

THANK YOU FOR PURCHASING OUR PRODUCT

MIG 200i

Inverter MIG/MAG Semi-auto ARC Welding Machine

Operating Manual

(Read the manual carefully before installation, operation and maintenance)

Advanced Product

SAFETY PRECAUTIONS

Follow these precautions carefully. Improper use of any welder can result in injury or death.

1. ONLY CONNECT WELDER TO A POWER SOURCE FOR WHICH IT WAS DESIGNED.

The specification plate on the welder lists this information. When welding outdoors, only use an extension cord intended for such use.

2. ONLY OPERATE WELDER IN DRY LOCATIONS and on concrete floor. Keep area clean and uncluttered.

3. KEEP ALL COMBUSTIBLES AWAY FROM WORK SITE.

4. DO NOT WEAR CLOTHING THAT HAS BEEN CONTAMINATED with grease or oil.

5. KEEP CABLES DRY AND FREE FROM OIL AND GREASE and never coil around shoulders.

6. SECURE WORK WITH CLAMPS or other means; don't over reach when working.

7. NEVER STRIKE AN ARC ON A COMPRESSED GAS CYLINDER

8. DON'T ALLOW THE INSULATED PORTION OF THE ELECTRODE HOLDER TO TOUCH THE WELDING GROUND WHILE CURRENT IS FLOWING.

9. SHUT OFF POWER AND UNPLUG MACHINE WHEN REPAIRING OR ADJUSTING.

Inspect before every use. Only use identical replacement parts.

10. FOLLOW ALL MANUFACTURER'S RULES on operating switches and making adjustments.

11. ALWAYS WEAR PROTECTIVE CLOTHING when welding. This includes: long sleeved shirt (leather sleeves), protective apron without pockets, long protective pants and boots. When handling hot materials, wear asbestos gloves.

12. ALWAYS WEAR A WELDER'S HELMET WITH PROTECTIVE EYE PIECE when welding. Arcs may cause blindness. Wear a protective cap underneath the helmet.

13. WHEN WELDING OVERHEAD, BEWARE OF HOT METAL DROPPINGS. Always protect the head, hand, feet and body.

14. KEEP A FIRE EXTINGUISHER CLOSE BY AT ALL TIMES.

15. DO NOT EXCEED THE DUTY CYCLE OF THE MACHINE. The rated cycle of a welding machine is the percentage of a ten minute period that the machine can operate safely at a given output setting.

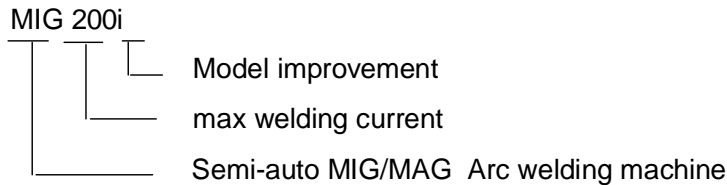
16. KEEP ALL CHILDREN AWAY FROM WORK AREA. When storing equipment, make sure it is out of reach of children.

17. GUARD AGAINST ELECTRIC SHOCK. Do not work when tired. Do not let body come in contact with grounded surfaces.

1. Main characteristic and suitable range

The MIG 200i encompasses integrated controlling and advanced inverter technology. The IGBT and alloy magnetic core ensure a reliable high quality weld with reduced spatter.

1.1 Structure of the MIG 200i MIG/MAG semi-auto Arc welding machine a. The name of the model



b. Composing of the product

This product is composed by three parts as following

- ★ Power source (MIG 200i)
- ★ welding gun

1.2 Suitable range of the MIG 200i

- ★ Suitable material: low-carbon steel, stainless steel
- ★ Thickness of the material: low-carbon steel and stainless: more than 0.5mm
- ★ Suitable position: all positions
- ★ Suitable wire: $\phi 0.6, 0.8$, solid wire/flux cord wire.

1.3 Characteristic of MIG 200i

- ★ Wide output current 30-200A: 0.6 -----30-100A
0.8-----50-200A

★ Steady welding process, low splash, easy control, good welding form.

- ★ High efficiency: 200A/23V the duty cycle is 35%

150A/21.5V the duty cycle is 60%

120A/20V the duty cycle is 100%

continuous wire feed, the max speed of wire feed is -330(12m)/min

2. Main technical Data:

★ Input Voltage	1~220V/230V/240V; 50/60Hz
★ Rated Input current	30 A
★ Rated Input power	6.6KVA
★ No-load Voltage	55~75V
★ Voltage adjusting Range	$14 \pm 3V \sim 23.5 \pm 3V$
★ Current output Range	30~200A (MIG/MAG)
★ Suitable wire	0.6 , 0.8
★ Duty cycle	200A/23V the duty cycle is 35%
	150A/21.5V the duty cycle is 60%
	120A/20V the duty cycle is 100%
★ Efficiency	$\eta \geq 0.85$
★ Power factor	$\lambda = 0.8$
★ Insulation class	F
★ Protection class of shell	fan cooling

Note: (1) Adjust the no-load voltage according to the requirements. Normally it is 70V.

3. Function

3.1 Adjusting function for the welding voltage and welding current

3.1.1 MIG 200i supply the adjusting range at MIG/MAG as following,

Welding voltage: $14V \pm 3V \sim 23.5V \pm 3V$ use the voltage adjusting knob

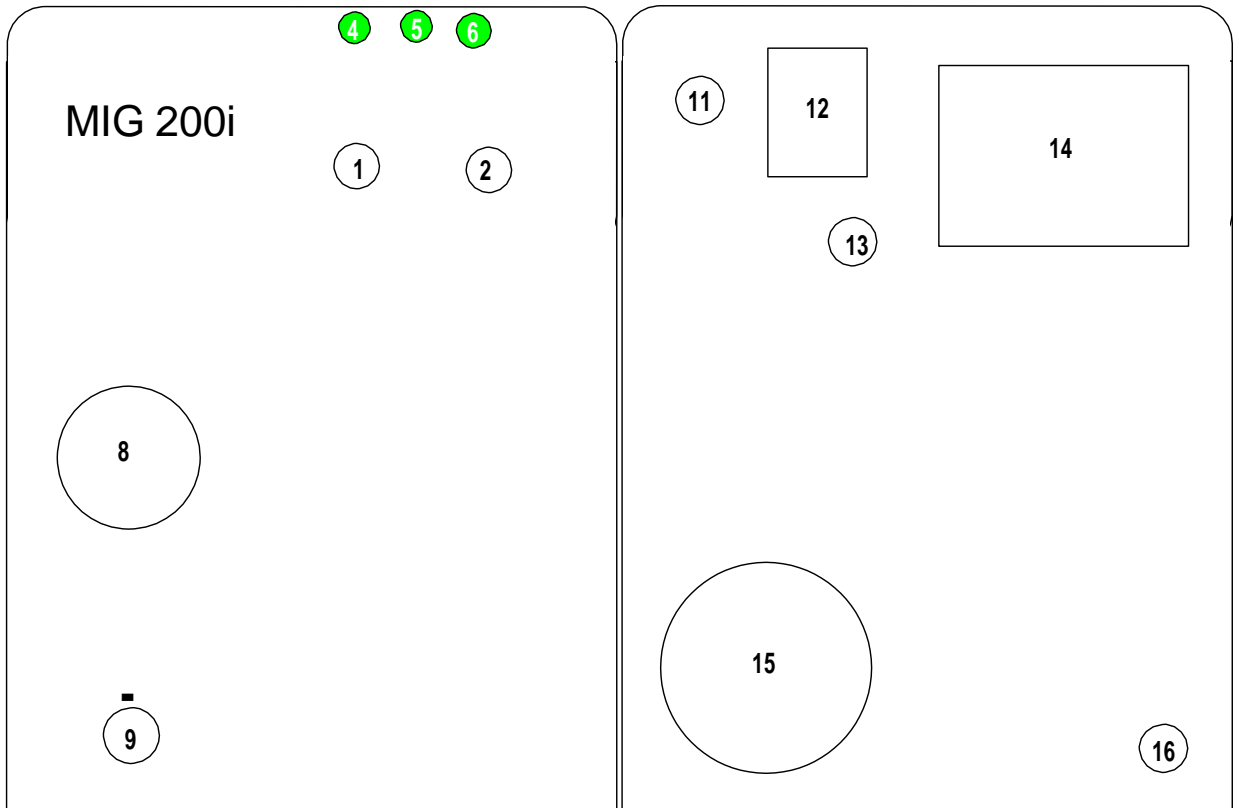
Welding current: 30A~200A use the current adjusting knob

4. Indicators and warning lights on the MIG 200i control panel

4.1 Indicating and adjusting

FRONT PANEL

BACK PANEL



4.1.1 MIG Voltage regulator

4.1.2 MIG Current regulator

4.1.4 Power indicating

If the indicating light is on the control circuit connects the power already.

4.1.5 MIG over heat indicating

4.1.6 over current indicating

4.1.8 MIG torch CONNECTOR

4.1.9 output"-"

4.1.11 incoming line of the power

4.1.12 power switch

4.1.13 Gas inlet

4.1.14 name plate

4.1.15 FAN (DC12V)

4.1.16 grounding column

5. Operating Instructions

- ★ Check for any damage before use.
- ★ Ensure power capacity of more than 30A.
- ★ Ensure power source is grounded (diagram 6)
- ★ Remove any combustible goods from the area.
- ★ The welder is to be only be used by trained personnel.
- ★ Do not operate without appropriate safety gear such safety boots, welding gloves, welding jackets and welding helmets.

6. MIG/MAG Welding

Turn the switch "7" MIG/MMA SWITCH to "MIG"

- ★ Check to ensure all parts are included when opening the package.
- ★ Grounding protection. Please see attached Diagram 6

The power source is 220Vac/ (50~60Hz) . The yellow/green double cable is grounding cable. Be sure to connect the yellow/green double cable into the grounding connection on the welder. Another way is to select the M8 bolt on the back of the machine and connecting the grounding cable as per the diagram below.

- ★ Install the welding gun on the front panel, connect the welding gun and lock the bolt.
- ★ Connect the gas pipe to the gas bottle.

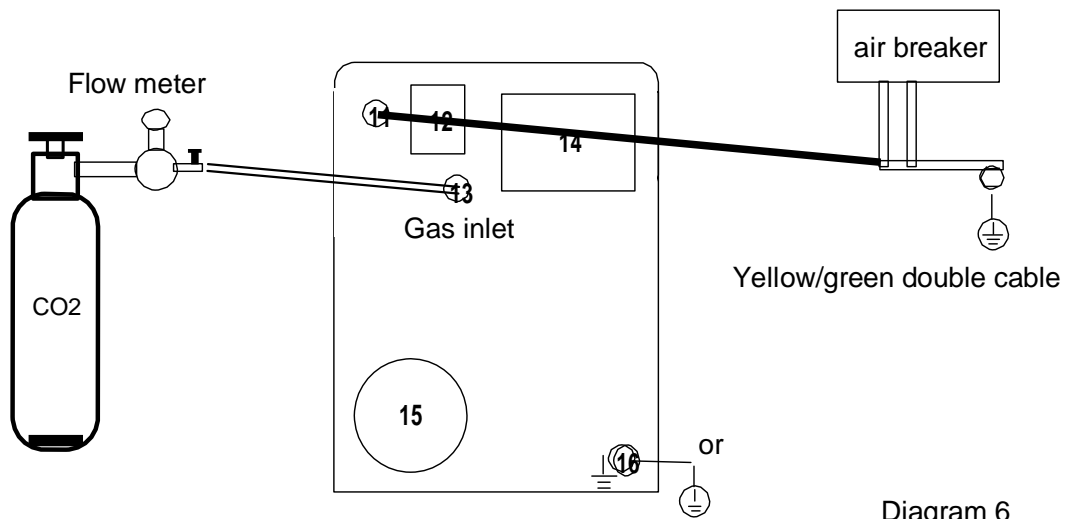


Diagram 6

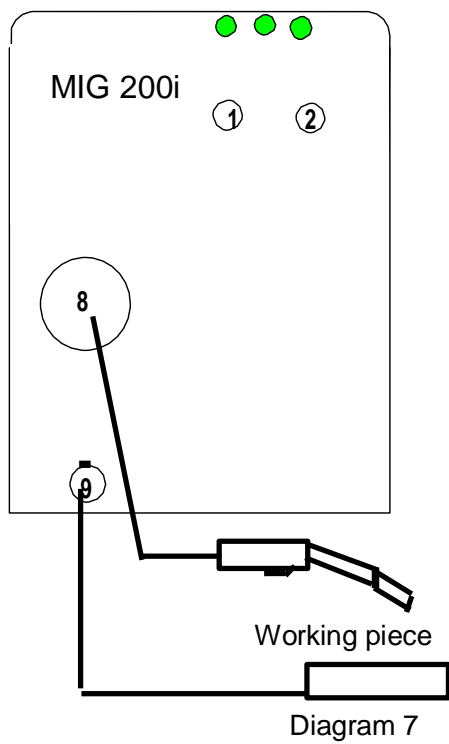
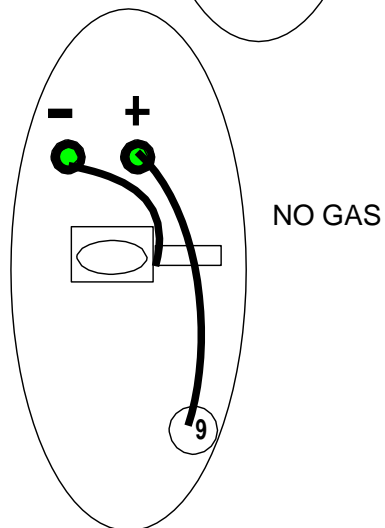
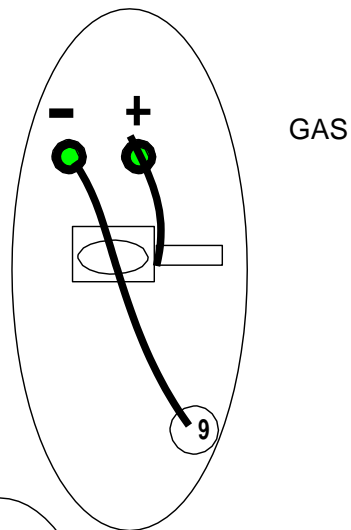


Diagram 7



7. Operation

- ★ "ON" and "OFF" indicating switch is located on the back panel.
- ★ Preset the welding voltage, welding current (wire speed) and arc force (Diagram 4).
- ★ Confirm the specification of the wire feed hose
- ★ Confirm the specification of nib base. It affects the extended length of the wire.
- ★ Confirm the specification of nib. It affects the electric resistance.
- ★ Ensure the wire slot of the roller is suitable for the diameter of the wire.
- ★ Confirm the pressure of the roller to avoid slipping.
If the pressure is too low, the wire feed will slow down. If the pressure is too high, the wire will bend.
- ★ Confirm the flow of the gas.
- ★ Straighten the hose of the welding gun as much as possible. The bending radius cannot be less than 160mm. Otherwise it will affect the speed of the wire feeder.

7.1 Working process

Press the switch and start welding. If you release the switch, the arc will stop.

7.2 Gas inspection

Preset the gas flow through the meter and check that it is flowing.

7.3 Select the wire

Open side panel. Remove spool nut, align spool properly and place wire onto spool holder. Replace spool nut. Feed wire through rear guide into front guide. The wire should feed through hand piece.

8. Working elements

Diagram for the MIG 180i working elements. Diagram 9

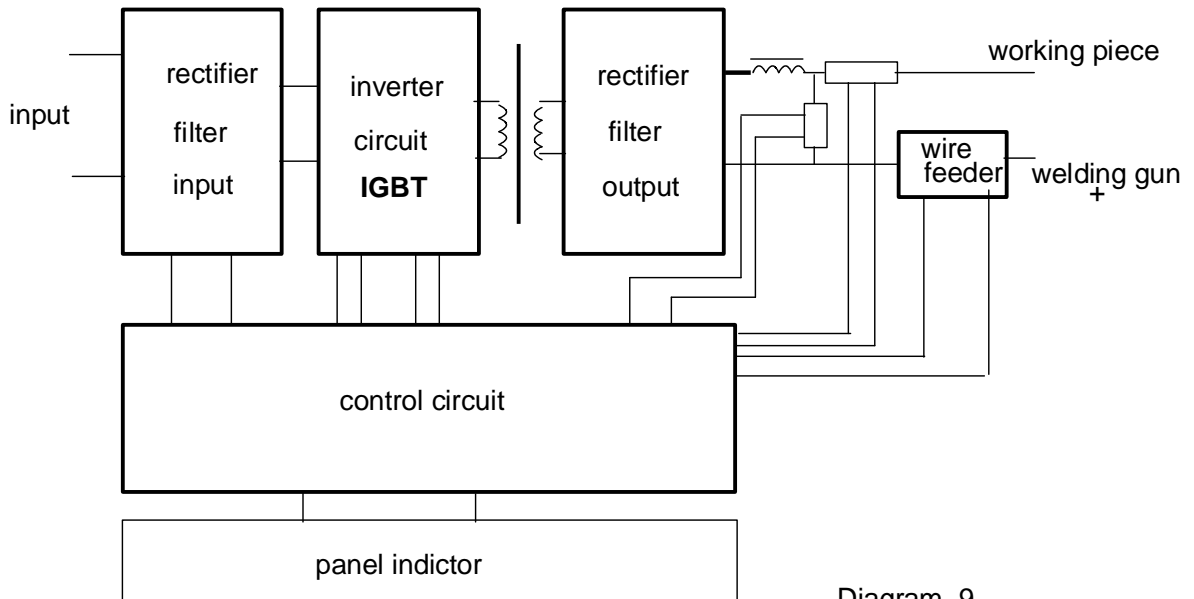


Diagram 9

Input AC 220V/230V/240V,rectifier and filter it into 300VDC.

Control the IGBT by PWM+PFM, inverter the 300VDC to 20KHZ AC.

High frequency transformer passes the power by insulation and voltage reducing with high efficiency.

Output the second rectifier and the second filter. Output the required welding current and voltage.

9.Maintenance

- Check the safety measure is efficient.
- Get rid of the dust for the power source (for example, dry compressed air)
- Before operating, check the "work piece", "torch" and connectors
- Check the connection between the grounding cable and plug (if relaxed, the serious heating will damage the quick connectors)
- Check that the fan is working.
- Check the insulation and for any breakage on the input power cord/ lead
- Replace any broken leads
- Check if there is any noisy in the wire feed motor.
- Remove any splash from inside the nib regularly.
- Check the abrasion of the nib. Change it in time (suggest 5~10pieces nibs/40kg wire).

10. Troubles and Remedy

Troubles and remedy and remedy are as the form 10 as following

Troubles	Cause	Remedy
1.Fan not works properly	1.the fan line lose 2.Fan breakage	1.Connect the line 2.Change the fan
2.No indicating on the front panel	1.the power line lose 2.Indicating light broken	1.Check the power, Connect the line 2.Change it(ϕ 8)
3.Over heating light on (use mig)	1.aeration is not good 2.The temperature is too high 3.over-load use 4.Thermostat broken 5.Control plate broken	1.get rid of the bar 0.5m around 2.Reduce the temperature 3.Reduce the use loading 4.Change the thermostat(JUC-OFF) 5.Check and change the control plate
4.warning led lights RED color (use MM A)	1.aeration is not good 2.The temperature is too high 3.over-load use 4.Thermostat broken 5.Control plate broken 6.output shorted (holder)	1.get rid of the bar 0.5m around 2.Reduce the temperature 3.Reduce the use loading 4.Change the thermostat(JUC-OFF) 5.Check and change the control plate 6.remove holder
5.Wire feeder not work (welding current not adjustable)	1.the fuse broken 2.Potentiometer line fall down or Potentiometer broken 3.the wire blocked 4.the drive circuit broken 5. no output 6.other reasons	1.Change the fuse 5A/250V (on left panel, open wire feeder case) 2.Connect the lines or Change it 3.Check the gun 4.Change the control panel 5.Contact with the manufacturer 6.Contact with the manufacturer
6.Welding Voltage not adjustable	1.Potentiometer line fall down 2.Potentiometer broken 3.The circuit broken	1.Connect the lines 2.Change it 3.Change the control pcb

11. Transportation, storage and environmental conditions

★ The package (Wooden cases or cartons) of the manufacturer is suitable for air, sea, railway and highway (three classes more) transportation..

★ Pay attention to the indication on the package during the transportation.

★ The environment conditions

A Temperature range	operating	0°C~	40°C
	transportation	-25°C	~+55°C
B The air humidity		40°C	50%RH
		20°C	90%RH

12. Quality Guaranteed

This product is sold subject to the understanding that if any defects in manufacture or material shall appear within 24 months from date of consumer purchase/sale, the manufacturer will arrange for such defects to be rectified without charge on the sales invoice and warranty card (except for any damage caused by neglect).

13. ACCESSORIES: SEE PACKING LIST PLEASE

PACKING LIST



MIG 200i Welding machine	1		
Connector+cable+ground pliers	1		
MIG welding torch(AK15 3m)	1		
Gas hose	1		
flow meter	1	optional accessory	
Operation instructions	1		
Certificate of quality	1		

No.

Certificate of quality

Name of product: MIG/MAG Semi-auto ARC Welding Machine

Type of product: MIG 200i

Packing No: _____

Test results of this welder fulfills _____

_____ **technical requirements and its release from the works is granted.**

WARNING	<ul style="list-style-type: none"> ● Do not touch electrically live parts or electrode with skin or wet clothing. ● Insulate yourself from work and ground. 	<ul style="list-style-type: none"> ● Keep flammable materials away. 	<ul style="list-style-type: none"> ● Wear eye, ear and body protection.
Spanish AVISO DE PRECAUCION	<ul style="list-style-type: none"> ● No toque las partes o los electrodos bajo carga con la piel o ropa mojada. ● Aíslese del trabajo y de la tierra. 	<ul style="list-style-type: none"> ● Mantenga el material combustible fuera del área de trabajo. 	<ul style="list-style-type: none"> ● Protégase los ojos, los oídos y el cuerpo.
French ATTENTION	<ul style="list-style-type: none"> ● Ne laissez ni la peau ni des vêtements mouillés entrer en contact avec des pièces sous tension. ● Isolez-vous du travail et de la terre. 	<ul style="list-style-type: none"> ● Gardez à l'écart de tout matériel inflammable. 	<ul style="list-style-type: none"> ● Protégez vos yeux, vos oreilles et votre corps.
German WARNUNG	<ul style="list-style-type: none"> ● Berühren Sie keine stromführenden Teile oder Elektroden mit Ihrem Körper oder feuchter Kleidung! ● Isolieren Sie sich von den Elektroden und dem Erdboden! 	<ul style="list-style-type: none"> ● Entfernen Sie brennbares Material! 	<ul style="list-style-type: none"> ● Tragen Sie Augen-, Ohren- und Körperschutz!
Portuguese ATENÇÃO	<ul style="list-style-type: none"> ● Não toque partes elétricas e electrodos com a pele ou roupa molhada. ● Isole-se da peça e terra. 	<ul style="list-style-type: none"> ● Mantenha inflamáveis bem guardados. 	<ul style="list-style-type: none"> ● Use proteção para a vista, ouvido e corpo.
Japanese 注意事項	<ul style="list-style-type: none"> ● 通電中の電気部品、又は溶材にヒブやぬれた布で触れないこと。 ● 施工物やアースから身体が絶縁されている様にして下さい。 	<ul style="list-style-type: none"> ● 燃えやすいものの側での溶接作業は絶対にしてはなりません。 	<ul style="list-style-type: none"> ● 目、耳及び身体に保護具をして下さい。
Chinese 警告	<ul style="list-style-type: none"> ● 皮肤或濕衣物切勿接觸帶電部件及鉗條。 ● 使你自已與地面和工件絕緣。 	<ul style="list-style-type: none"> ● 把一切易燃物品移離工作場所。 	<ul style="list-style-type: none"> ● 佩戴眼、耳及身體勞動保護用具。
Korean 위험	<ul style="list-style-type: none"> ● 진도체나 용접봉을 젖은 헝겊 또는 피부로 절대 접촉치 마십시오. ● 모재와 접지를 접촉치 마십시오. 	<ul style="list-style-type: none"> ● 인화성 물질을 접근 시키지 마시오. 	<ul style="list-style-type: none"> ● 눈, 귀와 몸에 보호장구를 착용하십시오.
Arabic تحذير	<ul style="list-style-type: none"> ● لا تلمس الأجزاء التي يمر بها التيار الكهربائي أو الأقطاب بجلد الجسم أو بالمعازل المبللة بالماء. ● ضع عازلاً على جسمك خلال العمل. 	<ul style="list-style-type: none"> ● ضع المواد القابلة للاشتعال في مكان بعيد. 	<ul style="list-style-type: none"> ● ضع أدوات وملابس واقية على عينيك وأذنيك وجسمك.

READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTION FOR THIS EQUIPMENT AND THE CONSUMABLES TO BE USED AND FOLLOW YOUR EMPLOYER'S SAFETY PRACTICES.

SE RECOMIENDA LEER Y ENTENDER LAS INSTRUCCIONES DEL FABRICANTE PARA EL USO DE ESTE EQUIPO Y LOS CONSUMIBLES QUE VA A UTILIZAR, SIGA LAS MEDIDAS DE SEGURIDAD DE SU SUPERVISOR.

LISEZ ET COMPRENEZ LES INSTRUCTIONS DU FABRICANT EN CE QUI REGARDE CET EQUIPMENT ET LES PRODUITS A ETRE EMPLOYES ET SUIVEZ LES PROCEDURES DE SECURITE DE VOTRE EMPLOYEUR.

LESEN SIE UND BEFOLGEN SIE DIE BETRIEBSANLEITUNG DER ANLAGE UND DEN ELEKTRODENEINSATZ DES HERSTELLERS. DIE UNFALLVERHÜTUNGSVORSCHRIFTEN DES ARBEITGEBERS SIND EBENFALLS ZU BEACHTEN.

			
<ul style="list-style-type: none"> ● Keep your head out of fumes. ● Use ventilation or exhaust to remove fumes from breathing zone. 	<ul style="list-style-type: none"> ● Turn power off before servicing. 	<ul style="list-style-type: none"> ● Do not operate with panel open or guards off. 	WARNING
<ul style="list-style-type: none"> ● Los humos fuera de la zona de respiración. ● Mantenga la cabeza fuera de los humos. Utilice ventilación o aspiración para gases. 	<ul style="list-style-type: none"> ● Desconectar el cable de alimentación de poder de la máquina antes de iniciar cualquier servicio. 	<ul style="list-style-type: none"> ● No operar con panel abierto o guardas quitadas. 	Spanish AVISO DE PRECAUCION
<ul style="list-style-type: none"> ● Gardez la tête à l'écart des fumées. ● Utilisez un ventilateur ou un aspirateur pour ôter les fumées des zones de travail. 	<ul style="list-style-type: none"> ● Débranchez le courant avant l'entretien. 	<ul style="list-style-type: none"> ● N'opérez pas avec les panneaux ouverts ou avec les dispositifs de protection enlevés. 	French ATTENTION
<ul style="list-style-type: none"> ● Vermeiden Sie das Einatmen von Schweißrauch! ● Sorgen Sie für gute Be- und Entlüftung des Arbeitsplatzes! 	<ul style="list-style-type: none"> ● Strom vor Wartungsarbeiten abschalten! (Netzstrom völlig öffnen; Maschine anhalten!) 	<ul style="list-style-type: none"> ● Anlage nie ohne Schutzgehäuse oder Innenschutzverkleidung in Betrieb setzen! 	German WARNUNG
<ul style="list-style-type: none"> ● Mantenha seu rosto da fumaça. ● Use ventilação e exaustão para remover fumo da zona respiratória. 	<ul style="list-style-type: none"> ● Não opere com as tampas removidas. ● Desligue a corrente antes de fazer serviço. ● Não toque as partes elétricas nuas. 	<ul style="list-style-type: none"> ● Mantenha-se afastado das partes moventes. ● Não opere com os painéis abertos ou guardas removidas. 	Portuguese ATENÇÃO
<ul style="list-style-type: none"> ● ヒュームから頭を離すようにして下さい。 ● 換気や排煙に十分留意して下さい。 	<ul style="list-style-type: none"> ● メンテナンス・サービスに取りかかる際には、まず電源スイッチを必ず切して下さい。 	<ul style="list-style-type: none"> ● パネルやカバーを取り外したまま機械操作をしないで下さい。 	Japanese 注意事項
<ul style="list-style-type: none"> ● 頭部遠離煙霧。 ● 在呼吸區使用通風或排風器除煙。 	<ul style="list-style-type: none"> ● 維修前切斷電源。 	<ul style="list-style-type: none"> ● 儀表板打開或沒有安全罩時不準作業。 	Chinese 警告
<ul style="list-style-type: none"> ● 얼굴로부터 용접가스를 멀리하십시오. ● 호흡지역으로부터 용접가스를 제거하기 위해 가스제거기나 통풍기를 사용하십시오. 	<ul style="list-style-type: none"> ● 보수전에 전원을 차단하십시오. 	<ul style="list-style-type: none"> ● 판넬이 열린 상태로 작동치 마십시오. 	Korean 위험
<ul style="list-style-type: none"> ● ابتعد رأسك بعيداً عن الدخان. ● استعمل التهوية أو جهاز ضغط الدخان للخارج لكي تبعد الدخان عن المنطقة التي تتنفس فيها. 	<ul style="list-style-type: none"> ● اقطع التيار الكهربائي قبل القيام بأية صيانة. 	<ul style="list-style-type: none"> ● لا تشغل هذا الجهاز اذا كانت الاغطية الحديدية الواقية ليست عليه. 	Arabic تحذير

LEIA E COMPREENDA AS INSTRUÇÕES DO FABRICANTE PARA ESTE EQUIPAMENTO E AS PARTES DE USO, E SIGA AS PRÁTICAS DE SEGURANÇA DO EMPREGADOR.

使う機械や溶材のメーカーの指示書をよく読み、まず理解して下さい。そして貴社の安全規定に従って下さい。

請詳細閱讀並理解製造廠提供的說明以及應該使用的銀焊材料，並請遵守貴方的有關勞動保護規定。

이 제품에 동봉된 작업지침서를 숙지하시고 귀사의 작업자 안전수칙을 준수하시기 바랍니다.

اقرأ بتمعن وافهم تعليمات المصنع المنتج لهذه المعدات والمواد قبل استعمالها واتبع تعليمات الوقاية لصاحب العمل.