

OWNER'S MANUAL & SAFETY INSTRUCTIONS



Micro Melting Furnace

SAVE THIS MANUAL

Keep this manual for safety warnings, precautions, operating, and cleaning procedures. Keep this manual and proof of purchase for future reference.

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please visit www.brightfuser.com to contact us.

WARNING

Read this material before using this product. Failure to do so may result in product damage and severe injury.



SAFETY, MAINTENANCE, AND STORAGE

WARNING: Read all instructions before using this equipment.

When using any electrical equipment, basic precautions should always be followed, including the following to reduce the risk of, but not limited to, fire, electric shock, or injury:

1. Operate the equipment only as described in this manual.
2. Do not leave equipment unattended when plugged in a power outlet. Unplug from the outlet when not in use and before cleaning.
3. Do not use the equipment on wet surfaces. Do not expose to rain. Store indoors.
4. Stay alert and use common sense when operating the equipment. Do not use the equipment if tired or under the influence of drugs, alcohol, or medication. A moment of distraction while operating the equipment may result in personal injury and to others.
5. Do not allow children and/or an unqualified person to use the equipment. Keep children and pets away during use. The equipment is not a toy.
6. Do not use if power cord or plug is damaged in anyway. Do not pull or carry the equipment by the power cord. Keep power cords away from heated surfaces.
7. Do not unplug the equipment from the power outlet by pulling on the power cord. To unplug, grasp the plug, not the power cord.
8. Turn off all necessary controls before unplugging.
9. Do not handle plug or equipment with wet hands.
10. To reduce your exposure to chemical reactions, vapors and other harmful products, always work in a well-ventilated area.
11. Wear long pants, long sleeves, and protective footwear.
12. Wear Personal Protective Equipment. Wear ANSI-approved safety goggles. As appropriate, wear a protective mask and gloves.
13. Maintain labels and nameplates on the product. These may carry important safety information. If unreadable or missing, visit www.brightfuser.com to contact us.
14. The warnings, precautions, and instructions discussed in this owner manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors that cannot be built into this equipment. Use your own caution.
15. If the equipment is not working, visit www.brightfuser.com to contact us.

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Turn the power switch of the equipment off and unplug the equipment from the electrical outlet before performing any procedure in this section.

TO PREVENT SERIOUS INJURY FROM EQUIPMENT FAILURE: Do not use damaged equipment. If abnormal conditions occur, have the problem corrected before further use.

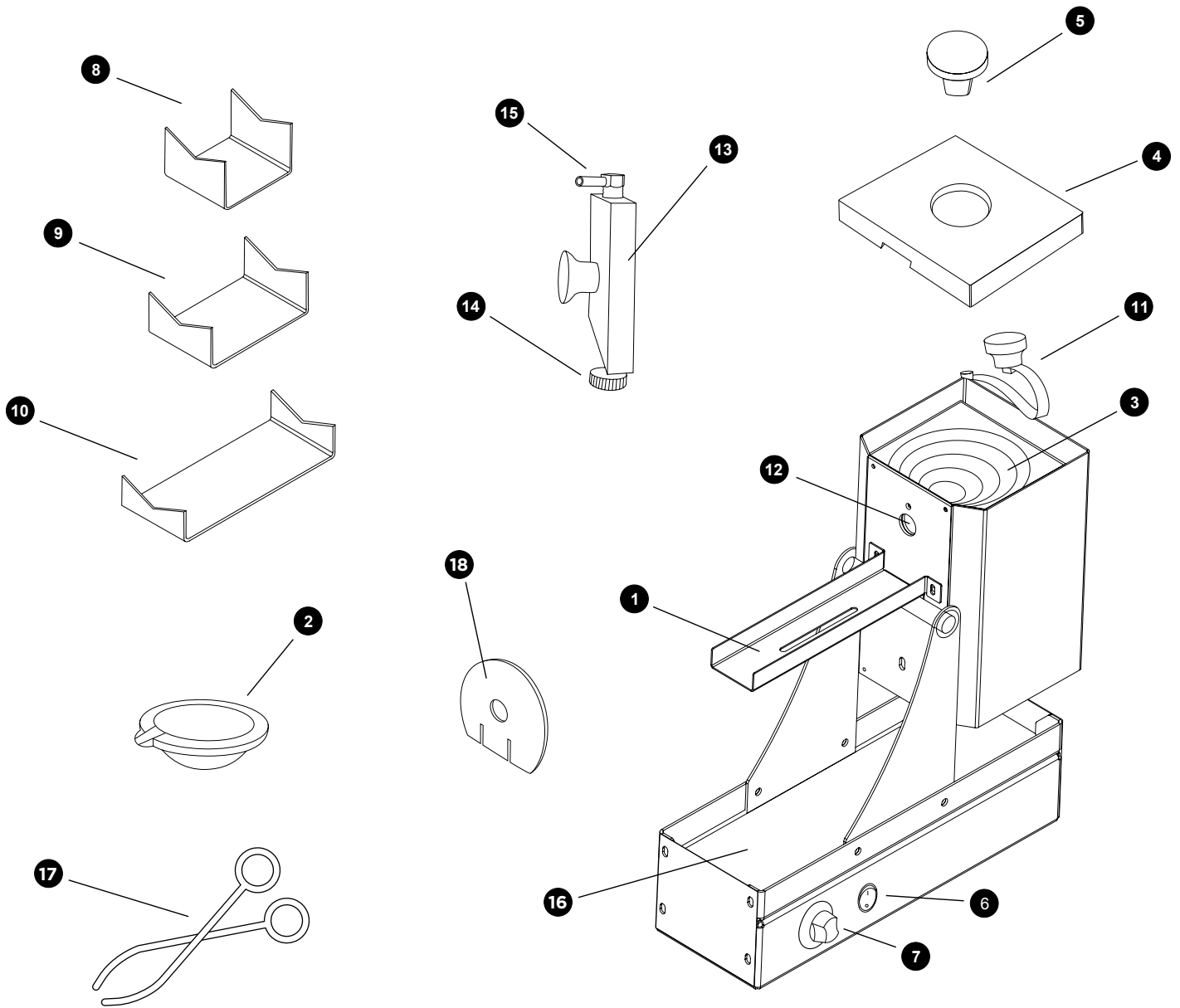
BEFORE EACH USE, inspect the general condition of the equipment. Check for:

- Loose parts,
- Misalignment or binding issues,
- Cracked or broken parts,
- Damaged extension cords,
- Damaged electrical wiring, and
- Any other condition that may affect its safe operation.

AFTER EACH USE, clean parts as indicated.

- Store in an indoor dry area out of the reach of children and pets.
- Failure to do so may result in equipment damage and malfunction.
- Wipe external surfaces with a clean, dry cloth.

MICRO MELTING FURNACE



- | | | | | | |
|---|-------------------|----|----------------------|----|--------------------|
| 1 | Flask attachment | 7 | Timer | 13 | Casting base |
| 2 | Graphite crucible | 8 | Small flask support | 14 | Casting base screw |
| 3 | Heating unit | 9 | Medium flask support | 15 | Vacuum connector |
| 4 | Lid | 10 | Large flask support | 16 | Safety tray |
| 5 | Stopper | 11 | S-shaped lock | 17 | Crucible tong |
| 6 | Switch on/off | 12 | Metal pour hole | 18 | Paper gasket |

MICRO MELTING FURNACE

The **Fuser500™ Micro Melting Furnace** eliminates the need to use a torch when melting metals. It reaches a temperature of 2282°F and has a closed heating system which ensures a **reliable** homogeneous melting result without exposing metals, while being very **energy efficient**.

Its carbon-steel and stainless-steel structure is resistant to heat and corrosion, and the crucible is made from an exclusive formulation of graphite, clay and other components that prevents oxidation, eliminating the need for fluxes during casting.

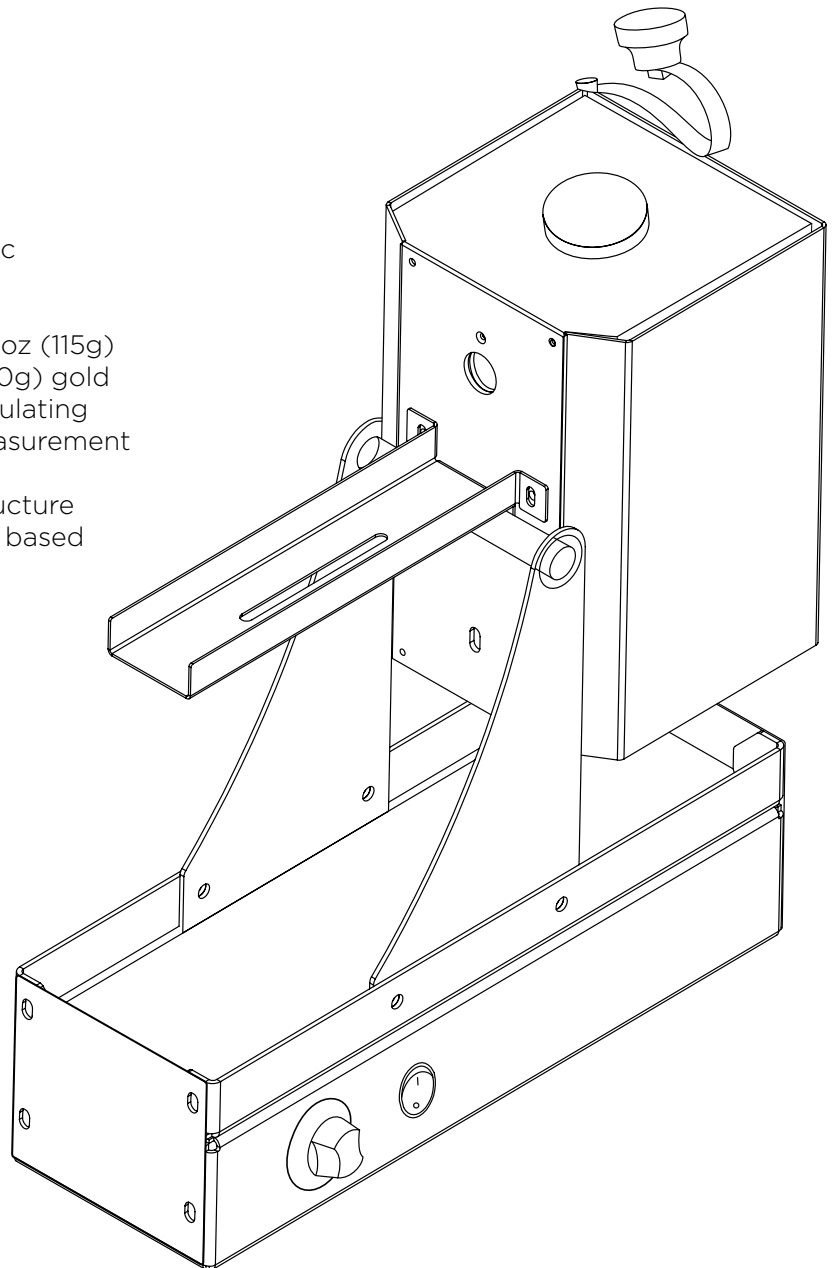
The flask attachment is designed to work with every Fuser500™ flask size, facilitating the casting of any metals and **improving** the overall casting work flow.

Specifications & Features

- Internal temperature controller
- Watts: 385W
- Voltage: Bivolt 110 - 230 V automatic
- Max. temperature: 2282°F
- Flux not needed during casting
- Crucible capacity: Approximately 4 oz (115g) sterling silver/96.4 pennyweight (150g) gold
- Thermocouple is centered in the insulating cement to ensure fast, accurate measurement and control of the temperature
- Carbon-steel and stainless-steel structure
- Typical cycle time: 20 - 50 minutes, based on quantity of metal
- Dimensions: 12"W x 7"D x 13"H
- Machine weight: 11 lbs. (5kg)

Parts List

- Micro Melting Furnace
- 2 graphite crucible
- 3 stainless steel flask supports (S, M and L)
- Cement lid
- Cement stopper
- Casting base
- Power Cord





MICRO MELTING FURNACE

How to use:

- Connect the Micro Melting Furnace to a power outlet
- Place the graphite crucible on top of the heating unit
- Weight the required metal quantity to fill in the wax tree
- Put the metal in the graphite crucible
- Place the lid with the stopper on it
- Turn the switch on
- Turn the timer on with the desired time
- Choose the appropriate size of the flask support according to your casting and place it in the flask attachment

EXPERT TIP: On the initial utilization, some water will be generated from the cement parts by the heating process. We suggest protecting the equipment by putting some paper towels folded inside the safety tray until the heating unit and lid get completely dried.

Once the metal is melted:

- Place the S-shaped lock on the stopper
- Remove the flask from the Fuser500™ Kiln
- Place the flask on the flask support, positioning the metal pour entrance with the metal pour hole in the Micro Melting Furnace
- Place the paper gasket between the casting base and the flask
- Connect the vacuum pump hose to the vacuum connector of the casting base and turn the vacuum pump on
- Loose the casting base screw and slide the casting base to hold the flask
- Screw the casting base screw to lock it
- As soon as the vacuum pump's manometer reaches 25 PSI, turn the Micro Melting Furnace 90° to begin pouring the metal into the flask
- Keep the Micro Melting Furnace at 90° for 1 minute in order for the poured metal to solidify before removing the flask
- Place the Micro Melting Furnace back to its initial position
- Turn of the vacuum pump and disconnect the hose
- Unscrew the casting base screw and pull it loose
- Use the crucible tongs to remove the flask from the flask attachment and carefully place it in a container with water. The investment will crack and dissolve, revealing your casting tree

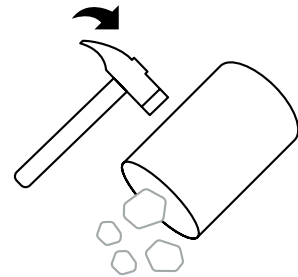
WARNING: Some parts, specifically the heating unit, the lid, the stopper, and the graphite crucible are considered consumable items, with a limited life-span and eventually will need to be replaced. **The graphite crucible will cast for approximately 80 times.** Please contact us or your supplier to order additional parts.

MICRO MELTING FURNACE

When the casting is finished:

- Turn the Micro Melting Furnace off, or just wait for the bell of the timer to announce the end
- Using the crucible tong supplied, remove the stopper, the lid, and the crucible. These are delicate pieces, therefore handle them with care
- Place these items over a refractory surface and wait for it to dissipate the heat
- Using a Scotch-Brite™* sponge, carefully scratch the crucible interior to eliminate any trace of residuals or impurities remaining
- **IMPORTANT:** Never wash or place the crucible in water. It may be permanently damaged.

WARNING: The casting process for pre-set stone jewelry is the same as for stone-free pieces. Yet, when handling pre-set stone jewelry, do not place the flask in a container with water, as it may damage the stone. Instead, wait for the flask and metal to fully cool down, then use a small hammer to break the investment open.



WARNING: Most precious stones cannot endure the heat of the Fuser500™ kiln and may get damaged. Some synthetic stones, sapphires, rubies, and diamonds may be pre-set. Make sure to ask your stone provider what is the maximum temperature that each stone may bear†.

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†BrightFuser does not accept any responsibility or liability for damaged stones, whether synthetic or natural. BrightFuser shall not be liable for any direct, indirect, or consequential loss or damage. Use this method at your own risk.



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Patent pending PCT/BR2019/050537