



# HUGONG



**TYPE**  
NVPM350-500



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

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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 with care and avoid damage.
- The use of the product by persons who are not familiar with the instructions and procedures in this manual is not permitted.

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 Hugong NVPM 350/500 is an advanced MIG/MAG welding machine suitable for welding various types of metal, such as carbon steel, stainless steel and aluminium alloys. The machine uses a powerful microcontroller that monitors and optimises the welding process in real time.

This ensures stable and consistent welding results.

Several welding modes are available, including:

- DC MIG/MAG
- Pulse MIG/MAG
- Duplex Pulse MIG/MAG
- MMA

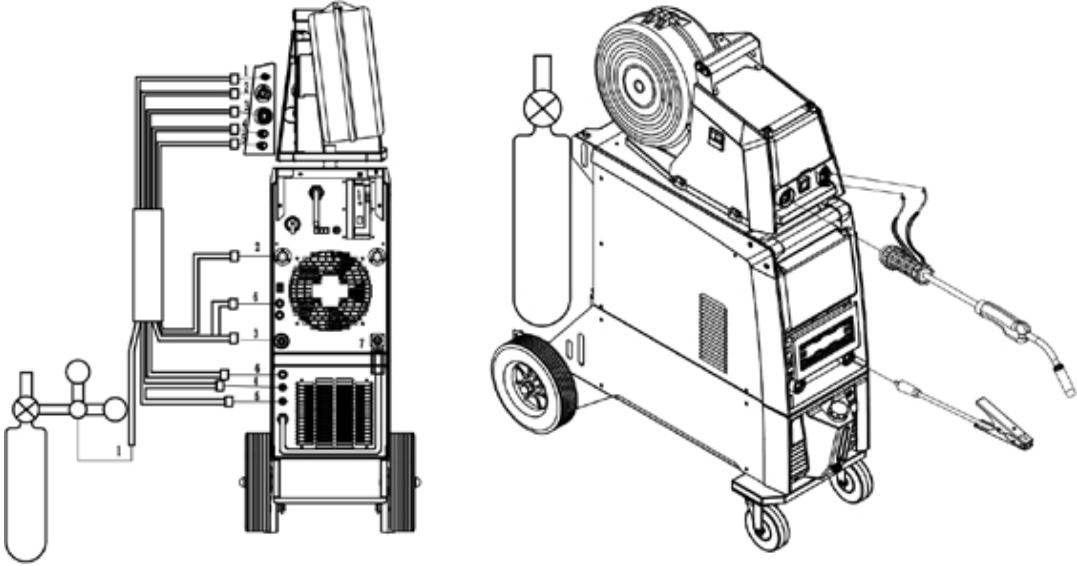
The system supports advanced features such as the storage and retrieval of 50 welding programmes, robot integration via analogue and digital interfaces, and an HD LCD control panel for intuitive operation.

## 2. Safety instructions

Always read the entire manual before using the device. Important points to note:

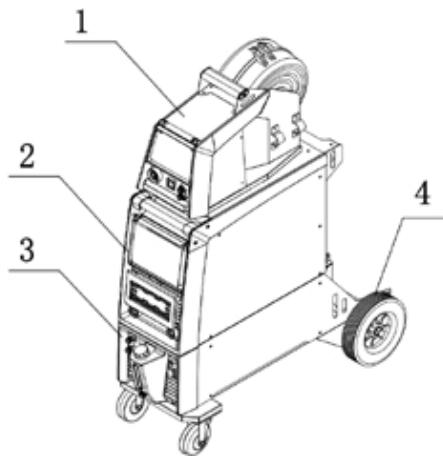
- Working environment: Ensure a dry, well-ventilated area, free from flammable materials.
- Electric shock: Wear dry, insulated clothing. Do not touch conductive parts during use.
- Toxic fumes: Ensure extraction or respiratory protection when welding coated materials.
- UV/IR radiation: Use a welding helmet with at least class 10 glass and wear protective clothing.
- Fire hazard: Remove flammable materials within 10 metres of the welding area. Keep a fire extinguisher handy.
- Cylinders: Always secure gas cylinders and protect them from heat and mechanical shocks.
- Personal protection: Use gloves, welding helmet, hearing protection and flame-retardant clothing.

### 3. Assembly

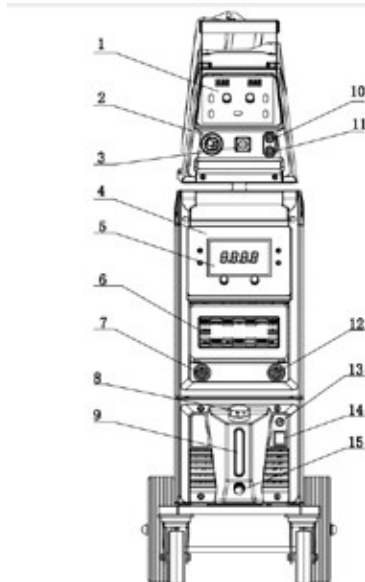


- Power supply: Connect to a 3-phase network (380/400/415V  $\pm 15\%$ ), with fuse  $\geq 60A$ .
- Earthing: Yellow-green earth cable must be connected.
- MMA mode: Electrode holder on positive pole, earth clamp on negative pole.
- MIG/MAG mode:
  - Position the wire spool correctly.
  - Install the correct wire reel and guide depending on the wire type (hard/soft).
  - Connect the gas hose to the gas cylinder with the correct shielding gas.
  - Use a suitable welding torch and matching contact tips.
- Water cooling: Recommended for MIG/MAG > 350A. Fill the tank with demineralised water and check the circulation.

## 4. Use



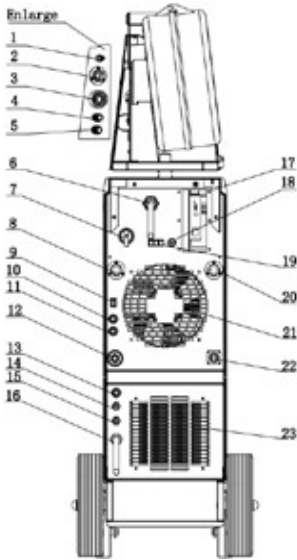
1. wire feed unit
2. Welding power source
3. Cooling water tank
4. Trolley



### Front

1. Wire feed unit control panel
2. MIG torch connection
3. Interface for wire feed Welding gun (custom-made)
4. Control panel for power source
5. LCD screen
6. Ventilation opening
7. Positive pole
8. Water inlet for water cooler
9. Water level window
10. Water outlet water-cooled torch (red)
11. Water inlet water-cooled torch (blue)
12. Negative terminal
13. Water cooler power supply fuse (3A)
14. Water cooler power switch
15. Water outlet water cooler

## Rear



1. Air connection of wire feed unit
2. Control cable connection wire feed unit
3. Welding current cable connection for wire feed unit
4. Water inlet (blue)
5. Water outlet (red)
6. Power cable
7. On/off switch
8. Control cable connection to power source
9. Water/air cooling switch
10. Water cooling signal (closed contact input for normal flow)
11. Digital connection for robot
12. Positive terminal on rear panel
13. Flow signal output
14. Water inlet water cooler (red)
15. Water outlet water cooler (blue)
16. Water cooler power cable
17. Group control box
18. Control current fuse (3A)
19. CO<sub>2</sub> heating connection (for 36V/120W heating element)
20. Robot simulation interface
21. Ventilation opening for welding current source
22. Water cooler power supply connection
23. Cooling reservoir ventilation openings

- Mode selection: Select via LCD screen: DC MIG/MAG, Pulse, Duplex Pulse or MMA.
- Parameter setting: Adjust current, wire feed, voltage, induction, arc force, pre-/post-gas time and spot load time.
- Memory function: Store and recall 50 settings.
- MMA: Adjust arc start current, hot start time and arc force for optimal results.
- MIG/MAG: Adjust all relevant parameters such as current, wire feed, voltage and more.

## 5. Maintenance

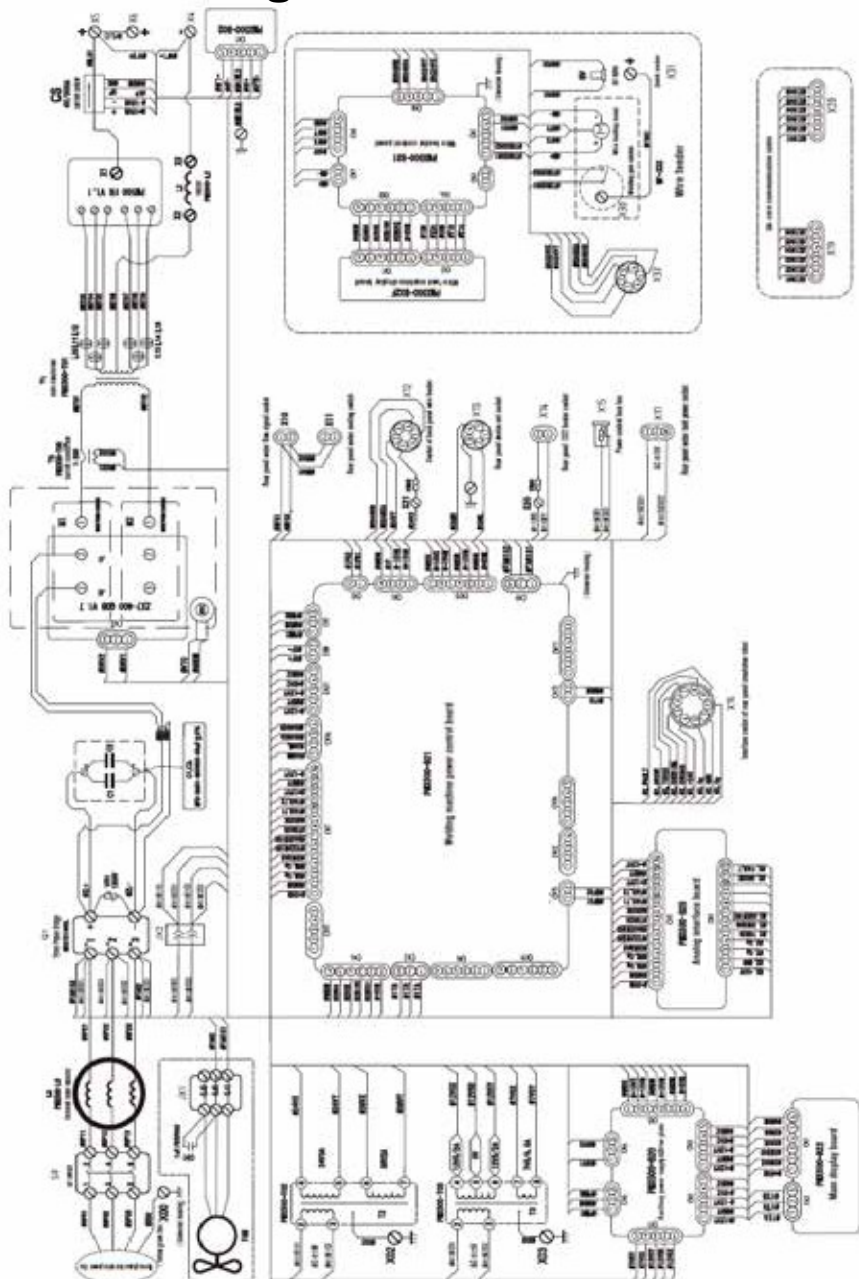
- Always switch off the main switch and disconnect the plug before performing maintenance.
- Clean the interior every 6 months with dry compressed air.
- Check cables for damage and replace if necessary.
- Ensure that ventilation openings are unobstructed.
- Only allow qualified personnel to carry out internal repairs.

## 6. Specifications

Features NVPM 350 / NVPM 500:

- Input voltage: 3×380/400/415V  $\pm 20\%$  /  $\pm 15\%$
- Fuse: 60A
- Nominal output: 350A / 31.5V | 500A / 39V
- Open terminal voltage: 76/80/76V  $\pm 5\%$
- Duty cycle: 60% / 40%
- Efficiency:  $\geq 80\%$
- Power factor:  $\geq 0.93$
- Cooling: Air-cooled
- Protection class: IP21S
- Weight (power supply): 41.8 kg / 42.5 kg
- Dimensions: 719×308×572 mm
- Wire diameter: 0.8 – 1.6 mm
- Max. coil diameter: up to 300 mm

## 7. Circuit diagram





# 8. 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 that 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 be eligible for 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 in 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  
- Dichiarazion di conformita- Declaracion de conformidad**

We, We, Wir, Nous, Noi, La empresa,  
**Valkenpower BV, Industrieweg 4, 6051 AE Maasbracht, Netherlands,**  
declare under our sole responsibility that the product  
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|              |                              |               |
|--------------|------------------------------|---------------|
| <b>Type</b>  | <b>Description</b>           | <b>Brand</b>  |
| <b>Model</b> | <b>Description</b>           | <b>Marke</b>  |
| <b>Type</b>  | <b>Description</b>           | <b>Marque</b> |
| <b>Type</b>  | <b>Description</b>           | <b>Marca</b>  |
| <b>Tipo</b>  | <b>Description</b>           | <b>Marca</b>  |
| <b>Tipo</b>  | MIG/MAG welding<br>equipment | Hugong        |
| NVPM350-500  |                              |               |

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 welche sich diese Erklärung bezieht, den folgenden Normen entspricht:  
Auquel se réfère cette déclaration est conforme à le document suivant:  
To which this declaration relates is in conformity with the following document:  
To which this declaration relates is in conformity with the following document:

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

**2014/35/EC**

Netherlands, Maasbracht, 14-08-  
2025

**Director Valkenpower**

Serial  
number:



B.A.H Valkenburg

Valkenpower BV, Industrieweg 4, 6051 AE Maasbracht, Netherlands



