

Swift-Cut

SMART CUTTING SOLUTIONS



Swifty 1250 (44)

SAFETY INFORMATION

1 SAFETY

1.1 General

1. It is vitally important to be fully conversant with all aspects of the operation of your Swifty 1250 (44) plasma cutting machine before operation.
2. Make sure that you have read this manual fully and understand all aspects of the machine and the various operational functions it will perform.
3. Anyone operating, maintaining or cleaning the machine must have access to and fully understand this operator's manual.
4. Make sure that the cutting cycle of the machine is fully understood before any operation takes place. The cutting cycle must finish before the operator returns to the machine cutting area.
5. In addition to the safety equipment listed in Sub-Section **Error! Reference source not found.**, it is recommended that suitable overalls are worn to ensure there are no articles of clothing that could be caught or trapped in the machine.
6. There is an emergency stop buttons on the laptop stand. This is provided to quickly stop the machine in the case of an emergency.
7. Be specifically aware of the dangers of cutting aluminium materials when using a water table. Aluminium deposits in the water from cutting will create hydrogen gas and must be removed to ensure the gas does not build up. In exceptional circumstances, this could cause an explosion. Contact Swift-Cut for more information.
8. All current health and safety regulations and environmental protection rules must be complied with at all times. This includes any water table contents/preservatives/cleaning agents that are to be disposed of.
9. The water table should be cleaned weekly if no inhibitors are used. However, if inhibitors are used please refer to the manufacturer guidelines.
10. It is recommended that a 1500mm (59 inch) exclusion zone be put in place around the machine to prevent un-authorized access while cutting.
11. Where other personnel may become exposed to the arc light (for example in a busy workshop environment), it is also recommended that welding screens be positioned around the machine to prevent any cutting arc rays being omitted from the area.
12. All conduits, air lines and cables should be positioned around the machine (not in the walking area) to avoid trip hazards.
13. When loading heavy sheets of material onto the cutting bed. The material should be placed onto the table and not dropped to prevent damage.
14. The Swifty 1250 (44) has a maximum table capacity of 250kg (551lbs) for the cutting material.

1.2 Risk areas

1. Several areas of risk are associated with the Swifty 1250 (44). These are divided into two categories:

1.1 Risk to personal safety. These are identified by the warning triangles described in Sub-Sections 1.2.1 to 1.2.10 and will be accompanied by a description of the nature of the hazard in red text.

1.2 Risk to equipment. These will be identified by the warning triangle described in Sub-Section 1.2.11 and will be accompanied by a description of the nature of the hazard in black text.

1.2.1 Moving assemblies



There are moving assemblies on the machine when it is in operation. These are the X, Y and Z axis. They move rapidly and can trap body parts and clothing, causing injury.

All personnel must maintain a safe distance from the machine while it is in operation. Warning signs highlighting this hazard must be placed around the area where the machine is located.

Components must only be removed when the machine has fully completed its operating cycle and is at rest.

1.2.2 Heavy components



Some of the tasks associated with the installation and operation of the Swifty 1250 (44) require the handling of heavy items. Extreme caution must be exercised when handling heavy components to remove the risk of injury. If required, obtain assistance when handling heavy items.

Heavy items may require lifting equipment. In this instance, the operating instructions for such equipment must be followed.

1.2.3 Safety shoes



Some of the tasks associated with the installation and operation of the Swifty 1250 (44) require the handling of heavy items. All personnel involved with these processes must wear appropriate safety shoes to prevent foot injury.

1.2.4 Eye protection



Plasma cutting creates significant sparks in addition to debris from the cutting process and splashing from the water table. Eye protection that provides protection from these hazards must be worn.

Eye protection must also have side shielding.

Eye wear must also provide full protection from the effects of arc light. Refer to the plasma source documentation for the correct type of eye protection.

1.2.5 Hot materials



Plasma cutting creates significant heat in the material being worked. Cut components can retain heat after the cutting process has finished.

Always wear suitable gloves when handling cut components and allow the components to cool sufficiently before handling.

1.2.6 Electric shock



Electricity can cause serious injury or death.

The Swifty 1250 (44) contains equipment that operates on, or produces high voltage electricity. Never attempt to carry out any inspection or maintenance whilst the machine is connected to its power supply.

1.2.7 Noise



Loud noise can cause permanent hearing loss. This may be gradual and not immediately obvious.

The Swifty 1250 (44) uses compressed air as part of the cutting process, which produces a significant amount of noise. Appropriate ear protection must be worn by any personnel in the vicinity of the equipment when it is operating.

1.2.8 Fire and explosion



The plasma arc and the sparks produced by the cutting process are sources of ignition. All combustible materials must be stored at a safe distance from the machine.

Cutting aluminium with a water table can result in the formation of Hydrogen gas. Do not cut aluminium unless the gases can be eliminated. Failure to remove trapped gases can cause an explosion.

1.2.9 Automatic operation



Once programmed to cut components, the machine will make several automatic movements without warning.

It is imperative that the person operating the machine is fully conversant with the machine's operating cycle.

All personnel must remain at a safe distance from the machine whilst it is in operation. Failure to do so may result in injury.

Always ensure the machine has finished its cycle before any components are removed.

1.2.10 General warnings



Some hazards may be non-specific where there is a general risk associated with a particular task. In this instance, the exclamation mark symbol is displayed with the associated text.

1.2.11 Equipment damage



Some activities associated with the Swifty 1250 (44) may need to be conducted with care to prevent damage to the machine, or to the surrounding area.

1.2.12 Useful information



Some of the information contained in this manual is not mandatory but is in the form of useful information that will be beneficial to the reader. In this instance, it will be in blue text and will be accompanied by a blue information triangle.