



PT 30KK

**Bruksanvisning
Brugsanvisning
Bruksanvisning
Käyttöohjeet
Instruction manual
Betriebsanweisung
Manuel d'instructions**

**Gebruiksaanwijzing
Instrucciones de uso
Istruzioni per l'uso
Manual de instruções
Οδηγίες χρήσεως
Instrukcja obs³ugi**

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1. INTRODUCTION

This manual is intended for personnel with experience of plasma cutting. Operator using cutting equipment must always be aware of risk and safety regulations that this process entails. National safety regulations for plasma cutting are generally recommended.

Unauthorised personnel are not permitted to install, use or service the equipment. It is important that following instructions are read and understood before equipment is installed and operated.

! WARNING !

ARC WELDING AND CUTTING CAN BE INJURIOUS TO YOURSELF AND OTHERS. TAKE PRECAUTIONS WHEN WELDING. ASK YOUR EMPLOYER FOR SAFETY PRACTICES THAT SHOULD BE BASED ON MANUFACTURER'S HAZARD DATA.

ELECTRIC SHOCK - Can kill

- Install and earth welding equipment in accordance with obligatory standards.
- Do not touch live electrical parts or electrodes with bare skin, wet gloves or wet clothes.
- Insulate yourself from earth and workpiece.
- Ensure your work position is safe.

FUMES AND GASES - Can be dangerous to your health

- Keep your head away from fumes.
- Use ventilation and/or extraction to keep fumes and gases away from your breathing zone and surroundings.

ARC RAYS - Can injure eyes and burn skin

- Protect your eyes and skin. Use correct welding screens, filter lens and wear protective clothes.
- Protect bystanders with suitable screens or curtains.

FIRE HAZARD

- Sparks (spatter) can cause fire. Make therefore sure there are no inflammable materials nearby.

NOISE - Excessive noise can damage your hearing.

- Protect your ears. Use ear defenders or other hearing protection.
- Warn bystanders of the risk.

MALFUNCTION - Call expert assistance in event of malfunction.

READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE INSTALLING OR OPERATING UNIT

PROTECT YOURSELF AND OTHERS!

2. INSTALLATION

Preparing the torch head.

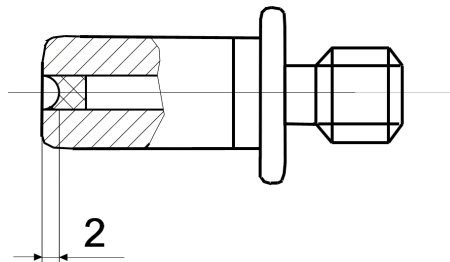
1. Screw on the electrode and tighten down firmly with provided multipurpose wrench.
2. Put on insulating sleeve.
3. Put on the nozzle.
4. Put on the spring.
5. Screw on the heat shield.
6. Install safety clip on the torch head and insulating cap.

3. OPERATING AND MAINTENANCE NOTES

Prior to switching on the torch.

1. Check whether all threaded connections are tight.
2. Replace all defective, deformed or worn out parts.
3. Check consumables, accessories and safety clip for proper fit.

NOTE: When replacing the nozzle, always inspect the electrode for wear. If the depth of the crater is $1,5 \div 2,0$ mm - replace the electrode. If the electrode is used beyond this recommended wear limit, damage to the torch and power source may occur. Nozzle life is also greatly reduced when using the electrode beyond the recommended limit.



Igniting the torch.

1. After short gas pre-flow period, plasma arc is struck. When torch is held at correct distance from work-piece, plasma arc is transferred towards work-piece, which starts cutting process. Plasma arc is interrupted if work-piece contact is broken or trigger released. It is important to ensure recommended gas post-flow period to cool the torch.

Safety measures.

Handling cutting torches is not dangerous when appropriate safety regulations are observed and maintained. For example:

1. Ensure that only employees with proper knowledge of handling arc-cutting units perform installation.
2. Arc cutting can injure eyes, skin and hearing! For this reason always use recommended protective clothing and eye and ear protection according to national regulations.
3. Specified torch current capacity data (or duty cycle) represents maximum limits. Overloads always lead to torch damage.
4. When changing consumables, always switch the power source off.
5. Observe operating instructions for plasma arc cutting units.
6. Press torch switch to begin cutting only when all steps for cutting without any risk has been followed.
7. Never pull cable set across sharp edges and don't let it to come in contact with hot spatter or hot work-piece.
8. Use curtains and protective screens to protect others from optical and ultraviolet radiation and arc flashes.
9. Parts degreased with solvents containing chlorides must be rinsed off thoroughly with clean water or steam cleaned before cutting, to eliminate the hazard of phosgene gas formation. For the same reason, degreasing bath containing chlorides should not be set up in the vicinity of cutting stations.

10. All metal vapours are hazardous! Lead, cadmium, copper, zinc and beryllium are particularly harmful. Ventilate or extract fumes and vapours to ensure that legally allowed level of hazardous substances is not exceeded.

4. TROUBLESHOOTING

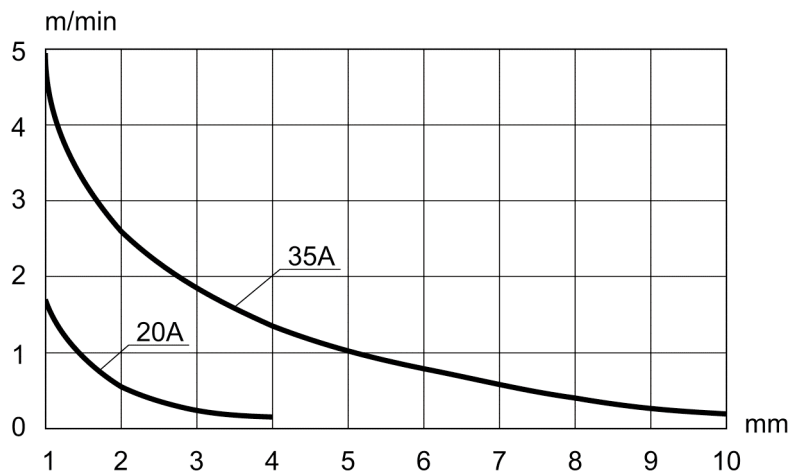
Problem	Possible cause
Insufficient penetration	<ul style="list-style-type: none"> - drop of gas pressure during cutting due to incorrectly adjusted gas regulator - too high cutting speed - torch held at too small angle to work-piece - work-piece material too thick - torch parts worn or damaged - wrong current setting or nozzle diameter for application
Cutting arc broken	<ul style="list-style-type: none"> - cutting speed too low - torch held too far away from work-piece - material too thick - current setting too low
Extreme dross formation	<ul style="list-style-type: none"> - too low or too high cutting speed - torch parts worn or damaged - wrong current setting or nozzle diameter for application
Nozzle burn-out	<ul style="list-style-type: none"> - damaged or loose plasma nozzle - contact with work-piece - cutting started too fast on edge of work-piece - excessive spatter during hole-punching - pilot arc too long and too often ignited in the air - pilot arc too intense (depends on power source)
Electrode burn-out	<ul style="list-style-type: none"> - drop of pressure during cutting due to incorrectly adjusted gas regulator - loose electrode - pilot arc too long and too often ignited in the air

5. TECHNICAL DATA

Mode	Rating		Gas supply	Inlet pressure	Post flow time	Air volume
Single gas	30A @ 60%	50A @ 35%	Plasma & cooling	3,5 – 4,5 bar	~60 sec.	130 l/min

PLASMA CUTTING ABILITY

Plasma cutting ability of PT30KK is shown on chart below.



6. GUARANTEE

Warranty claims may be submitted only for production defects, not for damage resulting from normal wear, overload or improper handling. Consumables are generally not covered by warranty.