

USER MANUAL FOR “MMK-MEGA” UPSIDE-DOWN METAL MELTING KILN WITH 24/7 SYSTEM

INTRODUCTION:

This is a revolutionary hi-tech model, “mmk-mega-24/7” upside-down metal melting kiln that can work continuously 24/7 that is fully suitable for both: beginners and professionals and that does not require professional knowledge or additional heating equipment for graphite moulds. This kiln reduces the risk of heat shocks, fire on your worktop when pouring moulds, moulds cracking due to heat shock and damage to the heating element. It also means that you’ll not needed additional equipment for pre-heating moulds before pouring the metal in and it also helps you save electricity, extending your crucible and moulds’ lifespans, save time on multiple casting processes and have more room in your work shop In addition:

1. This kiln will only stay at the pre-set temperature for about 15 minutes and will then automatically cool down For 5-7 minutes, before automatically heating up again to the pre-set temperature and so on. This is to avoid Damaging the heating element. This process will: 1. Save electricity (compared to firing your kiln at top temperatures for hours), 2. Make graphite crucibles and moulds last longer (about 15 uses instead of about 5-7), 3. Allow you to use this kiln 24/7 without stopping (commercial grade), and 4. Allows you to do several castings Without re-heating each time from room temperature.
2. This kiln will automatically notify you with its buzzer each time the pre-set temperature is reached, allowing You to know when the metal in your kiln is ready for casting. This will help you to start the casting process at The correct time - about 15 minutes before your kiln starts cooling down as indicated above.
3. You can remove the graphite crucible from this kiln to replace it with a new one. You can do this by simply removing two holding plates at the top of the kiln which hold the crucible in place. (see image 2)
4. MMK-MEGA has the reinforced metal frame equipped with four wheel, which makes it fully portable so you can move it around freely with easy at your workshop. (see image 1)



IMAGE 1



IMAGE 2

BRAND:	TECHNICAL SUPER MARKET	GRADE:	COMMERCIAL
MODEL	MMK-MEGA	G. CRUCIBLE VOLUME:	1000 OZ
INPUT (SINGLE PHASE):	110-240 VAC	G.CRUCIBLE SIZE (INT.):	9"Hight and 70mm 3" diameter
MMK-MEGA CONCEPT:	UPSIDE-DOWN	DIMENSIONS OF KILN	L 820 X W 620 X 630
TOP TEMPERATURE:	1,150°C / 2,102°F	OVERHEATING SECURE SYSTEM:	YES
CONTINUOUSLY WORKING TIME:	24/7	DIGITAL TEMPERATURE CONTROLLER:	YES
ALARM:	BUZZER, 96 dB	KILN WEIGHT:	35kg
CE, UKCA, FCC, ISO:9001	CERTIFIED	WARRANTY:	1 YEAR

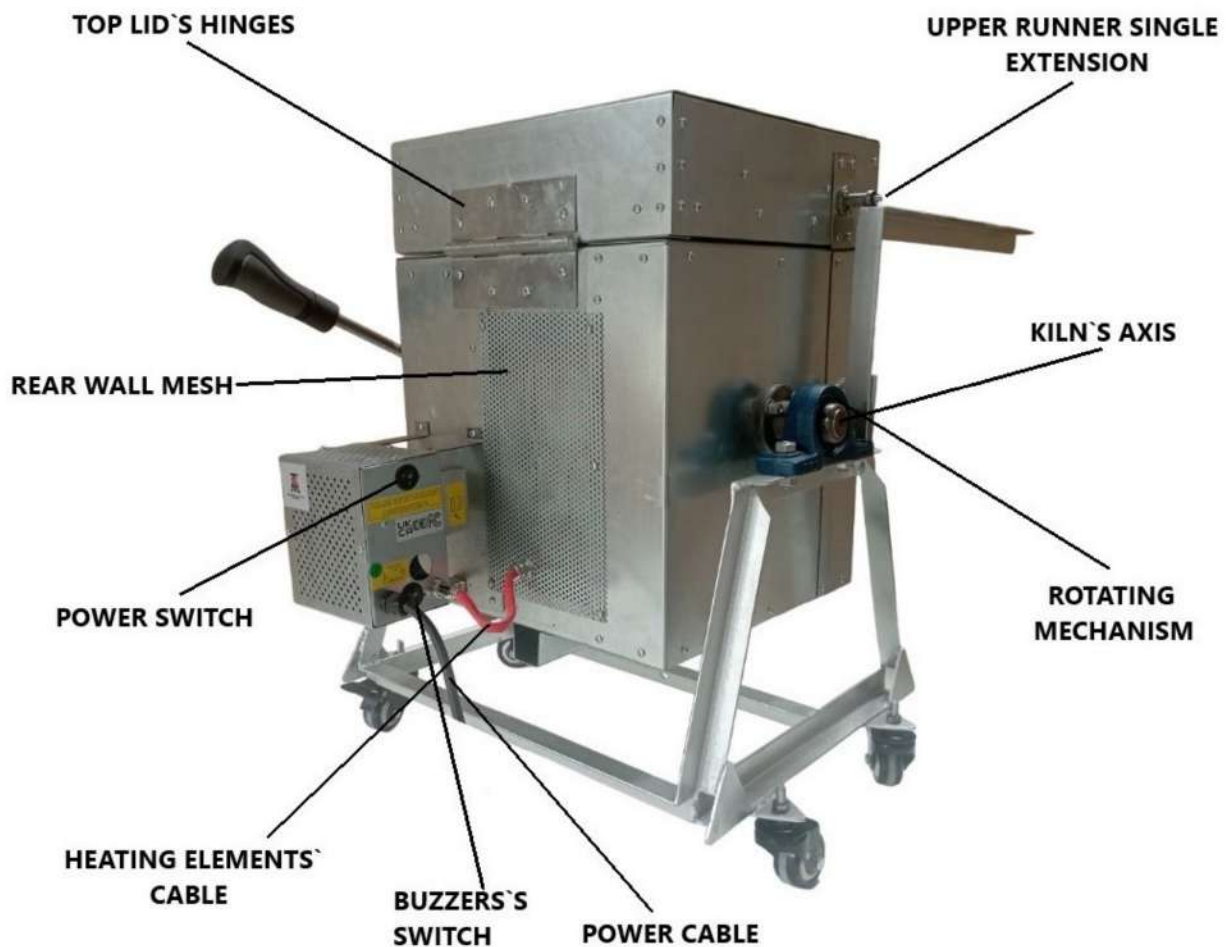
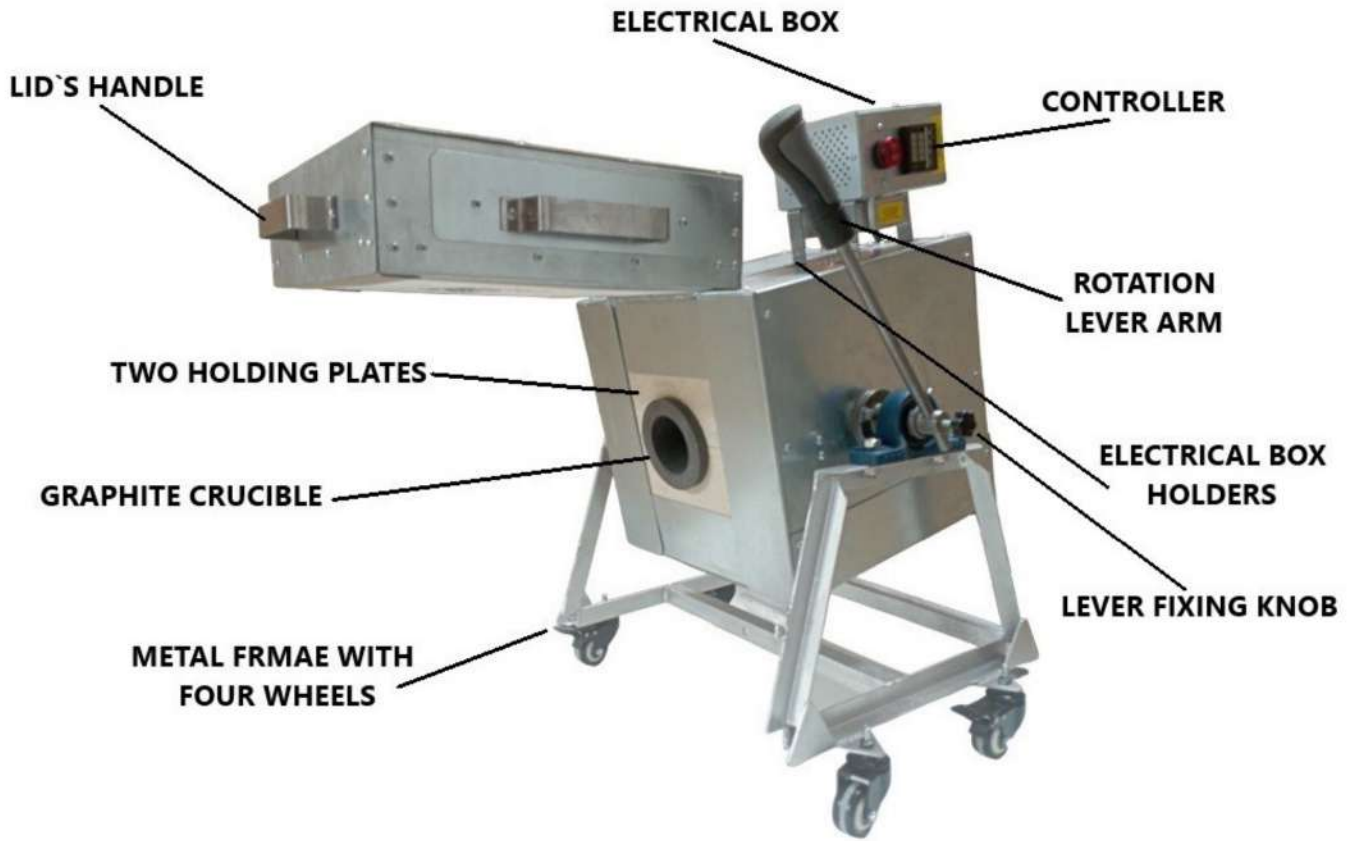
MMK-MEGA will help you to save on electricity (MMK-MEGA is more efficient in terms of electricity consumption comparing to traditional electric kilns being fired at top temperatures for hours), this will also greatly reduce the risk of quick disintegration of your graphite crucibles and moulds which normally occurs on top firing temperatures

MMK-MEGA will also reduce the risk of heat shocks, fire on your worktop, no more cracking moulds due to heat-shock and damage of heating element. (The kiln performs perfect even under high workload, It is the ideal choice if you need to have done a large quantity of work).

MMK-MEGA 24/7 continuously heating kiln 1120c (2148 f) does not require professional knowledge or any additional equipment to start to use it from the day one. This commercial graded kiln will allow you to keep your metal hot 24/7 for multiple castings without stopping

By using MMK-MEGA you will be able to melt down in one go

TIN	6300 gram
SILVER	9000 gram
LEAD	9800 gram
IRON	6800 gram
GOLD	16700 gram
COPPER	7750 gram
ALUMINIUM	2300 gram



HOW TO USE MMK-MEGA:

- 1) Remove your kiln from its box. It is usually already fully assembled except the lids arm and the wheels
- 2) Open the lid of the kiln so you would have an access to the graphite crucible.
- 3) Cut the metal to be melted into the pieces small enough to be fit into graphite crucible
- 4) Put these pieces into the graphite crucible (usually fill to 2/3 or less of the crucible). Add about one teaspoon of Borax to the crucible (if required).
- 5) Properly cover the graphite crucible using the kiln's lid
- 6) Turn your kiln on using the power switch at the top of the back rear wall of the electrical box and turn the buzzer on using the toggle switch, which is located at the bottom of the electrical box between the black (power cable) and the red (heating elements cable)
- 7) Using the instructions on the next page, pre-set the temperature controller to your required temperature (for example about 700°C for melting aluminium or 1,085°C for melting copper).
- 8) Wait until you hear a BUZZ. When the buzzer sounds you have 10-15 minutes (go back to your kiln, open its lid and finish your casting)
- 9) Clean or stir the metal inside the crucible, if necessary.
- 10) Place your prior prepared mould on the fire resistant surface (stones or bricks)
- 11) Using the rotation lever arm on the front of the kiln turn your kiln upside-down by smoothly pressing the lever down, this will allow all the molten metal inside the crucible to evenly pour from it to the mould. After this turn the kiln back to the upright position

USEFUL TIPS FOR BEGINNERS:

After hearing the buzzer and returning to your kiln you can turn the buzzer off using the toggle switch on the back side of the electrical box. Do not forget to switch it back on before you start the next casting process or you may miss the time when the top temperature is reached again. Remember - to help your crucible, mould and heating element last longer your kiln will only hold the top temperature for about 10-15 minutes then automatically disconnect for few minutes, dropping the temperature inside the crucible by about 100-250°C. In addition, each time you lift the lid the temperature in the kiln decreases further and therefore takes longer to heat back up again. The lid should be lifted as little as possible to conserve time and energy.

ATTENTION:

To avoid physical damages to your kiln's chamber and heating element due to a cracked crucible, which could accidentally release molten metal inside your kiln, carefully check your crucible after every three casting processes. Please bear in mind, that this problem is not under manufacturer warranty. To check or replace the crucible please follow the instruction:

Unscrew the screws at the top of the kiln, then slightly bend the metal sheets upward and push apart the two ceramic plates which hold the crucible in place. After inspecting the crucible or replacing it, push the two ceramic plates towards the crucible in a way that each of them will hold it firm, after this slightly bend the metal sheets inwards and drive all the screws back.

TEMPERATURE CONTROLLER:

The temperature controller has already been set up to reach a highest possible temperature of 1,120°C (2,048°F) by the manufacturer. If you want to re-set this controller for a different temperature please follow this short set of instructions or check the controller's user manual. To start, short-click once on the "SET" button. The bottom line of the controller (which shows you the target-temperature) will start flashing.



Controller information:

1. "SET" - setting/confirmation button (used for setting all of the controller's parameters).
2. "Left Arrow" - segment selector (to choose from four segments).
3. "Down Arrow" - decrease (used to set the required temperature).
4. "Up Arrow" - increase (used to set the required temperature).

Useful tips:

This controller's 4-digit bottom line allows you to quickly change the required temperature. When you click on the "SET" button the bottom line will start flashing. Use the "LEFT ARROW" button first to choose the required digit to change. Then use the "UP" and "DOWN" arrows to change the temperature.

You'll have about 20-25 seconds to change each parameter. Please do not worry if you take too much time and the controller resets and starts displaying the current temperature inside the chamber. Simply restart the programming process by clicking on the "SET" button again. If you are a beginner and are having difficulty resetting the temperature controller, please feel free to contact the manufacturer or agent/shop for FREE help with this matter anytime during the warranty period.

You can also find detailed information about the controller's settings in the controller's user manual, but we do not recommend changing the manufacturer's setting yourself (except for the temperature) as this can cause the factory settings (calibration) to be lost and may result in you needing to fully reset and/or re-calibrate the controller in the future, which is NOT COVERED BY THE WARRANTY.

When you have finished re-programming this controller, short-press the "SET" button for the new setting to be remembered and your job to start.

Your controller will remember the last temperature and will always try to reach this temperature in future until it is changed again.



Open the lid and put the pieces of the cut metal into the graphite crucible (usually fill to 2/3 or less of the crucible). Add about one teaspoon of Borax to the crucible (if required).



Properly cover the graphite crucible using the kiln's lid. Turn your kiln on using the power switch at the top of the back rear wall of the electrical box and turn the buzzer on using the toggle switch, which is located at the bottom of the electrical box between the black (power cable) and the red (heating elements cable)



Using the rotation lever arm on the front of the kiln turn your kiln upside-down by smoothly pressing the lever down, this will allow all the molten metal inside the crucible to evenly pour from it to the mould. After this turn the kiln back to the upright position.

HEALTH & SAFETY INSTRUCTIONS:

- Make sure that your kiln is disconnected from the power supply when replacing the crucible.
- It is always best to conduct some tests on a small quantity of your melting metal before you start working with larger quantities.
- Using this kiln continuously at temperatures higher than 1,150°C may cause a problem with the heating element(s) and/or with the kiln's metal body that is NOT covered by the warranty.
- This kiln's metal frame does not get hot, but it is still best practice to place it on a level surface that will not be damaged by heat. Simple tiles or a sheet of metal is recommended, but other fire-resistant materials may also be used.
- Always make sure that the lid properly covers the crucible in order to reach the highest possible temperatures inside the chamber. It is important when you use gloves for closing and opening the kiln's lid.
- This kiln should be kept away from all inflammable materials and other heating devices.
- When opening the lid at temperatures higher than 200°C (392°F) always maintain as much distance as possible between you and the hot crucible. Please also wear dark glasses to avoid problems with your eyes.
- Because of the high temperatures that this kiln can reach, you should never leave it unattended when it is in use.
- Never touch the kiln's metal body and rotation lever arm without gloves on as these can burn your hands.
- **KEEP OUT OF REACH OF CHILDREN.**
- Disconnect the kiln from its power supply when not in use.
- The manufacturer reserves all rights to make changes to this kiln that improve furnace performance without notification.

DANGER: This is an electrical, often extremely hot piece of equipment: always follow any applicable health and safety rules and regulations for electrical equipment and hot work in your country.

MADE IN THE UK