Operation Manual



RBC-6000D Cutting Machine

Version

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1 Product brief introduction

1.1 Summarize

	This device uses single tube IGBT inverter technology (the inverter frequency range is from		
	25-50KHz) to convert 50/60Hz alternating current (AC) to direct current (DC) and then to high		
Inverter	frequency and lower voltage rectification. The resulting pulse width modulation (PWM) output can		
Technology	be used for the high-power DC power supply, Due to switching power inverter technology adopted,		
	the weight of the welder has been significantly decreased and the conversion efficiency of the whole		
	machine is increased by more than 30%.		
Wide Voltage	Our cutting machine is equipped with a power supply voltage compensation device, The power		
	supply voltage will work when the rated voltage is within 15% of requirements. When using		
	extension cords, in order to reduce voltage drop, use a heavy duty extension cord (10 or 12AWG or		
	greater) or use the recommended configuration length.		
Easy to Use	Piloting arc system can strike arc easily with principle of high frequency oscillation .It has functions		
	that it can supply gas ahead and turn off gas delayed.High frequency arc starting		
Widely Used	It is suitable for cutting stainless ,Steel, alloy steel, mild steel, copper and other color metal		
	materials.		
Superior	1.Stabilizing 2.Reliability 3.Lightness 4.Energy-saving and no noise 5.High cutting speed 6.Cutting		
Performance	smoothly and no polish demands		
Attention	Plasma cutter, the consumables are not on correctly, they are usually missing the white spacer. Air		
	regular not on it the correct direction(this will not give it enough flow).		
	Air leaking from the hose connections. Customers don't know they have to touch the metal to start		
	the arc.		

1.2 Technical parameters

TYPE	RBC-6000D		
Input power voltage	AC120V, 50/60Hz AC240V, 50/60Hz		
Rated input current	39A	25A	
Rated power capacity	4.5KVA	5.75KVA	
Current adjustment range	15A-40A	15A-60A	
	Carbon Steel≤12.0mm(1/2in)	Carbon Steel≤16.0mm(5/8in)	
Cutting thickness	Stainless Steel≤12.0mm(1/2in)	Stainless Steel≤16.0mm(5/8in)	
Cutting thickness	Aluminum≤5.0mm(13/64in)	Aluminum≤6.0mm(15/64in)	
	Copper≤4.0mm(5/32in)	Copper≤5.0mm(13/64in)	
Voltage adjustment range	86V-104V		
No-load voltage	325V		
Rated duty cycle	20)%	
Efficiency	75	5%	
Power factor	0.	85	
Protection class	IP21S		
Insulation class	Н		
Size	360*120*285mm (14.2*4.7*11.2in)		
Weight	4.8Kg (10.58lb)		

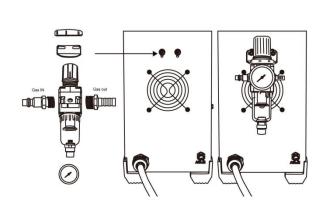
1.3 Accessories list

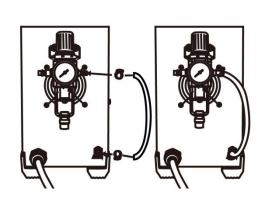
High Frequency Plasma Cutter*1	PT31 Plasma Cutter torch	Ground wire*1

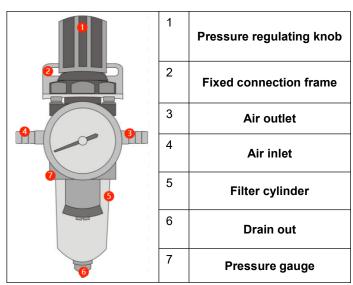
2 Installation instruction

2.1 Installation of Air Regulator

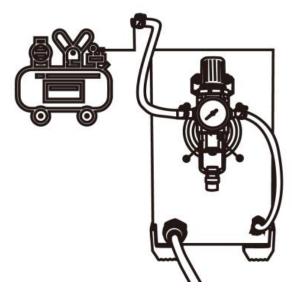
- Wrap the copper gas nozzle around the sealing tape and tighten it on the IN and OUT ends;
- (2) Wrap the meter head with the sealing tape and tighten it on the meter head installation position;
- (3) Fix the connecting frame to the installation position of the pressure reducing valve behind the welder as shown in the figure;
- (4) Unscrew the rubber nut and fix the pressure reducing valve on the connecting frame as shown in the figure;
- (5) Turn on the air valve switch, lift up the pressure regulating knob, adjust the air pressure to the specified air pressure (turn to "+" to increase the air pressure, and to "-" to decrease the air pressure), then Press down the pressure regulating knob;
- (6) The scale position of the meter, suggest the indicated position is 60-70PSI(about 0.4Mpa) air pressure. When there is too much water in the filter cylinder, the drain valve should be opened to drain the water.



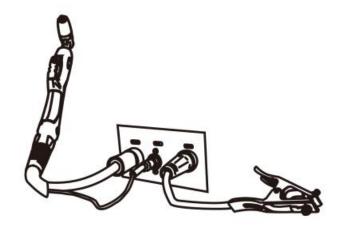




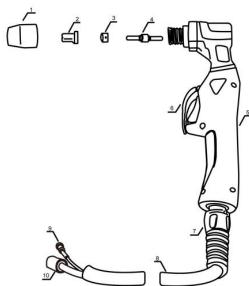
2.2 Air compressor connect to plasma cutter



2.3 Plasma Cutter Torch connect to machine



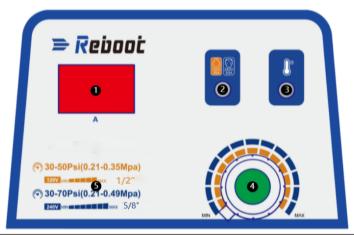
2.4 Cutting Torch explosive chart



1.Outside nozzle, 2.Extend tip, 3.Diffuser, 4.Electrode. These are wear parts, among which the extend tip and electrode are very easy to wear, please keep it.

3 Operating instructions

3.1 Operation panel interface



1	Current display meter, Display preset current and actual current during operation. The maximum output current is
'	60A when the 240V voltage is input, and 40A when the 120V voltage is input.
	Power light
2	When this light is on, it means that the power supply is normal. This machine can accept 120V or 240V power
	supply.
	Over current or over heat protection light
	When the cutting load is overloaded and the output current of the machine is too large, the internal temperature of
3	the machine is too high, and the machine fault light will be on. This is normal. The machine can recover after the
	heat dissipation becomes normal. Please restart the power supply; When damaged, the fault light will be on, in
	this case, the machine is abnormal and needs maintenance, please contact the supplier.
4	Current adjust knob
5	Recommended selection range of air pressure: when 120V is input, it is recommended to adjust the input air
5	pressure at 30-50PSI; When 240V is input, it is recommended to adjust the input air pressure at 30-70PSI.

3.2 Cutting Operation instruction

On display

After open the power supply,the power light is light, current meter display the preset current.

Preparation

Input cable connection

- Every machine has been disposed a power cable which must be connected to coordinated voltage class in compliance according to input voltage of cutting machine .If cutting machine whose power voltage is 230V is connected wrong to AC 400V, that will cause components of inter-machine are burned up.
- Make sure power cable is connected to power switch reliably and prevent from oxidizing. Make sure power voltage is inside the waved range.

Connect Air compressor

- Make sure tube of pressed air is connected to copper connector by high-pressure rubber tube firmly.
- Connect one end of the trachea to the gas in of the machine and the other end to the air compressor. (Refer to 2.2)

Output cable connection

- Earth cable is connected to positive terminal of front panel then tighten it.
- Make sure copper screw of another end of torch is connected to gas-electrify integration terminal then tighten them clockwise relation (prevent from leaking gas). (<u>Refer to 2.3</u>)

Operation

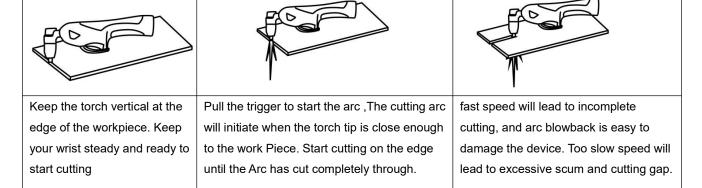
- (1) Open the power switch; make the power switch is in "on" position . Screen will show the current volume.
- (2) Adjust the gas pressure and make it is adequate to machine, open the valve of pressed air.
- (3) Make sure cutting current is adequate to machine according to thickness of cutting piece.
- (4) Press the control knob of torch, electromagnetic valve is starting, it can be heard and burner of torch should flow out gas (Burner of low frequency cutting machines or pilote-arc cutter should spurt fire)
- (5) It is 1mm from copper tip to work piece (if it is arc-supporting cutter.), It is 3-5mm from copper tip to work piecepress(if it is burner of low frequency cutting machines or pilote-arc cutter). knob of torch and burn and strike arc, sparks of HF arc striking will diminished immediately. User can begin to cut.

Adjust air pressure and Current

	Input 240V	20Amps	35Amps	40Amps	50Amps	60Amps
	A :	30-70 (PSI)				
	Air pressure	0.21-0.49(MPa)	0.21-0.49(MPa)	0.21-0.49(MPa)	0.21-0.49(MPa)	0.21-0.49(MPa)
1	Thickness (Fe)	5mm(13/64in)	8mm(5/16in)	10mm(25/64in)	12mm(1/2in)	16mm(5/8in)
	Thickness (Ss)	5mm(13/64in)	8mm(5/16in)	10mm(25/64in)	12mm(1/2in)	16mm(5/8in)
	Thickness (AI)	1mm(3/64in)	3mm(1/8in)	4mm(5/32in)	5mm(13/64in)	6mm(15/64in)
	Thickness (Cu)		2mm(5/64in)	3mm(1/8in)	4mm(5/32in)	5mm(13/64in)
	Input 120V	20Amps	30Amps	40Amps		
	Air program	30-50 (PSI)	30-50 (PSI)	30-50 (PSI)		
	Air pressure	0.21-0.35(MPa)	0.21-0.35(MPa)	0.21-0.35(MPa)		
2	Thickness (Fe)	5mm(13/64in)	8mm(5/16in)	12mm(1/2in)		
	Thickness (Ss)	5mm(13/64in)	8mm(5/16in)	12mm(1/2in)		
	Thickness (AI)	1mm(3/64in)	2mm(5/64in)	3mm(1/8in)		
	Thickness (Cu)		1mm(3/64in)	2mm(5/64in)		

3.3 Start Cutting

3.3.1 Edge cutting



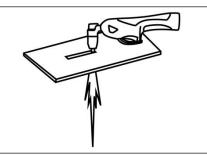
3.3.2 Piercing Cutting



Hold the torch at an angle to the work piece, pull the trigger to start the arc and slowly rotate it to an upright position.



Pull the trigger to start the arc ,The cutting arc will initiate when the torch tip is close enough to the work Piece. Start cutting on the edge until the Arc has cut completely through.



When the pierce is complete, Control the cutting speed and adjust the angle and position of the cutting torch to continue the cutting operation. Too fast speed will lead to incomplete cutting, and arc blowback is easy to damage the device. Too slow speed will lead to excessive scum and cutting gap.

3.3.3 Cutting performance

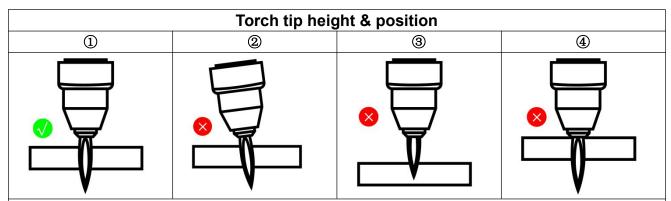
1	Amperage	Standard rule of thumb is the thicker the material the more amperage required. On thick material, set
		the machine to full output and vary your travel speed. On thinner material, you need to turn down the
		amperage and change to a lower-amperage tip to maintain a narrow kerf. The kerf is the width of the
		cut material that is removed during cutting.
2	Speed	Amperage and speed are critical to producing a good quality cut. visually follow the arc that is coming
		from the bottom of the cut. The arc should exit the material at a slight angle away from the direction of
		travel. If it's going straight down, that means the speed is too slow, and IT will have an unnecessary
		buildup of dross or slag. If the speed is too fast, it will start spraying back onto the surface of the
		material without cutting the workpiece completely. Because the arc trails at an angle, at the end of a
		cut, slow your cutting speed and angle the torch in to cut through the last bit of metal.
3	Direction	It is easier to pull the torch towards you than push it. The plasma stream swirls as it exits the tip, biting
		one side and finishing off on the other leaving a bevelled edge and a straight edge. The bevel cut effect
		is more noticeable on thicker material and needs to taken into consideration before starting your cut as
		you want the straight side of the cut to be on the finished piece you keep.
4	Torch tip	The distance and position of the plasma torch cutting tip has an affect on the quality of the cut and the
	height &	extent of the bevel of the cut. The easiest way to reduce bevel is by cutting at the proper speed and
	position	height for the material and amperage that is being cut.
5	Tip size	The tip orifices focus the plasma stream to the work piece. It is important to use the correct size tip for
	and	the amperage being used,for example a tip with a 3/64" orifice is good for 0-40 amps whereas a 1/16"
	condition	orifice is better for 40-80 amps.
		The low-amp tip has a smaller orifice which maintains a narrow plasma stream at lower settings for use
		on thin-gauge material. Using a 25 amp tip at an 60 amp setting will blow out and distort the tip orifice
		and require replacement.
		Conversely, using an 80-amp tip on the lower settings will not allow you to focus the plasma stream as
		well and creates a wide kerf.The condition of the tip orifice is critical to the quality of the cut result, a
		worn or damaged tip orifice will produce a distorted plasma stream resulting in a poor cut quality.
6	Electrode	A fixed gap is established between the electrode and the inside of the cutting tip. Electrons arc across
	condition	the gap, ionizing and super heating the air creating the plasma stream. The electrode contains an
		insert in the end made of a highly conductive material called hafnium. This insert erodes with use and
		8

develops a pit in the end of the electrode, when the pit becomes too much poor quality cuts will result and necessitate replacement of the electrode.

7 Air quality,
Air
pressure
and
volume

Compressors take in air at atmospheric pressure and increase the pressure and store it in a tank. Moisture that forms in air lines has a tendency to condense into larger drops when the air pressure decreases as it is entering the plasma torch. When these droplets enter into the high temperatures in the plenum of the torch, they immediately break down into oxygen and hydrogen, which alters the normal chemical content of air in the torch. These elements will then dramatically change the plasma arc which causes the torch consumable parts to wear very quickly, alters the shape of the nozzle orifice, dramatically affecting cut quality in terms of edge squareness, dross formation, and edge smoothness. Air pressure, flow rate and air quality are critical to quality plasma cutting and consumable life span. Usually air pressure is preset at 60 psi. The volume capacity of your compressor is important, If you are doing a lot of cutting, cutting thick plate (same air consumption but slower cut speeds = longer cut time) then choose a compressor at 1.5 to 2 times the plasma system requirement.

3.4 Hand torch cutting Show



- ①The correct torch height and right angle shall be consistent with the minimum slope and equal slope of the material, so as to ensure good cutting effect and prolong the service life of consumables.
- ②Torch angled to the material unequal bevel, one side may be excessively beveled.
- 3 Torch height too high, plasma stream may not cut all the way through the material.
- **1** Torch height too low. Tip may contact the work piece and short out or damage the tip.

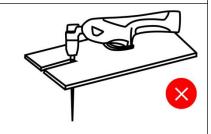




When cutting, select the appropriate current and pushing speed according to the material and thickness of the workpiece to ensure that the spark are exiting from the bottom of the workpiece



If the spark comes out from the top of the workpiece, it means that the workpiece has not been completely cut, because the torch moves too fast or the current is set too low.



If the spark passes vertically through the workpiece, it indicates that the workpiece has been completely cut off and the torch is cutting air because the torch moves too slowly or the current setting is too large

4 Trouble shooting and fault finding

Notes: The following operations must be performed by qualified electricians with valid certifications. Before maintenance, you are suggested to contact local distributor to verify qualification.

Faults	Resolvable Methods
Switch indicator is on,fan is not working,	> Over voltage protection is working. Close machine then
control knob is out of work.	Open it again after several minutes.
Switch indicator is lit,fan is working.	➤ Check if torch is open circuit.
press control knob of torch, there is no HF	➤ Check if control knob of torch is damaged.
arc-striking sound and electromagnetic valve is not	> Part of assistant power of top board is damaged and there is
working.	no DC 24V output.
Switch indicator is lit,	Check if MOS or IGBT of top board is damaged (driver
fan is working.	mould is damaged).
press control knob of torch, there is no HF arc striking	Rising transformer of bottom board is damaged.
sound and inter red diode is lit.	Control mould is damaged.
Switch indicator is lit,	here is some trouble in part of arc-striking, such as:
fan and electromagnetic valve are working,	> It is too far between discharge tip or there is adhesion in
there is no sound of HF	discharge tip.
arc-striking and inter red diode is not lit.	Primary coil of arc-striking transformer is damaged or poor
j	contact.
	Check if four times voltage rectifier diode is stricken.
	Check if HF electric capacity 102/10KV is leaking.
	➤ Relay is damaged.
Other of machine is normal, but arc is not be stricken	➤ Input voltage is too low.
when it is be operating.	Pressure of air compressor is too high or too low .

Even the machine comes up with abnormal phenomenon such as cutting unable, arc unstable or bad welding effect, it is still early to judge that there is malfunction on the machine.

The above-mentioned abnormal phenomenon may be caused by some reasons.

For example:

tight parts loosen,forgetting to switch on, wrong set up, cable broken and gas rubber pipe cracked, etc. Therefore, please test and inspect these factors before deliver it back to the factory because a large number of troubles may be easily solved probably.

5 Daily maintenance and checking

5.1 Daily maintenance

- Remove dust regularly with dry compressed air. If the cutting machine is used in surroundings with heavy smoke and polluted air, it is necessary to remove dust at least one time one month.
- > The pressure of compressed air shall fall to required level to prevent damage to small components in the machine.
- Examine inside electric joints and ensure perfect contact (Especially plugs and sockets). Fasten the loosing joints. In case of oxidation, remove oxide film with sand paper and connect again.
- Prevent water from entering into the machine and prevent the machine from getting moist. If any, blow and dry.
 Measure the insulation with megohmmeter to make sure it is qualified to use.
- > If the cutting machine is not used for a long time, pack the machine in original package and store in dry surroundings.

WARNING All the maintenance and testing must be carried out when the power supply is totally cut off. Please make sure the power is off before opening the closure.

5.2 Daily checking

POWER SUPP	POWER SUPPLY			
Position	Checking keys	Remarks		
Control nonel	> Operation,conversion and installation of the switch	Lead to unstable arc and wire		
Control panel	Check the state of the power indicator light	sending		
Cooling fan	Check if the fan state and the sound is normal or not	Clean the residue and check the		
Cooling fan	Check if the fair state and the sound is normal or not	reason and solve it		
	➤ Check if there is abnormal liberation and sound when the			
Power part	power is on			
Power part	Check if there is smell when the power is on			
	Whether the outside color change or get warm			
Outer parts	> The connector is loosen			
	> Whether the outer shell or other connect parts are loosen			

CABLE			
Position	Checking keys	Remarks	
Output cable	 Wearing-out of the cable insulated material Cable connecting head naked (insulation damage), or loosen (the end of power supply, and cable of main material connecting point) 	 For life security and stable cutting, adopt suitable method to check according to working place Simple check daily Careful and in-depth check on fixed period 	
Input cable	 If the connection between the plug and the power socket is firm If the power input end cable fixed If the input cable is worn out and bares the conductor 	In case of leakage and to ensure safety, please do	
Earth cable	If the earth cable that connects the main part is broken and connects tightly	perform daily checking	

CUTTING TORCH			
Position	Checking keys	Remarks	
	> Press the torch switch, no gas comes out.	Check switch.	
Switch	Press the torch switch, arc cannot be started.	Check switch.	
Extend tip, Electrode	Cutting power is reduced.	Replace.	

5.3 Cutting problems and resolution

The phenomenon listed below may happen due to relevant accessories used, cutting material, surroundings and power supply. Pleas improve surroundings and avoid these problems.

Arc starting difficulty. Arc interruption happens easily:

- Examine whether grounding wire clamp contacts with the work pieces well.
- > Examine whether each joint has improper contact.

The output current fails to reach rated value:

The deviation of power voltage from rated value may cause that the output current does no accord with adjusted value. When the power voltage is lower than rated value, the maximum output current may be lower than rated value.

The current can not keep stable during operation:

This situation may relate to the following factors:

- The voltage of electric power network changes;
- > Serious interference from electric power network or other electric facilities.

6 Attention

The safety notes listed in this manual is to ensure correct use of the machine and to keep you and other people from being burt

The design and manufacture of cutting machine considers safety. Please refer to the safety warning listed in the manual to avoid accidents.

Different damage would be caused by wrong operation of the equipment as follows. Please read the user manual carefully to reduce such damage.

6.1 Cutting environment and safety

Working surrounding

- (1) Cutting should be carried out in dry surroundings. The air humidity level should not be higher than 90%.
- (2) The temperature should be between -10°C to 40°C.
- (3) Don't use the cutting machines in sunshine or rain. Keep it off water.
- (4) Don't use the machines in the places of dust or corrosive air.
- (5) Cutter machine should not be carried out in places with quick air flow.

Safety norms

Protection circuit of over-voltage, over-current and over-heat circuits are designed in the cutting machines. It will stop working automatically when the input voltage, output current or internal temperature exceed the rated value. But if the machines are excessively used, such as with input voltage higher than the rated, the machine might be damage. Please pay close attention to the following matters.

Keep good ventilation!!

The cutting machines work with high cutting voltage. Nature air flow can't reach the requirement of heat dissipation. So the fans are installed as cooling system to ensure stable performance.

Make sure the ventilation windows are not covered or blocked. The distance between the machines and things around should not be less than 0.3m. Good ventilation is good for cutting performance and operational life.

Never over load!

Check the maximum rated current (according to the Duty Cycle chosen). Make sure the cutting current is never higher than the rated value. Over current running will obviously shorten the operation life, even damage the machine.

Never over voltage!

The Input Voltage could be found in Technical data diagram. The auto-compensation function will keep the cutting current in the rated range. If the input voltage exceed the permissible value, the machine would be damaged. Users should take protective measures in advance to avoid it.

Make sure earth connected before operation.

On the rear panel of cutting machine, a screw for earth connecting would be found. It must be ground connected with cable whose section is bigger than 6mm2 before operation, to avoid accidents caused by static or electricity leak.

6.2 Symbol definition:

The safety notes listed in this manual is to ensure correct use of the machine and to keep you and other people from being hurt. The design and manufacture of cutting machine considers safety. Please refer to the safety warning listed in the manual to avoid accidents. Different damage would be caused by wrong operation of the equipment as follows. Please read the user manual carefully to reduce such damage.

This Manual contains symbols as blow, please refer to their means expressed

Symbol	Definition
△DANGER	The words after this sign means there is great potential danger, which may cause major accident, damage or even death, if it is not followed.
٨	The words after this sign means there is some potential danger, which may cause hurt or
✓!\ WARNING	property lose, if it is not followed.
٨	The words after this sign means there is potential risk, which may cause equipment fault
∠!\ ATTENTION	or break, if it is not followed.

Symbol	Description
\$	Any contact of electric parts may cause fatal electric shock or burnt.
2	➤ Gas and fumes are harmful to health.
7.	➤ Operation in narrow space may cause choke.
	Spark and hot workpiece after cutting may cause fire.
	> Bad connected cable may cause fire.
	Incompletion connection of workpiece side circuit may cause fire.
	Never cut on the case of tinder stuff, or it may cause explode.
	Never cut airtight containers such as slot, pipe etc., or it may break.
	Arc ray may cause eye inflammation or skin burnt.
	> Spark and residue will burn your eyes and skin.
	> Toppling over of the gas cylinder will cause body hurt.
	> Wrong use of the gas cylinder will lead to high-pressure gas eruption and cause human hurt.
K	Never let fingers, hair, clothes or etc. near the moving parts such as the fan.



The arc shoot out of the torch may stab eyes, face and other naked parts.



Never stand in front of the swing equipment or under it, or it may fall and cause injury.



DANGER Please follow the rules below to avoid heavy accidents.

- Never use the equipment to do other things but cutting.
- Follow related regulations for the construction of the input-driven power source, choice of place, usage of high-pressure gas, storage, configuration, safe-keeping of workpiece after cutting and disposal of waste, etc.
- Nonessential do not enter the cutting area.
- People using heart pacemaker is not allowed to get close to the cutting machine or area without doctor's permission. The magnetism created by energizing the cutting machine can have a bad effect to the pacemaker.
- Install, operation, check and maintain the equipment by profession personnel.
- Understanding the contents of the user manual for safety.

/ DANGER Please follow the rules below to avoid electric shock.

- Keep away from any electric parts.
- Earth the machine and workpiece by professional personnel.
- Cut off the power before installation or checking, and restart 5 minutes later. The capacitance is chargeable device. Please ensure it has no voltage before start again even if the power source is cut off.
- Do not use wire with inadequate section surface or damage insulation sleeve or even exposed conductor.
- Do ensure well isolation of wire connection.
- Never use the device when the enclosure is removed.
- Never use broken or wet insulation gloves.
- Use firenet when work at high position.
- Check and maintain regularly, don't use it until the broken parts are fixed well.
- Turn off the power when not in used.
- Follow the national or local related standard and regulations when using the AC cutting machine at narrow or high position.



DANGER Please follow the below notes to avoid fire and explode, etc.

- No combustible in cutting area.
- Keep off combustible when cutting.
- Keep hot workpiece after cutting away from flammable gas.
- Do move away the combustible around when cut the dooryard, ground and wall,.
- The wire connection of base metal should be as close to the cutting place as possible.
- Never cut those facilities with gas pipe or airtight slot.
- Put fire extinguisher around the cutting area to prevent fire.

/!\ WARNING The gas and fumes are harmful to health, please wear protective device according to regulations.

- Wear exhaust equipment and breathe preventive facilities to prevent gas poisoning or choke.
- Use suggested part exhaust equipment and breathe preventive facilities to prevent hurt or poisoning by gas and other powder, please.
- To prevent oxygen-deficiency, air out the gas-filled room which is full of CO2 and argon on the bottom, When operating on trunks, boilers, cabins, etc.
- Please accept the supervisor's inspection when operating in narrow space. Air the room and wear breathe preventive facilities.
- Never operate in degrease, washing or spray space.
- Using breathe preventive facilities when cut shielded steel for it will cause poisonous dust and gas.

/ WARNING The arc, spark, residue and noise are harmful to health, please wear protective appliance.

- Eye protection against arc is recommended when cutting or supervise cutting.
- Please wear preventive spectacles.
- Welder's gloves, welder's goggles, long sleeve clothes, leather apron, and other standard protection equipment must be worn for cutting operation.
- A screen to protect other people against the arc must be set in the cutting place.

WARNING Please follow the notes below to avoid gas cylinder toppling over or broken.

- Use the gas cylinder correctly.
- Use the equipped or recommended gaseous regulator.
- Read the manual of gaseous regulator carefully before using it, and pay attention to the safety notes.
- Fix the gas cylinder with appropriative holder and other relative parts.
- Never put the cylinder under high temperature or sunshine environment.
- Keep your face away from the gas cylinder exit when opening it.
- Put on the gas shield when it is not used.
- Never put the torch on the gas cylinder. The electrode can not meet the gas cylinder.

WARNING Any touch of the switch part will cause injury, please note the following.

- Never use the machine when the enclosure is off.
- Install, operate, check and maintain the machine by professional person.
- Keep your fingers, hair, clothes etc. away from the switch parts such as the fan.

WARNING The wire end may deal damage, please note the following.

Never look into the electric conduction hole when checking the wire feeding is normal or not, , or the shooting wire may stab your eyes and face.

Keep your eyes, face or other naked parts away from the end of torch when feeding the wire manually or pressing the switch.

/! ATTENTION For better work efficiency and power source maintenance, please note the following.

- Precautions against toppling over.
- Never use the cutting equipment for pipe thawing.
- Lift the power source from side when use the up-down forklift truck to avoid toppling over.
- When using the crane for lift, tie the rope to the ears with an angle no more than φ15 to the vertical direction.
- When lifting the cutting machine which equipped with gas cylinder and wire feeder, download them from the power source and ensure the horizontal of the machine. Do fix the gas cylinder with belt or chain when moving it to avoid body hurt.
- Ensure fastness and insulation when lifting the wire feeder through the swing ring for cutting.

ATTENTION Electromagnetic interference needing attention.

- It may need extra preventive measures when the equipment is used in particular location.
- Before the installation, please estimate the potential electromagnetism problems of the environment as follows.
- (1) Upper and lower parts of the cutting equipment and other nearby power cable, control cable, signal cable and phone cable.
- (2) Wireless electric as well as TV radiation and reception equipment.
- (3) Computer and other control equipment.
- (4) Safety-recognition equipment etc. Such as supervise of industrial equipment.
- (5) Health of people around. Such as personnel using the heart pacemaker or audiphone.
- (6) Equipment for adjustment and measurement.
- (7) Anti-disturb capability of other used equipment .Users should ensure these equipment and the environment are compatible, which may need extra preventive measures.
- (8) Practical state of the cutting and other activities.
- Users should observe the following dos and don't to decrease radiation interference.
- (1) Connect the cutting equipment to the power supply lines.
- (2) Maintain the cutting equipment regularly.
- (3) The cable should be short enough to be close to each other and the ground.
- (4) Ensure the safety of all the cutting metal parts and other parts nearby.
- (5) The workpiece should be well earth.
- (6) Shield or protect the other cable and equipment to decrease the effects of disturbances. The cutting equipment can be complete shielded in some special conditions.
- Users are responsible for interference due to cutting.

7 Service GUARANTEE

This product is made of high quality material and great care has been taken in its manufacture. It is designed to give good performance provided it is properly operated and maintained. The product is sold subject to the understanding that if any defect in manufacture or material shall appear within 12 months from date of consumer sale, if any defect in main parts over 12 months, the warranty period is subject to country Consumer Law, Our Service will arrange for such defect to be rectified without change under the following warranty items and conditions.

Warranty Terms and Conditions:

The defect is not due to use of the product for other than domestic purposes, or an incorrect voltage, or use of improper accessories, or contrary to operating instructions, or to accidental damage, misuse, neglect or inexpert repair, or incorrect installation, or the product is excessively used for improper purposes other than daily consumption, or accessories belonging to the product, transportation.

Thank you for choosing our products. Please feel free to give your precious suggestions, we will make efforts to perfect our products and service.

Warranty period from the purchase date:

- 1. One year warranty for welding and cutting machine.
- 2. 1 month warranty for welding accessories.
- 3. The warranty does not cover faults resulting from operation careless handing or not following instructions.
- 4. Please register your after-sales service information in the following way to obtain the services and benefits you deserve.

Customer: service@mirthtek.com

Whatsapp: +86 18938887689 Contact number: (904)571-5453

Facebook: VIPWELD(https://www.facebook.com/VIPWELD)