

Taal: Engels



Handleiding

GYS GySpot Alu Pro FV

GY 021990

MSH equipment
Appelmarkt 7
1681 PE Zwaagdijk-Oost
Tel: 0228-561100
Fax: 0228-561112
Mail: info@msh-equipment.nl

Website: www.msh-equipment.nl

GYS

ALU PRO FV



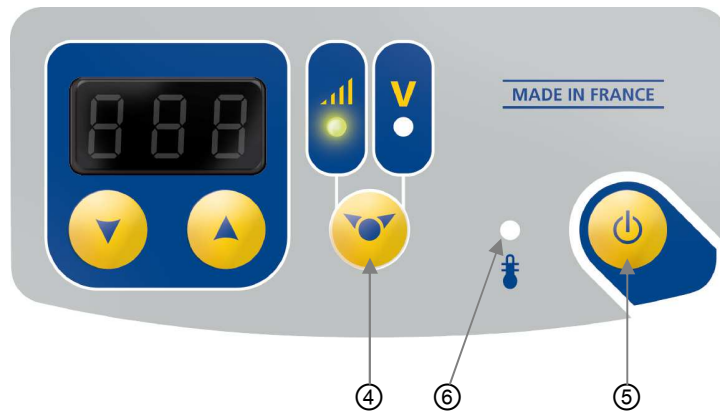
USER' MANUAL



I



II



III

P	L	1	2	3	4	5	6	7	8	9	H
V	70 V	75 V	80 V	85 V	90 V	100 V	108 V	118 V	125 V	135 V	150 V

Thank you for choosing this GYS product; please read this instruction manual carefully before installing and using the product, and keep in a safe place for future reference.

This machine was conceived to weld ϕ 4 studs on car body for bumps and impacts elimination on Aluminium car body.

Caution:

For an optimal operation, it is recommended to use the earth cable and gun delivered with the machine.

ELECTRICITY SUPPLY

Single phase power supply from 110 to 240V 50/60Hz **with earth**. 16A Circuit breaker curve D or 16A fuse (mini 5A).

NB: If the product trips the circuit breaker, please check that the correct fuse and an adequate circuit breaker are being used.

- These are A-class devices. They are designed to be used in an industrial or professional environment. In a different environment, it can be difficult to ensure electromagnetic compatibility, due to conducted disturbances as well as radiation.
- **Warning:** these materials do not comply with IEC 61000-3-12. If they are to be connected to a low-voltage main supply, it is the responsibility of the user to ensure they can be connected. If necessary consult the operator of your electrical distribution system.

The horizontal segment at the centre of the display flashes red to indicate that the device is powered.

The GYSPOT ALU PRO FV protects itself if the voltage exceeds 265V. The device prevents the charge of the capacitors. To indicate the failure, the 3 horizontal segments in the centre of the display light up.

Charge of the capacitors: A blinking display indicates that the GYSPOT ALU PRO FV is charging the capacitors to the setpoint. 'DEF' indicates that there is a capacitors charge fault. Switch off and relight the machine. If the message persists, please contact after sales service department.

OPERATING AND SETTING (FIG I-II P.2)

The GYSPOT ALU PRO FV was designed to carry out repairs to aluminium car bodies, which have minor dings and dents, marks, scratches or hail damages. Short charging times and thus quick welding sequences are accomplished. The capacitors have a capacity of 53 milliFarads.

Gun cable output (Fig. I-①)

Earth cable output (Fig. I-②)

The front panel has a keyboard with 4 keys and a LED display (Fig. II).

This device is equipped with:

- 1 earth cable (Length 3m – \emptyset 35mm²) with 3 brass terminals for earth contact on the car body.
- 1 pistol with a cable (length 3m - \emptyset 25 mm ²) to weld \emptyset 4 studs - M4: Alu magnesium (AlMg3), Alu silicon (AlSi12).

When switching on the product, an error message may come up indicating that the trigger has remain depressed. Either the trigger has stuck or it may be in short-circuit.

- In the first case, simply release it and resume use.
- In the second case, the product will require return the manufacturer for service.

OPERATION

The GYSPOT ALU PRO FV was designed to carry out repairs to aluminium car bodies, which have minor dings and dents, marks, scratches or hail damages.

Short charging times and thus quick welding sequences are accomplished.

The robust construction ensures high reliability and high power-on time.

The GYSPOT ALU PRO FV welds M4 studs using capacitor discharge technology. The welding is very fast (2 to 3 milliseconds).

The GYSPOT ALU PRO FV has 2 operating modes:

- Voltage programming mode: from 50 to 200 Volt.
- Power programming mode: L,1-9,H. L means low, H means high:
 - o Switching from voltage mode to power mode is done by pressing the 'mode' key (Cf. Fig II-④). See table Power vs Voltage (Cf. Fig. III).
 - o Press the on/off switch on the right of the keyboard (Cf. Fig. II-⑥).
 - o Notice: the earth adapter is factory mounted
 - o Grind the area which needs to be straightened, such that the 3 brass pads can make the ground contact with the aluminium car body.
 - o Position the stud in the **copper tip of the gun**. Adjust if necessary the screw adjustment of bumper stud (see pictures below)
 - o In order to get a good welding of the stud, the base must come out by approximately 1mm from the extremity of the mandrel (⑦)
 - o The position of the stud in the mandrel can be adjusted by screwing / unscrewing the nut on the adjustment screw (⑧)

Upon delivery of the gun, the screw ⑩ is loosened and the cursor ① is in abutment. This setting allows exerting a force of about 40 N during welding, which is suitable for welding aluminium studs M4. The screw is used to adjust the down force of the spring when the shot is fired or to compensate for the wear of the spring.

Adjust the power or the voltage value using + and - buttons. At power up the power value by default is 5 which is 100 volts. In general, the value to have a good welding of a M4 stud for small dent removal is: voltage = 90 V or power = 4.

Increase the voltage for thicker panels. Be careful, too elevated power can damage the copper base.

For a good weld, only the « nipple of the stud » must be in contact with the component.

Make a small pressure on the gun without crushing the "pin" of the stud. The capacitor discharge is done automatically when the support comes in the ring.

At this moment the stud is correctly welded. Welding duration is less than 3 milliseconds.

For an optimum repair, we advise you to warm up the metal sheet.

⑦

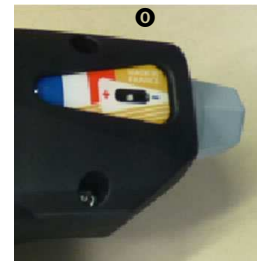


⑧

⑨



⑩



⑩

The copper base has 4 slots and is dedicated to M4 studs

Automatic gun without trigger

⑦ The base must come out by approximately 1mm from the extremity of the mandrel.

⑧ Screw for adjusting the stud's position.

⑨ The pin must be perpendicular to the sheet.

Do not press too much to not overwrite the nipple. Only the stud is in contact with the sheet.

⑩ A wheel with index ① allows adjusting the compression of the spring.

THERMAL PROTECTION

The machine is provided with an automatic thermal protection system, which will stop the machine to prevent it from overheating. When the Thermal Protection Indicator illuminates (fig. II-5), let the machine cool down.

MAINTENANCE

- Ensure the machine is unplugged, and that the ventilator inside has stopped before carrying out maintenance work. (DANGER High Voltage and Currents).
- Maintenance should only be carried out by a qualified person.
- GYS recommends removing the steel cover 2 or 3 times a year to remove any excess dust. Take this opportunity to have the electrical connections checked by a qualified person with an insulated tool.
- Regularly check the condition of the power supply cord. If damaged, it will need to be replaced by the manufacturer, its' after sales service or a qualified person.

SAFETY

Spot welding can be dangerous and can cause serious and even fatal injuries.

Protect yourself and others. Ensure the following safety precautions are taken:

Arc radiation	Protect yourself with a helmet fitted with filters in compliance with EN169 or EN 379.
Rain, steam, damp	Use your welding unit in a clean/dry environment (pollution factor ≤ 3), on a flat surface, and more than one meter from the welding work-piece. Do not use in rain or snow.
Burns	Wear protective (fire-proof) clothing (cotton, overalls or jeans). Wear protective gloves and a fire-proof apron. Ensure other people keep a safe distance from the work area and do not look directly at the welding arc.
Fire risks	Protect others by installing fire-proof protection walls. Remove all flammable products from the work area. Do not work in presence of flammable gases.
Electric shocks	This device must only be used with an earthed power supply. Do not touch the parts under tension. Check that the power supply is suitable for this unit.
Fumes	Do not inhale welding gases and fumes. Use the device in a well ventilated environment, with artificial extraction if welding indoors.
Electromagnetic perturbations	Near the spot welding, check that: there is neither no other power supply cable nor control lines, nor phone cables, nor radio or TV reception appliances, nor watches, nor mobile phones, nor magnetic cards, nor computers or any other electronic appliance.
Falls	Do not move the unit over people or objects.
Additional precautions	Any welding operation undertaken in: <ul style="list-style-type: none"> - rooms where there is an increased risk of electric shocks - poorly ventilated rooms - the presence of flammable or explosive material <p>should always be approved by a "responsible expert", and made in presence of people trained to intervene in case of emergency.</p> <p>Technical protection as described in the Technical Specification CEI/IEC 62081 must be implemented.</p> <p>Welding in raised positions is forbidden, except in case of safety platforms use.</p>

GYS cannot be held responsible for damage to persons or items, as a result of using the machine in the following circumstances:

- Modification or neutralisation of safety elements has been undertaken
- Safety recommendations written in this manual have not been adhered to
- Modification of the product's specifications
- Use of accessories not specified by the manufacturer
- Failure to observe regulations specific to the country or state in which the machine is used.

People wearing pacemakers are advised to see their doctor before using this device.

Do not use the welding unit to unfreeze pipes.

Handle gas bottles with care - there is increased danger if the bottle or its valve are damaged.

DECLARATION DE CONFORMITE

La société GYS atteste sous sa propre responsabilité que le produit **GYS SPOT ALU PRO FV** a été fabriqué conformément aux exigences des directives européennes suivantes :

- Directive Basse Tension : 2006/95/CE – 12/12/2006
- Directive CEM : 2004/108/CE – 15/12/2004

Ils sont pour cela conformes aux normes harmonisées :

- EN 62135-1 / EN 62135-2

Date de marquage CE : **2015**

DECLARATION OF CONFORMITY

GYS Company attests under its own responsibility that the product **GYS SPOT ALU PRO FV** is manufactured according to the requirements of the following European directives:

- Low voltage directive: 2006/95/CE – 12/12/2006
- CEM directive : 2004/108/CE – 15/12/2004

They are in conformity with the harmonized standards:

- EN 62135-1 / EN 62135-2

EC marking date: **2015**

KONFORMITÄTSEKTLÄRUNG

GYS erklärt, dass der Stoßpunkter **GYS SPOT ALU PRO FV** richtlinienkonform mit folgenden europäischen Bestimmungen hergestellt wurde:

- Niederspannungs-Richtlinie 2006/95/CE – 12/12/2006
- EMV- Richtlinien 2004/108/CE – 15/12/2004 - elektromagnetische Verträglichkeit

Dieses Gerät stimmt daher mit folgenden erweiterten Normen überein:

- EN 62135 -1 / EN 62135 -2

CE Kennzeichnung: **2015**

DECLARACION DE CONFORMIDAD

Gys certifica que el **GYS SPOT ALU PRO FV** es fabricado en conformidad con las directivas:

- baja tensión 2006/95/CE del 12/12/2006
- compatibilidad electromecánica 2004/108/CE del 15/12/2004

Esta conformidad está establecida por el respeto a las normas:

- EN 62135-1 / EN 62135-2

El marcado CE fue fijado en: **2015**

ДЕКЛАРАЦИЯ СООТВЕТВИИ

GYS заявляет, что сварочные аппараты **GYS SPOT ALU PRO FV** произведены в соответствии с директивами Евросоюза

- 2006/95/CE о низком напряжении от 12/12/2006
- CEM 2004/108/CE от 15/12/2004.

Данное соответствие установлено в соответствии с согласованными нормами

- EN 62135-1 / EN 62135-2

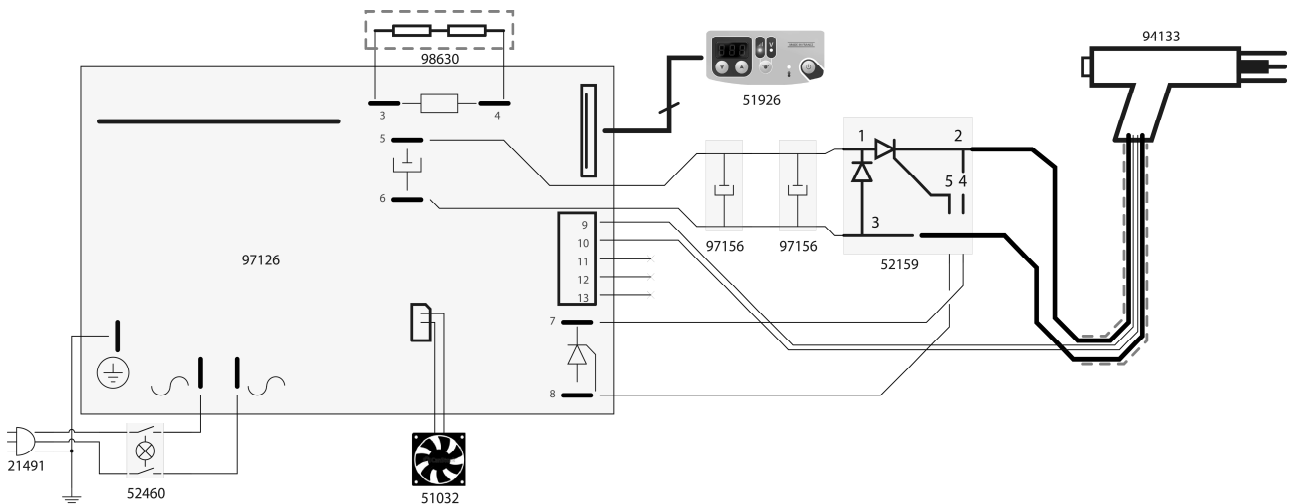
Маркировка ЕС нанесена в **2015**

Le 01/01/2015
Société GYS
 134 BD des Loges
 53941 Saint Berthevin

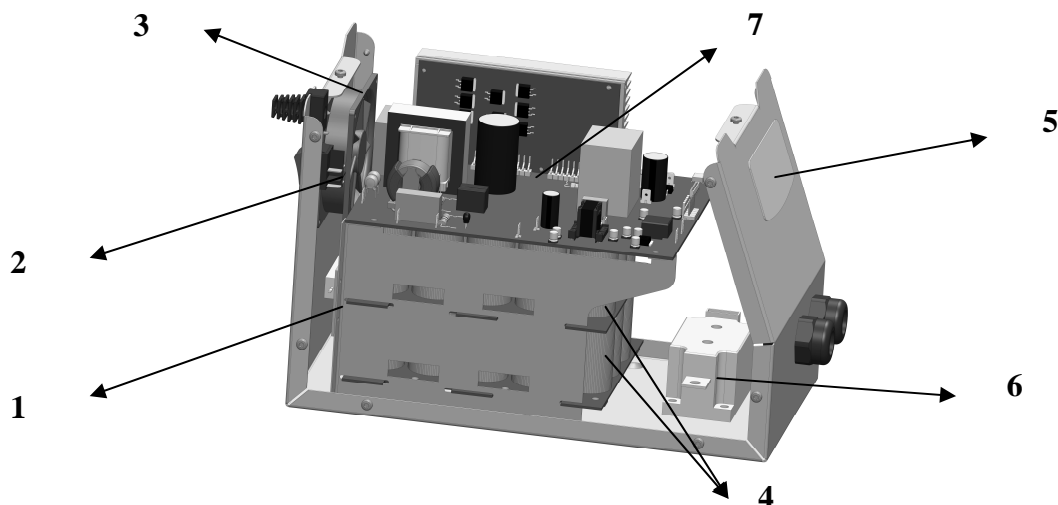
Nicolas BOUYGUES
 Président Directeur Général/ CEO



SCHÉMA ÉLECTRIQUE / CIRCUIT DIAGRAM / SCHALTPLAN / DIAGRAMA ELECTRICO / ЭЛЕКТРИЧЕСКАЯ СХЕМА



PIÈCES DE RECHANGE / SPARE PARTS / ERSATZTEILE / PIEZAS DE RECAMBIO / ЗАПАСНЫЕ ЧАСТИ



N°		ALU PRO FV
1	Résistance 50W 68 ohms / 50W 68 ohms resistance	63499
2	Interrupteur orange lumineux (22/30) O-I / Luminous orange switch (22/30) O-I	52460
3	Ventilateur / Fan / Ventilator / Ventilador / Вентилятор 92x92x25 24 Vdc	51032
4	PCB condensateur Aluspot / PCB capacitor Aluspot	97156
5	Clavier / Keyboard / Bedienfeld / Панель управления	51926 IND2
6	Module Thyristor - Diode 400A / Thyristor module - 400A diode	52159
7	PCB Gestion Aluspot / Managing PCB Aluspot	97126

GARANTIE

- La garantie couvre tout défaut ou vice de fabrication pendant 1 an, à compter de la date d'achat (pièces et main d'œuvre).
- La garantie ne couvre pas les erreurs de tension, incidents dus à un mauvais usage, chute, démontage ou toute autre avarie due au transport.
- La garantie ne couvre pas l'usure normale des pièces (Ex. : câbles, pinces, etc.).

En cas de panne, retournez l'appareil à votre distributeur (port dû refusé), en y joignant :

- Un justificatif d'achat daté (ticket de sortie de caisse, facture...)
- Une note explicative de la panne.

Attention : notre SAV n'accepte pas les retours en port dû.

Après la garantie, notre SAV assure les réparations après acceptation d'un devis.

Contact SAV :

Société GYS - 134 Bd des Loges - BP 4159-53941 - Saint-Berthevin Cedex

Fax: +33 (0)2 43 01 23 75 - Tél: +33 (0)2 43 01 23 68

GARANTIE

Die Garantieleistung des Herstellers erfolgt ausschließlich bei Fabrikations- oder Materialfehlern, die binnen 12 Monate nach Kauf angezeigt werden (Nachweis Kaufbeleg). Nach Anerkenntnis des Garantieanspruchs durch den Hersteller bzw. seines Beauftragten erfolgen eine für den Käufer kostenlose Reparatur und ein kostenloser Ersatz von Ersatzteilen. Der Garantiezeitraum bleibt aufgrund erfolgter Garantieleistungen unverändert.

Ausschluss:

Die Garantieleistung erfolgt nicht bei Defekten, die durch unsachgemäßen Gebrauch, Sturz oder harte Stöße sowie durch nicht autorisierte Reparaturen oder durch Transportschäden, die in Folge des Einsendens zur Reparatur, hervorgerufen worden sind. Keine Garantie wird für Verschleißteile (z.B. Kabel, Klemmen, Vorsatzscheiben etc.) sowie bei Gebrauchsspuren übernommen.

Das betreffende Gerät bitte immer mit Kaufbeleg und kurzer Fehlerbeschreibung ausschließlich über den Fachhandel einschicken. Die Reparatur erfolgt erst nach Erhalt einer schriftlichen Akzeptanz (Unterschrift) des zuvor vorgelegten Kostenvoranschlags durch den Besteller. Im Fall einer Garantieleistung trägt GYS ausschließlich die Kosten für den Rückversand an den Fachhändler.

ICONES / SYMBOLS / ZEICHENERKLÄRUNG / ICONOS / СИМВОЛЫ

A	Ⓜ Ampères Ⓜ Amps Ⓜ Ampere Ⓜ Amperios Ⓜ Ампер
V	Ⓜ Volt Ⓜ Volt Ⓜ Volt Ⓜ Voltios Ⓜ Вольт
Hz	Ⓜ Hertz Ⓜ Hertz Ⓜ Hertz Ⓜ Hertz Ⓜ Герц
	Ⓜ Convient au soudage dans un environnement avec risque accru de choc électrique. La source de courant elle-même ne doit toutefois pas être placée dans de tels locaux. Ⓜ Adapted for welding in environment with increased risks of electrical shock. However, the welding source must not be placed in such places. Ⓜ Geeignet für Schweißarbeiten im Bereich mit erhöhten elektrischen Risiken. Trotzdem sollte die Schweißquelle nicht unbedingt in solchen Bereichen betrieben werden. Ⓜ Adaptado a la soldadura en un entorno que comprende riesgos de choque eléctrico. La fuente de corriente ella misma no debe estar situada dentro de tal locales. Ⓜ Адаптирован для сварки в среде с повышенным риском электрошока. Однако сам источник питания не должен быть расположен в таких местах.
IP 21	Ⓜ Protégé contre l'accès aux parties dangereuses avec un doigt, et contre les chutes verticales de gouttes d'eau Ⓜ Protected against rain and against fingers access to dangerous parts Ⓜ Geschützt gegen Berührung mit gefährlichen Teilen und gegen senkrechten Wassertropfenfall Ⓜ protegido contra el acceso a las partes peligrosas con los dedos, y contra las caídas verticales de gotas de agua. Ⓜ Аппарат защищен от доступа рук в опасные зоны и от вертикального падения капель воды
U1n	Ⓜ Tension nominale d'alimentation Ⓜ Rated supply voltage Ⓜ Netzspannung Ⓜ Tensión de la red Ⓜ Номинальное напряжение сети
Sp	Ⓜ Puissance permanente Ⓜ Permanent power Ⓜ Max. Dauerleistung Ⓜ Potencia permanente Ⓜ Постоянная мощность
S ₅₀	Ⓜ Puissance à 50% du facteur de marche Ⓜ Power at 50% duty factor Ⓜ Nennleistung bei 50% ED Ⓜ Potencia al 50 % del factor de marcha Ⓜ Мощность при ПВ 50 %
U ₂₀	Ⓜ Tension alternative assignée à vide Ⓜ Secondary no-load rated voltage Ⓜ Sekundäre Leerlaufspannung Ⓜ Tensión alternativa en vacío Ⓜ Номинальное альтернативное напряжение холостого хода
I _{2cc}	Ⓜ Courant secondaire en court-circuit Ⓜ Secondary current in short circuit Ⓜ Max. Kurzschlussstrom Ⓜ Corriente secundaria en corto-circuito Ⓜ Вторичный ток при коротком замыкании
	Ⓜ Appareil conforme aux directives européennes Ⓜ The device complies with European Directive Ⓜ Gerät entspricht europäischen Richtlinien Ⓜ El aparato está conforme a las normas europeas Ⓜ Устройство соответствует европейским нормам
	Ⓜ Conforme aux normes EAC (Russie) Ⓜ Conform to standards EAC (Russia) Ⓜ in Übereinstimmung mit der Norm EAC Ⓜ Conforme a la normas EAC (Rusia) Ⓜ Продукт соответствует стандарту России (EAC).
	Ⓜ Risque de perturbation du fonctionnement des stimulateurs cardiaques à proximité de l'appareil Ⓜ Risk of interference and disturbance of pace-makers near of the product Ⓜ Risiko von Fehlfunktionen oder Zerstörung der medizinischen Geräte Ⓜ Riesgo de perturbaciones de funcionamiento del estimulador cardíaco a proximidad del aparato Ⓜ Существует риск сбоя функционирования кардиостимуляторов вблизи аппарата
	Ⓜ L'arc électrique produit des rayons dangereux pour les yeux et la peau (protégez-vous !) Ⓜ The electric arc produces dangerous rays for eyes and skin (protect yourself !) Ⓜ Der elektrische Lichtbogen verursacht Strahlungen auf Augen und Haut (schützen Sie sich !) Ⓜ El arco produce rayos peligrosos para los ojos y la piel (¡ Protéjase !) Ⓜ Электрическая дуга производит опасные лучи для глаз и кожи (защитите себя!) Ⓜ
	Ⓜ Produit faisant l'objet d'une collecte sélective- Ne pas jeter dans une poubelle domestique Ⓜ Separate collection required – Do not throw in a domestic dustbin Ⓜ Für die Entsorgung Ihres Gerätes gelten besondere Bestimmungen (Sondermüll). Es darf nicht mit dem Hausmüll entsorgt werden Ⓜ Este aparato es objeto de una recolección selectiva. No debe ser tirado en un cubo doméstico. Ⓜ Продукт требует специальной утилизации. Не выбрасывать с бытовыми отходами.
	Ⓜ Attention ! Lire le manuel d'instruction avant utilisation Ⓜ Caution ! Read the user manual Ⓜ Achtung! Lesen Sie die Betriebsanleitung Ⓜ Cuidado, leer las instrucciones de utilización. Ⓜ Внимание ! Читайте инструкцию по использованию
	Ⓜ Attention ! Champ magnétique important. Les personnes porteuses d'implants actifs ou passifs doivent être informées Ⓜ Caution ! Strong magnetic field. People wearing active or passive implants must be informed. Ⓜ ACHTUNG! Starkes Magnetfeld. In der Nähe des Arbeitsbereiches befindliche Personen müssen auf Gefahren hingewiesen werden. Ⓜ Cuidado ! Campo magnético importante. Las personas portadoras de implantes activos o pasivos deben ser informadas Ⓜ Внимание ! Сильное магнитное поле. Лица, имеющие активные или неактивные имплантаты должны быть предупреждены.
	Ⓜ Danger de décharge électrique Ⓜ Danger of electric shock Ⓜ Gefahr elektrischer Schläge Ⓜ Peligro de descarga eléctrica. Ⓜ Опасность электрического разряда.
	Ⓜ Attention, souder peut déclencher un feu ou une explosion. Ⓜ Caution, welding can produce fire or explosion. Ⓜ Achtung! Schweißen kann Feuer oder Explosion verursachen Ⓜ Cuidado, soldar puede iniciar un fuego o una explosión. Ⓜ Внимание! Сварка может вызвать пожар или взрыв.