Operation instructions • english
Gebrauchsanweisung • deutsch
Gebruiksaanwijzing • nederlands
Manuel d'utilisation • français

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KEMPPI PRO EVOLUTION

PROCOOL 30

KEMPPI
The Joy of Welding

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1. PREFACE

1.1. INTRODUCTION

Congratulations on having purchased this product. Properly installed Kemppi products should prove to be productive machines requiring maintenance at only regular intervals. This manual is arranged to give you a good understanding of the equipment and its safe operation. It also contains maintenance information and technical specifications. Read this manual from front to back before installing, operating or maintaining the equipment for the first time. For further information on Kemppi products please contact us or your nearest Kemppi distributor.

The specifications and designs presented in this manual are subject to change without prior notice.

In this document, for danger to life or injury the following symbol is used:

Read the warning texts carefully and follow the instructions. Please also study the Operation safety instructions and respect them when installing, operating and servicing the machine.

1.2. PRODUCT INTRODUCTION

Procool 30 is a cooling unit designed for Kemppi Pro Evolution -welding equipment and to be used for cooling welding gun or torch. The operation of Procool is controlled by a microprocessor.

1.3. OPERATION SAFETY

Please study these Operation safety instructions and respect them when installing, operating and servicing the machine.

Welding arc and spatters

Welding arc hurts unprotected eyes. Be careful also with reflecting arc flash. Welding arc and spatter burn unprotected skin. Use safety gloves and protective clothing.

Danger for fire or explosion

Pay attention to fire safety regulations. Remove flammable or explosive materials from welding place. Always reserve sufficient fire-fighting equipment on welding place. Be prepared for hazards in special welding jobs, eg. for the danger of fire or explosion when welding container type work pieces. Note! Fire can break out from sparks even several hours after the welding work has been finished!

Mains voltage

Never take welding machine inside a work piece (eg. container or truck). Do not place welding machine on a wet surface. Always check cables before operating the machine. Change defect cables without delay. Defect cables may cause an injury or set out a fire. Connection cable must not be compressed, it must not touch sharp edges or hot work pieces.

Welding power circuit

Isolate yourself by using proper protective clothing, do not wear wet clothing. Never work on a wet surface or use defect cables. Do not put MIG-gun or welding cables on welding machine or on other electric equipment. Do not press MIG-gun switch, if the gun is not directed towards a work piece.

Welding fumes

Take care that there is sufficient ventilation during welding. Take special safety precautions when welding metals which contain lead, cadmium, zinc, mercury or beryllium.

2. INSTALLATION

2.1. REMOVAL FROM PACKAGING

The equipment is packed in durable packages specially designed for them. Check the equipment before taking it into use, to make sure that the equipment or a part of it have not got damaged during the transportation. Also check that the delivery corresponds your order and that you have received all the necessary instructions for installing and operating the equipment. The packaging material can be recycled.

2.2. LOCATING THE MACHINE

Place the machine on a horizontal, stable and clean ground. Protect the machine from heavy rain and burning sunshine. Check that there is enough space for cooling air circulation in front of and behind the machine.

2.3. SERIAL NUMBER

The serial number of the machine is marked on the machine CE-marking. Identificating the serial number is the only proper means of maintaining and identifying parts for a specific product. It is important to make correct reference to the serial number of the product when making repairs or ordering spare parts.

2.4. INSTALLATION AND MAIN PARTS

2.4.1. Assembling the equipment

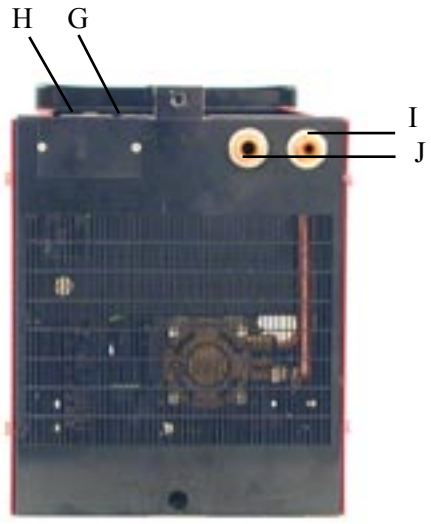
The equipment is assembled in the following order:
1. Transport unit P40/P40L 6185264/6185264L
2. Cooling unit Procool 30 6262016

Assembly the transport unit according to the instructions in the package. Fasten the cooling unit to the transport unit by using the screws and bolts delivered with the equipment.

2.4.2. Main parts of cooling unit

Front machine

A Housing
C Test switch
D Overheat control lamp
F Filling hole



Back side

G Mains voltage connection cable
H Control cable
I Cooling water output hose
J Cooling water input hose

⚠ **This equipment's electromagnetic compatibility (EMC) is designed for use in an industrial environment. Class A equipment is not intended for use in residential location where the electrical power is provided by the public low-voltage supply system.**

2.5. PREPARING FOR OPERATION

⚠ **Cooling liquid is injurious! Avoid also contact with skin or eyes. In case of injury, seek for medical advice.**

See also 2.4.2. Main parts of cooling unit.

1. Install the cooling unit control cable into the wire feed unit.
2. Connect the cooling water hoses with the wire feed unit, follow colour markings.
3. Fill the reservoir with a 40 - 20 % mixture of glycol and water, or with any other suitable antifreeze agent. The capacity of the reservoir is 3 litres.
4. Connect the mains voltage and control connectors of the cooler unit to the corresponding connectors on the base of the power supply. The connection can be established through the base of the power supply when the devices are separated or through the right side of the Procool 30 cooler by removing the right side plate.
5. Attach the power supply on the Procool 30 cooler.
6. Switch on the power supply.
7. Press and hold down the test switch until the torch hoses are filled with liquid. The text COOLER ERROR will remain on the PROMIG panel as long as the gun hoses contain air.
8. Device is ready to weld.

3. OPERATION

3.1. COOLER OPERATION

See also 2.4.2. Main parts of cooling unit

Procool 30 Cooler operation is controlled by the microprocessor of the power supply. The cooler pump starts to operate when the welding begins. After the welding has stopped, the pump will operate 1 to 5 minutes longer depending on the welding time. During this time the liquid will cool down to the surrounding temperature. If the pump is stopped, the need for maintenance of the cooler will be reduced.

Check the tank liquid level regularly and fill in liquid, if necessary.

If the liquid flow is blocked or a hose is blocked or broken, the welding is stopped and the text COOLER ERROR appears on the PROMIG panel.

3.2. OVERHEAT SIGNAL LAMP

The overheat signal lamp is lighting when temperature control of the machine has detected cooling water overheat. The ventilator cools down the machine and when the lamp goes out welding can be started again.

3.3. STORAGE

The machine must be stored in a clean and dry room. Protect the machine from rain and keep it away from direct sunshine in places where temperature exceeds +25 °C. Check that there is free space in front of and behind the machine for air circulation.

4. MAINTENANCE

⚠ **Watch out for mains voltage when handling electric cables!**

In planning product maintenance machine utilization degree and circumstances should be considered. Careful use and preventive maintenance help to avoid unnecessary production disturbances and breaks.

4.1. DAILY MAINTENANCE

The following maintenance opeations should be carried out daily:

- Check water level and input flow, add liquid if needed.
- Check cables and connections. Tighten, if necessary and replace defect parts

4.2. EVERY SIXTH MONTHS

The following maintenance opeations should be carried out at least every sixth months:

- Clean off dust and dirt. Change the cooling liquid and wash up the pipes and water reservoir with pure water.
- Check seals, cables and connections. Tighten, if necessary and replace defect parts.

4.3. TROUBLE SHOOTING

See also 3.2. Overheat signal lamp.

Overheat signal lamp is lit.

The unit is overheated.

- Check water circulation.
- Check that there is enough free space behind the machine for cooling air circulation.

Text COOLER ERROR on the PROMIG panel

- Check the liquid hoses for damages.
- Remove any hose blockages.
- Check water circulation, add liquid if needed.

For further information and assistance, contact your nearest Kemppi service workshop.

4.4. DISPOSAL OF THE MACHINE

Do not dispose of electrical equipment together with normal waste!

In observance of European Directive 2002/96/EC on Waste Electrical and Electronic Equipment and its implementation in accordance with national law, electrical equipment that has reached the end of its life must be collected separately and returned to an environmentally compatible recycling facility. As the owner of the equipment, you should get information on approved collection systems from our local representative.

By applying this European Directive you will improve the environment and human health!

5. TECHNICAL DATA

Cooling unit

Connection voltage	1 ~, 50/60 Hz	400 V -15%...+20%
Connection capacity	100 % ED	120 W
Mains cable		3 x 1.5 S - 0.8 m
Power factor		0,42
Control voltage		50 V DC
Cooling power		1,25 kW
Start pressure, max.		400 kPa
Cooling liquid		20% - 40 % glycol/water
Reservoir volume		ca. 3 l
Overall dimension:	length	610 mm
	width	230 mm
	height	290 mm
Weight		13 kg
Operating temperature range		-20 … +40 °C
Storage temperature range		-40 … +60 °C
Degree of protection		IP 23 C

The products meet the conformity requirements of CE-marking.

6. TERMS OF GUARANTEE

Kemppi Oy provides a guarantee for products manufactured and sold by them if defects in manufacture and materials occur. Guarantee repairs must be carried out only by an Authorised Kemppi Service Agent. Packing, freight and insurance costs to be paid by orderer. The guarantee is effected on the date of purchase. Verbal promises which do not comply with the terms of guarantee are not binding on guarantor.

Limitations on guarantee

The following conditions are not covered under the terms of guarantee: defects due to natural wear and tear, non-compliance with operating and maintenance instructions, connection to incorrect or faulty supply voltage (including voltage surges outside equipment spec.), incorrect gas pressure, overloading, transport or storage damage, fire of damage due to natural causes i.e. lightning or flooding.

This guarantee does not cover direct or indirect travelling costs, daily allowances or accommodation.

Note: Under the terms of guarantee, welding torches and their consumables, feeder drive rolls and feeder guide tubes are not covered. Direct or indirect damage due to a defective product is not covered under the guarantee. The guarantee is void if changes are made to the product without approval of the manufacturer, or if repairs are carried out using non-approved spare parts.

The guarantee is also void if repairs are carried out by non-authorised agents.

Undertaking guarantee repairs

Guarantee defects must be informed to Kemppi or authorised Kemppi Service Agents within the guarantee period. Before any guarantee work is undertaken, the customer must provide proof of guarantee or proof of purchase, and serial number of the equipment in order to validate the guarantee. The parts replaced under the terns of guarantee remain the property of Kemppi.

Following the guarantee repair, the guarantee of the machine or equipment, repaired or replaced, will be continued to the end of the original guarantee period.

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