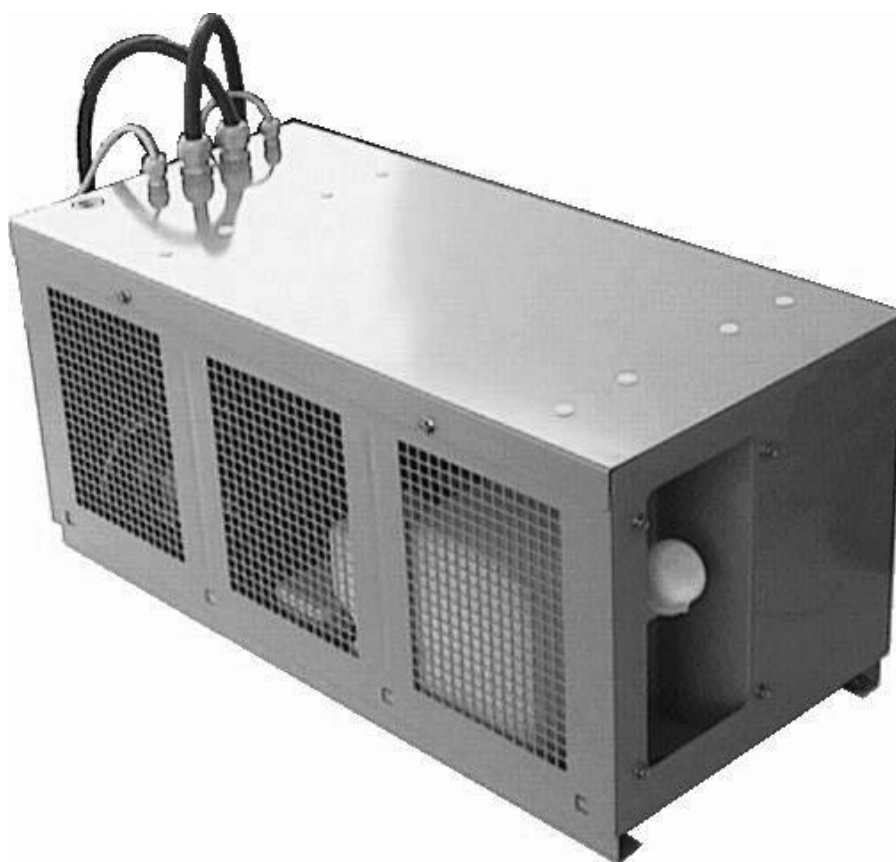


COOLING UNIT

REFRIJET GR 51

SAFETY INSTRUCTIONS FOR USE AND MAINTENANCE

MACHINE No W000315645



EDITION : EN
REVISION : J
DATE : 01-2022

Instructions for use

REF : **8695 5814**

Original instructions

LINCOLN[®]
ELECTRIC

Thank for the trust you have expressed by purchasing this equipment, which will give you full satisfaction if you follow its instructions for use and maintenance.

Its design, component specifications and workmanship comply with applicable European directives.

Please refer to the enclosed CE declaration to identify the directives applicable to it.

The manufacturer will not be held responsible where items not recommended by themselves are associated with this product.

For your safety,there follows a non-restrictive list of recommendations or requirements, many of which appear in the employment code.

Finally we would ask you kindly to inform your supplier of any error which you may find in this instruction manual.

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INFORMATIONS

DISPLAYS AND PRESSURE GAUGES

The measuring devices or displays for voltage, current, speed, etc., whether analog or digital, should be considered as indicators

For operating instructions, adjustments, troubleshooting and spare parts see safety instructions for use and maintenance

**ISEE No. 8695 9050
8695 9001**

**PLASMAFIX 51
TORCH SP45**

REVISIONS

REVISION B

03/02

DESIGNATION	PAGE
Update item 11-12 Reference change W000140098	C7 F17

REVISION C

07/03

DESIGNATION	PAGE
Update	7 14 17

REVISION D

11/03

DESIGNATION	PAGE
Reference change	F17

REVISION E

03/04

DESIGNATION	PAGE
Reference change	4 5 6 11 16 17

REVISION F

05/06

DESIGNATION	PAGE
To change logos	-

REVISION G

10/08

DESIGNATION	PAGE
Complete update + spareparts newoffer	-

REVISION H

05/18

DESIGNATION	PAGE
To change logos	

REVISION I**03/19**

DESIGNATION	PAGE
Update	F-17 ; B-3 ; C-8

REVISION J**01/22**

DESIGNATION	PAGE
Update « Spare parts »	F-17

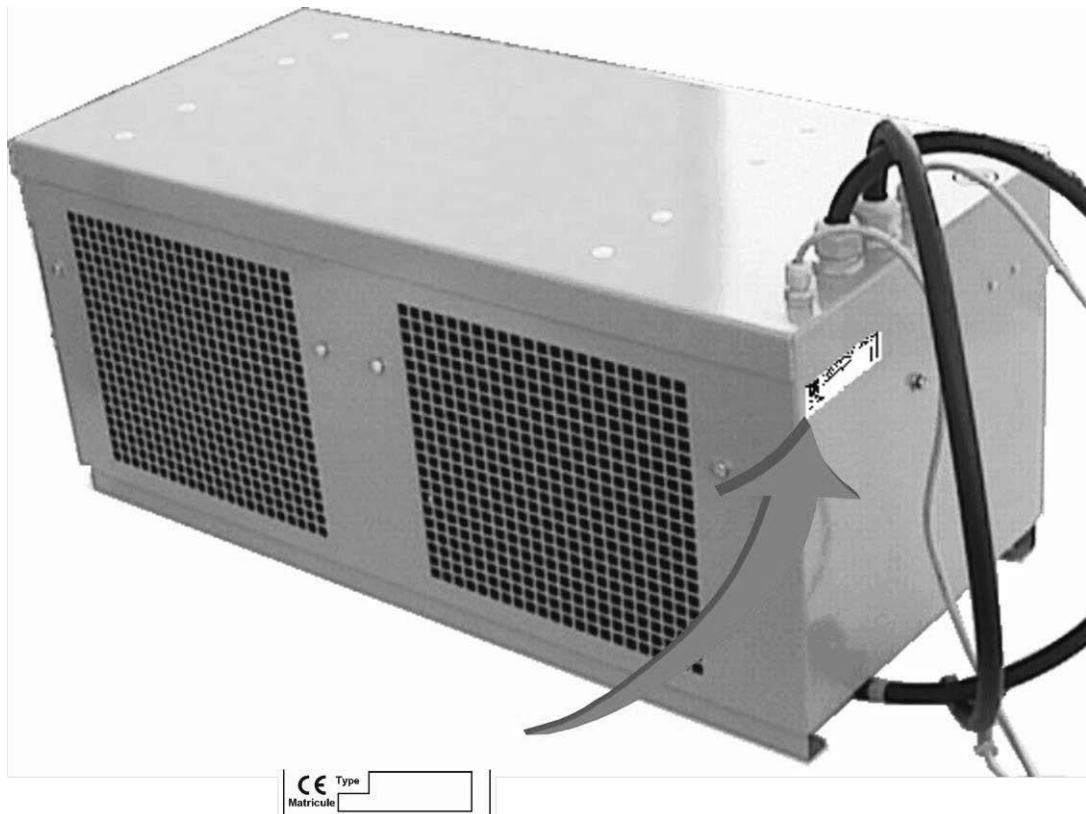
A - IDENTIFICATION

Please enter the number of your equipment in the following box.

Quote this information in all correspondence.

			0000	← 4
CE Type			000000000000	← 5
Matricule			0036X000000	
<div style="display: flex; justify-content: space-around; width: 100%;"> 1 2 3 </div>				

1	Manufacturing factory code	4	Year manufactured
2	Manufacturing year code	5	Product type
3	Product serial no.		



B - SAFETY INSTRUCTIONS

For general safety instructions, please refer to the specific manual supplied with the equipment.



AIRBORNE NOISE

Please refer to the specific manual supplied with the equipment.

**DISCHARGING FREEZCOOL****W000010167 (9.6L)****W000010168 (20L)**

(pink heat transfer liquid 285)

Freezcool should not be discharged in large quantities into the natural environment. You should observe local emission standards concerning COD(★).

Before any emission of this product, contact your local water Authority to inquire about the regulations applying to your region.

You should inform them of:

- The COD of the Freezcool (741000 mg/kg)
- The quantity in kg to be discharged

The Water Authority will advise you of the approach to be followed and in particular:

- The location
 - The quantity
 - The timing
- ...for discharging the product.

★ The COD (Chemical Oxygen Demand) represents the portion of the product requiring oxygen, (e.g. oxidizable mineral salts and the major part of organic compounds).

C - DESCRIPTION

1 - GENERAL

The **REFRIJET GR 51** reference W000315645 is a specific cooling unit of the MICRO PLASMA welding set:
PLASMAFIX 51 .

The **REFRIJET GR 51** enables cooling in a closed circuit and thus independent of:

- The power electronics (linear amplifier) of the **PLASMAFIX 51**
- The MICRO PLASMA **SP 45** welding torch

2 - TECHNICAL SPECIFICATIONS

ELECTRICAL

Mains	230 V single-phase (delivered by the PLASMAFIX 51)
Frequency	50 & 60 Hz
Current	3 A

HYDRAULIC

Maximum pressure	6 Bars
Service pressure	4,8 Bars
Water flowrate without load	8 L/mn
Water flowrate in service	3.3 L/mn
Tank capacity	5 L
Liquid used	Transfer liquid 285

THERMAL

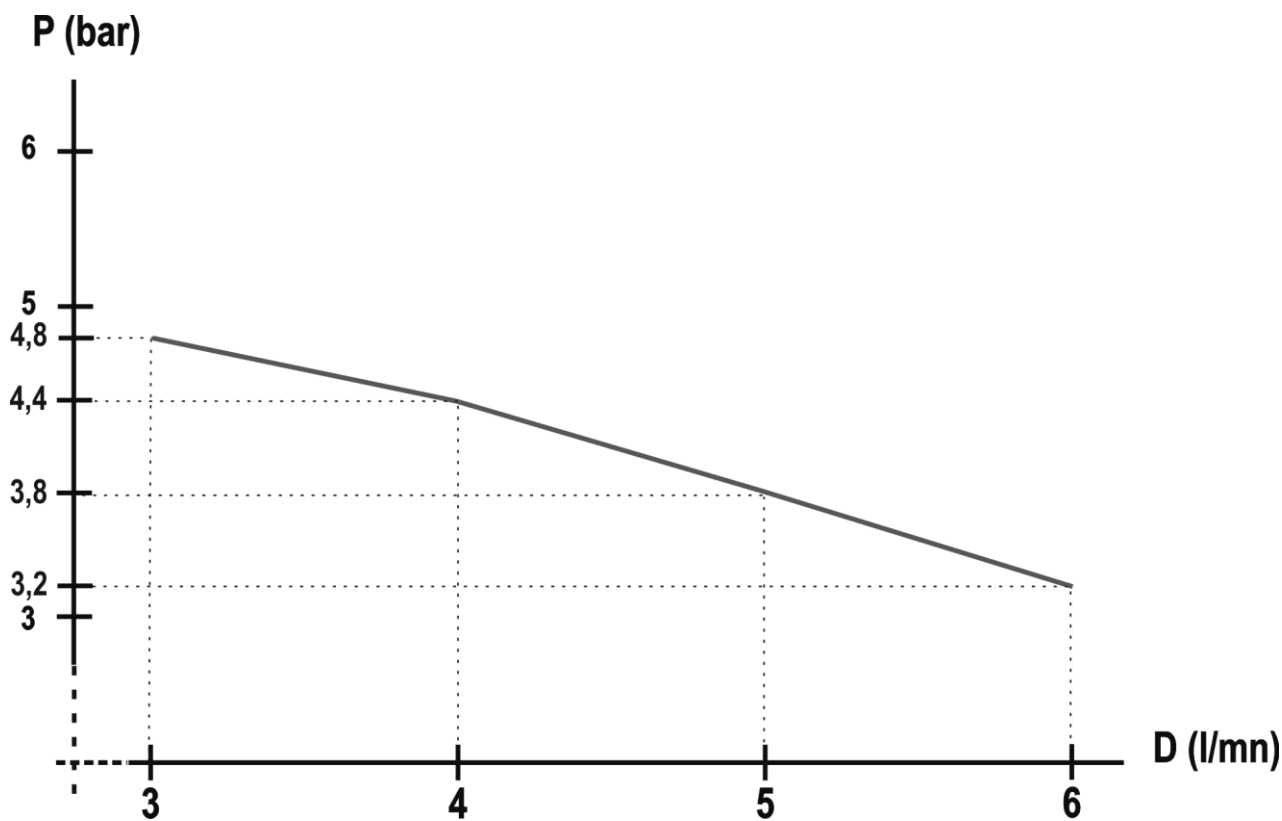
Duty cycle	100 %
Use-temperature	10°C > T° > 40 °C
Test conditions	Installation MICROPLASMA
Difference between hot water inlet temperature / ambient temperature	$\Delta T = 15\text{ °C}$
Output	1900 W

For information: **PLASMAFIX 51** installation

Duty cycle

100% PLASMA	(I welding = 50 A - U welding > 20 V)
60 % TIG	(I welding = 50 A - U welding < 20 V)

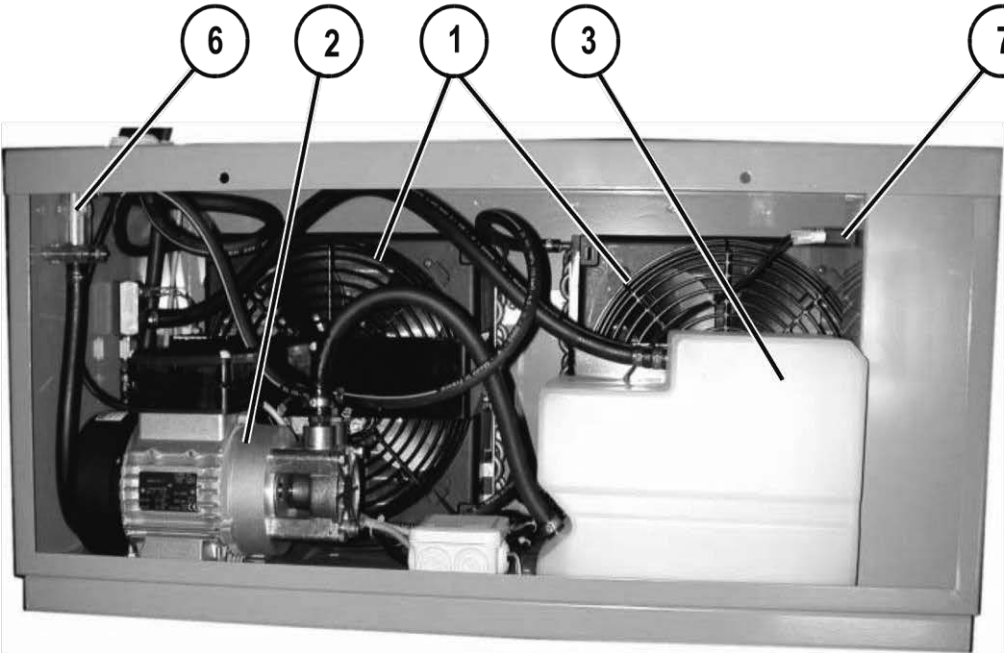
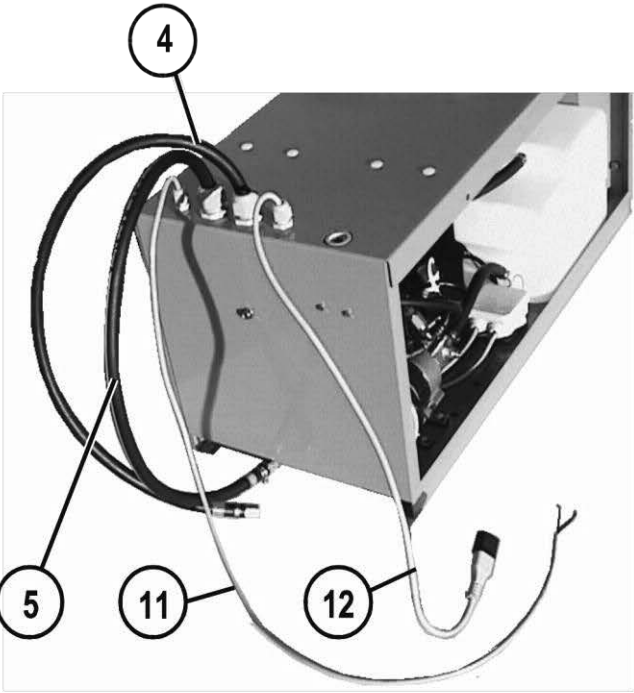
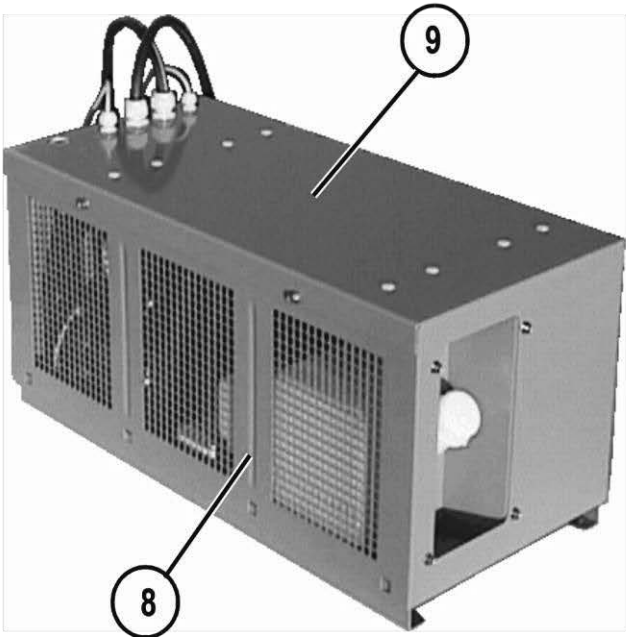
FLOW/PRESSURE GRAPH



NOISE LEVEL

The **REFRIJET GR 51** sound level is 58 dB(A)

3 - COMPOSITION



item	designation
1	Equipped cooler
2	Motor pump
3	Tank
4	Water backflow (red)
5	Water outlet (blue)
6	Water filter
7	Breaker
8	Closing cover
9	Basic frame
10	Tank cap
11	Safety cable (thermal)
12	Supply cable



Never run the equipment without heat transfer REFRIJET GR 51. Using a product other than the one we recommend will nullify the guarantee.

4 - DIMENSIONS - WEIGHT

Length:	780 mm
Width:	380 mm
Height (without pipe):	370 mm
Height (with pipe):	420 mm
weight (empty tank):	40 kg

5 - SUPPLY LIMITATIONS

NOT INCLUDED IN THE SUPPLY

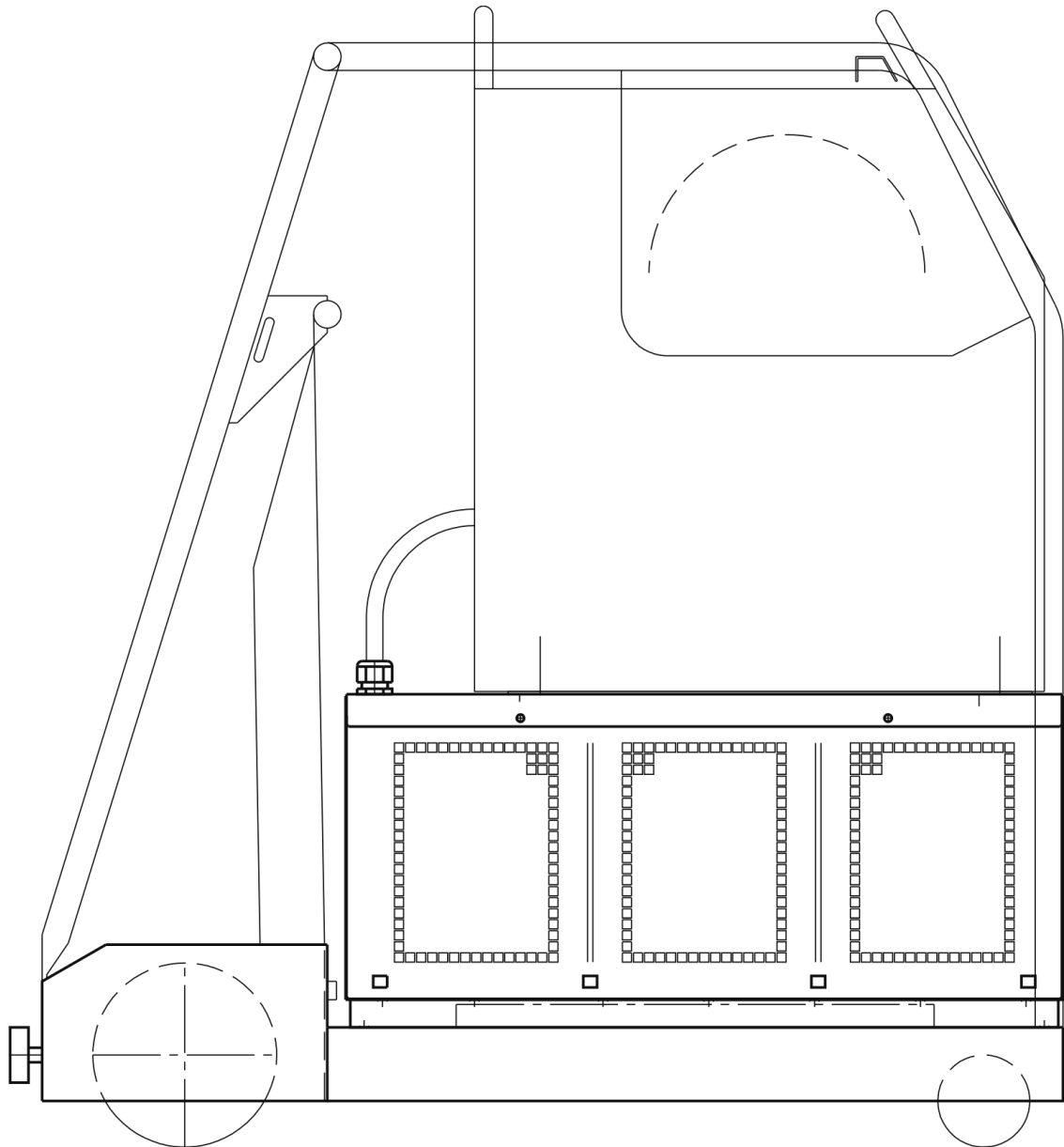
	FREEZCOOL
EQUIPMENT RECOMMENDED	9.9l can ref: W000010167 20l can ref: W000010168

D - ASSEMBLY - INSTALLATION

1 - HANDLING

The **REFRIJET GR 51** is designed to be mounted in the carriage no. W000315659.

The **PLASMAFIX 51** power source is to be placed on the **REFRIJET**.



2 - MOUNTING AND ELECTRICAL CONNECTIONS

Electrical connection via the 230 V 3A plug (standard 60 230) on the power source.

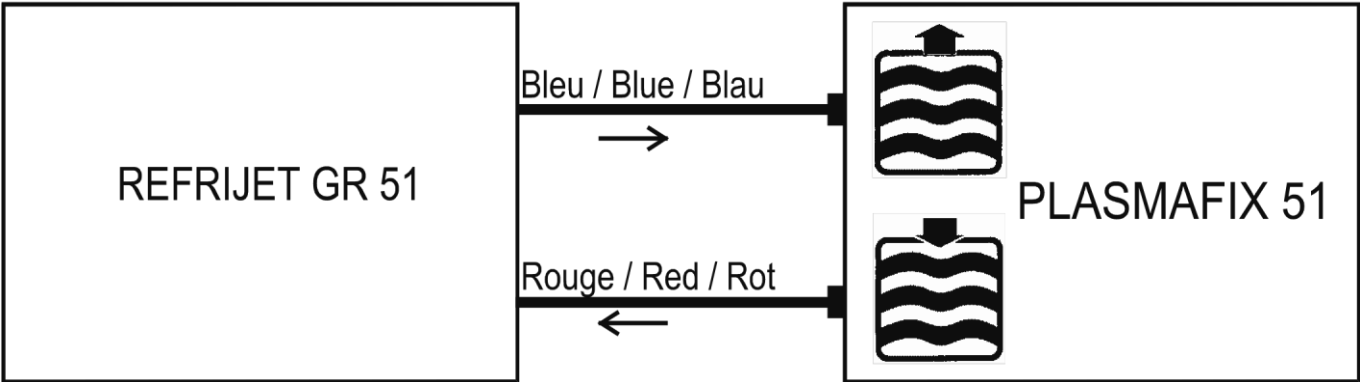
Hydraulic connection by means of specific **PLASMAFIX 51** couplings.

PUTTING THE PLASMAFIX 51 INTO OPERATION
(COOLING PART)

For key indexes and signal lamps, see the **PLASMAFIX 51** operating manual, reference 8695 9050



3 - FLUID CONNECTIONS



4 - CONNECTION OF SP45 TORCH



Run the torch through the front panel

K3	Trigger	
K2	Central gas / pilot arc	red
K5	Annular gas	yellow
K1	Water / power outlet	green
K4	Water backflow	blue

5 - FILLING UP THE TANK

Fill the **REFRIJET GR 51** with the cooling liquid:
FREEZCOOL

E - OPERATOR'S MANUAL

1 - PUTTING THE PLASMAFIX 51 INTO OPERATION



Selector-switch A1 (secteur) = 1

Signal lamp A2 = 1

LED N47 = 1



N35 initial display-unit message

Put N14 key in programming position
LED N46 = 1



For 30 seconds, the N51 water safety device may be activated (circuit pressurization)



Wait 2 minutes and validate the safety via the N15 key
LED N51 = 0

Check for possible water leaks

Top up the cooling liquid in order to have the nominal level.

2 - CIRCUIT BREAKER



This switch must not in any case be used as an activation button. It must only be used in emergencies.

3 - RECOMMANDATIONS

Once the torch is in place and the circulation pipes are connected:

- ① Mettre le refrijet en fonctionnement pendant 1 minute environ
- ② Stop the installation
- ③ If necessary, adjust the level of liquid in the tank using heat Freezcool.

F - MAINTENANCE

1 - SERVICING

- So that the machine continues to provide good service for as long as possible, a certain minimum of care and maintenance is necessary
- The frequency of this maintenance work is given on the basis of the production of one work station per day. Maintenance should be more frequent if production is greater.

Your maintenance department may photocopy these pages so that it can follow up maintenance dates and operations (tick as appropriate)

Daily



Check the level of coolant

Weekly

Date of maintenance: / /



Clean the water filter

Annually

Date of maintenance: / /



Blow the cooler with a blast of compressed air $\leq 3\text{bars}$ (from the outside to the inside) in order to remove any dust which would hinder thermal exchanges. This cleaning process must be done when the machine is switched off.

2 - TROUBLESHOOTING

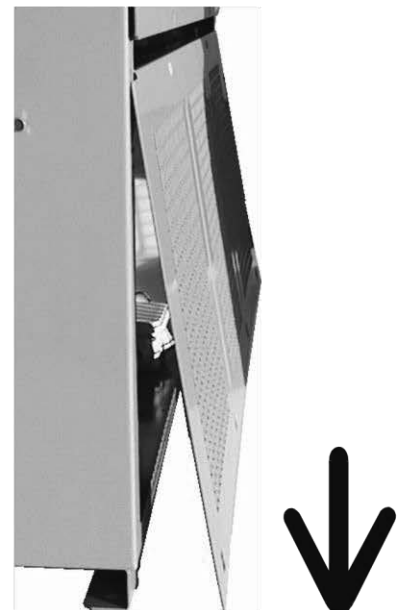
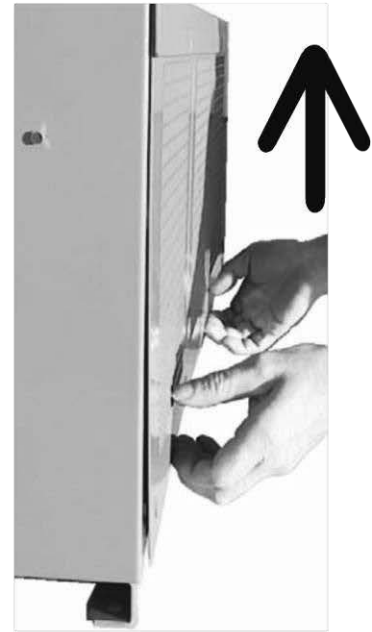
Possible symptoms	Probable causes	Possible remedies
Actuation of the thermal safety device.	Insufficient heat freezcool.	Top up with liquid.
	The fan is out.	Check the motor supply.

3 - OPENING AND CLOSING THE REFRIJET GR 51

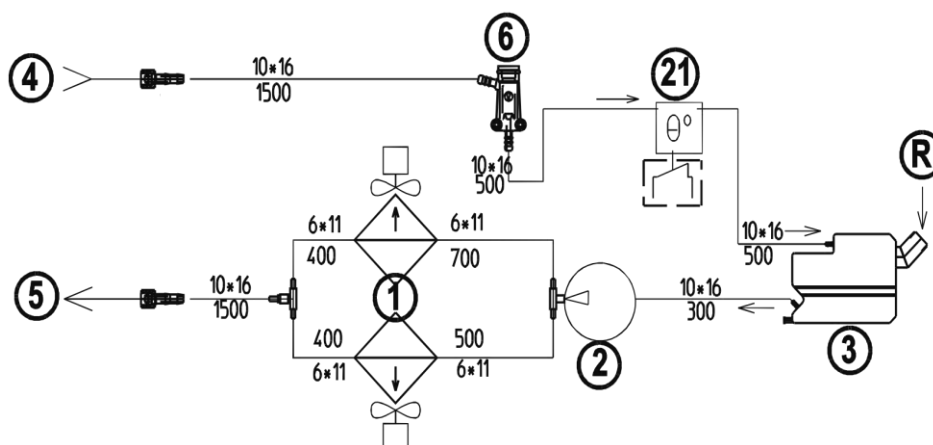
Remove the **PLASMAFIX 51**



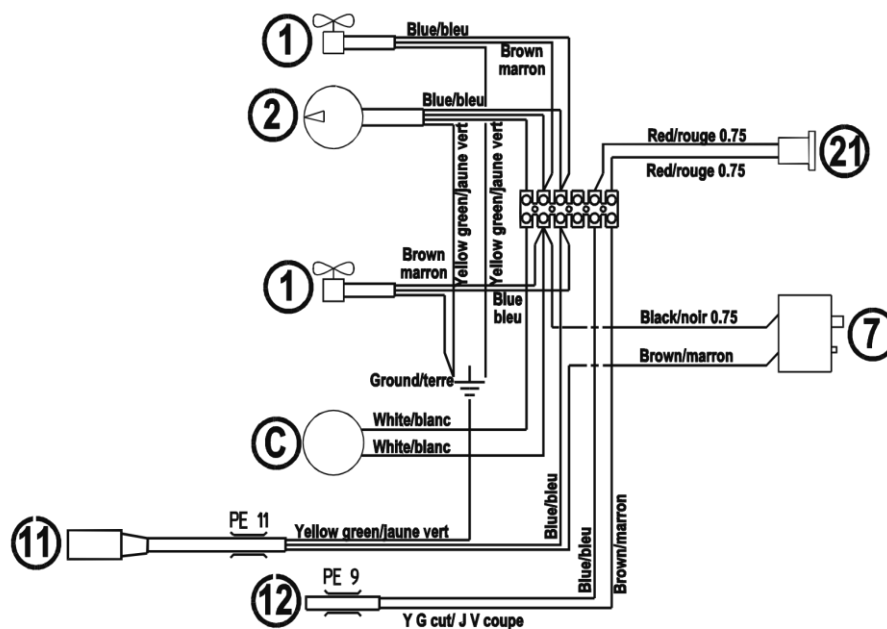
Remove the upper cover of the **REFRIJET GR 51**



4 - FLUID CIRCULATION PLAN



5 - WIRING DIAGRAM



Item	Designation
1	Motor – ventilator
2	Pump
3	Tank
4	Hot water inlet
5	Cold water outlet

Item	Designation
6	Filter
7	Breaker
21	Thermal controller
R	Filling up
C	Condenser

6 - SPARE PARTS

How to order:

The photographs or sketches mark nearly all the parts making up a machine or installation.

The descriptive tables comprise three types of article:

- items normally held in stock: ✓
- articles not held in stock: ✕
- items on request: without markings

(For these, we recommend that you send us a copy of the page of the spare parts list correctly filled in. Please indicate in the Order column the number of parts required and give the type and serial number of your device.)

For the items marked on the photographs or sketches not mentioned in the tables, please send us a copy of the page concerned, and underline the marking in question.

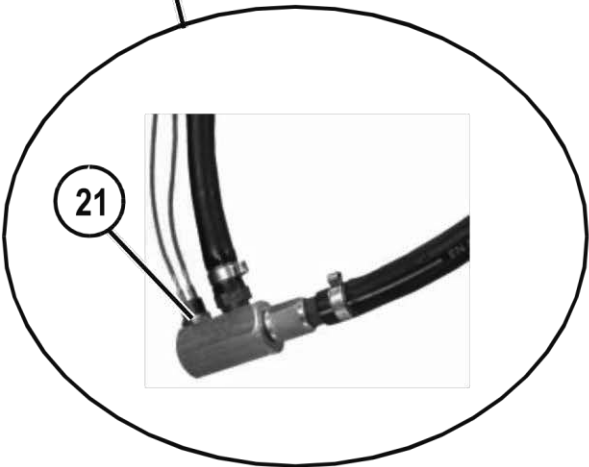
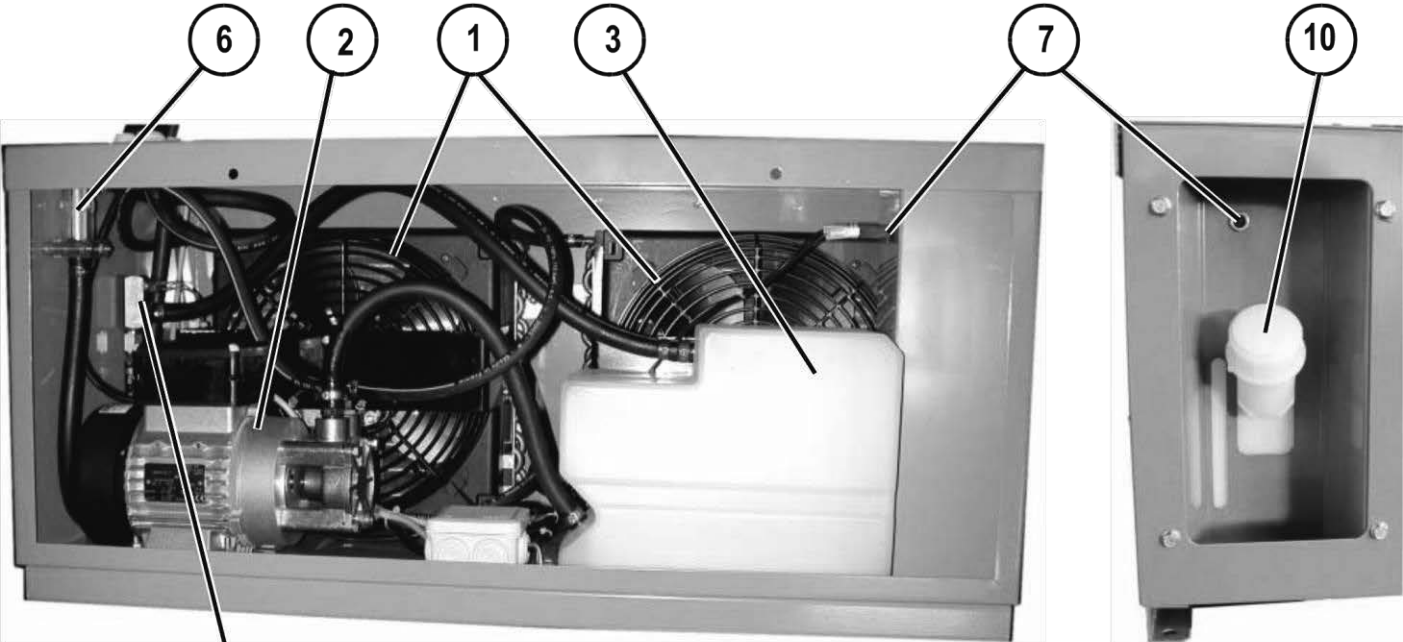
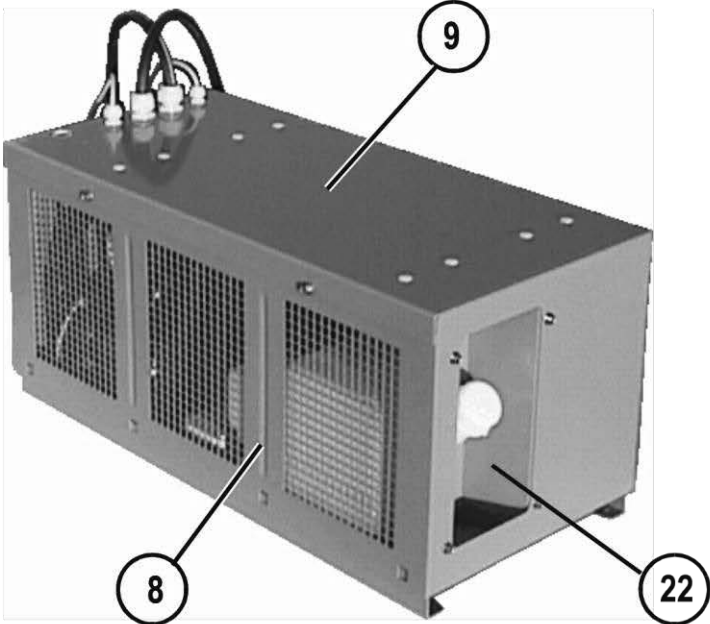
Example:

		✓	normally in stock
		✕	not in stock
			on request

Item	Ref.	Stock	Order	Designation
E1	W000XXXXXX	✓		Machine interface board
G2	W000XXXXXX	✕		Flow meter
A3	9357 XXXX			Printed front side metal sheeting

- For parts order, give the quantity required and put the number of your machine in the box below.

CE Type <input type="text"/> Matricule <input type="text"/>	TYPE:
	Number:



✓	normally in stock
✗	not in stock
	on request

Item	Ref.	Stock	Order	Designation
1	P91571075			Equipped radiator
2	W000276558			Motor pump from N°00261 LV 363
	P90000592			Motor pump up to N°00260 LV 363
3	P91572324			Tank 5 liters + Tank cap with event hole Ø2mm
6	S92580281	✓		Complete filter (delivered with 1 cartridge)
7	PC5705283			Single-pole breaker 4A from N°00261 LV 363
	W000137852	✓		Single-pole breaker 3A up to N°00260 LV 363
21	W000370409			Heat protection
10	P91572323			Filter
9	P92580546			Chassis
8	P92580547			Closing cover
22	P92580548			Tank deflector
23	PC6209864			Funnel
	W000010167	✓		Freezcool (9.6 liters)

- For parts order, give the quantity required and put the number of your machine in the box below.

CE Type Matricule	TYPE↑
	Number:

[illegible]