

MICROFLAME GAS WELDING TORCH

USES OXYGEN and LP GAS
TO WELD, BRAZE,
SOLDER



YOUR CHOICE OF
MINIATURE OR INDUSTRIAL
CAPACITY

U.S. PATENT NO.
3,246,849

MICROFLAME GOLD/SILVER SOLDER

Microflame Solder Sticks are a gold/silver alloy specially designed to obtain maximum efficiency from your Microflame Gas Welding Torch. They will enable you to solder any metal with a melting point of 1100°F or higher to any similar or different metal.

REPLACEMENT PARTS AND ACCESSORIES

Microflame, Inc. is an American manufacturer and replacement parts are readily available through your Microflame dealer or distributor. The MICROFLAME TORCHES are designed so that a Miniature Torch Set may be converted to an Industrial Torch Set by the addition of a few accessories (available separately as a kit). The Miniature Torch contained in the Industrial Torch Set may be used separately, if desired.



MINIATURE TORCH SET is a completely self-contained unit which produces over 5000°F pin-point accurate flame using miniature oxygen and LP gas cylinders.



INDUSTRIAL TORCH SET contains a complete Miniature Torch, plus large capacity oxygen and LP gas tanks, valves, regulator, and accessories for longer term industrial uses.

EASY TO USE for hundreds of lightweight welding, brazing, and soldering applications.



REPAIR AND
SERVICE SHOPS



ELECTRONIC
TECHNICIANS



JEWELRY REPAIR
AND MANUFACTURE



DENTAL
LABS

MICROFLAME, INC.



A SUBSIDIARY OF PRINTED CIRCUITS INC

7800 Computer Avenue • Minneapolis, Minnesota 55435 • Phone (612) 927-5681

MICROFLAME

GAS WELDING TORCH

OPERATING TIME ... When the heat is adjusted for welding, the oxygen is consumed 2 to 3 times as fast as the LP gas. The consumption of gas is controlled by valve opening and tip size. The following times for the Miniature Torch Set per oxygen cylinder life are approximate.

With Large Tip - (#20 Gauge)..... 10 Minutes

With Medium Tip - (#22 Gauge).... 20 Minutes

For work permitting lower flame temperatures, the oxygen consumption decreases accordingly. Operating time using the Industrial Torch Set's larger tanks is from a minimum of 4 hours to a maximum of 15 hours, depending upon operating technique.

FUEL SUPPLY ... The Microflame cylinders are not refillable. Some drug, medical, and tobacco outlets have replacement cylinders, but our field experience indicates that they are not generally available. Your best practice is to get them from your local Microflame, Inc. Distributor or directly from the factory.

The cylinders can be shut off for an indefinite period of time and the fuel supply will be maintained. There is no aging or loss of gas when the cylinders are stored.

Warning: To avoid violent combustion, keep oxygen away from oil and grease. Keep oxygen and LP gas away from open flame. Store cylinders of oxygen and LP gas at room temperature (not over 130°F). Keep them away from direct sunlight, radiators, stoves, hot water and other heat. Do not incinerate cylinders. LP gas is flammable. Do not store LP gas in a room used for habitation. Keep cylinders away from children.

FLAME TEMPERATURE ... A number of variables affect flame temperature. When adjusted for high heat, flame temperature exceeds 5000°F.

METALS HANDLED ... The Microflame Torch can weld, braze, or cut most metals, including the noble and rare metals. The controlling factors are the coefficient of heat conductivity of the metal, the size of the metal, and the melting point of the metal.

SIZE OF WORK ... Above we indicated the three variables affecting the ability of the torch to cut or melt a metal. It would be impractical to list the size work for all metals, but the following is a guide.

The Microflame Torch, using the large tip, can silver solder two copper pieces 1" x 2" x 1/16". Two copper pieces larger than 2" x 4" x 1/16" in total mass will conduct the heat away so that the time to perform the task exceeds a practical limit, or the fuel runs out before brazing temperature is reached. This size can be increased for all other metals except pure silver, which has a higher coefficient of thermal conductivity.

MICROFLAME GOLD/SILVER SOLDER ... Microflame Solder sticks are a gold/silver alloy specially designed to obtain maximum efficiency from your Microflame Gas Welding Torch. They will enable you to solder any metal with a melting point of 1100°F or higher to any similar or different metal.

ROD SIZE ... Welding and brazing rod size should be 1/32" diameter or less. Size can go to 1/16" diameter, but it is not recommended.

ROD TYPE ... Welding and brazing rods of the type available through either Eutectic Welding Alloys Corporation or Handy & Harman work well with the Microflame Torch. Both companies have sales outlets throughout the country.

USE OF GOGGLES ... When cutting, brazing, or welding it is advisable that one wear dark glasses.

SIZE ... Over-all size of the Miniature Torch, including controls and clamping screws is 5-1/4" long by 2" wide by 1-1/4" thick at the swivel joint. Hand size is 3" long by 2" wide by 5/8" thick.

WARRANTY ... MICROFLAME, INC., Division of PRINTED CIRCUITS, INC., warrants each new MICROFLAME TORCH and all parts thereof manufactured by it or included with it, to be free from defects in material and workmanship under normal use and service, its obligation under this warranty being limited to making good at its factory all parts thereof which shall within 90 days after delivery to the original purchaser, be returned to it.

MICROFLAME, INC., may, if it wishes, elect to supply a replacement unit in place of repairing or replacing any or all defective parts. This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liability on its part, and neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale of the MICROFLAME TORCH. Under no circumstances shall MICROFLAME, INC. have any responsibility or be subjected to any liability by reason of warranty or otherwise with respect to any MICROFLAME TORCH which shall have been repaired or altered outside of our factory, or which has been subject to misuse, negligence, or accident.

PACKAGING ... The Miniature Torch Set contains the Torch, 3 flame tips, torch tube, gaskets, LP gas and oxygen cylinders, instruction ... all packaged in a convenient plastic try-box container, handy for storage when the Torch is not in use.

The Industrial Torch Set contains a complete Miniature Torch Set (described above), plus large capacity oxygen and LP gas tanks, valves, regulator, and accessories. Oxygen capacity is 90 liters; LP gas capacity is 26.7 liters. The Industrial Torch Set is packaged in a heavy-duty carton.



MICROFLAME, INC.

7800 Computer Avenue Minneapolis, Minnesota 55435

TWX: 910-576-2852 · PHONE: (612) 927-5681

A DIVISION OF PRINTED CIRCUITS, INC.

DISTRIBUTED BY