







TEEHINGAL DATA SHEET

HT MAPPRO GAS

Product use: Specially designed for copper tube welding, soldering, and rapid defrosting in the refrigeration industry. The specialized welding gun used in conjunction can achieve a heating temperature of 1960 degrees Celsius or higher when supported by oxygen

Commodity characteristics:

- 1. Safe, convenient, professional, and concise.
- 2. Under oxygen assisted welding conditions, the combustion temperature of HT MAPPRO GAS can reach above 1960 $^{\circ}\text{C}$.
- 3. Easy to weld with one hand, convenient to carry.
- 4. Scientific mixing ratio and good flame characteristics ensure welding effectiveness and shorten working time.
- 5. Under normal working conditions, it can achieve a continuous combustion time of more than 2 hours and 30 minutes.
- 6. A special professional mixed gas designed for a large amount of soft/hard welding work, such as copper pipe welding during the installation of heating and cooling equipment.

Usage method:

- 1. Remove burrs from the copper pipes that need to be welded. Then measure the diameter of the copper tube and select a suitable specialized welding gun based on the diameter of the copper tube to be welded.
- 2. One end of the copper pipe that needs to be welded is expanded.
- 3. The welding gun is installed on the MAPP cylinder. Method: the top needle of the welding gun is aimed at the center part of the MAPP cylinder connection, so that the screw position of the welding gun is aligned with the screw port of the cylinder, and the cylinder is rotated against clockwise until tightened. Avoid screw thread misalignment, damage the thread, the position of the welding torch is not installed, the interface will leak, and it will cause danger when igniting.
- 4. Before ignition, the cylinders need to be shaken several times, so that the additives in the bottle and liquid gas can be fully mixed.
- 5. Gently rotate the regulating valve on the welding gun until a slight "sizzling" outgassing sound is heard, the ignition button (self ignition welding gun T-A) is pressed down and the adjustment valve is opened to the maximum abandonment position after the ignition. At this time the flame is very long, the gas is sprayed fiercely, the strong "hissing" sound, and the shape of the flame. It's scattered. This flame is not the flame we need to weld normally. Back to the adjustment valve, it can be









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seen that the shape of the flame shrinks gradually. When the flame shrinks to the depth of blue, the gas is most fully burned at about 1.5 cm. The flame is most suitable for welding at this time.

- 6. When heating, the distance of the muzzle is about 1.5 centimeters, burning copper tube until bright red, the time takes about 10-20 seconds (the heating time depends on the ambient temperature in the summer, the welding small copper tube is heated to the required temperature of only 5 seconds) and then the electrode is aimed at the spot where the welding is required. The electrode will melt into the weld immediately and operate until the whole weld is welded.
- 7. In the long time uninterrupted welding, the MAPPRO gas pressure in the bottle will be lower than the normal level because the temperature of the bottle can be greatly reduced (showing the bottle body sweating), and the temperature of the cylinder needs to be suspended and then used again.

Use of knowledge:

- 1. Keep the thimble and sealing surface of the welding gun clean and avoid damaging the sealing effect due to dirt.
- 2. When it is found that there is a leak in the connection between the cylinder and the welding torch, please do not ignite. The torch should be rolled out and the cylinder should be returned to the distributor for examination.
- 3. When firing, the muzzle should be directed against the unmanned area, and no flammable and explosive items should be placed around it.
- 4. MAPP gas should be kept in a cool place at ordinary times to avoid direct sunlight and avoid violent collisions, so as to prevent damage caused by packaging containers.
- 5. In the event of a fire caused by leakage, the tank and welding gun can be directly covered with a wet cloth or yellow sand, the air is extinguishing, and the fire extinguisher can be used to direct the fire extinguishing.

Commodity property:

The method of sufficient combustion time: scientific mixing ratio of nearly 2 hours and 30 minutes and good flame retardancy to ensure good welding effect..

Portable application

This series of portable welding guns are suitable for all kinds of non-ferrous metal rod welding joints, and are suitable for melting welding (such as aluminum, brass and brass joints) of similar nonferrous metals with low melting point. For rod welding between black metal, welding joint of black metal and nonferrous metal, suitable rod and flux are selected. A good rod welding joint can be obtained.





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The portable welding gun is used in the maintenance operation as a hand-held tool for rod welding. In use, the safety operation guide should be strictly observed in the operation, and the gas bottle and gas must conform to the corresponding national and bank standards.

The range of welding torch suitable for welding is detailed in the following table:

RTM-027, RTM-1S, RTM-1 Welding range of welding gun

Welded metal material	Diameter * wall thickness mm (<)	Type of rod	Scaling powder	Heating time (second)	Gas consumption	Remarks
Copper and copper	32*1. 2	Hard rod	Do not need	<60	<3g/min	
Copper and brass	32*1.2	Hard rod	Need	<60	<3g/min	
Brass and brass	40*2	Hard rod	Need	<70	<3g/min	
Copper and stainless steel	32*2	Soft rod	Do not need	<20	<3g/min	Flux cored wire
Copper + carbon steel	32*3	Soft rod	Do not need	<30	<3g/min	Flux cored wire
Stainless steel and carbon steel	32*3	Soft rod	Do not need	<30	<3g/min	Flux cored wire

Welded metal	Diameter * wall	Type of rod	Scaling	Heating time	Gas	Remarks
material	thickness mm $(<)$		powder	(second)	consumption	
Copper and copper	45*1.5	Hard rod	Do not need	<50	<6g/min	
Copper and brass	80*2	Hard rod	Need	< 70	<6g/min	
Brass and brass	100*3.5	Hard rod	Need	<100	<6g/min	
Copper and stainless steel	100*3.5	Soft rod	Need	<40	<6g/min	Flux cored wire
Copper + carbon steel	100*3.5	Soft rod	Do not need	<50	<6g/min	Flux cored wire
Stainless steel	100*4	Soft rod	Do not	< 70	<6g/min	Flux







need

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wire

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RTM-2 Welding range of welding gun

Note: 1. Hard rod material is the rod material with melting point above 450 degree, commonly known as refractory rod material. Soft rod material is rod material below melting point below 450 degrees, commonly known as fusible bar material.

- 2. The heating time shown in the above table is closely related to the welding environment, the length of the weldment, the technical level of the operator, etc. the heating time given in the table is for reference only.
- 3. When welding large pipe diameter, large wall thickness or fast heat dissipation welding, in order to improve welding speed and obtain high quality welding joint, appropriate insulation measures (winding with thermal insulation materials, auxiliary heating, etc.) should be adopted, and RTM-2 welding gun produced by RTM company is used for welding, and a welding gun can be used to heat and heat insulation when necessary. Another method used to weld the ground is carried out.