

# **chocMELTER** (cM20)

## Operating Instructions



# DESCRIPTION

The chocMELTER warming tank has been designed specifically to heat and maintain chocolate at a temperature range of 20°C - 60°C (68°F - 140°F).

The system works with direct and air based induction heating, applied from below as well as each of the four sides. This innovative approach heats the chocolate much faster and more efficiently than the industry standard 'below only' heating systems - which take many hours longer to melt the chocolate. With the combination of a quality control system and temperature sensor being located 'in the chocolate', (rather than just the air void below), you can be sure of far more accurate readings. The heating unit will click off after achieving the desired temperature. If the vat is left within the chocMELTER with the lid on, retained heat is excellent. The efficient, low energy design translates into significant running cost savings.

In addition to the energy saving, faster heating and accurate control, this SWISS made product has been developed with a compact & lightweight footprint and comes with ergonomic easy to carry handles & horizontal control panel. The unit is also designed with maximum hygiene in mind - the electrical components are damp washable with no indents and the body does not have the gaps or screw holes that are present in most warming tanks.

The chocMELTER has been designed specifically for heating chocolate and cocoa butter, however, dependent upon the required temperatures, it can potentially be used for similar materials such as icing, glaze, butter and the like.

## HOW TO MELT CHOCOLATE AND MAINTAIN THE TEMPERATURE

The chocMELTER has been designed with fast heating and very efficient insulation. During the melting phase this combination creates a natural delay of a few minutes between the target temperature being achieved, and the latent heat escaping into the chocolate. The chocolate will continue to rise slightly above the target temperature. Stirring briefly can be used to bring it quickly back to the target temperature.

Once the target temperature has been achieved, the chocMELTER is extremely efficient in maintaining the heat. It will use minimal energy and may take 30 minutes before the heating phase needs to reengage, and then only shortly.

Whilst most owners of the chocMELTER will likely possess specialist chocolate preparation knowledge, below we have provided some basic comments relating to tempering. For more specific information, please contact a training school such as the Barry Callebaut Academy™ centre.

There are 2 different methods of using your chocMELTER to prepare chocolate, depending on whether you need to “manually temper” your chocolate (Cooling approach), or are instead using “pretempered” chocolate (Heating approach). These are outlined below.

## 1: Manual tempering using the Cooling approach

This approach, often called the “seeding method”, requires that chocolate to be heated to 45°C (113°F), after which small amounts of solid tempered chocolate pieces are added to the pool to promote the formation of the desired Beta V crystals.

### The seeding process

According to experts such as the Barry Callebaut Academy™, the amount of Beta V crystal within the seed chocolate should not exceed more than 0.4 to 0.6% of the total pool. This can be achieved by adding a maximum of 10 - 15% of seed buttons, as described below. These seed buttons contain small levels of Beta V crystals, which multiply quite quickly and eventually will crystallise (solidify) the complete liquid pool at which time you would need to go through the tempering process again.

1. Melt the chocolate buttons / pieces until they are completely liquid in form. An ideal melting temperature is recommended as 45°C (113°F), but should not be above 60°C (140°F).
2. Set the chocMELTER to a target of 45°C (113°F) and add about 10% of seed chocolate compared to the total liquid pool.
3. Set the chocMELTER to a target of 35°C (95°F) and allow it to fall. Stir continuously until the seed chocolate has melted. When it reaches the target 35°C (95°F), add another 5 - 10% of seed chocolate and stir occasionally until the remaining seed buttons have melted.
4. Now set the chocMELTER to your working chocolate level. Once achieved, stir briefly to ensure a uniform temperature distribution. Below are generally accepted approximate working temperatures by chocolate type:

Dark chocolate: 31 - 32°C (88 - 90°F)  
Milk chocolate: 29 - 30°C (84 - 86°F)  
White chocolate: 28 - 29°C (82 - 84°F)

5. **Important - confirm the tempering condition:** If correctly tempered, the chocolate fluidity can be tested on a palette knife. If it solidifies quickly, it is tempered.

**N.B.** To slow down over-crystallisation (solidifying), avoid excessive amounts of seed chocolate or too much stirring as these actions will accelerate the multiplication of Beta V crystals. Stir occasionally and briefly. To reverse early signs of over-crystallisation, applying additional heat for a short period may help retain a good tempered condition.

**TIP** To speed up the melting process you may want to set the target melt temperature up around 55°C (131°F) for dark chocolate or 50°C (122°F) for milk and white chocolate.

## 2: Melting Pretempered chocolate using the Heating approach

This simpler approach assumes you are already using pretempered chocolate and your intention is to heat it up to the industry recommended working temperature.

Take care that the overall temperature does not exceed much higher than 35°C (95°F), as above this this temperature, the preferred Beta V crystals will start to be lost and you will eventually need to temper your chocolate again. To minimise this risk we recommend melting the chocolate slowly at a setting a few degrees lower than your target working temperature. When it has been achieved, stir the chocolate briefly and then set the target temperature.

# GETTING STARTED

NEVER USE the fixed internal bowl area to melt chocolate.  
Chocolate should only be melted in the removable vat.

**DO NOT FILL WITH WATER!**

Unlike cheap bain marie units, the chocMELTER uses induction heating via air & direct contact, combined with digital control.

**N.B.** Before fully sliding the chocolate vat into the chocMELTER,  
=> *thread the temperature sensor through the hole in the back rim of the vat* so that the sensor is pointing downwards into the basin. It should stop just before touching the bottom. This innovative and simple design provides a much more precise reading than the industry standard approach of inaccurately measuring the air void below the chocolate. When finished, simply wipe down the sensor with a soapy cloth.

- Add the chocolate. If it has not been pre-melted, we recommend you break it up into small pieces or use pellets in order to speed up the process and then cover the chocolate with the lid. For guidance, some optional tempering processes are detailed below.
- A target temperature of up to 60°C (140°F) can be set, being the maximum temperature recommended for melting chocolate before risking that it burns.

## To set the desired temperature simply,

1. Press button P for 3 seconds.
2. Use the arrows to set the Target temperature.
3. Press button P to confirm.

The displayed value will then return to the actual temperature.  
The temperature control unit runs a selftest when turned on.

Once the target temperature is reached, the heating unit will power off with a click. Due to our innovative heating design, if the lid is left in place the temperature loss is minimal. Upon achieving the desired temperature, it is not uncommon for the heating feature to be in *off mode* for the majority of the time.



- Remember to stir the chocolate regularly, but briefly - this will aid the melting process.
- When you want to lower the temperature during tempering, to speed up this “cooling down” phase, remove the inner chocolate vat from the chocMELTER and put on a table. Apply air movement across the top via a fan if available.
- If you see the message "LOC.", you have pressed the "P" for much longer than the required 3 seconds. Pressing for more than 6 seconds will pull up a complex programming menu. Although protected by a password, we do not recommend you enter this menu.  
=> Simply by pressing the circle button above "P", and press for just 3 seconds. You will see the current set temperature and can adjust the target by use of the arrows. Then save the target by pressing shortly the "P". The screen will return to the actual temperature.

## TIPS & TRICKS

**The ideal working environment?** The best conditions for working with chocolate are an air conditioned room at around 20°C (68°F) with a maximum humidity of 70%.

**Do not allow water to mix with melted chocolate.** Avoid storing chocolate in a standard refrigerator as water condensation may form on the chocolate surface when brought out at room temperature with the resulting white/grey effect (bloom). If stored in a fridge, the maximum humidity recommended is 50%. Pay particular attention to removing any excess moisture from the lid of the vat. If dipping is your thing, make sure fruit, biscuits and even the utensils being used are at room temperature and thoroughly dry.

**Need a thicker or thinner consistency?** The viscosity (thickness / surface tension) of your chocolate can be influenced by temperature or its cocoa butter content. If you need a thinner layer, simply increase the temperature within the industry norms, or mix with as much as 50% pre melted cocoa butter. When filling moulds or using thicker layers, you can speed up the cooling process with a fan by applying air movement across the top of the chocolate.

**Can you use a microwave or saucepan as a melting aid?** Yes, these will speed up the process, however these methods come with risk of burning the chocolate due to higher temperatures. If using a microwave, at the first sign of melting stir and heat for no more than 15 second intervals. Continue to stir between intervals. The longer the duration and lower the temperature used, the better the potential chocolate quality.

# CLEANING

**Important: Chocolate or other similar material should only be placed in the removable vat and never in the chocMELTER interior. Never expose the chocMELTER to liquids or immerse in water.**

Always clean immediately after use. For external cleaning of the chocMELTER, simply wipe down the surfaces and temperature sensor with a mild food grade approved detergent.

The removable vat can be cleaned in the same way as other stainless steel containers / pans - either in the sink or dishwasher. Avoid the use of steel wool or similar abrasive materials. A small pipe brush can be used on any edges.

## FOR YOUR SAFETY

**The chocMELTER should only be operated safely when the safety & operating instructions have been read and are strictly adhered to.**

- **Warning:** Do not touch the inside container of the chocMELTER as it can reach temperatures above 60°C (140°F). To avoid the risk of shock, never open the unit.
- **Warning:** Ensure that children have no access to the chocMELTER or its cable or packaging.
- **Warning:** At no time should the electrical or the heating components be brought into contact with liquids or flammable materials of any type. Never immerse the system in water and avoid locating it close to water sources. Recommended cleaning methods are detailed above.
- Unplug the chocMELTER from its power source when not in use or before cleaning.

## TECHNICAL SPECIFICATIONS

<b>Nominal output</b>	100 W
<b>Melting Rate*</b>	20 kg / 44 lbs chocolate circa 4.5 hours
<b>Temperature Range</b>	20°C - 60°C (68°F - 140°F)
<b>Container Capacity</b>	18 l water or 20 kg/44 lbs chocolate
<b>Efficient Heating</b>	Air & Direct from all 5 sides
<b>Temperature Sensor</b>	Inside the chocolate container for accuracy
<b>Body and Vat Material</b>	High quality stainless steel
<b>Unit Dimensions**</b>	62 cm x 33 cm x 25 cm
<b>Boxed Dimensions</b>	64 cm x 34 cm x 30 cm
<b>Dry Weight</b>	8.5 kg (without container/lid)
<b>Packed Weight</b>	12.1 kg (boxed, incl. container/lid)
<b>Country of Manufacture</b>	Switzerland

The above specifications are approximate.

\*Varies with environment temperature, pre heating time and material type.

\*\*Excluding Handles.

## Guarantee

- The chocMELTER is guaranteed for twelve months from sale date subject to the enclosed terms and on condition that it is **only used for processing products approved for the food industry**. The guarantee starts upon customer receipt. In the event of a fault, please contact the reseller before returning the machine.
- The chocMELTER is designed to work and rest intermittently and should not be used to run continuously by removing or tricking the sensor.
- Only original spare parts may be used in the event of repairs.
- The chocMELTER must be serviced and cleaned as described in the operating instructions.
- The guarantee excludes any damage due to modifications, overloading or incorrect handling.

## REPAIRS & PRODUCT LIABILITY

The chocMELTER is produced with quality components. If you have questions we recommend following the user video on our website: [www.KreaSwiss.com](http://www.KreaSwiss.com) or contacting your reseller for additional support. Please always include the article number & product serial number in any correspondence.

General repairs are not covered by the guarantee and shall be performed by service centers subject to the applicable price and delivery terms of the country in question.

No liability is accepted for damage caused directly or indirectly by the use of this product. The user assumes full responsibility for the use of the product in accordance with the laws of food hygiene and other legal regulations.

## EN Declaration of Conformity CE

We declare that the product described above is in conformity with the relevant provisions of the following directives and standards as set out in the following norms:

The Machinery Directive (98/37/EC)

The Construction Products (89/106/EEC)

The Low Voltage Directive 73/23/EEC

The EMC Directive 89/336/EEC as amended by 91/263/EEC, 92/31/EEC, 93/97/EEC.

All relevant components coming into contact with the liquid pool are certified as consisting of food grade materials.



A handwritten signature in black ink that reads "Sean Kendrick".

Dr. S. Kendrick

A handwritten signature in black ink that reads "A. Hitschrich".

A. Hitschrich

Notes:

Fahrenheit

Celsius

80	26,7
81	27,2
82	27,8
83	28,3
84	28,9
85	29,4
86	30,0
87	30,6
88	31,1
89	31,7
90	32,2
91	32,8
92	33,3
93	33,9
94	34,4
95	35,0
96	35,6
97	36,1
98	36,7
99	37,2
100	37,8
101	38,3
102	38,9
103	39,4
104	40
113	45
122	50
131	55
140	60

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