OCE 2H

Bruksanvisning
Brugsanvisning
Bruksanvisning
Käyttöohjeet
Instruction manual
Betriebsanweisung
Manuel d'instructions
Gebruiksaanwijzing
Instrucciones de uso
Istruzioni per l'uso
Manual de instruções
Οδηγίες χρήσεως

0443 406 001 030303

Valid for serial no. 535-xxx-xxxx

GB

1 DIRECTIVE

DECLARATION OF CONFORMITY

ESAB Welding Equipment AB, 695 81 Laxå, Sweden, declares that cooling unit OCE 2H from serial number 452 onwards, conforms to standard EN 60204-1, in accordance with the requirements of directive (73/23/EEC) and appendix (93/68/EEC) and standard EN 50199 in accordance with the requirements of directive (89/336/EEC) and appendix (93/68/EEC).

Laxå 1995-09-10

Paul Karlsson
Managing Director
ESAB Welding Equipment AB
695 81 LAXÅ
SWEDEN Tel: + 46 584 81000 Fax: + 46 584 12336

2 SAFETY

WARNING

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

ELECTRIC SHOCK - Can kill
- Install and earth the welding unit in accordance with applicable standards.
- Do not touch live electrical parts or electrodes with bare skin, wet gloves or wet clothing.
- Insulate yourself from earth and the workpiece.
- Ensure your working stance is safe.

FUMES AND GASES - Can be dangerous to health
- Keep your head out of the fumes.
- Use ventilation, extraction at the arc, or both, to take fumes and gases away from your breathing zone and the general area.

ARC RAYS - Can injure eyes and burn skin.
- Protect your eyes and body. Use the correct welding screen and filter lens and wear protective clothing.
- Protect bystanders with suitable screens or curtains.

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

NOISE - Excessive noise can damage hearing
- Protect your ears. Use earmuffs or other hearing protection.
- Warn bystanders of the risk.

MALFUNCTION - Call for expert assistance in the event of malfunction.

READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE INSTALLING OR OPERATING.

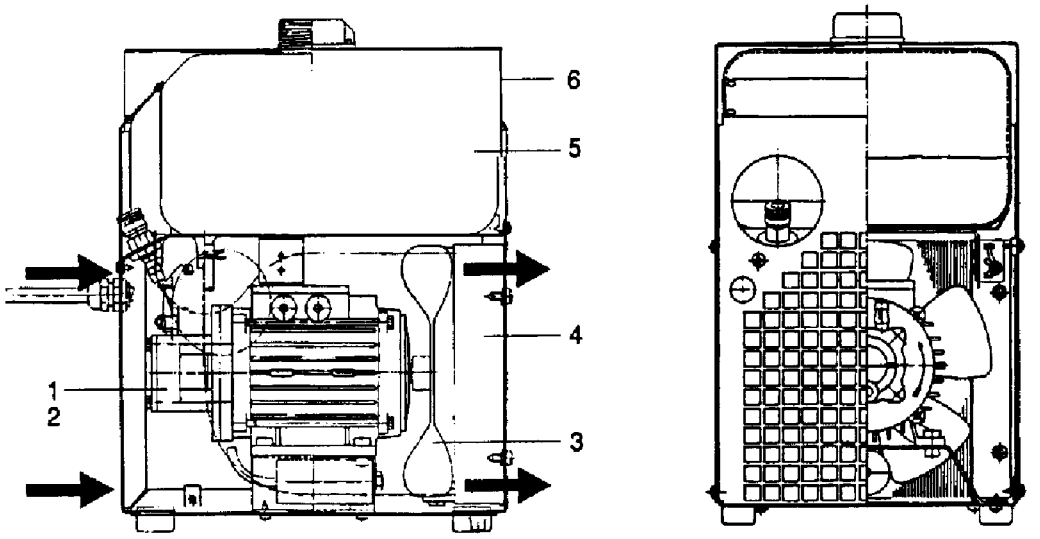
PROTECT YOURSELF AND OTHERS!

3 TECHNICAL DESCRIPTION

The OCE2 H cooling unit is designed primarily for cooling welding torches, TIG torches included.

The cooling unit consists of:

1. Pump
2. Electric motor
3. Fan
4. Radiator
5. Water tank
6. Casing
7. Optional accessories, see page 30.



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The pump is of the turbine type and is designed for high pressure operation and low water consumption. It is driven directly by a single-phase asynchronous motor with capacitor start.

The suction side of the pump is connected to the water tank, and cold water is forced through a hose to the cooling channels in the component to be cooled.

From there the hot water returns via the return hose to the radiator and then back to the tank.

The fan is of the axial type. It draws air past the pump and motor and forces it through the radiator.

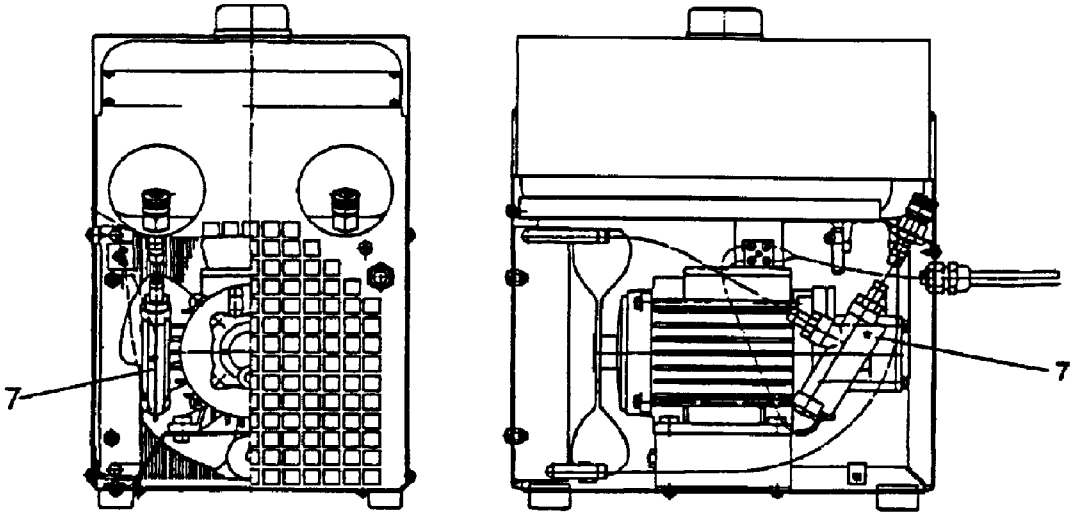
The radiator consists of copper water pipes with cooling flanges of aluminium.

The water tank is made of high density polythene and is situated above the pump and radiator.

The casing is made of sheet steel and consists of a base, perforated end panels and U shaped cover panel.

Access to all components of the cooling unit is gained by removing the cover panel.

Optional accessories include a flow guard (7) which can be fitted to monitor the minimum water flow (ca 1 l/min). This should be installed in the return line (hot side) between the radiator water connection and the quick-connector.



Fitted to one end panel of the cooling unit are two quick-connectors for the water lines. The same panel has holes for the power cable and the signal cable. (Signal cable is not standard equipment).

3.1 Technical data

Pump with motor	
Maximum power consumption	125 W
Mains connection	230 V, 50 Hz or 230 V, 60 Hz
Rotation speed at 50 Hz	2700 rpm
Rotation speed at 60 Hz	3400 rpm
Maximum water pressure at 50 Hz	300 kPa (3 bar)
Maximum water pressure at 60 Hz	410 kPa (4.1 bar)
Weight (water-filled)	22 kg
Fuse size	6 A
Fan	
Diameter	190.5 mm
Number of fan blades	5
Blade angle	31°
Material	Aluminium
Maximum rotation speed	3600 rpm
Airflow at 2700 rpm	ca 420 m^3/h
Power consumption	40 W
Pressure	16 m
Max height of pressure for welding gun PSF 402W	7 m

Cooler	
Cooling effect (40°C overtemp. and 2,0 l/min)	2,0 kW
Cooling effect (60°C overtemp. and 2,0 l/min)	3,0 kW
Water pressure at 2,0 l/min	220 kPa (2,2 bar)
Total water consumption	8 l
Overtemperature*	60°C
Enclosure type	IP23**
Continous A-weighted noise pressure	72 dB
For physical dimensions,	see dimension drawing on page NO TAG.

* Temperature of return water minus temperature of incoming air.

** Device marked IP23 is intended for indoor and outdoor use.

4 INSTALLATION

1. Filling with water.

   De-ionised or distilled water is recommended.

   When the tank is filled for the first time, or if the pump has been run dry, the outlet water hose should be disconnected before filling to allow trapped air to escape.

   There is no need to disconnect the hose when topping up the water level.

   Water should be added through the filler hole in the top of the tank. The level should be kept about a centimetre below the bottom edge of the filler hole, to allow for expansion when the water is hot.
2. Anti-freeze. Cold weather protection can be provided by adding anti-freeze in the same concentration as used in a car radiator. The addition of anti-freeze will reduce cooling performance slightly.
3. Water temperature. The cooling water temperature must not exceed 90°C.
4. For safety purposes the cooling unit can be bolted down using the two riveted nuts and M8 bolts in the base.
5. All electrical work should be carried out by a **qualified electrician**.
6. Location. Place the cooling unit so that the cooling air can circulate freely.

5 MAINTENANCE

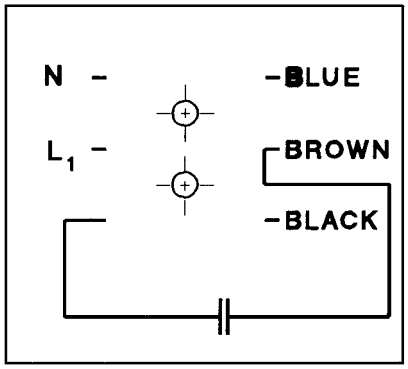
1. Radiator

   The air flowing through the radiator carries particles of dust which can become attached to the cooling pipes and fins, especially in a dirty working environment. This eventually reduces the cooling performance, so the radiator should be regularly blown clean using compressed air.

2. Pump and motor

   The pump and motor do not require maintenance. The motor is fitted with sealed lubricated bearings. Running the pump dry can cause damage to seals and the pump impeller and should therefore be avoided.

6 CONNECTION INSTRUCTION



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The earth cable is to be connected to bolt marked ⏚ on the intermediate plate above the mains connection block.