



## FK 9000 R Pipe

EN

Operating Instructions  
Spare parts list  
Cooling unit





## Introduction

Thank you for the trust you have placed in our company and congratulations on buying this high-quality Fronius product. This document supplements your machine's operating instructions.

## Safety



### WARNING!

**Operating the equipment incorrectly can cause serious injury and damage.**

Do not use the functions described here until you have read and completely understood all of the following documents:

- ▶ These "Operating Instructions"
- ▶ All "Operating Instructions" for the system components, especially the "Safety rules"

## Appliance concept

The digital series of machines stands out for the superb welding properties and unprecedented weld-process precision which their digital technology makes possible. Their micro-processor-controlled inverter power sources permit exact reproducibility of welding results. For welding pipelines, the TimeTwin Digital welding system is used in conjunction with an automated welding process. In this process, welding on the pipeline is performed by up to four twin torches at the same time.

## Areas of utilisation

The system components of the Pipe series have been specially designed for use in pipeline-construction under extreme climatic conditions. Their ability to withstand operating temperatures ranging from minus 50°C to plus 40°C means that they can be used anywhere from Alaska to the Sahara.

## Information about the coolant



### CAUTION!

**Risk of damage.**

- Only use coolant available from the manufacturer.
- Do not mix different coolants.
- When changing the coolant, ensure to change all of it.
- When switching from ethanol-based coolant to FCL 10 coolant, Change Kit FCL10 must be used and the instructions provided must be followed.

# FK 9000 R Pipe

**General remarks** The FK 9000 R Pipe cooling unit is a cooling unit which has been specially designed for use under extreme climatic conditions.

## NOTE!

**For information on how the Pipe version of the cooling unit functions, and how to operate it, please refer to the “Operating Instructions” manual for the standard cooling unit, as supplied with the Pipe version.**

In cases where the properties or functions of the Pipe series differ from the standard cooling unit, the data given in the document you are now reading will apply.



## CAUTION!

**Only fill or top up the reservoir of the FK 9000 R Pipe cooling unit with original Fro-nius Pipe coolant (Art.**

n° 40,0009,0079). Due to their electrical conductivity and inadequate material compatibility, and to the high thermal stresses encountered in this application, all other antifreeze agents are unsuitable for use here.

## Special accessories

- Special coolant pump and hoses for low-temperature environments
- Special coolant with improved thermal characteristics for low-temperature environments
- Pipestat and coolant watchdog
- Water filter
- Auto-transformer

## Technical data

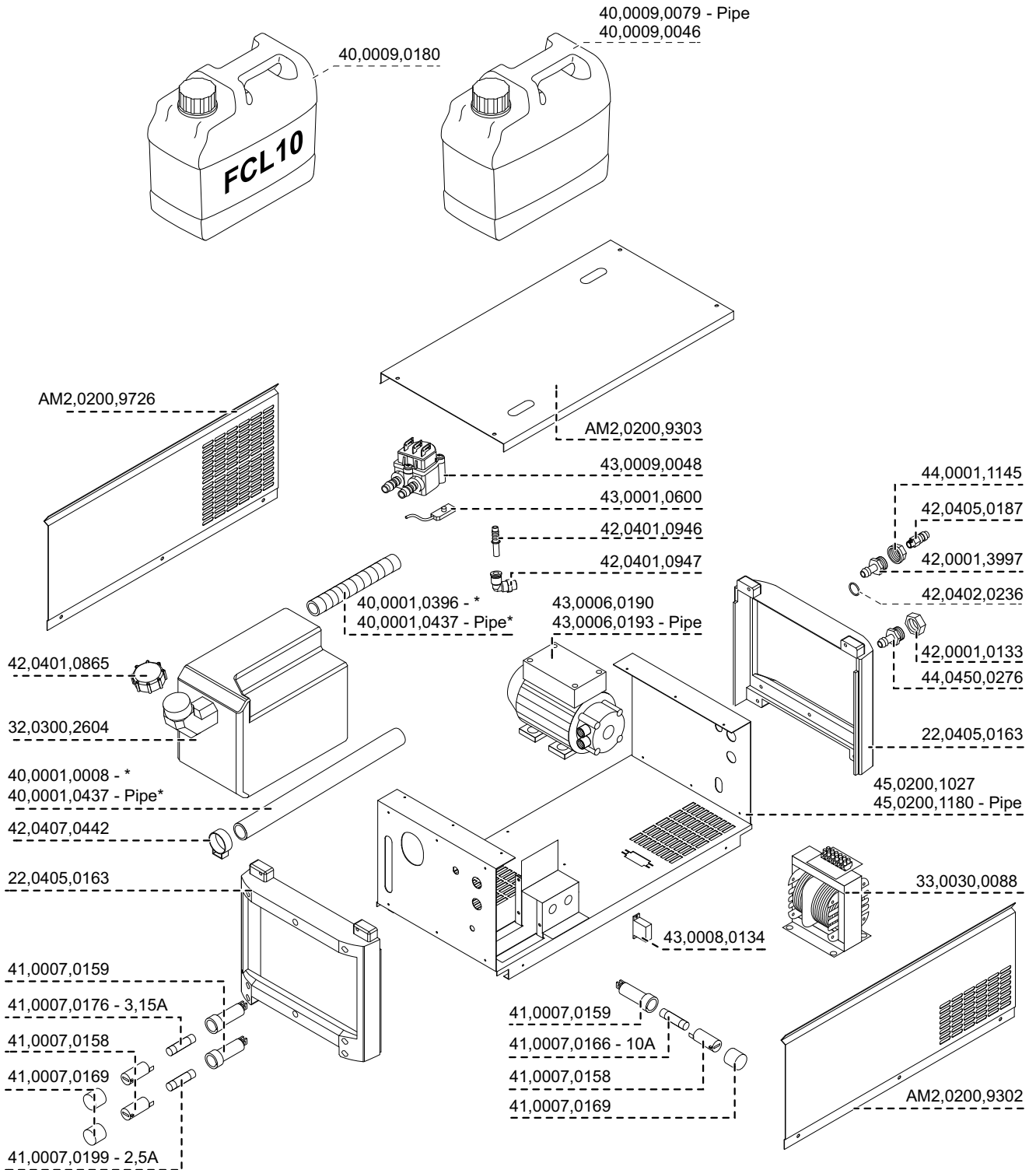
Storage temperature	- 50 °C to + 55 °C -58 °F to 131 °F
Operating temperature	- 10 °C to + 40 °C 14 °F to 104 °F
Supply voltage (auto-transformer)	200 / 230 / 400 / 440 / 460* V
Mains voltage tolerance	+/-10 %
Mains frequency	50/60 Hz
Cooling capacity at Q=1l/min +40 °C (104 °F)	1650 W
Max. delivery rate	5 l / min (1.32 gal./min)
Max. pump pressure	6 bar (87 psi.)
Maximum rise	ca. 45 m (147.64 ft.)
Coolant volume	9 l (2.38 gal.)
Sensors	Coolant watchdog <0,7 l Temperature >70 °C
Degree of protection	IP 23
Dimensions LxWxH	2x725x290x250 mm (2x28.54x11.24x9.85 in.)
Weight (without coolant)	30 kg (66.14 lbs.)

\* factory setting 460 V

# Appendix

# Spare parts list: FK 9000

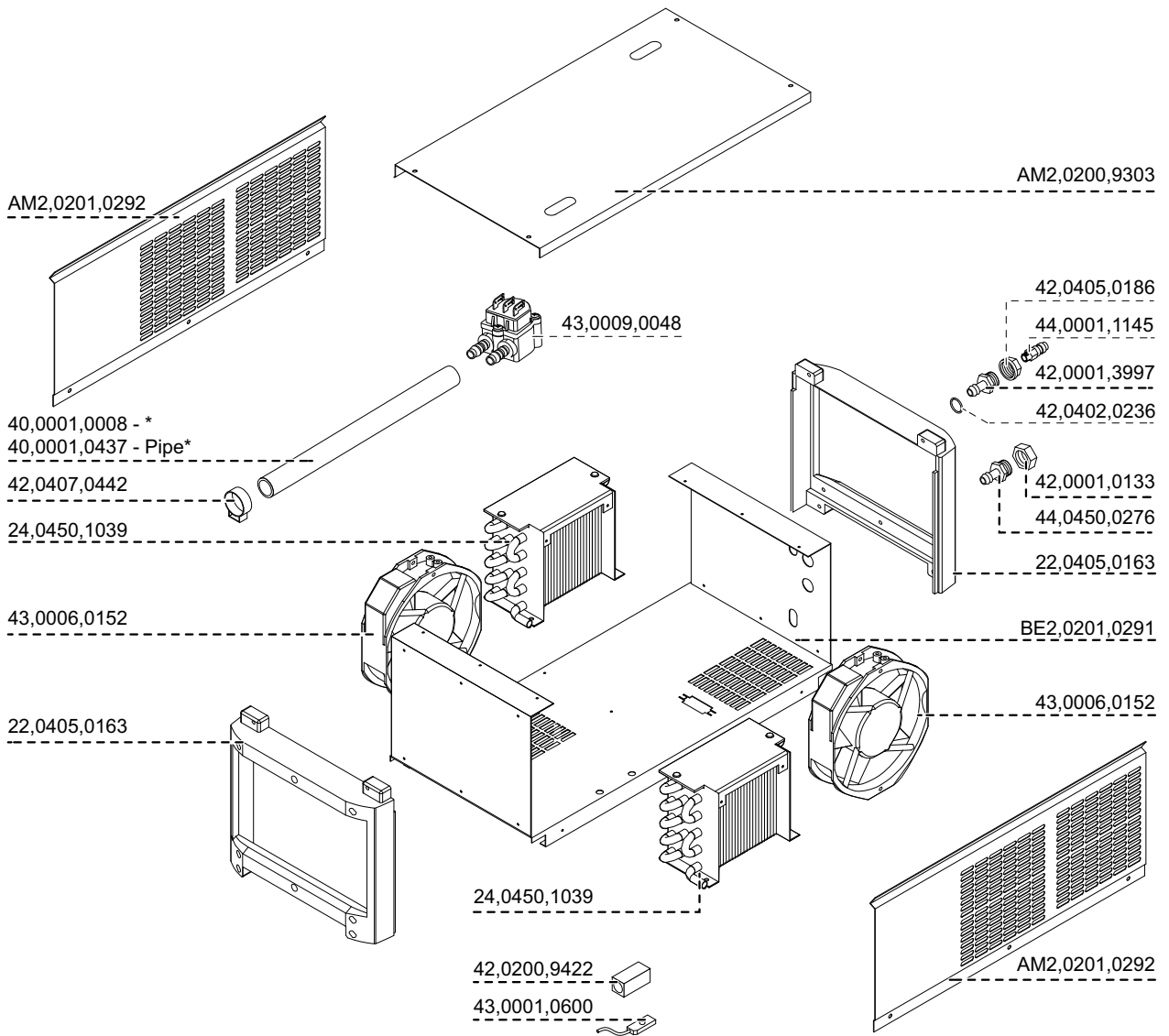
FK 9000-R 4,045,906  
 FK 9000-R Pipe 4,045,906,810  
 FK 9000-R US 4,045,906,800



\* Specify the length required

**FK 9000-R**                    **4,045,906**  
**FK 9000-R Pipe**            **4,045,906,810**  
**FK 9000-R US**                **4,045,906,800**

\* Specify the length required





**FRONIUS INTERNATIONAL GMBH**

Froniusplatz 1, A-4600 Wels, Austria

Tel: +43 (0)7242 241-0, Fax: +43 (0)7242 241-3940

E-Mail: [sales@fronius.com](mailto:sales@fronius.com)

[www.fronius.com](http://www.fronius.com)

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