Straight & Clean Torch Cuts. Every Time.

SCORPION® EZ-CUT

ASSEMBLY & OPERATIONS MANUAL

READ THIS BOOK THOROUGHLY AND FOLLOW INSTRUCTIONS!

FAILURE TO USE OSHA RECOMMENDED FLASHBACK ARRESTORS COULD RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

CONTACT YOUR DISTRIBUTOR FOR CORRECT SIZE OF FLASHBACK ARRESTORS TO USE.

READ THE FOLLOWING CAREFULLY

The parts diagram(s) in this manual are provided for reference only. Neither the manufacturer nor distributor makes any representation or warranty of any kind to the buyer that he or she is qualified to make any repairs to the product. Most manufacturers and distributors expressly state that all repairs and part replacements should be undertaken by certified and licensed technicians and not by the buyer. The buyer assumes all risk and liability arising out of his or her repairs to the original product or replacement parts hereto; or, arising out of his or her installation of replacement parts hereto.

FOREWORD

The equipment you have purchased was thoroughly tested and inspected when it left the factory. With reasonable care, and by following the instructions, it will give you many years of efficient, trouble-free service.

The instructions, applications and techniques described in this manual are designed to aid you in the basic principles of using the Scorpion® EZ-CUT.

IMPORTANT

- Always wear safety goggles with tinted lenses.
- Before starting work, always check for leaks by brushing a thick soap solution on all connections. Open valve and watch for bubbles to appear at

points of leakage.
- Tighten loose connections with a wrench.
- Never use a flame to check for gas leaks.
- Do not use a hose that is worn, or any equipment that is in need of repair.
- Never use oxygen to blow debris off work area or clothing.
- Purge fuel gas and oxygen passages separately before lighting up the torch.
- Secure cylinders to a cart, wall or post to prevent them from falling.
- Always use reverse-flow check valves on torches and regulators. This reduces the possibility of mixing gases inside the regulators or hoses.
- Do not use oil or grease on the equipment. Oil and grease are easily ignited and burn violently in the presence of oxygen, which is under pressure.
- Empty cylinders should be kept in specified areas and clearly marked "Empty."
- Before lighting the torch, follow all personal and equipment safety regulations.
- Always recommends using flash back arrestors. (must purchase separately)

SAFETY SIGNS FOUND IN THIS MANUAL

Danger sign indicates a hazard that *will* cause death or serious injury if the dangerous situation is ignored.

Warning sign indicates a hazard that *could* cause death or serious injury if the warning is ignored.

Caution sign indicates a hazard that *may* cause minor or moderate injury if the caution is ignored. It also may indicate a hazard which will cause property damage, even if no one is injured.

Notice sign indicates any information pertaining to the product or its proper usage.

GENERAL SAFETY

Always keep an approved fire extinguisher accessible while performing oxy-fuel operations.

Never touch work pieces until they are completely cooled.

Keep work area well ventilated.

Flying sparks and hot metal can cause injury. Take necessary precautions to reduce the possibility of injury, such as protective clothing and shielding.

PROTECTIVE CLOTHING & SHIELDING

All persons operating this equipment or in the area, while this equipment is in use, must wear protective welding gear including:

- welding goggles/face shield/safety glasses (with side shield protection)
- flame resistant clothing

- leather welding gloves
- full foot protection

Oxy-fuel operations produce intense light, heat and ultraviolet (UV) rays. The intense light and UV rays can cause injury to eyes and skin. Eye protection must have a minimum shade of 5. Take all precautions to reduce the possibility of injury to eyes and skin.

Oxy-fuel operations cause sparks and heat metal to temperatures that can cause severe burns. Take necessary precautions to reduce the possibility of obtaining skin and clothing burns.

Keep all clothing and protective equipment free of oil and grease. These substances can ignite and will burn violently in the presence of pure oxygen.

Wear ear plugs when welding or cutting overhead to prevent spatter or slag from falling into the ears.

Use flame resistant barriers as needed to protect others in the area from heat, sparks, intense light and ultraviolet rays.

OPERATIONAL HAZARDS

There must be two (2) O-rings on the coupler cone end of the cutting attachment or welding nozzle mixer. The absence of either O-ring from

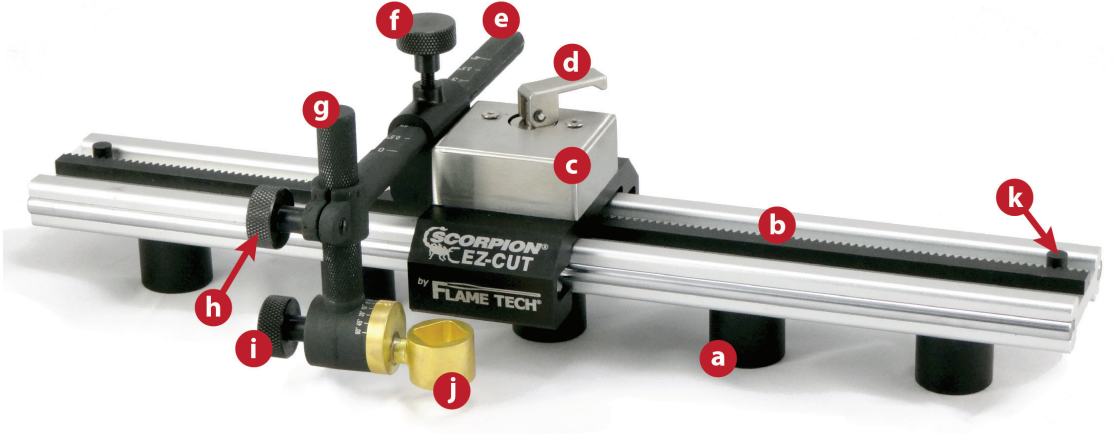
the cone end can lead to flashback within the torch handle, cutting attachment or welding nozzle mixer.

Inspect the tapered seating surfaces on the cutting tip and in the cutting attachment head. Have a qualified technician resurface the seat area if it has dents or is burned. A poor seating surface may result in backfire or flashback.

The following instructions apply to acetylene gas only. Contact your gas supplier for information about other fuel gases.

When the flame goes out with a loud pop, it's called a backfire. Backfire can be caused by (1) operating the torch at lower pressures than required for the tip used, (2) touching the tip against the work, (3) overheating the tip or (4) the tip is obstructed. If backfire occurs, shut off the torch handle valves (oxygen first) and fix the problem before relighting the torch.

Flashback is a condition that results when the flame flashes back into the torch and burns inside with a shrill hissing or squealing noise. If flashback occurs, close the torch handle valves (oxygen first) immediately. Flashback generally indicates a problem that should be fixed. A clogged tip, valves functioning improperly or incorrect oxygen/acetylene pressure could lead to flashback. Be certain to find the cause before relighting the torch.



Parts Diagram

PARTS LIST (See Diagram On Previous Page)

a. Magnets
b. Track
c. Speed Control Mechanism
d. Control Lever for Mechanism (down to engage, up to disengage)
e. Horizontal Arm (long arm)
f. Adjustment Knob for Horizontal Arm
g. Vertical Arm (short arm)
h. Adjustment Knob for Vertical Arm
i. Adjustment Knob for Tip Holder
j. Tip Holder
k. Track End Stop

Knobs are universal, & not specific to any position.

ASSEMBLY INSTRUCTIONS

1. To begin, slide the Horizontal Arm (**e**) into the opening adjacent to the Speed Control Mechanism (**c**). The Horizontal Arm (**e**) can be inserted from either end, depending on which side of the Track (**b**) the Tip Holder (**j**) is desired. Install an Adjustment Knob (**f**) and tighten to hold the Horizontal Arm (**e**) in place.
2. Next, insert the Vertical Arm (**g**) into the opening in the Horizontal Arm (**e**) from the bottom. Install an Adjustment Knob (**h**) and tighten to hold the Vertical Arm (**g**) in place.
3. Finally, attach the Tip Holder (**j**) to the receptacle on the bottom of the Vertical Arm (**g**), and secure on the opposite side with the provided D-Shape Washer and Adjustment Knob (**i**).

OPERATION INSTRUCTIONS

1. Secure EZ-CUT to work surface by placing the magnets on the material to be cut, being careful to avoid catching fingers and clothing. Make sure to align the track parallel to the desired cutting direction, with the tip holder positioned above the cut line.
2. Before lighting the torch, place the cutting tip into the tip holder. Disengage the speed control by flipping the lever on the top of the mechanism into the "up" position. Move the torch and carriage along the track to ensure the desired placement has been achieved. Slight adjustments of the track placement can be made by gently bumping the sides of the track with an open palm. Hammers and/or mallets should never be used to adjust positioning, as this may damage the track.
3. Loosen the knobs to adjust the tip height, cut angle (bevel), and the distance of the torch relative to the track if needed. Retighten knobs when finished.
4. Once the placement has been finalized, move the carriage to the "start" position of the cut and engage the speed control (if desired) by flipping the lever on top of the carriage into the "down" position.
5. Remove the torch from the mechanism, and light as usual. Once the torch is lit, carefully and securely place the tip back into the tip holder. Use caution to avoid unnecessarily exposing the EZ-CUT to direct flames from the torch.
6. When the material is ready to be cut, engage the cutting oxygen as usual and either push

or pull (depending on desired setup) the torch along the track.

7. When the cut is complete, extinguish the torch and remove it.

Parts of the EZ-CUT may be hot after use. Always wear protective clothing, gloves, and safety glasses.

The EZ-CUT is designed to give resistance when pushing or pulling the mechanism along the track. It is this pre-set resistance that allows for consistent, smooth, and clean cuts. Because the mechanism is pre-calibrated for a set speed range, *excessive use of force by the operator when pushing or pulling the mechanism can cause the carriage to skip, leading to a possible reduction of cut quality.* Avoid the excessive use of force for maintained consistency.

FLAME TECH
703 Cypress Creek Rd.
Cedar Park, TX 78613
1-800-749-3682
FLAMETECHNOLOGIES.COM