



# HUGONG



**TYPE**  
INVERCUT125



**Read this manual carefully before  
using the product.**

Manual 4V1

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## Storing the user manual

- Keep the user manual in an accessible place, close to the product.
- Ensure that the manual is stored in a dry place.
- Use the manual carefully and avoid damage.
- The product must not be used by persons who are not familiar with the instructions and procedures in this manual.

This user manual is an integral part of the product and must therefore be kept in a safe place. If the product is transferred to another user, the manual must be included.

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# 1. General

The INVERCUT-III series of inverter air plasma cutting machines are designed for cutting all types of metal. Thanks to the use of IGBT technology and PWM control, this device offers high cutting quality, stable performance and efficient operation. The machine is suitable for both manual and automatic cutting and can be used in various industrial environments.

The INVERCUT series complies with CISPR11 standards for electromagnetic compatibility and is classified as Class A equipment.

Features:

- Manual and automatic cutting
- Highly concentrated arc energy
- 3 to 5 times higher cutting speed than gas cutting
- Low cutting loss and narrow, clean cut
- Low deformation of workpieces
- Steplessly adjustable cutting current
- Easy ignition and high arc height
- Portable design, high efficiency, energy-efficient
- Self-locking and unlocked cutting possible
- Mesh cutting function available
- Quality cutting thickness: 25 mm| Maximum cutting thickness: 60 mm

## 2. Safety instructions

### 2.1 General warnings

Read this manual thoroughly and understand all instructions before assembling or using the machine. Incorrect use can result in serious injury or damage.

- Use the machine only for its intended purpose.
- Do not operate or assemble the device without thorough knowledge of its operation.
- The user must be responsible, competent and trained.

### 2.2 Personal protective equipment (PPE)

- Always wear a welding helmet with full face protection, suitable in accordance with ANSI Z87.1.
- Use gloves, heat-resistant clothing and safety shoes.
- Use hearing protection and safety goggles in case of sparks or noise.
- Do not wear clothing with open pockets or turned-up collars.

### 2.3 Electrical hazard

- Wear dry, insulating clothing and gloves.
- Do not touch conductive parts during operation.
- Isolate yourself from the workpiece and earth.
- Never work on the device when it is switched on.

### 2.4 Fume gases

- Ensure good ventilation or use extraction.
- Do not weld or cut materials with harmful coatings such as zinc or cadmium.
- Use respiratory protection if necessary.

### **2.5 UV and IR radiation**

- Protect eyes and skin from welding arcs.
- Use suitable screens to protect bystanders.

### **2.6 Fire and explosion hazard**

- Remove flammable materials within 35 cm.
- Never cut on drums or pipes that contain or have contained flammable substances.
- Always keep a fire extinguisher within reach.

### **2.7 Hot material**

- Do not touch recently cut parts without protection.
- Allow torch and workpiece to cool before handling.

### **2.8 Moving parts and transport**

- Do not touch rotating fans or rollers.
- Use lifting equipment safely, with approved hooks and lifting angles of  $< 30^\circ$ .

### **2.9 Cylinders with protective gas**

- Secure gas cylinders in an upright position.
- Keep cylinders away from heat and electrical circuits.
- Use suitable pressure regulators and couplings.

## **3. Assembly**

### **3.1 Location requirements**

- Indoor installation, no direct sunlight, moisture or dust.
- Temperature:  $-10^\circ\text{C}$  to  $+40^\circ\text{C}$
- Angle of inclination  $\leq 15^\circ$
- Minimum 20 cm distance from wall, 10 cm between machines
- Ensure adequate ventilation if poor

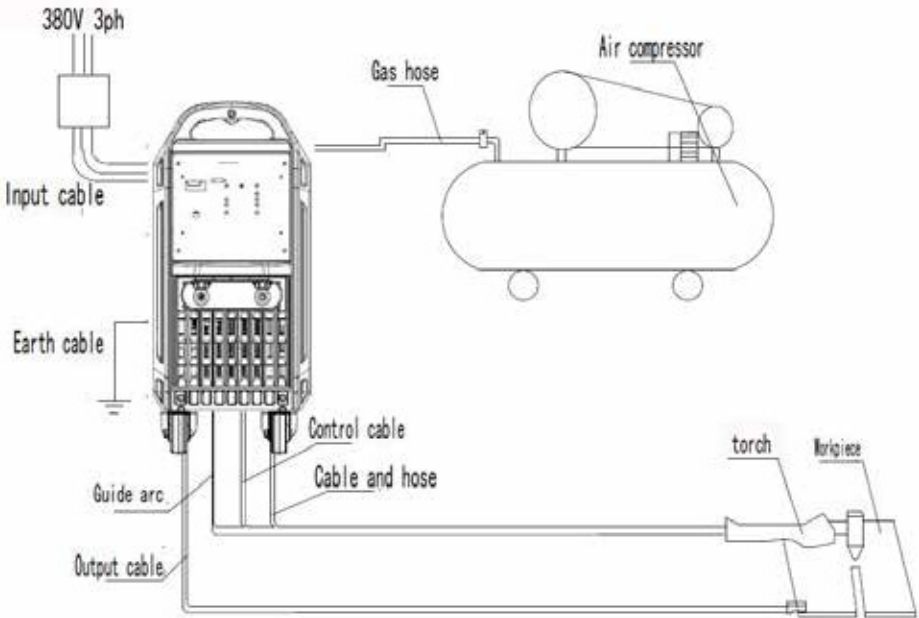
### **3.2 Power supply**

- Mains voltage: 3-phase 380-415V  $\sim \pm 15\%$ , 50 Hz
- Mains quality: symmetrical, max. 5% imbalance
- Mains fuse: 63A (125III) / 100A (160III)
- Power cable: min. 4 mm<sup>2</sup> (125III) / 6 mm<sup>2</sup> (160III)

### **3.3 Connection and installation**

- Mount the device on a stable surface, no inclination  $> 10^\circ$
- Secure earthing with cable  $\geq 4 \text{ mm}^2$  from earth connection
- Connect the compressed air hose correctly (min. 0.45 MPa, max. 0.85 MPa, min. 250 L/min)
- Connect torch to corresponding connector, secure with spanner
- Connect cables according to the connection diagram

## 4. Use



### 4.1 Operating instructions

1. Check installation
2. Switch on the machine, LEDs light up briefly
3. Activate "gas check" for pre-ventilation (1 min.)
4. Set the button to "cut"
5. Position the cutting torch 3-5 mm above the workpiece
6. Start cutting at the edge or at an angle, avoiding kickback
7. Move the torch constantly, following the desired cutting line
8. Only stop once the arc has been completely extinguished

### 4.2 Take care during use

- Check wear parts for deviations (arc breakage, uneven cutting)
- Replace worn nozzles and electrodes
- Do not move the torch too quickly
- Air pressure: no < 0.45 MPa, no > 0.85 MPa
- The machine stops in the event of undervoltage or overheating (LED lights up)

## 5. Maintenance

- Only clean the device when it is disconnected from the power supply
- Consult a professional technician in case of internal malfunctions
- Clean the air filter and drain water regularly
- Replace defective cables or switches immediately
- Replace wear parts in good time
- Store the machine in a dry, ventilated, frost-free and protected place

## 6. Specifications

Model: INVERCUT-125III

Power supply: 3-phase 380V / 400V / 415V  $\pm 10\%$ , 50Hz

For 380V:

Power: 20.4 / 26.9 kVA

Input current: 31 / 41 A

Output current: 20-125 / 20-160 A

Open circuit voltage: 325 V Voltage

under load: 130 / 144 V

Plasma air pressure: 0.45 - 0.85 MPa (4.5 - 8.5 bar)

Cutting thickness (quality/max): 1-30 mm / 50-60

mm Dimensions: 719 x 308 x 633 mm

Weight: 56 / 58 kg Cutting

capacity: 60% at 40°C IP rating:

IP21S

Standards:

EN IEC 60974-1

## **9. HUGONG warranty conditions**

### **1. Warranty**

We offer the following on all our products:

- 2-year standard warranty on manufacturing and material defects from the date of purchase
- 5-year extended warranty, provided the product is registered within 30 days of purchase
- The extended warranty is only valid for the original owner and is not transferable. For business applications, different terms may apply, unless otherwise agreed in writing.

### **2. Unique HUGONG warranty:**

5 years with official purchase from an official HUGONGWELDS.EU sales point

The 5-year warranty on our HUGONG welding machines is unique in the market and underlines our commitment to quality, durability and service.

This extended warranty applies only if:

- The machine was purchased from an authorised dealer listed on HUGONGWELDS.EU, the central platform for official HUGONG sales outlets and service partners.
- The product has been correctly registered online within 30 days of purchase.
- Any repairs or maintenance are carried out exclusively by an authorised HUGONG service partner, as listed on HUGONG-WELDS.EU
- Repairs carried out by unauthorised parties will invalidate the warranty.
- The complete list of authorised dealers and service points can be found at:
- [www.hugongwelds.eu](http://www.hugongwelds.eu)
- Purchases made through unauthorised sales channels or grey imports are not covered by the warranty conditions.
- Valkenpower B.V. is the official importer of HUGONG welding equipment for Western Europe. The 5-year extended warranty is provided exclusively by Valkenpower in collaboration with HUGONG.

### **3. Warranty conditions (standard and extended)**

To claim warranty (standard or extended), the following conditions must be met:

- The product was purchased from a dealer recognised on HUGONG-WELDS.EU
- The product is used in accordance with the user manual and the prescribed maintenance instructions
- Maintenance and/or repairs are carried out exclusively by authorised HUGONG service partners
- For extended warranty: the product has been correctly registered within 30 days of purchase
- The original purchase invoice is available and can be presented
- Please note: In the event of incorrect or improper use, the warranty will be void, including the standard warranty.

- If the product is not registered or is registered incorrectly within 30 days, only the standard 2-year warranty applies.

#### **4. What is covered by the warranty?**

Within the valid warranty period, HUGONG covers:

- Manufacturing defects
- Material defects
- Functional defects under normal use We will:
- Repair or replace the defective part
- Replace the entire product if necessary
- Or, in consultation, refund the purchase price (in part), minus depreciation
- The choice of solution is at the discretion of Valkenpower B.V. or an authorised service partner.

#### **5. What is not covered by the warranty?**

The warranty does not apply to:

- Normal wear and tear of parts such as:
- Electrodes, torches, cables, connectors, filters
- Hose couplings, switches, seals
- Water pumps for water coolers – these are considered wear parts
- Incorrect use, overloading or incorrect installation
- Modified or altered products without written permission
- Use of non-approved accessories or parts
- Ingress of dust, moisture or metal particles into the machine – this is not covered by the warranty and is considered user error
- Damage caused by external influences: moisture, dust, overheating, power surges, lightning, fire, corrosion or transport
- Use in rental applications, unless agreed in writing in advance

#### **6. Warranty procedure**

In the event of a defect:

Please contact our customer service or an authorised HUGONG dealer. Please provide the following:

- Proof of purchase
- Serial number (legible on the type plate)
- Description of the problem and the circumstances

Shipping:

- The product must be returned safely packaged to the designated service point.
- Transport and shipping costs are at the customer's expense, unless otherwise agreed.
- During repairs, there is no automatic right to a loan or replacement product.



## **7. Limitation of liability**

HUGONG and Valkenpower are not liable for:

- Loss of income, consequential damage or business interruptions
- Costs for disassembly/assembly or adjustments
- Work carried out by third parties without written permission
- Claims exceeding the original purchase price
- Statutory consumer rights remain unaffected.

## **8. Warranty on parts and repairs**

- Repaired or replaced parts retain the remaining warranty period of the original product.
- Separately purchased parts have a warranty period of 6 months.

## **9. Applicable law**

These warranty conditions are governed by Dutch law. Disputes will preferably be resolved through consultation. If necessary, the matter may be submitted to the competent court in Roermond or to a recognised dispute resolution body.

## **Questions?**

Our customer service team will be happy to help you. Visit:

[www.hugongwelds.eu](http://www.hugongwelds.eu) – for dealers, service partners and registration

**EC Declaration of Conformity – Declaration of Conformity – EG-Konformitätserklärung – Declaration de conformité - Declaration of conformity**

We, We, Wir, Nous, Noi, La empresa, **Valkenpower BV, Industrieweg 4, 6051 AE Maasbracht, Netherlands**, declare under our sole responsibility that the product declare under our sole responsibility that the product  
erklären in alleiniger Verantwortung, dass das Produkt déclarons sous notre seule responsabilité que le produit dichiariamo sotto la nostra responsabilità che il prodotto  
declare under our sole responsibility that the product

<b>Type</b>	<b>Description</b>	<b>Brand</b>
<b>Model</b>	<b>Description</b>	<b>Brand</b>
<b>Type</b>	<b>Description</b>	<b>Marke</b>
<b>Type</b>	<b>Description</b>	<b>Marque</b>
<b>Tipo</b>	<b>Description</b>	<b>Marca</b>
<b>Tipo</b>	Plasma cutter	<b>Marca</b>
INVERCUT125		Hugong

To which this declaration relates is in conformity with the following standards:  
To which this declaration relates is in conformity with the following document: Auf welches sich diese Erklärung bezieht, den folgenden Normen entspricht: Auquel se réfère cette déclaration est conforme à le document suivant:  
The declaration refers to the following documents:  
The present declaration refers to the following documents:

Low Voltage Directive, Niederspannungsrichtlinie, la Directive Basse Tension, la direttiva bassa tensione, la norma Baja tensión:

**2014/35/EC**

Netherlands, Maasbracht, 05-08-2025

Serial number:

**Director Valkenpower**



B.A.H Valkenburg

Valkenpower BV, Industrieweg 4, 6051 AE Maasbracht, Netherlands

