## PRODUCT DATA SHEET



# MTTFSiC Series Furnaces



# High Temperature Tube Furnaces

# Data Sheet & Order Manual 1400°C-1550°C





4 Line Dlisplay



In need of homogeneous temperature distribution or reliable gas protective atmosphere tube furnaces are the best solution.

- Specifically enginerred for abosulute accuracy of temperature measurement.
- · Optional gas inlet and purge systems for protective gas atmosphere.
- · Thermal shock resistant tubes.
- Precise temperature control for a wide range of working temperature.
- ±1 °C control accuracy

Product Group	Working Temperature			Software Options
MTTFSiC	1400 °C 1500 °C 1550 °C	75	600	E4, U8, S16

# How to Choose/Order Your MagmaTherm Furnace

#### STEP 1

### Choose maximum working temperature:

First step is deciding your purpose of use. Please determine the maximum working temperature you need and go to its data sheet accordingly.

Most of the time it is a wise decision to choose a furnace which works at a higher temperature than you plan to use. Using the furnace below maximum temperature remarkably extends the lifetime of heating elements and saves you money.

#### STEP 2

#### Choose volume:

While choosing ideal volume for your furnace keep in mind that your sample should enough space in

#### STEP 3

### Choose control unit and software:

Do you need direct or stepped heating? How sophisticated programs do you want to setup? Do you want to store frequently used programs?

PID controlled software is the key element for maximising the capability of your furnace.

#### STEP 4

## Choose optional features:

There are many optional features you can add to your MagmaTherm furnaces. You can customize it according to your needs.

#### STEP 5

#### Choose spare parts:

You can choose which spare parts you want with your furnace to be able to repair fast on your own. Manuals for easy installation comes with all spare parts.

#### STEP 6

#### Choose accessories:

You will most likely need gloves, tongs, crucibles and other accessories.

## STEP 7

## Create your order code and fill out your order form:

Create an order amount and order code for each MagmaTherm furnace. Fill out the order form and send an email to magma@magmatherm.com for quotation.

# Sample MagmaTherm Furnace Product/Order Code

# MTTFSiC-1750-50-200-S16-GS-OTL-PC

**Furnace** 

Working

Step 1

Diameter & Hot Control Unit **Temperature** Zone Lenght

Step 2

**Custom Options** 

Step 4

**Software** 

Step 3

# STEP 18 STEP 2

# STEP 18 STEP 2





STEP 1 Choose Your Maximui	m/Continuous Working Temperature
	1400°C
STEP 2 Choose Your Volume	1 <del>1</del> 00 C
Voluma Model	75-600
Tube Inner Diameter [mm]	75
Tube Outer	
Diameter [mm]	85
Hot Zone Length [mm]	600
± 10°C	000
Homogeneous	600
Hot Zone Lenght [mm]	
Tube Lenght[mm]	950
Tube Material Description	Type C799 (DIN VDE 0335) Al2O3 content 99,7%
Product Outer	W 950
Dimensions	D 500
[mm] WxDxH	H 765
Net Weight [kg]	60
Gross	W 1050
Dimensions	D 600
[mm] WxLxD	H 875
Gross Weight [kg]	75
Tube Lenght	
With GS [mm]	1150
Product Outer Dimensions	W 1150
With GS	D 500
[mm] WxDxH	H 765
Net Weight With GS [kg]	63
Gross	W 1250
Dimensions	D 600
With GS	H 865
[mm] WxLxD	11003
Gross Weight	78
With GS [kg]	
Power [W]	5.750
Max. Current [A]	2x13
Heating Element	SiC
Thermocouple Type	S Type
Available Software Versions	E4, U8, S16
Control Unit	Standard MT Control Unit with phase angle firing power uni
Inner Insulation Material	High Purity Ceramic Fibre Board
Housing Material	Steel Sheet
HousingCoating	Epoxy powder coating

<sup>\*</sup>Tetra Isı Sistemleri has always right to change specifications and design features.

STEP 1 Choose Your Maximur	n/Continuous Working Temperature
	1500°C
STEP 2 Choose Your Volume	1300 C
Voluma Model	75-600
Tube Inner	
Diameter [mm]	75
Tube Outer	
Diameter [mm]	85
Hot Zone Length [mm]	600
± 10°C	
Homogeneous	600
Hot Zone Lenght [mm]	
Tube Lenght[mm]	950
Tube Material Description	Type C799 (DIN VDE 0335) Al2O3 content 99,7%
Product Outer	W 950
Dimensions	D 500
[mm] WxDxH	H 765
Net Weight [kg]	65
Gross	W 1050
Dimensions	D 600
[mm] WxLxD	H 875
Gross Weight [kg]	80
Tube Lenght	1150
With GS [mm]	1130
Product Outer Dimensions	W 1150
With GS	D 500
[mm] WxDxH	H 765
Net Weight With GS [kg]	68
Gross	W 1250
Dimensions	D 600
With GS	H 865
[mm] WxLxD	
Gross Weight With GS [kg]	83
Power [W]	6.300
Max. Current [A]	2x15
Heating Element	SiC
Thermocouple Type	S Type
Available Software Versions	E4, U8, S16
Control Unit	Standard MT Control Unit with phase angle firing power unit
Inner Insulation Material	High Purity Ceramic Fibre Board
Housing Material	Steel Sheet
HousingCoating	Epoxy powder coating

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MTTFSiC Type Furnaces Data Sheet

#### STEP 1 Choose Your Maximum/Continuous Working Temperature 1550°C STEP 2 Choose Your Volume Voluma Model 75-600 **Tube Inner** 75 Diameter [mm] **Tube Outer** 85 Diameter [mm] Hot Zone Length [mm] 600 ± 10°C Homogeneous 600 Hot Zone Lenght [mm] 950 Tube Lenght[mm] Type C799 (DIN VDE 0335) Al2O3 content 99,7% Tube Material Description Product Outer W 950 D 500 Dimensions [mm] WxDxH H 765 Net Weight [kg] 65 W 1050 Gross D 600 Dimensions [mm] WxLxD H 875 Gross Weight [kg] 80 Tube Lenght 1150 With GS [mm] Product Outer Dimensions W 1150 With GS D 500 [mm] WxDxH H 765 Net Weight With GS [kg] 68 Gross W 1250 Dimensions D 600 With GS H 865 [mm] WxLxD Gross Weight 83 With GS [kg] Power [W] 6.800 Max. Current [A] 2x16 **Heating Element** SiC Thermocouple Type S Type Available Software Versions E4, U8, S16 Control Unit Standard MT Control Unit with phase angle firing power unit

## \*Tetra Isı Sistemleri has always right to change specifications and design features.

High Purity Ceramic Fibre Board

Steel Sheet

Epoxy powder coating

# STEP 3

	EXTENDED E4		COUNTIES C14
Choose CU Software	EXTENDED <b>E4</b>	ULTIMATE <b>U8</b>	SCIENTIFIC <b>S16</b>
Software Based PID Control	YES	YES	YES
Display	4x20 LCD	4x20 LCD	4x20 LCD
Heating Program with	4 steps	8 steps	16 steps*
Custom Preset Program	4	6	5
Heating Rate °C/min.	3-20	3-20	3-20**
Date & Time	YES	YES	YES
Auto Start at Certain Date	YES	YES	YES
Show Remaining Waiting Time	YES	YES	YES
Skip the Waiting Step	YES	YES	YES
Temperature Calibration via Menu (±10°C)	YES	YES	YES
Sound Warnings at Step Changes	YES	YES	YES
Sound Warning at the End of the Program	YES	YES	YES
Total Working Hour Counter	YES	YES	YES
Calculator for Average Working Temperature	YES	YES	YES
Instantaneous Energy Consumption Indicator	YES	YES	YES
Current and Target Temperature Display	YES	YES	YES
Step Indicator	YES	YES	YES
Burst Heating Mode	YES	YES	YES
Descriptive Error Indicator	YES	YES	YES
Temperature Control Accuracy***	±1°C	±1°C	±1°C
Measurement Accuracy	±1°C	±1°C	±1°C
Inner Volume Temperature Homogenity	±10°C	±10°C	±10°C
Control Unit Overheating Sensor	YES	YES	YES
Over Heating Cut Off	YES	YES	YES
Open Door Sensor	OPTIONAL	OPTIONAL	OPTIONAL
PC Connection Kit	OPTIONAL	OPTIONAL	OPTIONAL
Warranty Period	2 Years	2 Years	2 Years
* Only 5th memory supports 16 levels **Indep	pendent for each	level ***Can vary a	t low temperatures



Inner Insulation Material

Housing Material

HousingCoating

# STEP 48586



# STEP 4

Choose Optional Features	OTL	GS	TC2	PC	PS
Code Stands for	Over Temperature Limiter	Gas Supply Connection	Second Thermocouple	PC Connection	110V Power Supply
Description	Over-temperature limiter with manual reset for thermal protection class 2 in accordance with EN 60519-2	With gas supply you can either supply more air to burn better or achieve a protective atmosphere.	Menu accessed 3 selectable functions for TC2: 1) Average temperature calculation with first thermocouple. 2) Thermostat 3) Monitoring	PC connection kit comes with its driver and own software. Can be used as independent data logger, logging data from up to 5 thermocouples.	You can choose 110V power supply.
lmage	- WED- WED- WED-	1	111		957

# STEP 5

Choose Spare Parts	Control Card	Power Card	Display	Tube
Description	Easy to replace, Pre-programmed	Easy to replace	4x20 LCD display	Type C799 (DIN VDE 0335) Al2O3 content 99,7%

agmaTherm furnaces are built for easy maintenance.
Each part can be replaced by anyone who has basic repair abilities. Modular design and detailed fool proof video tutorials helps fast repair in case of need. You can download or watch video tutorials on www.magmatherm.com with your given password.

Il of our products are passed through quality control. Therefore Magmatherm Furnaces have 2 year warranty period except user related damages. For proper use and avoiding such problems it is very important to read user manual and operate your furnace under right circumstances.

## STEP 6

Choose Accessories	High Temperature Gloves	Tongs	Alumina Crucibles	Metal Crucibles	Alumina Combustion Boats	Seramic Pipes	Extra Thermocouples
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# General Product Overview



Tubo Furrages Overvious										
	Tube Furnaces Overview									
Product	Working	Tube Inner		Hot 2	Zone Le	ngth O	ptions	[mm]		Software
Group		Diameter [mm]	200	250	300	450	500	600	800	Options
		20								
	1100*7700 %C	38								B2, E4, U8, S16
MTTF	1100 <b>†2</b> 00 °C, 1250°C	50								
		75								
		100								
	1/00% 1500%	50								
MTTFSiC	1400°C, 1500°C,	75								E4, U8, S16
	1550°C									
	1/ 000000	50								E4, U8, S16
MTTFMo	16001700 °C,	75								
	1750°C	100								

<sup>\*</sup>Tetra Isı Sistemleri has always right to change specifications and design features.

# Worldwide Sales

MagmaTherm furnaces are used over 30 countries over the world. Your satisfaction motivates us to grow every day.

Turkey
Holland
Germany
England
France
ltaly
Poland
Austria
Greece

Spain Portugal Morocco Algeria Libya Egypt Iraq Saudi Arabia UAE Azerbaijan Georgia Kazakhistan Turkmenistan China Malaysia Thailand Indonesia South Korea Japan India Pakistan Philippines

...and growing

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## www.magmatherm.com



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