

OCC 1

Kylaggregat
Cooling unit
Kühlaggregat
Groupe réfrigérant

Bruksanvisning och reservdelsförteckning
Instruction manual and spare parts list
Betriebsanweisung und Ersatzteilverzeichnis
Manuel d'instructions et liste de pièces détachées

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TECHNICAL DESCRIPTION

The cooling unit OCC 1 is designed for use with water-cooled TIG, MIG, MAG and submerged-arc welding equipment

The cooling unit consists of the following main components: pump, motor with fan, water cooler and coolant tank

The cooling unit has a casing of stainless sheet steel. On top of the casing is the filler cap and the coolant water outlet. The unit is powered by a single-phase induction motor with a capacitor. One outlet drives the fan, the other the pump. The capacity of the pump ensures that a sufficient amount of coolant is provided even if circulation should be considerably reduced by a kink in a water hose or a similar fault

The cooling unit is started by means of a switch mounted on the top

Frequency (Hz)	50	60
Voltage (V)	220	220/230
Rating (W)	105	135
Cable area (mm ²)	3x1.5	3x1.5

Motor Single-phase induction motor with start capacitor

Current (A)	0.85	0.92
Rated output (W)	100	100
Speed (rpm)	2700	3200
Capacitor	4 uF	4 uF
	400 V	400 V
Temperature class	B	B

Cooling fan of propeller type

Capacity (m ³ /h)	525	605
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Cooling system radiator with finned tubes

Cooling capacity (kW) max 1.8

The diagrams, Figs. 2 and 3, show the cooling capacity as a product of water pressure and water flow

Tank capacity (litres) 8

Pump of turbine type

Height	360 mm
Depth	320 mm
Width	270 mm
Capacity	8 litres
Weight	15 kg (excluding coolant)

INSTALLATION

When filling an empty coolant tank the hose on the "OUT" connection must be loosened. This precaution is not necessary when topping-up the system

Connection to welding rectifier LAD 500

Fig 1

Remove the side wall of the welding rectifier and connect the cooling unit to connection block K 50 which is located above the main transformer close to the rear wall of the casing

Make sure that the cooling system is properly primed with coolant. If the equipment is to be used in temperature around or below freezing point, the water in the system must be mixed with an anti-freeze

Ethylene glycol	50% down to - 36°C
	40% down to - 26°C
	30% down to - 15°C
	20% down to - 10°C

Since the water expands as it heats up, the water level should never be higher than approximately 10 mm below the upper edge of the filler neck

The cooling unit is started with the switch marked "ON-OFF", after the mains supply to the welding rectifier has been switched on

Fig 4

1. Filler cap
2. Inlet for coolant
3. Outlet for coolant
4. Coolant tank
5. Coolant pump
6. Electric motor, single phase induction type with start capacitor
7. Cooling fan
8. Water cooler
9. Flow of cooling air

MAINTENANCE

Normally, the cooling unit does not require any maintenance. However, it should be looked over once per year, or more often if used in dusty conditions, and blown clean with dry compressed air since particles of dust can fasten between the cooling fins and reduce the efficiency of the unit. The motor and pump require no maintenance, being fitted with fully enclosed bearings which do not need any regular lubrication

Check daily that the water level is correct. Running the unit dry can quickly ruin the seals and pump impeller

FAULT-TRACING

The pump does not start

1. No mains supply
2. Fuse blown
3. Faulty cables
4. Coupling between motor and pump faulty
5. Impeller has fastened

The pump does not give sufficient capacity

1. Kinked hoses
2. Hoses too long or have too small a bore
3. Air in the system
4. Leakage
5. Worn impeller
6. Pump cover or pump body worn
7. Excessive clearance between body - impeller - cover due to screws holding pump cover not having been tightened sufficiently
8. Foreign matter in pump or hose

Water leaks from the cooling unit

1. Leakage at one or more of the hose connections
2. The seal, which consists of a sealing ring and a back ring in the pump is not properly run-in (very little water leakage)
3. The seal, as per item 2 above, is damaged or worn. Must be replaced
4. Pump cover O-ring or contact surfaces are damaged
5. Leakage from coolant tank

NOTE! Disconnect the OCC 1 from the mains supply before dismantling the side plates