of supply or branch line, which will automatically reduce pressure in case of a line failure. All connections, couplings, and splices in air lines exceeding 0.5-inch inside diameter shall be equipped with clips and wire rope or chain lashings.

The clips and lashings shall be installed in a manner that prevents whipping of the hose line, should the connection coupling or splice fail.

Air hoses shall not be disconnected at compressors until air pressure has been bled off.

The manufacturer's safe operating pressure for hoses, pipes, valves, and fittings shall not be exceeded. Defective hoses, valves, and fittings shall be removed from service.

Compressed air shall not be directed at any part of the body. Compressed air shall not be used for cleaning purposes, except when reduced to less than 30 Ib/in2, and then only with

effective chip guarding and the operator protected by applicable personal protective equipment.

Air hoses shall not be used for hoisting or lowering tools. Hoses shall not be laid on ladders, steps, scaffolds, or walkways in a manner creating a tripping hazard.

Air hoses shall not be exposed to damage from vehicle or other traffic.

5.5 Drill Press

- Pieces of metal being drilled shall be held tightly in a vise or clamp.
- Before drilling, the employee shall check the spindle speed and the setup.
- Before drilling, the chuck key shall be removed. Never leave the chuck key in the chuck.

5.6 Electric Powered Tools (general)

Electric powered tools shall be double-insulated type or effectively grounded as required for ground fault protection or other grounding and bonding requirements.

Power cords shall not be used for hoisting or lowering tools. Power cords shall not be laid on ladders, steps, scaffolds, or walkways in a manner creating a tripping hazard. Electric power cords shall not be exposed to damage from vehicle or other traffic.

When automatic restarting would create a hazard, electrically driven equipment shall be controlled with a device that will prevent automatic restarting following a power failure.

5.7 Fuel Powered Tools (general)

All fuel-powered tools shall be stopped while being refueled, serviced, or maintained, and fuel shall be transported, handled, and stored as appropriate for hazardous materials.

When fuel powered tools are used in enclosed spaces, the applicable requirements for concentrations of toxic gases and use of personal protective equipment shall apply.

Gasoline powered tools shall not be used underground or in locations where toxic exhaust gases can accumulate.

5.8 Grinders

The maximum angular exposure of the grinding wheel periphery and sides for safety guards used on cylindrical grinding machines shall not exceed 180o. This exposure will begin at a point not more than 65o above the horizontal plane of the wheel spindle.

All abrasive wheels shall be closely inspected and ring-tested before mounting to ensure that they are free from cracks or other defects. Cracked or defective abrasive wheels shall be removed from service immediately.

Grinding wheels shall be carefully installed and not forced.

Whenever possible, when grinding with a portable grinder, position the grinding wheel so that the sparks and steel go away from the person doing the work.

Nonferrous metal should not be ground because of the danger of exploding grinding wheels, unless the grinding wheel is designed to grind these metals.

Sheet metal and other small pieces of work shall never be ground on a pedestal grinder.

Grinding shall never be done against the side of the wheel.

Grinding wheels shall not be used if the pores are clogged. The wheels shall also be free of large chips and grooves.

5.9 Grinders (bench and floor stand)

The angular exposure of the grinding wheel periphery and sides for safety guards used on machines known as bench and floor stands should not exceed 90° or one-fourth of the periphery. This exposure will begin at a point not more than 65° above the horizontal plane of the wheel spindle. Whenever the nature of the work requires contact with the wheel below the horizontal plane of the spindle, the exposure shall not exceed 125°.

Floor and bench-mounted grinders shall be provided with readily adjustable work rests, which are rigidly supported. The tool rest shall always be set within ⅛ inch away from the wheel. The nose guard shall be adjusted to within ¼ inch of the wheel.

Grinding tools shall not be used without the safety guards.

All abrasive wheel bench and stand grinders shall be provided with safety guards that cover the spindle ends, nut, and flange projects and are strong enough to withstand the effects of a bursting wheel.

Safety guards where the operator stands in front of the opening shall be constructed so that the peripheral protecting member can be adjusted to the constantly decreasing diameter of the wheel. The maximum angular exposure above the horizontal plane of the wheel spindle as specified below shall never be exceeded, and the distance between the wheel periphery and the adjustable tongue or the end of the peripheral member at the top shall never exceed ¼ inch.

5.10 Hand Tools (general)

Sharp tools such as chisels, screwdrivers, knives, and pointed objects shall not be carried in pockets. Sharp tools carried by hand shall have the sharp or pointed end facing away from the body.

Lengths of pipe shall not be used as an extension of a tool to increase torque.

For example, a length of pipe inserted over the handle of a pipe wrench.

Persons shall not hammer on spanner wrenches unless they are designed for that purpose.

The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool. Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.

Screwdrivers shall not be used as chisels.

Wrenches, including adjustable pipe, end, and socket wrenches, shall not be used when jaws are sprung to the point that slippage occurs.

Files shall be equipped with handles and not be used to punch or pry.

5.11 Hydraulic-Powered Tools (general)

The manufacturer's safe operating pressure for hoses, valves, pipes, filters, and fittings shall not be exceeded.

The fluid used in hydraulic powered tools shall be an approved fire-resistant fluid and checked on a regular basis.

Stationary presses shall be provided with guards that adequately contain flying particles forcibly expelled from the material being compressed.

5.12 Jacks (ratchet, screw, and hydraulic)

The manufacturer's rated capacity shall be legibly marked on all jacks and shall not be exceeded.

Jacks of any type shall have a positive stop to prevent overtravel.

Jacks shall be set on a stable and firm footing and cribbed or blocked where necessary to prevent settlement or dislodgment. Where there is a possibility of slippage of the metal cap of the jack, a wood block shall be placed between the cap and the load. After the load has been raised, it shall be cribbed, blocked, or otherwise secured at once.

Persons shall not work under vehicles supported by bumper jacks or chain hoists without protective blocking that will prevent injury if jacks or hoists should fail.

All jacks shall be properly lubricated at regular intervals.

Each jack shall be thoroughly inspected at times that depend upon the service conditions. Inspections shall be not less frequent than the following:

- For constant or intermittent use at one locality, once every 6 months
- For jacks sent out of shop for special work, when sent out, and when returned
- For a jack subjected to abnormal load or shock, immediately before and immediately thereafter
- Repair or replacement parts shall be examined for possible defects
- Jacks which are out of order shall be tagged accordingly and shall not be used until repairs are made Hydraulic jacks exposed to freezing temperatures shall be supplied with an adequate antifreeze liquid.

5.13 Nail Guns (pneumatic)

Shall be provided with an automatically closing valve actuated by a trigger located inside the handle where it is reasonably safe from accidental operation.

The machine shall operate only when the trigger is depressed.

Do not pull trigger or depress contract arm while connected to air supply.

When in operation always the contract arm shall be pointed downward away from the personnel.

The air supply shall be disconnected when reloading or servicing of a nailing gun.

Electric, pneumatically driven nailers, staplers, and similar equipment provided with automatic fastener feed, which operate at more than 100 lb/in2, shall have a safety device on the muzzle to prevent the ejection of the fasteners unless the muzzle is in contact with the work surface.

5.14 Pneumatic Tools (general)

The pneumatic impact tools shall have the following features:

- An automatically closing valve activated by a trigger located inside the handle where it is reasonably safe from accidental operation. The machine shall operate only when the trigger is depressed
- A retaining device that holds the tool in place so that it cannot fly off accidentally from the barrel
- Be provided with heavy rubber grips to reduce operator vibration and fatigue

Pneumatic power tools shall be secured to the hose in a positive manner to prevent accidental disconnection.

5.15 Powder-Actuated Tools

Powder-actuated tools shall be operated and serviced only by persons who have been trained and certified in the use of such tools. Operators shall possess an operator's card, at all times while using this tool, issued by a firm or person authorized to issue such cards.

Operators of powder-operated tools shall wear safety goggles and face shields and utilize hearing protection when the tool is in use. Other employees working in close proximity to this activity shall also utilize hearing protection.

Powder-actuated tools shall not be used in explosive or flammable atmospheres.

Only powder charges, studs, or fasteners specified by the manufacturer for the specified tool shall be used.

Tools shall be designed to operate only when pressed against the work surface with a force at least 5 pounds greater than the weight of the tool. They shall be constructed so the tool cannot fire when dropped or during loading or preparation to fire. All tools shall be used with the correct shield, guard, or attachment recommended by the manufacturer.

Driving into soft or easily penetrated material is prohibited unless the material is backed to prevent the pin or fastener from passing completely through and creating a flying missile hazard on the other side. Tools shall not be used on very hard or brittle materials including, but not limited to, cast iron, glazed tile, surface hardened steel, glass block, live rock, face brick, or hollow tile. No fastener shall be driven into a spalled area caused by an unsatisfactory fastening.

Tools shall not be loaded until just prior to firing. Loaded tools shall not be left unattended. Neither loaded nor empty tools shall be pointed at any person, and all parts of the body shall be kept clear of the muzzle.

Tools shall be tested each day before loading to ensure that the safety devices are in proper working order; the test shall be conducted in accordance with the manufacturer's recommended test procedures.

High-velocity tools shall be used only for those applications where low-velocity tools will not meet the job requirements.

Work sites where powder actuated tools are used shall maintain a list of all powder-actuated tools and names of certified operators. This list shall be made available at the control point of where tools are issued or controlled and distributed to supervisory personnel as appropriate.

Signs warning of the use of powder-actuated tools shall be posted appropriately.

5.16 Saws (bench and radial-arm)

Bench-type circular saws shall be equipped with spreaders, anti-kickback devices, and guards that automatically enclose the exposed cutting edges.

For saws over 20 inches in diameter or operating speeds over 10,000 peripheral feet per minute only blades designed for use at the marked operating speed shall be used. When the saw is retensioned for a different speed, the marking shall be changed to indicate the new speed.

Radial arm saws and swing cutoff saws shall be equipped with:

- Limit stops, which prevent the leading edge of the blade from traveling beyond the edge of the table
- Hoods and/or guards that protect the operator from flying material, direct the sawdust toward the back of the blade, and enclose all parts of the blade not in contact with the material being cut
- Automatic brakes or automatic return devices

Power saws shall not be left running and unattended.

Push sticks or other devices shall be used to guide materials through the cutting plan of circular saws.

The hand, arm or any other part of the body shall not pass over the saw blade while it is in operation.

Bench-type circular saws and radial saws shall be equipped with enclosed-type sawdust collectors.

Cracked, bent, or otherwise defective blades shall be removed from service.

The blade of a table saw shall not be set higher than (1/16) one sixteenth of an inch above the material being cut.

5.17 Saws (portable electric)

Portable circular saws shall have the following features:

- Guards above and below the base plate
- The upper guard shall cover the saw to depth of the teeth
- The lower guard shall cover the saw to the depth of the teeth
- When the tool is withdrawn from the work the lower the lower guard shall automatically and instantly return to the covered position
- Be equipped with a constant pressure switch or control that shuts off the power when pressure is released
- May have a lock-on control provided that the saw can be turned off with a single motion of the finger that turned on the saw
- Operating controls shall be located as to minimize the possibility of accidental operation that would constitute a hazard to employee's safety
- The hand, foot, knee, leg or any other part of the body shall not be used as a support for materials

5.18 Spray Guns (airless)

Airless spray guns of the type which atomize paints and fluids at pressures of 1,000 Ib/in2 or more shall be equipped with automatic or visible manual safety devices, which will prevent pulling of the trigger and prevent release of the paint or fluid until the safety device is manually released.

In lieu of the above, a diffuser nut to prevent high-pressure release when the nozzle tip is removed and a nozzle tip guard to prevent the tip from contacting the operator or other equivalent protection shall be provided.

5.19 Washing and Steam Units (high pressure)

Employees who use high pressure washing tools and steam cleaning systems shall follow the manufacturer operating instructions and wear required protective equipment.

As a minimum, operating personnel are required to wear protective footwear, facial protection, and hand protection as determined by the operating process, operating design, and manufacturer specifications.

Employees who operate high pressure washing units or steam systems shall be trained and qualified by a competent person.

5.20 Winches and Hoists (hand-powered)

Hand-powered winches and hoists shall be used within the manufacturer's rated capacity, and the capacity shall be legibly marked on the winch or hoist.

The use of hand cranks is prohibited unless the winch or hoist is equipped with positive self-locking dogs or if the worm gear type hand wheels do not have projecting spokes or knobs.

5.21 Woodworking Tools (general)

Switches shall be located to enable the operator to cut off the power without leaving his operating position. Fixed power-driven tools shall be provided with a disconnect switch that can be locked or tagged in the off position.

Whenever the nature of the work will permit, automatic feeding devices shall be installed on fixed power-driven woodworking tools. Feeder attachments shall have the feed rolls and/or other moving parts guarded to protect the operator.

When automatic restarting would create a hazard, electrically driven equipment shall be controlled with a device that will prevent automatic restarting following a power failure.

A push stick, block, or similar safe means shall be used for all operations close to high-speed cutting edges.

Planers and joiners shall be equipped with cylindrical cutting heads and fully guarded.

Band saw blades shall be fully enclosed except at the point of operation.

6.0 References

OSHA 29 CFR 1910 (as applicable)
OSHA 29 CFR 1926 (as applicable)
Applicable Manufacturer Manuals