READ ALL INSTRUCTIONS

⚠ DANGER

EXTREMELY FLAMMABLE GASES USED WITH TORCH
FIRE/EXPLOSION HAZARD
CARBON MONOXIDE HAZARD

This Oxygen Cutting and Welding Torch is unlike most other hand held torches. This product is designed to use simultaneously with an Oxygen cylinder and MAPP, MAP-PRO or Propane cylinder. Using an Oxygen cylinder will result in the torch flame burning at a much higher temperature than normally would occur.

DO NOT use this torch until you become thoroughly familiar with its proper uses and potential hazards. In particular, you MUST NOT attempt to ignite the torch while oxygen is flowing to the torch. Further, when turning the torch off **ALWAYS TURN OFF THE OXYGEN BEFORE TURNING OFF THE FUEL GAS.** Turning off the fuel gas while oxygen is still flowing could result in a flash back and an explosion.

READ AND FOLLOW the instructions and warnings in this leaflet. Familiarize yourself with the torch before lighting and using. Review instructions and warnings periodically to maintain awareness. DO NOT try to operate before reading instructions and without being thoroughly familiar with this torch's use and potential hazards.

Failure to comply with these instructions and warnings may result in damage to property, serious personal injury, or death.

⚠ WARNING

1. Materials used in the construction of this device may contain brass (which may contain lead), a chemical known to cause birth defects or other reproductive harm.

⚠ DANGER

This Torch uses MAPP, MAP-PRO or Propane Fuel and Oxygen in pressurized cylinders. These gases are EXTREMELY FLAMMABLE.

READ AND FOLLOW all warnings and instructions on cylinder labels.

Keep the fuel and oxygen cylinders away from heat or flame.

Store fuel and oxygen cylinders in well-ventilated areas.

DO NOT store near any flame or source of heat or in a room where people live or sleep.

It is illegal and dangerous to refill the cylinders. When empty, obtain a new cylinder from your dealer.

Federal law prohibits transportation of cylinders if refilled: Penalty up to $500,000 fine and five years imprisonment (49 U.S.C. 5124).

Keep fuel and oxygen cylinders out of reach of children.

AVOID prolonged exposure to sunlight to the fuel and oxygen cylinders. This can cause them to heat up and explode.

ALWAYS detach torch from cylinders when not in use.

DO NOT breathe gas, fumes, vapor or spray from the fuel or oxygen cylinders. If inhaled, remove affected person to fresh air.

AVOID contact of cylinder contents with eyes or skin. In case of contact with eyes or skin, rinse immediately with plenty of water for 15 minutes and seek medical advice. When cylinders are empty, discard in a safe place.

DO NOT throw cylinders in fire.

DO NOT puncture or incinerate cylinders.

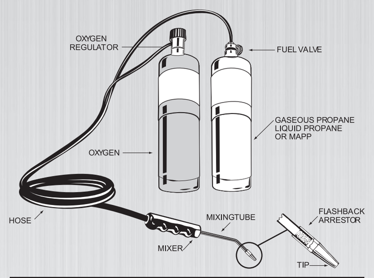
⚠ GENERAL WARNINGS

1. While the Oxygen-MAPP Torch is not a commercial oxygen torch, it produces flame temperatures up to 5300°F(2926°C). This is much hotter than the flame of a standard propane torch. These extremely high temperatures can cause serious personal injury or damage to the metal you are working on if not handled carefully and correctly.
2. NEVER ATTEMPT TO REFILL A CYLINDER. THE CYLINDERS ARE NOT-REFILLABLE.
3. Keep torch out of reach of children. DO NOT permit anyone to use this torch who has not read this manual.
4. Keep a fire extinguisher near where you are using the torch and where you store the torch.
5. ALWAYS point the torch flame away from your body, other persons and flammable objects. Check to make sure no unintended materials have been heated. NEVER attempt to use torch as a cigarette lighter.
6. NEVER point the torch toward the cylinders or let the flame deflect to heat the cylinder in any manner.
7. Disconnect torch from cylinder when not in use.
8. DO NOT attempt to modify the torch construction and never use unapproved accessories or fuels.
9. Be especially cautious when using the torch outdoors on sunny or windy days. Bright sun makes it difficult to observe the flame. Wind may misdirect the flame toward you or other unintended areas or objects. Wind may further cause sparks to come in contact with unintended combustible materials.
10. DO NOT drop or otherwise abuse the torch.
11. DO NOT use a torch that is leaking, damaged or malfunctioning.
12. When brazing, ALWAYS wear goggles having ANSI 287.1.2979 Shade No. 4 or No. 5 lenses.
13. NEVER use a torch for paint stripping or removal of lead-based paint.
14. Work ONLY in well-ventilated areas. The fumes from fluxes, lead-based paint, cadmium plating, brass, zinc and galvanized metal are toxic.
15. Avoid contact of flux with eyes or skin.
16. ALWAYS wear protective gloves.
17. Be aware that the tip of the torch can get extremely hot during use.
18. Be especially careful around motor vehicles or any gasoline-fired products and beware of any hidden fuel lines and tanks.
19. ALWAYS make certain the torch is placed on a level surface when connected to a fuel cylinder and/or oxygen cylinder to reduce the risk of accidental tip over.
20. NEVER use the torch on or near an aerosol can or any container that contains or previously contained chemicals, or flammable materials, liquids, or gases. Heating these is extremely dangerous, especially after they have been emptied.
21. DO NOT permit grease or oil to be placed on or come in contact with any portion of the torch, hoses or cylinders, particularly the oxygen cylinder, oxygen connection, oxygen regulator or oxygen hose as oxygen can cause the grease or oil to burn in an uncontrolled manner.
22. Never leave the torch unattended when lit.
23. This torch consumes oxygen and must only be used in well ventilated areas.

⚠ OPERATIONAL WARNINGS

1. DO NOT operate the torch with a flame that is less than ¼" / (6.5mm) long, because it can overheat the mixing tube and cause flame outage or flashback. The torch flame should be more than 4" / (100mm) long.
2. DO NOT hold the tip of the torch too close to the work piece. This can cause the flame to go out, cause flashback and weld the tip shut.
3. DO NOT operate the torch if the section of the mixing tube that is directly in front of the torch handle becomes hot. Although the section of the mixing tube immediately behind the tip of the torch can get hot, the section of the mixing tube directly in front of the handle SHOULD NEVER get hot. If this occurs, Extinguish the torch immediately by turning OFF the oxygen valve and then the fuel valve. Allow the torch to cool and then check the tip of the torch for blockage. If the tip is unblocked and clean, relight the torch. If the section of the mixing tube that is directly in front of the torch handle still becomes hot, discontinue use of the torch and contact manufacture immediately.
4. If the flame disappears unexpectedly, IMMEDIATELY turn OFF the oxygen valve and then the fuel valve. Disconnect the oxygen and fuel valves from their cylinders and re-open the valves to bleed the hoses.
5. Place the cylinder stand on a stable and level surface. Improper stand position, such as placing the stand on its side, could cause accidental tip over leading to liquid fuel entering the hose and causing an excessively long flame. This is called flare and is very dangerous. It can also cause the flame to go out.
6. DO NOT USE THE TORCH IF THE HOSES SWELL DURING OPERATION. THE HOSES MAY RUPTURE UNEXPECTEDLY AND CAUSE INJURY OR DAMAGE. If the hoses swell, stop using the torch by turning OFF the oxygen valve first and then the fuel valve. Disconnect the valves from the cylinders and then re-open the valves to bleed the hoses. Replace the torch assembly before relighting.

7. ALWAYS use tools, such as tongs or pliers, to handle brazing/welding rods because they could be hot.
8. Beware that certain surfaces can reflect and transfer the heat back to the torch handle causing damage or injuries.
9. In cold weather the size of the flame will be smaller.
10. Always carry the torch by the handle and make sure the valve side of the cylinders is not flipping downward, which could cause the cylinders to fall out of the stand.
11. DO NOT put the torch or torch tip in the stand because a hot tip could damage the stand.



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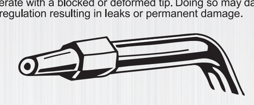
• Torch kit with accessories only, no gas cylinders included.

MAINTENANCE AND INSPECTION PRIOR TO USE

HOSE CARE AND INSPECTION

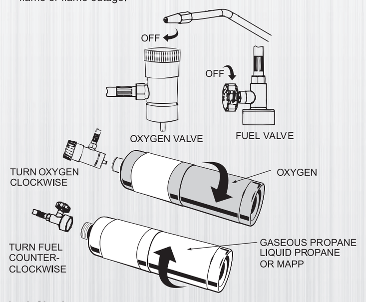
a. Hoses should be kept dry at all times and kept free of debris, caustic chemicals or liquids, especially oil, grease and gasoline.
b. DO NOT pinch, twist, puncture or pull the hoses.
c. DO NOT pull the hoses over rough surfaces or sharp edges.
d. DO NOT tug or yank hoses or subject to other undue forces.
e. DO NOT places hoses near heat or in the direction of the flame.
f. Prior to use, inspect the hoses to ensure that there are no tears, cuts, frays or any other signs of deterioration or damage. DO NOT use the torch if you detect any such conditions.
g. Visually make sure that the tip is open and unobstructed. CAUTION DO NOT operate with a blocked or deformed tip. Doing so may damage the oxygen regulation resulting in leaks or permanent damage.



ASSEMBLY AND LEAK CHECK INSTRUCTIONS

Assembly

1. Before attaching the hoses to the cylinders, make sure the oxygen and the fuel valves on the hoses are OFF by turning the knobs clockwise. A light turn is sufficient. DO NOT force.
2. Thread the fuel cylinder counter-clockwise onto the fuel hose valve. Hand tighten only. DO NOT force.
3. Thread the oxygen cylinder clockwise onto the oxygen hose valve. Hand tighten only. DO NOT force.
4. Place the cylinders, while attached to the hoses, into the stand. DO NOT attempt to ignite or use the torch unless the cylinders are secured in the stand.
5. Place the cylinder stand on a stable and level surface. Improper stand position, such as placing the stand on its side, could cause accidental tip over leading to liquid fuel entering the hoses and causing excessively long flame or flame outage.

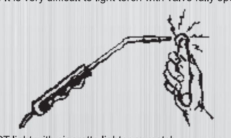


Leak Check

Whenever the hose or torch is connected to a cylinder and prior to attempting to ignite torch: check all joints and couplings to ensure against loose connections. With the fuel valve and oxygen valve closed and without lighting, test the connections between the fuel valve and fuel cylinder and between the oxygen valve and the oxygen cylinder with soapy water. If bubbles appear, gas is leaking and torch must be repaired. NEVER use a flame to check for leaks. Conduct this test in a well-ventilated and spark-free area where there are no open flames.

Lighting and Operation

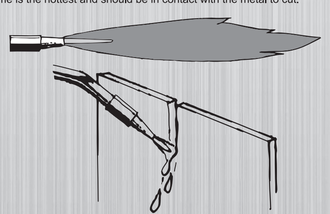
1. DO NOT ignite the torch while oxygen is flowing to the torch.
2. Before lighting, make sure that the tip of the torch is not pointed at any living being or any flammable material.
3. To light with a spark lighter, open fuel valve slowly just before sparking. Hold spark lighter at a 45 degree angle to the tip of the torch.
4. NOTE: It is very difficult to light torch with valve fully open.



5. DO NOT light with cigarette lighter or match.
6. If ignition does not occur immediately upon opening the fuel valve, close the valve and wait 5 minutes before attempting to ignite again. Failure to follow this instruction could result in a build up of flammable gas which if ignited could result in a fireball that could cause injuries and property damage. DO NOT open the valve and allow gas to flow through the torch without attempting to ignite the torch.

Cutting Flame:

From the welding/brazing flame, slowly increase the flow of fuel by adjusting the fuel valve until the yellow flame is about 5" / (125mm) long. Then slowly increase the flow of oxygen by adjusting the oxygen valve until the inner blue flame is less than ¼" / (6.5mm) long. The tip of the inner blue flame is the hottest and should be in contact with the metal to cut.

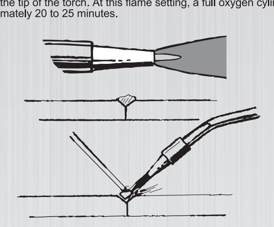


Once the metal is sufficiently heated, and a molten puddle is present, increase the oxygen flow until the molten metal blows away from the puddle. Move the torch slowly along the cutting line. If the torch is too far from the metal or moves too quickly, the metal will cool and you will need to restart the cutting process. At this flame setting, a full oxygen cylinder will last approximately 8 to 12 minutes.

NOTE: Cutting will generate flying sparks and hot metal drippings, so cut in an area that is away from flammables. Avoid metal drippings contacting any part of the torch assembly and/or cylinders.

Welding/Brazing Flame:

From the soldering/heat treating flame, slowly increase the flow of oxygen by adjusting the oxygen valve until there is an inner blue flame ½" / (13mm) long at the tip of the torch. At this flame setting, a full oxygen cylinder will last approximately 20 to 25 minutes.



7. After igniting, the flame will appear soft yellow and should be between 4" / (100mm) to 6" / (150mm) long.
8. Then, slowly open the oxygen valve until the flame has an inner blue flame about ¼" / (6.5mm) long. The outside flame may be longer. This is the starting flame.

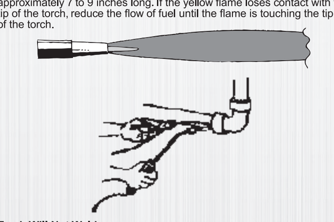
Shut off and Storage

1. TURN OFF THE OXYGEN VALVE BEFORE TURNING OFF THE FUEL GAS VALVE. Turning off the fuel gas valve while oxygen is still flowing could result in a flash back and an explosion.
2. When the torch is cool, disconnect the cylinders from the hoses and replace the protective caps on the cylinders.
a. Disconnect the oxygen cylinder by holding the oxygen hose valve and turning the oxygen cylinder counter-clockwise.
b. Disconnect the fuel valve by holding the fuel hose valve and turning the fuel cylinder clockwise.
3. Store the torch and cylinders separately and out of reach of children.
4. DO NOT store torch and/or cylinders inside a vehicle.

SOLDERING/HEAT FLAME

Soldering/Heat Treating Flame:

Begin with the starting flame. Then, slowly increase the flow of the fuel by adjusting the fuel valve so that the yellow portion of the flame remains in contact with the tip of the torch. Adjust the fuel valve until the flame is approximately 7 to 9 inches long. If the yellow flame loses contact with the tip of the torch, reduce the flow of fuel until the flame is touching the tip of the torch.



Torch Will Not Weld:

1. Make sure the metal has been cleaned and fluxed.
2. Use the correct size flame for your job.
3. Make sure the tip of the blue flame is just touching the piece you are working on.
4. Try using MAPP instead of propane for extra heat.
5. If the torch still fails to weld, the work piece may be too big for this torch.

TROUBLESHOOTING

No Flame/Cannot Obtain Acceptable Flame:

1. Turn the oxygen valve OFF and then turn the fuel cylinder OFF. Disconnect the cylinders.
2. Make sure the torch and the tip are completely cool and then move the torch and cylinders to a well-ventilated area, away from combustibles and flammables.
3. Check the tip of the torch for blockage.
4. Without igniting, connect the oxygen cylinder and turn on the oxygen valve slowly (the fuel cylinder should be disconnected). Then, hold a piece of paper in front of the tip to see whether it moves. If not, replace the oxygen cylinder and repeat the above step. This is to see whether gas is flowing to the tip.
5. If there is still no movement, the oxygen hose is clogged and/or there is some other problem, the torch assembly needs to be replaced.
6. If the oxygen cylinder does cause the paper to move, then disconnect the oxygen cylinder and connect the fuel cylinder. Repeat step 4 with the fuel cylinder. Be sure to only keep the fuel valve on for one second or less.
7. If there is still no movement, the fuel hose is closed and/or there is some other problem, the torch assembly needs to be replaced.
8. If both the fuel and oxygen lines caused the paper to move, check for leaks by following the instructions for leak testing.
9. If the paper moves and there are no leaks, then attempt to re-light. If you still do not get a flame, replace the torch assembly.

The Brazing or Welding Rods Stick to the Metal and Fail to Flow Properly:

1. Use the correct size flame for your job.
2. Make sure the tip of the blue flame is just touching the piece you are working on. If you move away slightly, the metal will cool and the rod will not stick.

Manufacture accepts no responsibility for any loss or damage by any person as a result of the use or misuse of this product. In case of any defect in the goods, Manufacture shall be limited solely to replacement of the defective goods.

THIS TORCH IS NOT RECOMMENDED FOR INDUSTRIAL OR COMMERCIAL USE.

⚠ **WARNING:** This product contains chemicals, including lead and lead compounds in brass fittings. It also produces combustion by-products when used. These substances are known to the State of California to cause cancer, birth defects or other reproductive harm.
⚠ **Wash your hands after using this product.**
Contains lead.
May be harmful if eaten or chewed.
Complies with federal standards.
⚠ **WARNING: Keep out of children's reach.**
For more information, go to www.P65Warnings.ca.gov

SAVE THESE INSTRUCTIONS

GAS CYLINDERS NOT INCLUDED

1 x Sturdy cylinder stand

1x Dual hosed torch with regulators

1 x Hand sparker

www.aerosolgas.com

WEAR YOUR SAFETY GLASSES

HZ-7150 NEW

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Design in USA

BLUEFIRE

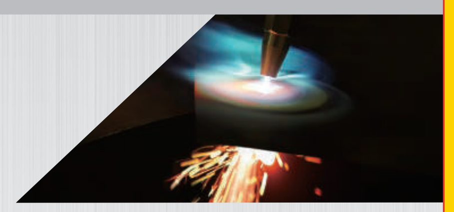
Oxygen MAPP Cutting Torch

Cutting / Welding / Brazing Torch kit

HZ-7150

Feature:

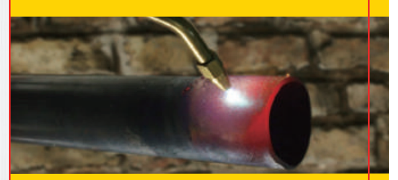
- Sturdy metal cylinder stand
- Portable/Lightweight
- Solid brass fittings
- Pin point flame
- Easy to use



⚠ KEPP OUT OF CHILDREN'S REACH

GAS CYLINDERS NOT INCLUDED

www.bluefireusa.com



Compatible with MAPP, MAP-PRO and Propane. For best performance, we recommend using together with BLUEFIRE® MAPP gas.

190x55x352mm