

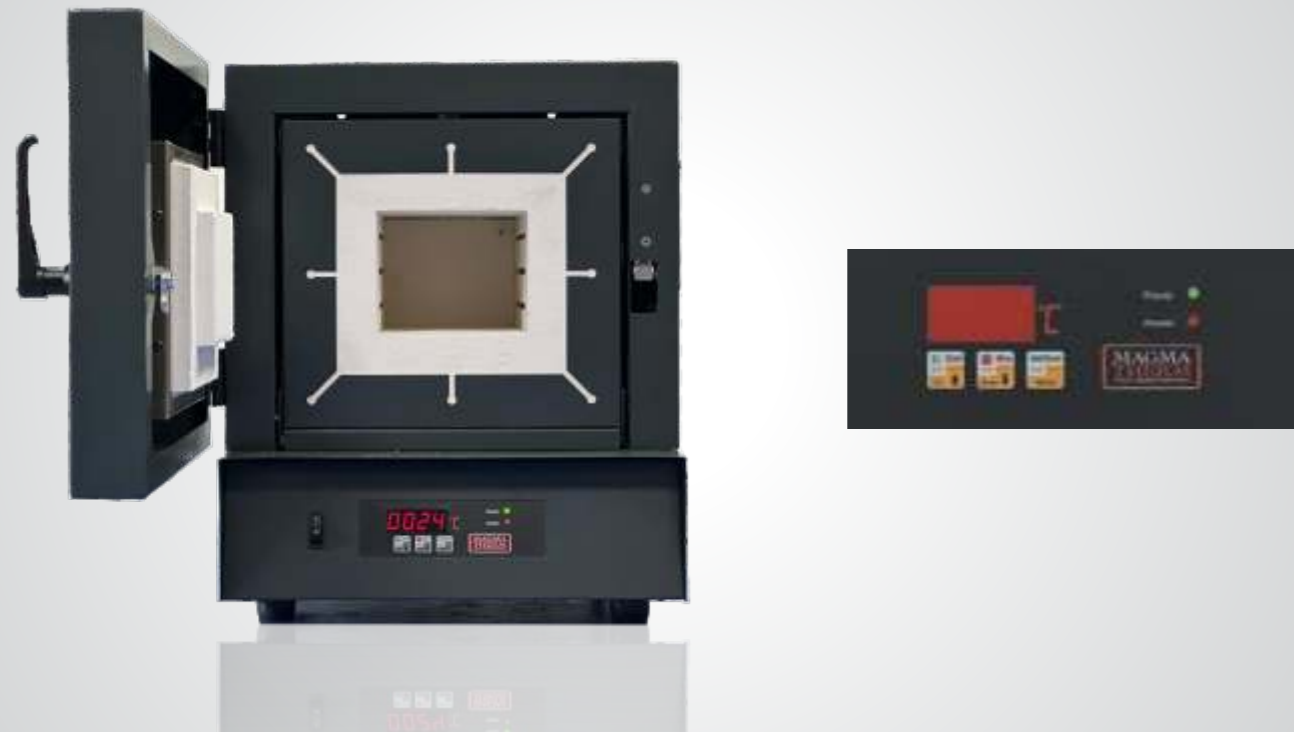


STARTER Series Furnaces



Starter Muffle Furnaces

Data Sheet & Order Manual 1100°C, 1200°C



Starter Muffle Furnaces



Starter models are ideal furnaces to work at up to 1050 °C processes.

They are super economic models with optimum insulation properties and basic control options.

- Best price-performance ratio
- Dual shell housing for low outer surface temperature
- Ideal for ashing of food, plastic and other organic materials
- Reliable
- 1 year warranty except heating elements and thermocouples.

Product Group	Working Temperature	Maximum Temperature	Volume Options	Software Options
MTS	1050 °C, 1150 °C	1100 °C, 1200 °C	3, 5, 7, 10, 16, 30 [Liter]	Px

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 be at least 25mm away from each wall.

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

MTS-1100-7-Px-OH-PC



Furnace Type

Step 1

Working Temperature

Step 2

Volume

Step 3

Control Unit Software

Step 4

Custom Options

STEP 1 & STEP 2



STEP 1 Maximum Working Temperature						
1100°C, 1200°C						
STEP 2 Choose Your Volume						
	3 Liter	5 Liter	7 Liter	10 Liter	16 Liter	30 Liter
Continuous Working Temperature	1050°C	1050°C	1050°C	1050°C	1050°C	1050°C
Inner Chamber Dimensions [mm] WxHxD	130x105x230	150x150x225	180x160x260	200x180x300	240x200x345	300x250x395
Product Outer Dimensions [mm] WxHxD	384x470x475	404x515x475	434x525x505	465x530x530	494x565x590	554x615x640
Net Weight [kg]	22	24	28	32	38	47
Power [W]	1.350	1.600	2.000	2.600	3.000	3.900
Max. Current [A]	7	8	9	12	14	18
Electrical Connection	1 Phase	1 Phase	1 Phase	1 Phase	1 Phase	1 Phase
Heating Element	Fe-Cr-Al	Fe-Cr-Al	Fe-Cr-Al	Fe-Cr-Al	Fe-Cr-Al	Fe-Cr-Al
Thermocouple Type	K Type	K Type	K Type	K Type	K Type	K Type
Heating Element Placement	Embedded into brick walls	Embedded into brick walls	Embedded into brick walls	Embedded into brick walls	Embedded into brick walls	Embedded into brick walls
Inner Insulation Material	Ceramic Fibre Board or Insulating Fire Brick	Ceramic Fibre Board or Insulating Fire Brick	Ceramic Fibre Board or Insulating Fire Brick	Ceramic Fibre Board or Insulating Fire Brick	Ceramic Fibre Board or Insulating Fire Brick	Ceramic Fibre Board or Insulating Fire Brick
Front Face Insulation Material	Ceramic Fibre Board	Ceramic Fibre Board	Ceramic Fibre Board	Ceramic Fibre Board	Ceramic Fibre Board	Ceramic Fibre Board
Door Insulation Material	Ceramic Fibre Board	Ceramic Fibre Board	Ceramic Fibre Board	Ceramic Fibre Board	Ceramic Fibre Board	Ceramic Fibre Board
Housing Material	Steel Sheet	Steel Sheet	Steel Sheet	Steel Sheet	Steel Sheet	Steel Sheet
Housing Coating	Epoxy powder coating	Epoxy powder coating	Epoxy powder coating	Epoxy powder coating	Epoxy powder coating	Epoxy powder coating
Chimney	None or Basic Tube Chimney on top	None or Basic Tube Chimney on top	None or Basic Tube Chimney on top	None or Basic Tube Chimney on top	None or Basic Tube Chimney on top	None or Basic Tube Chimney on top
Lockable Door Handle	Sidewards	Sidewards	Sidewards	Sidewards	Sidewards	Sidewards
Gross Dimensions [mm] WxHxD	425x640x515	445x685x515	475x695x545	535x735x630	595x785x680	Upon your request
Gross Weight [kg]	35	36	41	46	59	Upon your request

STEP 3



STEP 3

Control Unit Software	EXTENDED Px
Software Based PID Control	YES
Display	7 Segment / 4 Digit
Heating Program with	4 steps
Custom Preset Program	2
Heating Rate °C/min.	5-25
Date & Time	NO
Maximum Waiting Time	9999 min
Auto Start at Certain Date	NO
Show Remaining Waiting Time	NO
Skip the Waiting Step	NO
Temperature Calibration via Menu (±10°C)	NO
Sound Warnings at Step Changes	YES
Sound Warning at the End of the Program	YES
Total Working Hour Counter	NO
Calculator for Average Working Temperature	NO
Instantaneous Energy Consumption Indicator	NO
Target Temperature Display	NO
Step Indicator	YES
Burst Heating Mode	NO
Descriptive Error Indicator	NO
Temperature Control Accuracy***	±1°C
Measurement Accuracy	±1°C
Inner Volume Temperature Homogeneity	±10°C
Control Unit Overheating Sensor	YES
Over Heating Cut Off	YES
PC Connection Kit	OPTIONAL
Warranty Period	1 Year



STEP 4 & 5 & 6



STEP 4 Choose Optional Features

OTL	GS	OH	PC	PS
Over Temperature Limiter	Gas Supply Connection	Observation Hole	PC Connection	110V Power Supply
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.	Observation hole is designed for visual access while heating treatment.	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.

STEP 5

Choose Spare Parts	Inner Module	Door Insulation	PCB	Display Card	Chimney Fan
Description	Changing inner module renews your furnace close to a brand new furnace.	With sheet metal holder vessel	Easy to replace, Pre-programmed	7 Segment 4 Digit	40x40x10 5V Fan

MagmaTherm 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.

All 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
Image							

Comparison Guide



Starter Series vs Other Series

Question:	Why are the "Starter" series furnaces so cheap? Are their quality lower than the advanced models?				
Answer:	The production and the raw material quality is absolutely the same like the advanced models. There are a lot of design and construction manipulations according to temperatural and usage segment to decrease the production costs without have been lost the reliability and lifetime. The cost dedicated design for the dedicated temperature segment ensured the decrease of costs				
No	Feature	Pros or Cons / Comments for Starter Series	Starter MTS	Primary MTP	Standard MT
1	Control Unit	Pros: Px upgrade without extra charge which is similar like the other common models on the market. Cons: No 4x20 LCD Display with menu.	Px	P, Px	B2, E4, U8, S16
2	Maximum Temperature	Pros: Similar like the other furnace linings on the market Cons: User can not set the maximum temperature.	1100°C	950°C, 1000°C, 1100°C	1100°C, 1200°C, 1250°C, 1300°C
3	Continuous Working Temperature	Pros: Not worse than the other 1100°C furnace on the market because their continuous working temperature values are minimum from 50°C to 100°C less than their Maximum temperature values. Cons: Less than the continuous working temperatures of the advanced MT/MTP series.	1050°C	950°C, 1000°C, 1100°C	1100°C, 1200°C, 1250°C, 1300°C
4	Heating Elements	Pros: Similar like the other furnace linings on the market Cons: Principally no heating elements on the top wall, heat transfer is slower and temperature distribution may be less good than advanced series.	Embedded only into side walls	Embedded into side and top walls	Embedded into side and top walls
5	Heating Element Protection	Cons: Not worse than the most of furnace models on the market which are not equipped with quartztube protection.	None, embedded in wall	In quartz tubes embedded in walls	In quartz tubes embedded in walls
6	Chimney with fan for forced air ventilation	Cons: Forced air ventilation is better in most cases.	None	Default	Default
7	Door Switch	Pros: Secure operation during heating and wait periods. Cons: User can not disable and by pass the door switch via software according to user needs.	Standard micro switch	Optional Door Switch, controlled by software	Optional Door Switch, controlled by software
8	Front Face Insulation Material	Pros: Most of the furnace models on the market are not lined up with light insulation fire brick at the front face insulation. Therefore not worse than them. Cons: But Advanced MT/MTP models are lined up with light insulation fire brick at the front face insulation.	Ceramic fiber board	Durable light fire brick	Durable light fire brick
9	Inner Chamber Lining	Pros: Most of the furnace models on the market are not lined up with light insulation fire brick at the inner chamber. Therefore not worse than them. Cons: But Advanced MT/MTP models are lined up with light insulation fire brick at the inner chamber.	Ceramic fiber board or light insulation brick	Durable light fire brick	Durable light fire brick

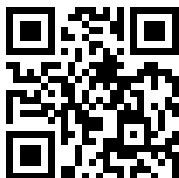


Tetra Isı Sistemleri

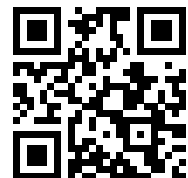
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