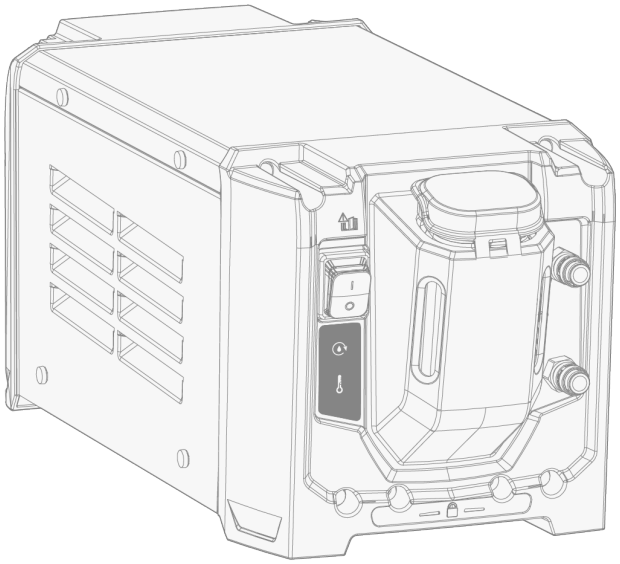
MINARC COOLER 05



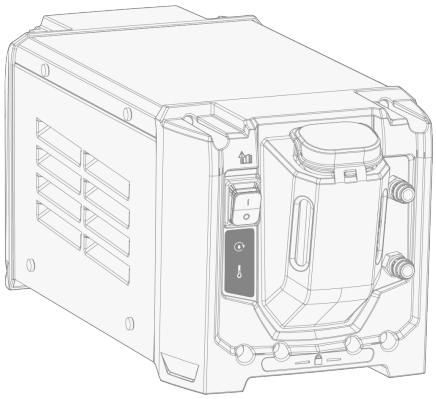
CONTENTS

1. GENERAL

These instructions describe the use of Kemppi's Minarc Cooler 05 cooling unit.

Minarc Cooler 05 operates as a standalone device, without requiring a direct connection to the power source.

Minarc Cooler 05 is not compatible with power sources operating on 110...120 V supply voltage.



Important notes

Read the instructions through carefully. For your own safety, and that of your working environment, pay particular attention to the safety instructions delivered with the equipment.

Items in the manual that require particular attention in order to minimize damage and harm are indicated with the below symbols. Read these sections carefully and follow their instructions.

Note: Gives the user a useful piece of information.

Caution: Describes a situation that may result in damage to the equipment or system.

Warning: Describes a potentially dangerous situation. If not avoided, it will result in personal damage or fatal injury.

1.1 WELDING SAFETY

Welding is always classified as hot work, and welding equipment typically contains high-voltage circuits. If you are not familiar with welding and welding principles, it is recommended that you acquire welding training or professional guidance before commencing welding. The welding equipment mentioned in this manual is intended for professional use in an industrial environment.

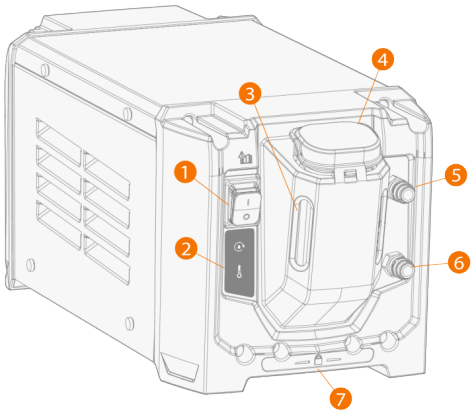
For your own safety, and that of your working environment, pay particular attention to the safety instructions delivered with the equipment.

You can also access and download the safety instructions by using these links:

- Safety
  (https://kemp.cc/safety/general)
- Personal protection
  (https://kemp.cc/safety/ppe)
- Welding guns and torches
  (https://kemp.cc/safety/torches)

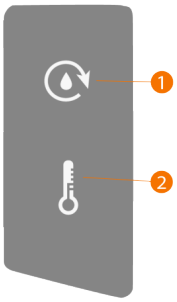
1.2 MINARC COOLER 05

Front



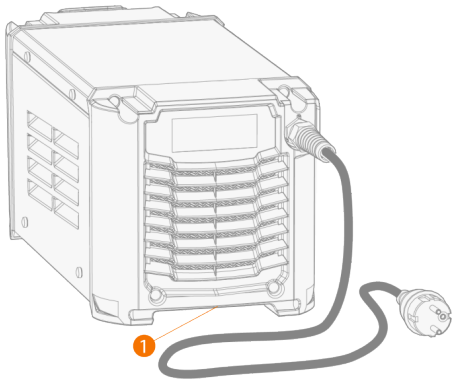
1. Power switch
2. Indicator panel *
3. Cooling liquid level indicator
4. Cooler container cap
5. Coolant hose connector (color-coded)
6. Coolant hose connector (color-coded)
7. Front locking interface (for locking on the cart).

*** Indicator panel**



1. Coolant circulation warning
   >> The LED is OFF when the coolant circulation is working normally.
   >> The LED is red when there is a problem in the coolant circulation.
2. Coolant temperature warning
   >> The LED is yellow when the cooler is overheating.

Rear



1. Rear locking interface (for locking on the cart).

EQUIPMENT IDENTIFICATION

Serial number

Serial number of the device is marked on the rating plate or in another distinctive location on the device. It is important to make correct reference to the serial number of the product when ordering spare parts or making repairs for example.

Quick Response (QR) code

The serial number and other device-related identification information may also be saved in the form of a QR code (or a barcode) on the device. Such code can be read by a smartphone camera or with a dedicated code reader device providing fast access to the device-specific information.

2. INSTALLATION

Do not modify the equipment in any way, except for the changes and adjustments covered in the manufacturer's instructions.

Place the machine on a horizontal, stable and clean ground. Protect the machine from rain and direct sunshine.

Before installation

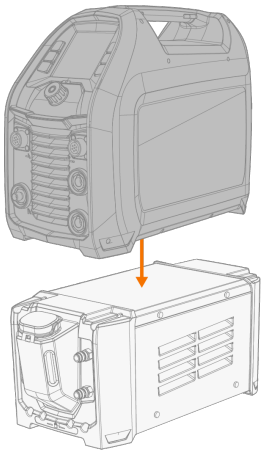
- Check the contents of the packages and make sure the parts are not damaged.

2.1 INSTALLING COOLER

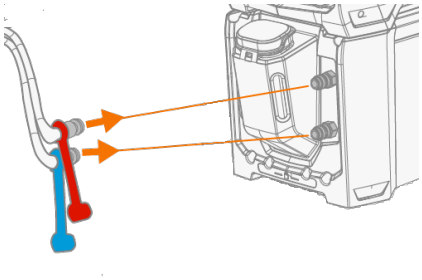
To install the cooling unit:

1. Lift the power source on top of the cooling unit.

No connection cables between the cooling unit and the power source are required.



2. Connect the coolant hoses to the cooler's connectors. Note that the connectors are color-coded.



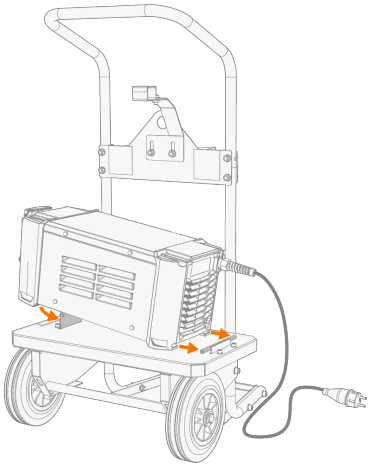
Make sure to connect the coolant hoses to the correct hose connectors. If the connections cross, the torch and torch body may overheat.

2.2 INSTALLING EQUIPMENT ON CART (OPTIONAL)

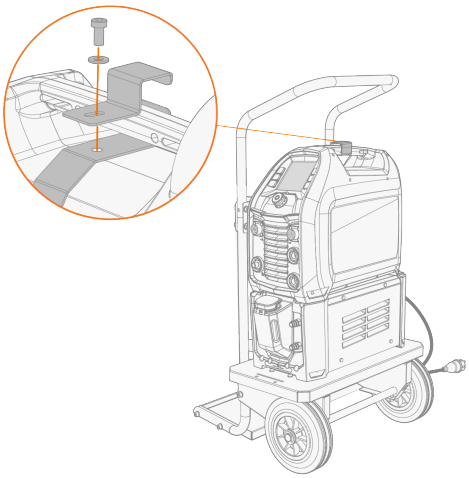
Minarc Cooler 05 can be installed on the T22M cart.

Tools needed:

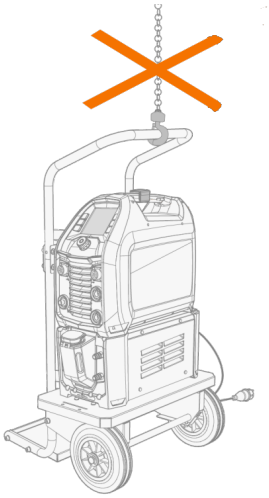
1. Install the cooling unit on the cart so that the locking interfaces align and the fixing plate goes into its slot.



2. Lift the power source on top of the cooling unit. Refer to "Installing cooler" on the previous page for installation details.
3. Secure the power source's handle to the cart with an additional bracket and a screw (M8x16).



⚠ *Do not lift the equipment with a mechanical hoist.*



3. OPERATION

Before using the equipment, ensure that all the necessary installation actions have been completed according to your equipment setup and instructions.

Minarc Cooler 05 operates as a standalone device, without requiring a direct connection to the power source. Use the cooling unit's own power switch to switch it on and off. Any problems with the cooling unit are not indicated in the power source error messages.

If the equipment is left unused for a longer period, disconnect the mains plug from the mains.

Do not lift the equipment with a mechanical hoist.

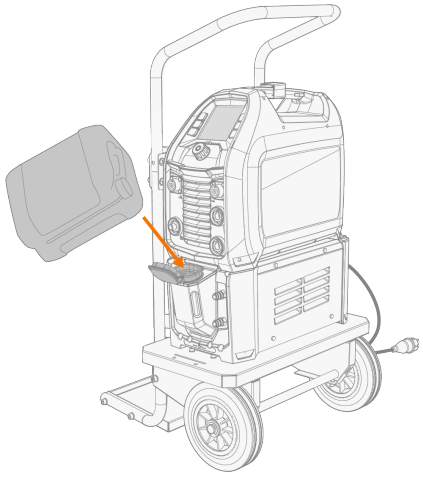
3.1 PREPARING COOLER

Fill the cooler with pre-mixed coolant solution. The mixing ratio should be 20...50% as standard. Use only ethylene or propylene glycol mixture intended for welding cooling systems, for example Kemppi cooling liquid.

⚠ *Do not add water to the pre-mixed coolant solution. Do not use automotive cooling solutions or ethanol-based mixtures.*

To fill the cooler:

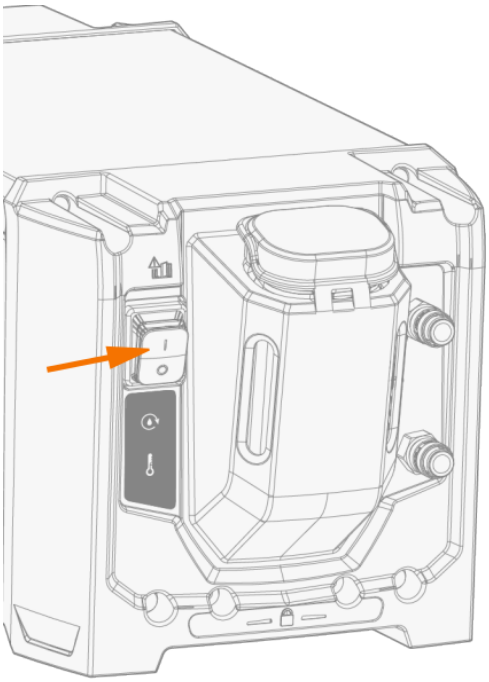
1. Open the cooler cap.
2. Fill the cooler with coolant. Do not fill over the max. marking.



3. Close the cooler cap.

To turn on the cooler:

To turn on the cooling unit, switch the main switch to ON (I).



Use the main switch to start and shut down the cooling unit. Do not use the mains plug as a switch.

4. MAINTENANCE

4.1 DAILY, PERIODIC AND ANNUAL MAINTENANCE

Use pre-mixed coolant solution in the cooling unit. The mixing ratio should be 20...50% as standard. Use only ethylene or propylene glycol mixture intended for welding cooling systems, for example Kemppi cooling liquid. Do not add water to the pre-mixed coolant solution. Do not use automotive cooling solutions or ethanol-based mixtures.

For repairs, find your closest Kemppi service workshop at www.kemppi.com or contact your dealer.

Only an authorized electrician is allowed to carry out electrical work.

Only qualified service personnel is allowed to carry out periodic and annual maintenance.

Do not use pressure washing devices.

Where applicable, use the correct tension torque when fastening loose parts.

Daily maintenance

Welding equipment's daily maintenance:

- Check that all covers and components are intact.
- Check all the cables, hoses and connectors. Do not use them if they are damaged.
- Ensure that the connectors are correctly fastened. Loose connectors can impair welding performance and damage connectors.

Cooling unit's daily maintenance (in addition):

- Check the cooling liquid level. Add cooling liquid if needed. Note: Use the correct coolant solution (see above).
- Check the cooling unit surroundings for cooling liquid leakages. If there are signs of significant leakage, contact Kemppi service.
- Check and test the cooling liquid pump operation by circulating the cooling liquid.

Weekly maintenance

Welding equipment's weekly maintenance:

- Clean the outside parts of the units from dust and dirt, for example, with a soft brush and vacuum cleaner.
- Clean the ventilation grills. Do not use compressed air, there is a risk that the dirt will compact even more tightly into the gaps of the cooling profiles.

Periodic maintenance

Cooling unit's periodic maintenance, every 1–6 months (in addition):

- Check the cooling liquid quality at least once a month. Ensure that the liquid is clear and free of any visible impurities.
- Replace the cooling liquid every 6 months. Note: Use the correct coolant solution (see above).

Annual maintenance

The annual maintenance must be carried out by an authorized Kemppi service workshop. Kemppi service workshops complete the welding system maintenance according to your Kemppi service agreement. Find your closest service workshop at www.kemppi.com.

Welding equipment's annual maintenance program includes:

- Cleaning the equipment.
- Checking the connectors and switches.

- Checking all electrical connections.
- Repairing defective parts and replacing defective components.
- Maintenance test.
- Checking and cleaning the cooling liquid pump. The pump is dismantled and cleaned thoroughly, and if there has been any leakage in the pump's axle seal point, the axle seal is replaced. The axle seal is subject to wear and may need replacement periodically to maintain proper sealing.

For Kemppi welding torch maintenance, refer to your welding torch's instructions (available also at user-doc.kemppi.com).

4.2 DISPOSAL

Do not dispose of any electrical equipment with normal waste!

In observance of WEEE Directive 2012/19/EU on waste of electrical and electronic equipment and European Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment, and their implementation in accordance with national law, electrical equipment that has reached the end of its life must be collected separately and taken to an appropriate environmentally responsible recycling facility. The owner of the equipment is obliged to deliver a decommissioned unit to a regional collection center, as per the instructions of local authorities or a Kemppi representative. By applying these European Directives you improve the environment and human health.

For more information:

5. TECHNICAL DATA

Technical data:

- For technical data, refer to "Minarc Cooler 05 cooling unit" on the next page

Ordering information:

- For ordering information, refer to "Ordering codes" on page 20

5.1 MINARC COOLER 05 COOLING UNIT

Minarc Cooler 05		
Feature		Value
Supply voltage		220...240 V ±10 %
Maximum supply current [I_{1max}]		1 A
Cooling power at 1 l/min		0.5 kW
Maximum coolant pressure		0.5 MPa
Recommended coolant		MGP 4456 (Kemppi mixture)
Operating temperature range		-20...40 °C
Storage temperature range		-40...60 °C
EMC class		A
Degree of protection		IP23
Tank volume		2.7 l
External dimensions	*L* x *W* x *H*	506 x 215 x 215 mm
Weight without accessories		10 kg
Standards		IEC 60974-2,-10, GB/T 15579.2

6. ORDERING CODES

For ordering codes, refer to Kemppi.com.