Gastros SWITZERLAND

Planner Dossier

Version: 3.5 / September 2019

InductWarm®

Invisible Induction Buffet Solution.

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Document Download

On our website you can download all documents (e.g. brochure, manuals, 3-D graphic files of the devices).
https://gastros.swiss/de/mediafiles.html

Content

1 Introduction

1.1 What is InductWarm?

The patented InductWarm® system with its temperature-managing technology DPC (Dynamic Power Control) keeps food warm with unrivalled quality.
InductWarm® combines extraordinary design with unbeatable convenience: Compared to conventional chafing dishes it is much simpler to use, safer and more cost-effective.

Available variations of InductWarm® systems

Essentially, InductWarm® is available in three different variations:

- The **TableTop** model for a flexible and mobile use in any area
- The **Built-in** solution for flush-mount integration, e.g. at your buffet or table
- The invisible **Undercounter** solutions for the full flexibility of your buffet

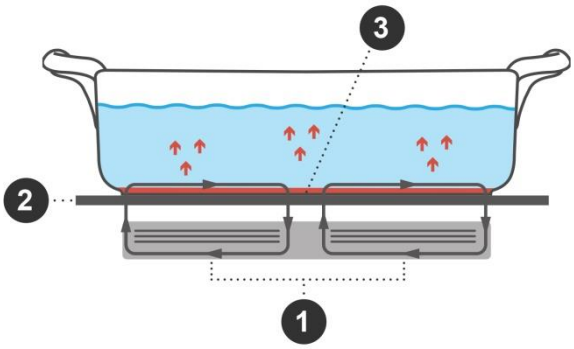
1.2 What are the advantages?

- **Reducing the operating costs**
  Simplicity at all points – from installation, handling to cleaning
- **Maximum energy efficiency / CO_2 reduction**
  Induction generates heat exactly where it's needed: This reduces the operating costs to a new minimum and saves the environment at the same time.
- **All-round safety**
  For both your guests and your personnel – dispensing with water, hot vapor and open flame by the use of gel fuel, InductWarm® reveals conventional practices of keeping food warm to be unthinkable.
- **Long-lasting food quality**
  Made possible through temperature-managing technology DPC. In combination with our InductWarm® buffet covers food stay fresh and therefore healthy for a particularly long time.
- **Elegant, timeless design**
  Because sublime food deserves a high-class presentation.

1.3 How does induction work?

When using induction technology, the heat is not transferred from a heating element via dishes to the food. Instead, the necessary heat is generated directly in the warming dish/vessel with the aid of induction currents.

An induction coil (**1**) underneath the surface material (**2**) generates an alternating electromagnetic field, which penetrates the surface material and inducts the heat-generating current in the base of the dish/vessel (**3**).



Advantages of Induction

- Energy-saving keeping warm due to direct energy transfer to the pot.
- Enhanced safety since energy is only transferred when a pot is placed on the hob.
- Energy transfer between the induction warming zone and the base of the pot with high degree of efficiency.
- Instantly ready to use.
- Low risk of burning, since the cooking surface is only heated by the base of the pot.
- Boiling over pot contents does not burn onto the hob.
- Rapid, fine-tuned control of the input power.

1.4 Instructions on vessels

The warming pan used for the induction warming surface must be made of metal, have ferromagnetic characteristics and have a sufficient, flat bottom surface.

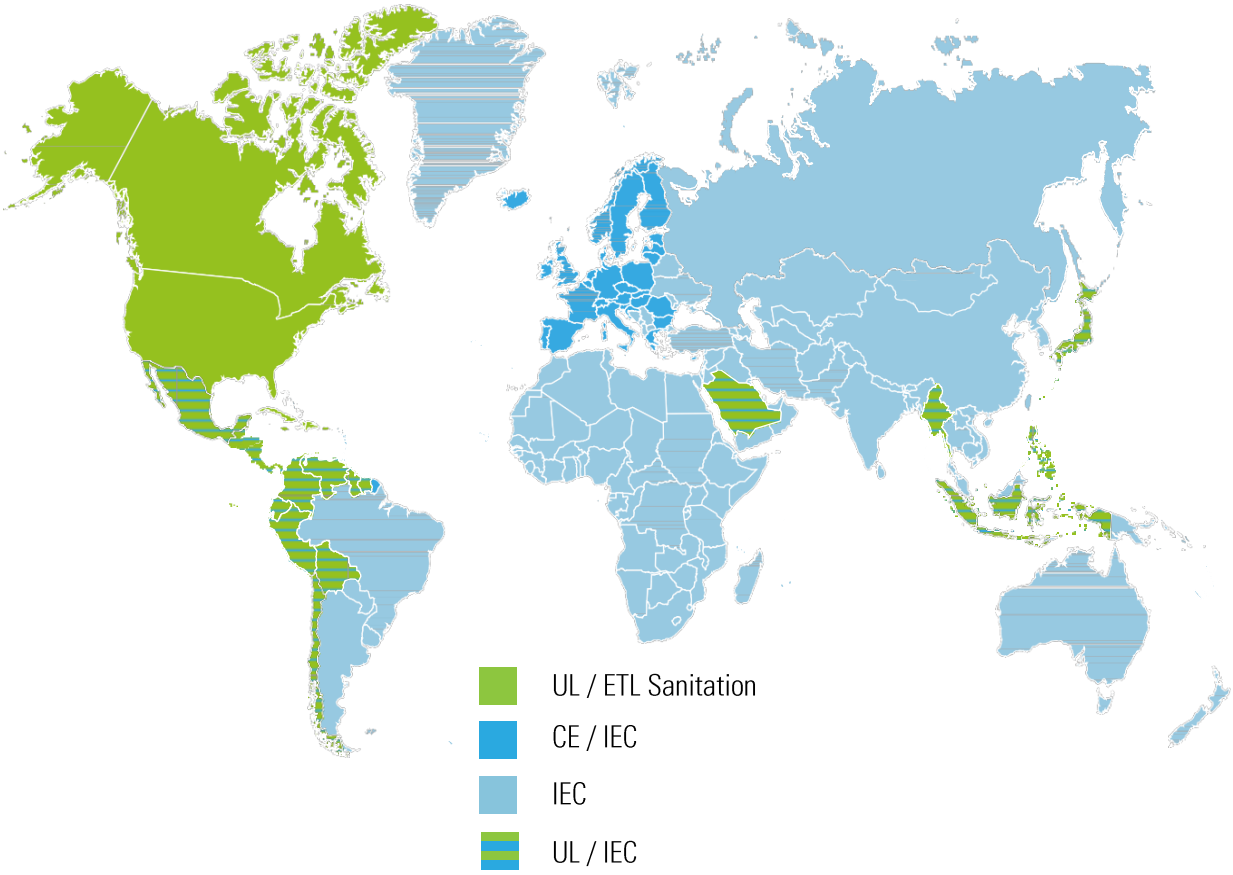
How to decide if the pot is suitable:
Ensure that the pot bears an inscription stating its suitability for warming with induction current, or perform the following magnet test:

- Place a magnet close to the base of your cooking pot. If it is strongly attracted then you can use the cooking pot on the induction hob.

The table below serves as a guide to help you choose the correct cooking utensils:

Suitable vessels
• Vessels with magnetic bottom (ferromagnetic) • Enamel-coated steel pots with thick bases • Cast-iron pots with enamel-coated bases • Pans made of stainless steel, multi-layered steel, stainless steel ferrite steel or aluminum with special base
Unsuitable vessels
• Pans made of copper, aluminum without special induction-coating or -base • Heat-resistant glass and other non-metallic pans • Pans made of stainless steel without a ferromagnetic iron core • Pans that do not sit flat on the hob

1.5 Certificates & Awards



Certificate	InductWarm 130+	InductWarm 200
CE	✓	✓
IEC	✓ EN/IEC 61000-3-3	✓ EN/IEC 61000-3-3
UL		✓ UL 197
PSE	in progress	in progress
CCC	in progress	

Awards

INTERNORGA Future Award 2013

Gastro Vision Award 2011

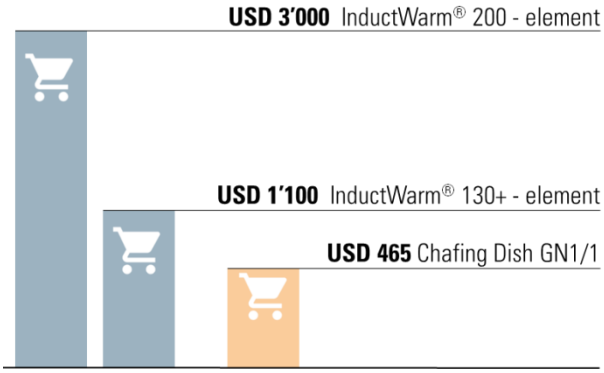
3rd at the TOP Hotel START Awards 2017 for the Room Service Table in the sector "Efficiency"

2nd at the TOP Hotel START Awards 2017 for the InductWarm® 130+ in the sector „Flexibility"

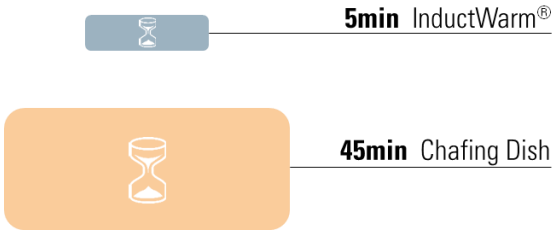
1.6 Cost Effectiveness – this is how you reduce your running costs

Comparative analysis between Chafing Dish and InductWarm®

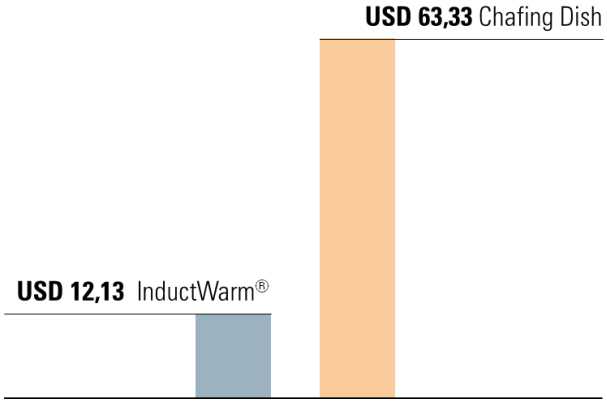
a) Investment



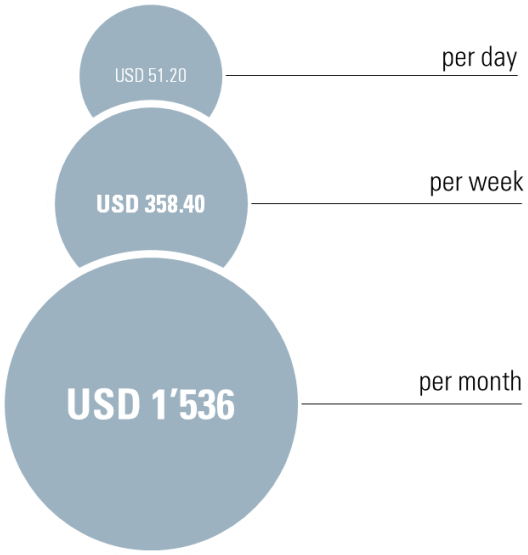
b) Daily effort



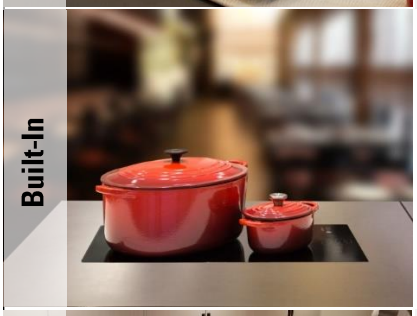
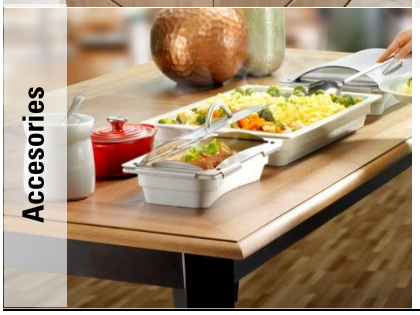
c) Total Costs per Day (Energy- & Personnel costs)



d) Cost Savings with InductWarm®



1.7 Product Overview

Table-Top 		• InductWarm® 200 • InductWarm® 130 • InductCook®
Built-In 		• InductWarm® 200
Undercounter 		• InductWarm® 130+ • InductPlate®
Accesories 		• InductWarm® Porcelain • Buffet Covers

1.8 References

Catering

Hotels

Premium Lounges

Status: May 2018

InductWarm® 200

TableTop Model

2 InductWarm® 200 TableTop

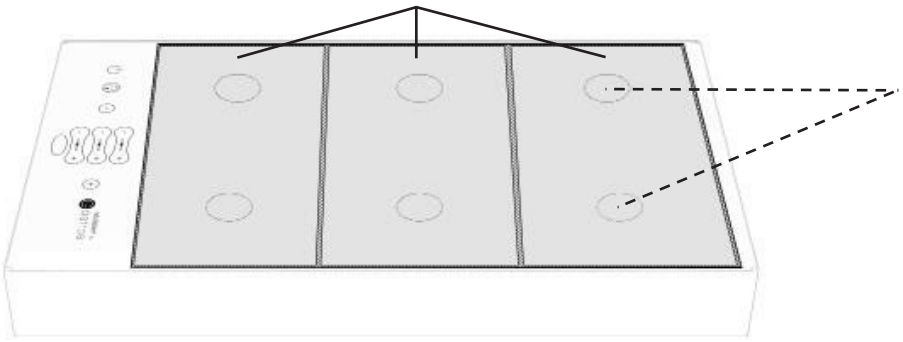
2.1 Description

The new InductWarm® TableTop 200, made from brushed stainless steel, offers you the highest level of flexibility. A single model allows you to present dishes up to a maximum size of GN 1/1. Whether for fitted buffet systems or in catering use, the InductWarm® TableTop can be placed anywhere within your buffet area. Should your requirements change at short notice, the fact that the InductWarm® system can be operated immediately will be especially useful - the InductWarm® tabletop devices can be very quickly set up and are then ready for keeping dishes warm straightaway.
Using either the touch-panel or the InductWarm® remote control, you can conveniently select one of four different temperature levels for each of the warming zones. LEDs will indicate the current operating status at any given time.
Thanks to its ceramic glass and non-slip feet, the InductWarm® TableTop satisfies the most stringent safety and hygiene requirements.
For storing purposes you can stack up to ten devices.

Features

- One comprehensive warming zone in the size of GN 1/1 divided in three individually controllable zones in the size of GN 1/3:
    - Two induction coils per each warming zone allow for placing several pots within one warming zone
    - Each warming zones offers four different temperature levels
    - Automatic shutoff when warming zone not in use and dishes are removed
    - With memory and restart feature that returns to the previously selected temperature setting when the dish is put back within 20 seconds
- Suitable for keeping food warm in any induction compatible pot
- Most suitable for an unrestricted, flexible set-up
- Housing made from brushed stainless steel with opaque glass-ceramic cover installed perfectly flush and level
- Power cable slot at the bottom side allowing for most flexible positioning

Three warming zones in the size of GN 1/3
(Resulting in a total size of GN 1/1)



Two induction coils per warming zone allow for placing several pots within one zone.

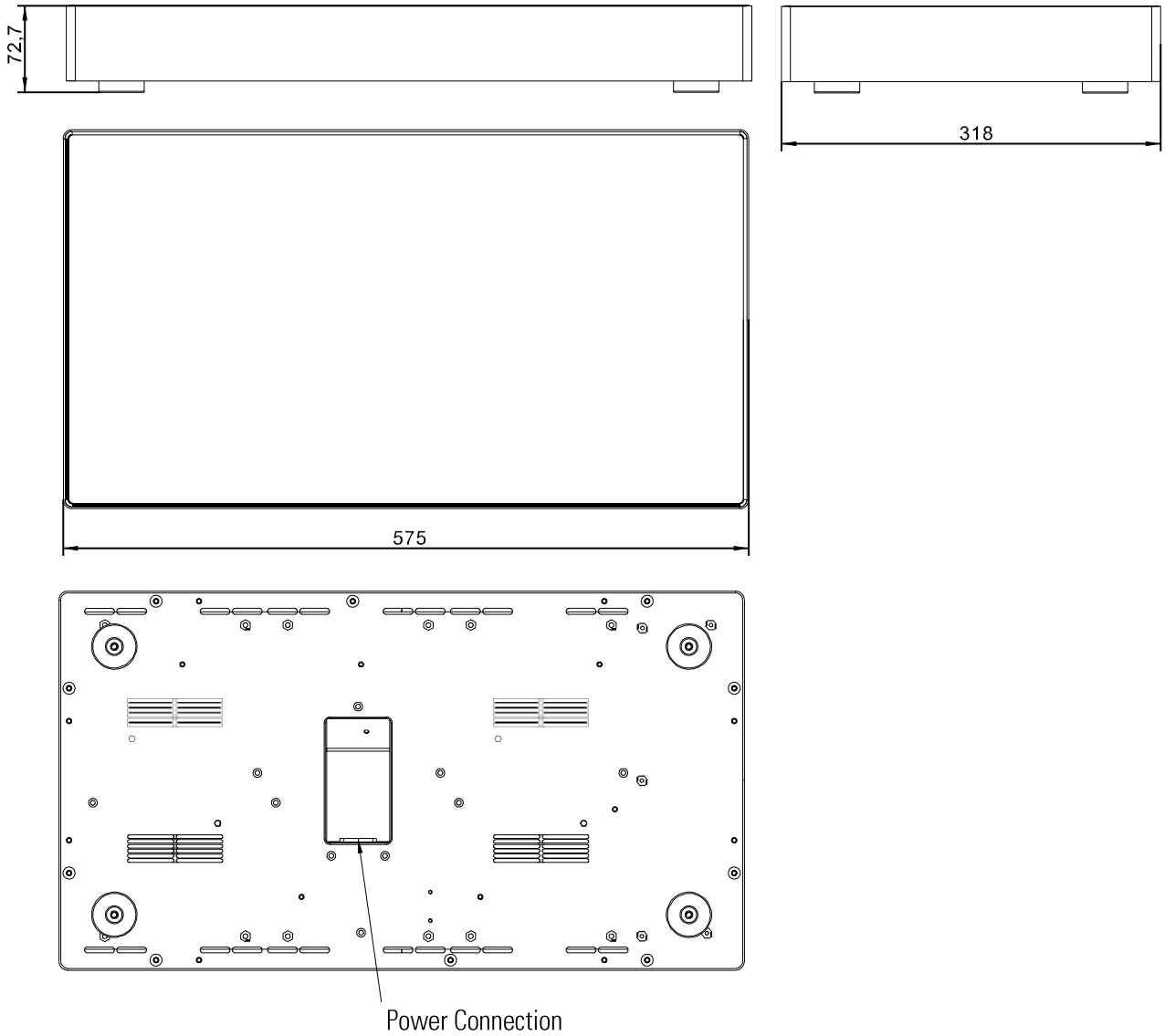
- Integrated rubber base to ensure stability and slip resistance
- With infrared remote control and integrated touch-panel for displaying and controlling temperature levels
- One unified and compact device, plug & play ready
- All worldwide certifications (IEC, CE, UL, ETL Sanitation (NSF), EC-Conformity)

2.2 Specifications for Tenders

Product:	**InductWarm® 200 TableTop**
Manufacturer:	Gastros Switzerland AG
Category:	Inductive Warming Unit
Drawing:	
Tender-Text:	InductWarm® 200 TableTop Circumferential closed, induction device made of stainless steel and glass ceramic cover with an integrated touch-panel for free-standing on tables, counters, buffets, etc., for keeping food warm on four selectable warming levels. The unit can be operated with both the touch-panel and with the complementary infrared remote control. It has three individually adjustable warming zones each with two induction coils (area induction). Compatible with all induction safe dishes of the size GN 1/1 or less. The in the glass integrated touch-panel serves both the control the temperature settings and the display of the current operating status via LEDs. The device signals back acoustically, changes in operating mode and in warming levels. With memory effect and reactivating the selected warming level during removal and subsequent re-fitting of the induction safe dishes within 20 seconds. The touch-panel can be locked to prevent guest from unwanted changing of the settings.
Warning: 	Only use inductive marked pans, pots / dishes.  Other pans / pots / dishes can destroy the device.

Article-No.:	Warming Zones	Dimensions	Weight	Electrical	Max. Power
1 20 111 00	3	575 x 318 x 78 mm	9.9 kg	110/230VAC, 50/60Hz	1.0 kW

2.3 Technical Drawings



2.4 Impressions

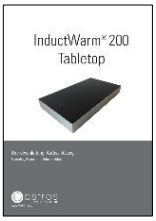
2.5 Manual InductWarm® 200 TableTop

Introduction

The following pages contain important information and advice about your InductWarm® 200 TableTop. They explain how to start it up, operate it and care for it properly. Where necessary, attention is drawn to the differences between specific models. Please read these operating instructions carefully before using your InductWarm® 200 TableTop device for the first time. Then store them in a secure place so that you can refer to them quickly if required.

The InductWarm® 200 TableTop was developed to keep food warm and to meet all specific needs of high class hotels and hospitality. Besides the high quality, we also focus on premium design and easy handling.

You can find one button on the top of the device for starting and stopping and buttons for controlling the warming operation. The InductWarm® 200 is equipped with a four-level temperature control. The different temperature levels (40°C - 90°C) can be controlled by key functions. The first level corresponds to approximately 40° C.

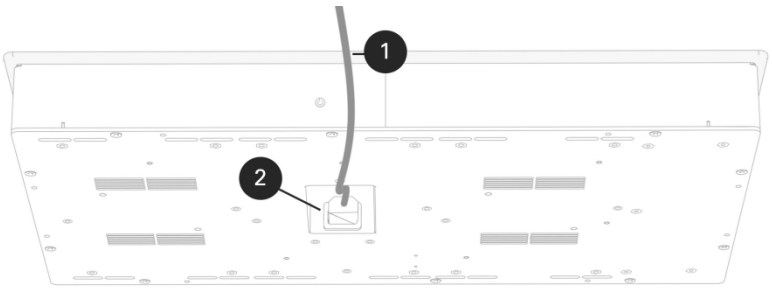
Deliveries for the InductWarm® 200 Tabletop		
Article	Description	Article Number
	InductWarm® Tabletop 200	1 20 111 00
	InductWarm® 200 Infrared Remote-control, incl. battery	6 20 502 00
	Power cord, country-specific connector, 10A	6 01 101 00 (CH) 6 01 102 00 (EU) 6 01 103 00 (UK) 6 01 104 00 (AUS) 6 01 105 00 (US)
	Operating manual InductWarm® 200	8 20 211 00

Technical Information of the InductWarm® 200 TableTop	
Voltage range	110 – 230V AC
Maximum input power	1 kW
Electrical fuse protection	10 A
Frequency	50-60Hz
Dimensions	575 x 318 x 73mm
Weight	9,9 kg

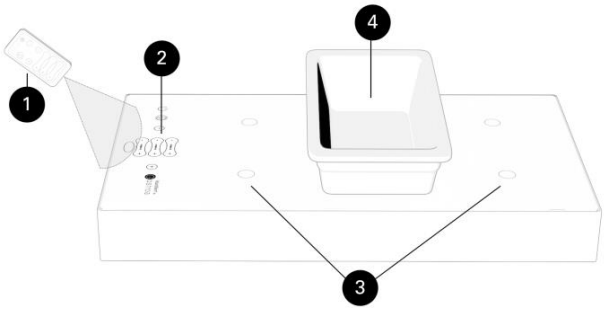
Initial Start-up and Operation

Remove all remaining packaging and check your InductWarm® 200 device for external damage. Do not start up the device if there are any signs of damage. The rotary switch must be readily accessible. Do not cover the air inlet area on the front of the device. The air inlet temperature must be lower than 40°C. There must be a gap of at least 5 cm between the rear of the device (air outlet area) and the wall or the closest object.

The power socket (2) can be found at the bottom side of the device. Just plug the provided power cable (1) into the socket. Make sure that your electric circuit provides an electric fuse protection of at least 12 A. The InductWarm® 200 can be switched on with the on / off button on the top of the device or on the supplied infrared remote control. You will hear a sound indicating the successful turning-on of the device. The device is turned on, when the red LED of the on / off button is shining and the LEDs of the warming zones on the panel are shining as well. If all of these requirements have been met, press the desired button on the touch-panel or remote control and the warming device will carry out the function requested.

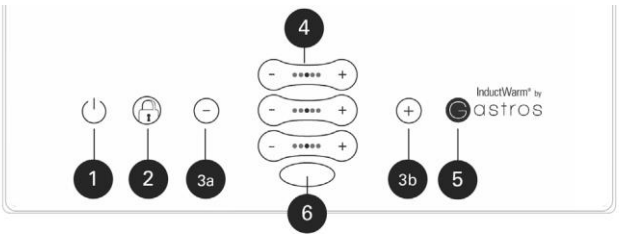


The warming zones (3) can be controlled via the remote control (1) or the integrated touch-panel (2). These warming zones use induction to keep warm any induction-capable pot (4). There are three warming zones (3), each with two marking circles to indicate the center of the underlying induction coils.

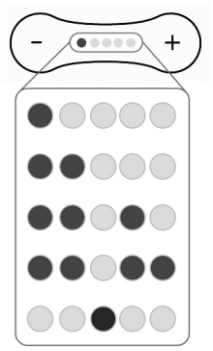


Initial Start-up

- (1) Power on / off
- (2) Lock touch-panel for protection against unauthorized modification (to unlock the touch-panel, touch both, button 2 and 5 the same time)
- (3a, 3b) Decrease or increase the overall temperature level of all zones combined
- (4) Decrease or increase the temperature level of the respective warming zone
- (5) Unlock touch-panel (touching both button 2 and 5 at once)
- (6) Infrared receiver



Touch-Panel Status-LEDs



Temperature Level 1 (lowest temperature)

Temperature Level 2

Temperature Level 3

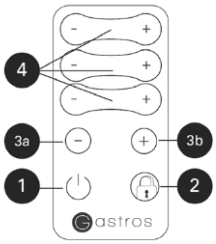
Temperature Level 4 (highest temperature)

Warning LED: The glass top might be hot from reflected heat by the warmed pot

Please note: The flashing of all LEDs at the same time indicates that too many buttons are touched at the same time. Among other things, this can happen while cleaning, when a liquid lays on top of several buttons.

Functions of the Remote Control

- (1) Power on / off
- (2) Lock / unlock touch-panel
- (3a, 3b) Decrease or increase the overall temperature level of all zones combined
- (4) Decrease or increase the temperature level of the respective warming zone



Infrared Receiver Coverage / Optimum Remote control position

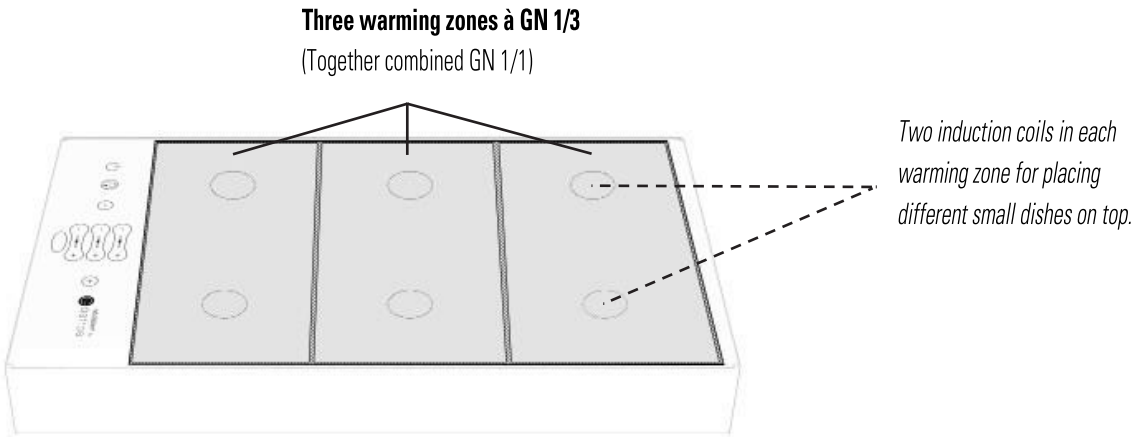
The warming zones can be controlled with the remote control provided. The remote control must be held at a distance between 5cm and a maximum of 40cm from the unit and within a 60° angle to the infrared receiver (6). Please note: A lower battery capacity may lead to a closer range of the remote control.

Operation

The four power levels of the InductWarm® 200 cover different warming levels. The temperature levels are indications only. The actual temperature depends on: material of the dish, surrounding temperature, size of the dish and the positioning above the coil.

The InductWarm® 200 has dish detection. This ensures that the induction field is only active when placing an inductive dish on top. When the InductWarm® 200 is operating with a dish, the small LEDs are shining. If the dish will be removed, the InductWarm® 200 system recognizes the situation and turns off automatically. This is being indicated by four blinking LEDs. If the dish will be replaced within five minutes the system starts warming on the same level as before, after that the system will switch to standby mode. The InductWarm® 200 can be used with any induction capable dishes.

You can use the touch-panel or remote control to operate each individual warming zone separately. This allows you a very high level of variety in the combination of meals that can be presented. By pressing one of the overall temperature buttons you can change the temperature level of all zones combined.



Cleaning and Care

Glass ceramic

We recommend using dishes with flat bases to avoid any potential surface damage such as scratches. However, if signs of use like this do appear on your warming surface, it will not impair the warming process in any way.

Cleaning tips

- First, use a scraper to remove all large pieces of dirt and food leftovers from the warming surface.
- Then squeeze a few drops of a suitable cleaning product on to the cold surface and rub it in with kitchen paper or a clean cloth.
- Then wipe down the warming surface with water and rub it dry with a clean cloth.
- Clean your warming surface regularly, preferably after each use.

Important: If any plastic objects, aluminum foil, sugar or food containing sugar accidentally melt on to the hot warming surface, wipe them off the hot warming zone immediately with a cleaning scraper to prevent surface damage. Never use scouring sponges or scouring products. Chemically aggressive cleaners such as oven spray and stain remover are also unsuitable. Important: If any plastic objects, aluminum foil, sugar or food containing sugar accidentally melt on to the hot warming surface, wipe them off the hot warming zone immediately with a cleaning scraper to prevent surface damage. Never use scouring sponges or scouring products. Chemically aggressive cleaners such as oven spray and stain remover are also unsuitable.

Daily Cleaning

For cleaning: Switch off the InductWarm® 200 TableTop device. Wait until the InductWarm® 200 device has cooled to hand temperature before starting to clean.

Please note: Do not use steel wool or sharp objects. Your induction warming device is not splash-water resistant. Therefore, do not use running water or steam to clean it. To remove dirt and deposits on side walls, you can use standard pH-neutral cleaning products based on non-ionic and anionic ten sides and mild organic solvents such as alcohol and glycols. Finally, remove all cleaning product residue, wipe down the cleaned surfaces with water, and rub dry with a dry cloth.

Troubleshooting

Possible problems

Fault	Cause	Remedy
No heat, LED is not blinking	No power supply	Plug the device in, check the plug connection
	Power line fuse tripped	Check and reset the fuse
	Device not switched on	Switch on device with the on / off switch
	Device defect	Contact customer service customerservice@gastros.swiss
LED flashing	Pan is not detected	Pan too small or not induction compatible
Dish is not warm enough	Incorrect placement of dish	Ensure right position above the induction coil
	Too little energy input	Increase power level
	Dish is not induction compatible	Check induction compatibility of dish

Safety Regulations

Responsibility

The InductWarm® 200 reflects the state of the art and has been built in accordance with the valid CE guidelines. Safe operation is assured. The InductWarm® 200 device is not intended to be operated by children or persons with physical or mental limitations, unless they are instructed and monitored while using the device by a person responsible for their safety.

Gastros Switzerland AG disclaims all liability in cases due to unauthorized conversions or modifications by the customer. If the mains supply cable for the device is damaged, it must be replaced by the manufacturer, an authorized service agent or other similarly qualified person in order to prevent hazards. The connection for the mains plug should always be positioned so that it is freely accessible. If this is not possible, a master switch for the device must be installed by the customer. In the event of a malfunction, the device must be switched off completely by unplugging the mains plug or by turning off the master switch.

When transporting, setting up, maintaining and repairing the InductWarm® 200 device, the latest version of the following regulations and guidelines that are applicable in your country must be observed:

- Regulations of professional electricians' associations, e.g. VDE, SEV, etc.
- EC directives (in EU countries)
- Accident prevention regulations
- Guidelines of employers' liability insurance associations
- Trade regulations
- If the InductWarm® 200 device is being installed in close proximity to a wall, partition walls, kitchen furniture, decorative paneling, etc., it is recommended that these objects consist of non-combustible material; otherwise they must be covered with a suitable non-combustible, heat-insulating material and the fire safety regulations are to be observed extremely carefully.

<u>Intended use</u>

- If the glass ceramic shell is broken or even slightly cracked, then the InductWarm® 200 device must be switched off and disconnected from the electrical supply. Do not touch any parts inside the device.
- The surface of the InductWarm® 200 device should not be used for storage.
- Only use suitable pans with a minimum base diameter of 12 cm for induction warming. Theoretically, it is possible to use smaller dishes, but this may result in the following:
    - Reduced efficiency
    - Pan recognition may not be possible
    - Radiation may be greater
- Never heat a pan while empty. This could cause the pan to overheat.
- Once you have removed the pan after warming, remember to switch the InductWarm® 200 device off, unless you intend to use it again straight away. This will prevent the device from heating up accidentally should you or someone else place a pan on the warming surface.
- Do not heat up tins or other sealed containers, as these can explode! Items that are unsuitable for use include any dishes that are not specifically intended for induction devices, as well as metal splash guards, aluminum foil, cutlery, jewelry, watches, metallic objects, etc.
- The induction hob is officially switched on as soon as the rotary switch is moved away from the off position (red line aligned with status indicator). Whenever the hob is not in use, the device must be switched off.
- Symbol explanation:

This exclamation mark shows warnings.

This radiation warns of non-ionizing electromagnetic radiation.

Risks

The InductWarm® 200 device may represent a source of danger, if the information in these operating instructions is not heeded, setup, maintenance or repair work is undertaken by non-authorized persons, or the InductWarm® 200 devices is used incorrectly or for purposes other than its intended use. Other risk may be:

- Risk of destruction
  When the induction surface is not only being used for warming, it is necessary to ensure that the devices are turned off. Otherwise damage or burnings may occur.

- Electrical shock
  Do not expose this system to liquids or metal objects, which may cause an electric shock.

- Environmental conditions
  The system must be mounted in a clean, dry indoor place and the relative humidity must not exceed 60%. To avoid overheating, ensure good ventilation. The environmental temperature must not exceed 40°C.

- Risk of burns
  The used dishes are hot during operation and can cause burns. For touching the hot parts please use potholders or gloves.

Because of the reflection heat of the dishes there is a high temperature above the induction area. Therefore a cooling time of five minutes must be followed.

Do not put any melting materials on the heated surface.

It should be noted that necklaces and rings may heat up next to the induction field and cause burnings.

Because of the high temperatures, which may occur and which can destroy the dish, there is a risk of burning, when the dishes are running empty on the induction device.

Do not use any metal spoons in combination with the InductWarm® 200 device.

Before installing the InductWarm® 200 please remove the caution sticker from the device. Otherwise it can cause fire.

General Information

Liability

The manufacturer's warranty covers all defects in design, production and materials. All other claims are excluded. All data and notes in this instruction are prepared with consideration to the statutory standards and regulations. The manufacturer will not be liable for:

- Failure to observe the instructions
- Damages caused by inappropriate handling
- Deployment of unqualified staff
- Unauthorized modification
- Technical modifications
- Use of uncertified spare parts

Please note:

Do not use the InductWarm® 200 device if you notice damage or malfunctions.

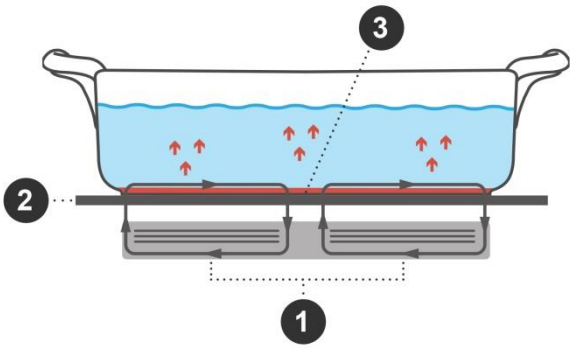
If you wear a pacemaker, check with your doctor whether you are allowed to near an induction warming device.

Repairs

Repairs may only be carried out by authorized service personnel. Contact your dealer, a trained Gastros Switzerland AG Service Partner or our customer service department. You can contact our customer service department at: servicepoint@gastros.swiss

Warming with induction

The induction coil (1) beneath the glass ceramic dish generates an alternating electromagnetic field (2) that produces heat in the base of an induction dish item (3) through the principle of eddy currents. The automatic dish recognition only switches on the generator when a pan is placed on the device.



Induction warming has many advantages. Here are the key ones:

- Very high effectiveness of around 95 % = high efficiency = high warming capacity = minimal power loss
- Ready to use immediately at full power, because electrical energy is converted instantly into heat in the pan base no heating-up time!
- Low energy consumption compared to electrical warming systems
- Very short boiling time with highly sensitive energy metering
- Minimal radiation of heat = lowest possible temperature in the kitchen = optimum working environment and minimal levels of vapor
- Optimum hygiene and very easy cleaning
- Very low operating costs (energy, cleaning)
- Safety electronics for high operating safety (dish recognition, idle cut-out, overheat protection)

Dishes

Poor-quality or damaged dishes can pose a risk to your InductWarm® 200 device! Worn-out dishes can cause the electronics to overheat excessively, reducing their lifespan. Buckled and worn-out dishes are dangerous. Because the base of the dish is often deformed as a result, there is no proper heat conducting contact between the dish and the ceramic plate, and the fitted heat sensor cannot respond. Loss of energy can be the result. Make sure that dishes items have flat bases. This will save energy and preserve the warming plate.

If there occurs an overheating of the dishes, because they are brought to a high temperature when empty, the material and the thickness of the base that determine how efficiently induction power is converted into effective heat in the dishes, will be modified. The overheating of the dishes can cause warping's of the bases so warped dishes can no longer lie flat on the glass ceramic. It may not be possible to automatically prevent the pan from overheating again to very high temperatures (potentially becoming red-hot), which could have serious consequences for your InductWarm® 200 induction device or, in the worst-case scenario, kitchen staff.

Induction hobs are designed for a particular range of dish sizes with which they function efficiently and well. Dishes that are much too small being used on a large hob, may not be detected by the automatic dish recognition and the energy supply may stay switched off. Dishes that are much too large, cannot absorb energy from the whole base area, so it will take longer to heat up and may not reach the desired temperature. Square and oval dishes can be easily heated on specially designed hobs. If they are heated on round hobs of insufficient size, the base will not heat up evenly.

Suitable Dishes:

- Cookware with magnetic bottom (ferromagnetic)
- Enamel-coated steel pots with thick bases and ferromagnetic bottom
- Cast-iron pots with enamel-coated bases
- Pots made of stainless steel, multi-layered steel, stainless steel ferrite steel or aluminum with inductive base

Unsuitable Dishes:

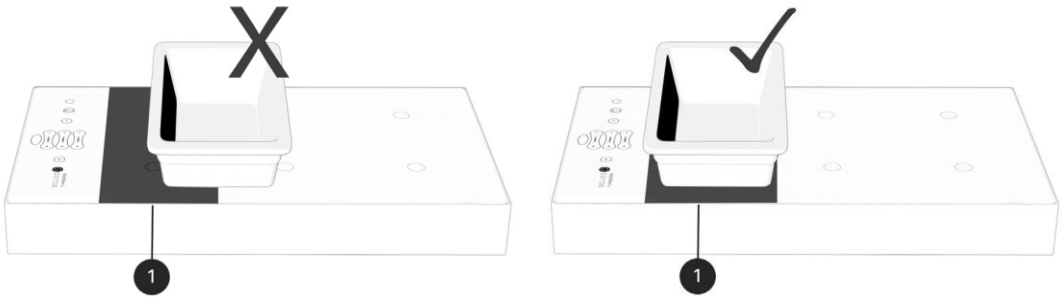
- Pots made of copper, aluminum, heat-resistant glass and other non-metallic pots
- Pots made of stainless steel without a magnet iron core
- Aluminum foil and dished wrapped in aluminum foil
- Pots that do not sit flat on the hob

Gastros recommends using InductWarm® porcelain in combination with InductWarm® 200 device to keep food warm by best quality. The heat-retaining InductWarm® porcelain has been provided with a specially patented coating that allows the inductive effect to occur in the first place. The inductive effect in the warming zone causes the underside of the porcelain to quickly warm up, thus keeping your food warm. You can purchase additional InductWarm® porcelain at any time. More information can be found on our website at: www.gastros.swiss

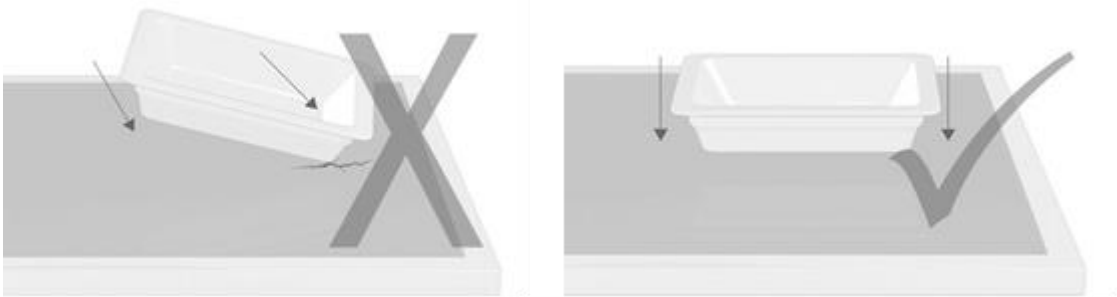
- It is essential to avoid leaving an empty induction-compatible pot dish in the warming zone. The bottom of the dish and the warming zone could suffer damage.

- The ferromagnetic InductWarm® porcelain is not suitable to be used with microwaves or with induction warmers! In addition, avoid allowing the temperature of the porcelain to change too quickly to prevent a risk of rupture or breakage.

The dish must be positioned in the middle of a warming zone, centering the markings (the circles) to the center of the pot. Otherwise the pots may not be recognized by the device or receive only very little energy for warming the dish.



Care should be taken to ensure that the glass plate is not scratched by the edges of the dish when the dish is placed on and taken off the plate.



EG Declaration of Conformity InductWarm® 200

In accordance with EMV Directive 2004/108/EG, the Low Voltage Directive 2006/95/EG and the RoHS Directive

The Manufacturer / Distributor

Gastros Switzerland AG
Buckhauserstrasse 1
CH-8048 Zürich
Switzerland

hereby declares that the following products:

Product description:	*Induction warming device*
Product designations:	*InductWarm® Tabletop 200 GN 1/1*
	InductWarm® Built-in 200 GN 1/1

meet the regulations of the Directive(s) listed above – inclusive of any alterations valid at the time of the declaration.

EN 55014-1, EN 55014-2, EN 61000-3-2,
EN 61000-3-3 and EN 62233 and EN 61000-6-2

EN 55011:2009 + A1:2010; EN 55014-1:2006 + A1:2009 + A2:2011; EN 62233:2008; Conducted Emission EN 55011:2009 + A1:2010; Radiated Emission EN 55011: 2009 + A1:2010; Discontinuous Disturbance EN 55014-1:2006
+ A1:2009 + A2:2011; Disturbance Power EN 55014-1:2006 + A1:2009 + A2:2011; EN 62233:2008; Harmonic Current Emission EN 61000-3-2:2006+ A1:2009+A2:2009; Flicker EN 61000-3-3:2008; EN 55014-2:1997 + A1:2001 + A2:2008; EN 61000-4-2:2009; EN 61000-4-3:2006 + A1:2008 + A2:2010; EN 61000-4-4:2012; EN 61000-4-5:2006; EN 61000-4-6:2009; EN 61000-4-11:2004; EN 60335-1; EN 60335-2-36

Zürich, the 3rd of March 2014

Roger Bührer, CEO

InductWarm® 200

Built-In Model

3 InductWarm® 200 Built-In

3.1 Description

Fully integrated in buffet systems, the new InductWarm® built-in 200 brings keeping your dishes warm to aesthetic perfection. In addition modest marks define the optimal position for your induction compatible pots.
Using either the touch-panel or the InductWarm® remote control, you can conveniently select one of four different temperature levels for each of the warming zone, guaranteeing the right temperature for any of your dishes. LEDs will indicate the current operating status at any given time.
A single model of the InductWarm® built-in solution allows you to present dishes up to a maximum size of GN 1/1. The excellent energy efficiency enables you to operate up to three built-in solutions from a single 230V/16A power outlet.

Features

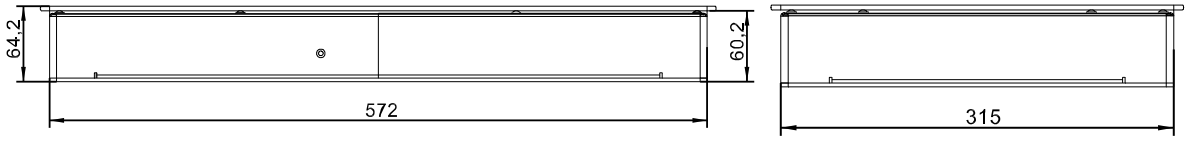
- One comprehensive warming zone in the size of GN 1/1
    - Divided in three individually controllable warming zones in the size of GN 1/3
    - Two induction coils per each warming zone allow for placing several pots within one warming zone
    - Each warming zones offers four different temperature levels
    - Automatic power off when warming zone not in use and dishes are removed
    - With memory and restart feature that returns to the previously selected temperature setting when the dish is put back within 20 seconds
- Device housing for perfectly flush and level installation in cutouts made by the customer in counter tops, tables, etc., in a variety of surfaces, such as wood, plastic, metal or natural stone
- With integrated opaque glass-ceramic cover top

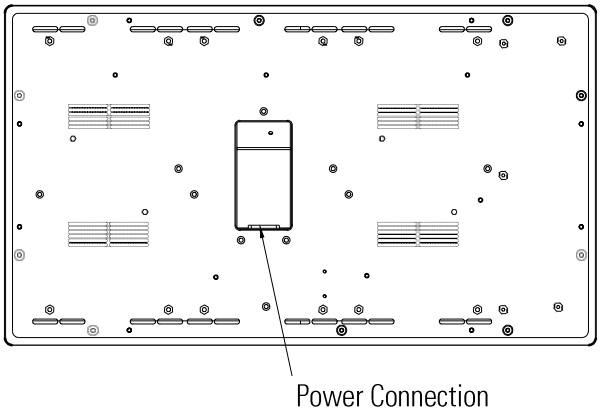
3.2 Specifications for Tenders

Product:	**InductWarm® 200 Built-In**
Manufacturer:	Gastros Switzerland AG
Category:	Inductive Warming Unit
Picture:	
Tender-Text:	InductWarm® 200 Built-In Circumferential closed, induction device made of stainless steel and glass ceramic cover with an integrated touch-panel for flush mounting in all editable surfaces for keeping food warm on four selectable warming levels. The unit can be operated by both the touch-panel and the accompanying infrared remote control. It has three individually adjustable warming zones each with two induction coils (area induction). Compatible with all induction safe dishes of the size GN 1/1 or less. The integrated touch-panel serves both the control of the temperature settings and the display of the current operating status via LED's. The device signals back acoustically, changes in operating mode and in warming levels. With memory effect and reactivating the selected warming level during removal and subsequent re-fitting of the induction safe dishes within 20 seconds. The touch-panel can be locked to prevent guest from unwanted changing of the settings.
Warning: 	Only use inductive marked pans, pots / dishes.  Other pans / pots / dishes can destroy the device.

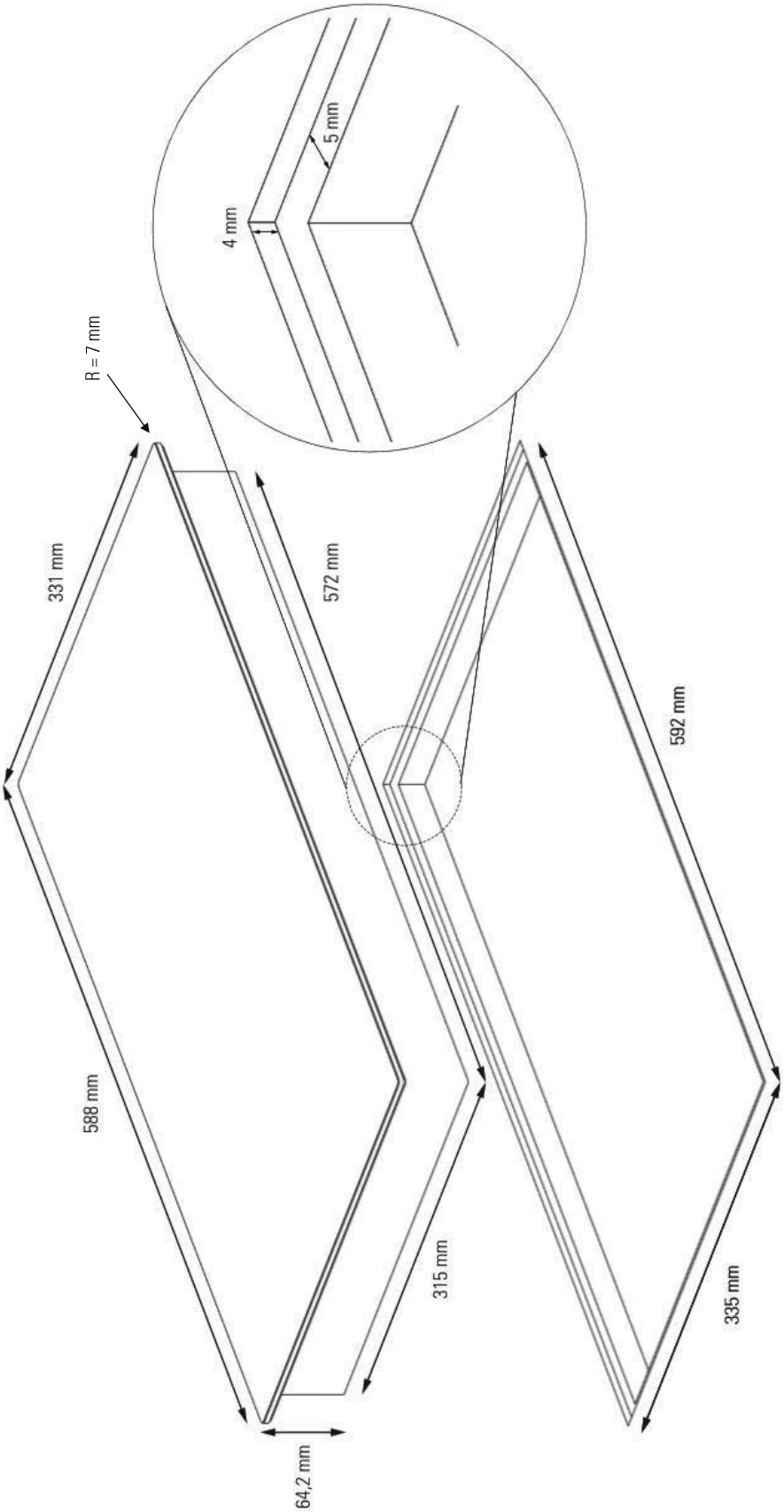
Article-No.:	Warming Zones	Dimensions	Weight	Electrical	Max. Power
1 20 211 00	3	588 x 331 x 64 mm	9.9 kg	110/230VAC, 50/60Hz	1.0 kW

3.3 Technical Drawings

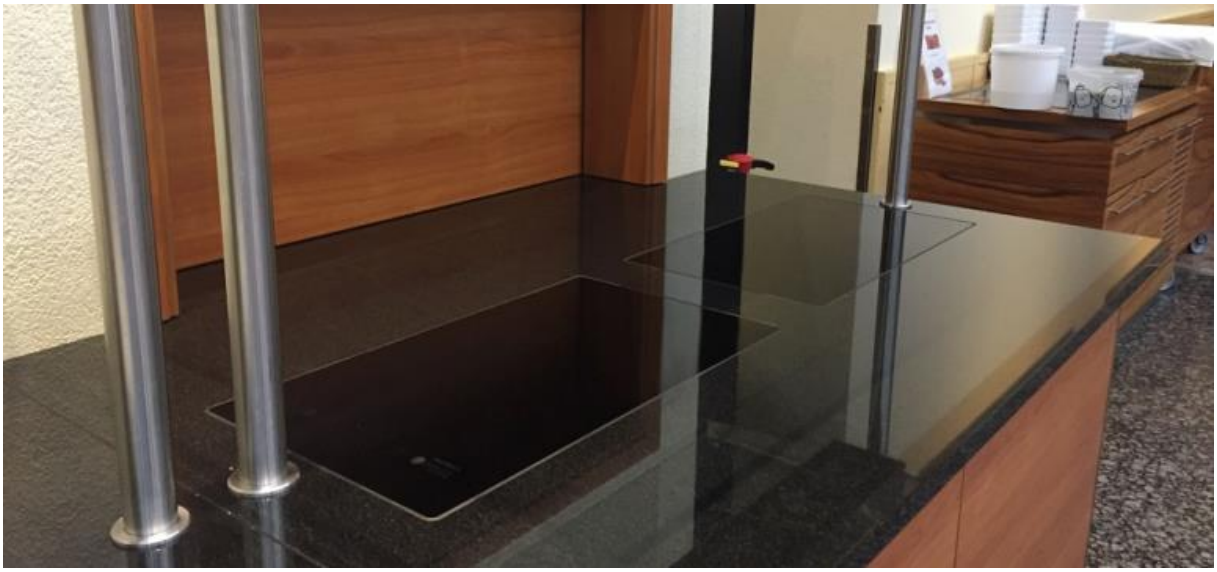




Installation Drawing



3.4 Impressions



3.5 Manual InductWarm® 200 Built-In

Introduction

The following pages contain important information and advice about your InductWarm® 200 Built-In. They explain how to start it up, operate it and care for it properly. Where necessary, attention is drawn to the differences between specific models. Please read these operating instructions carefully before using your InductWarm® 200 Built-In device for the first time. Then store them in a secure place, so that you can refer to them quickly if required.

The InductWarm® 200 Built-In was developed to keep food warm and to meet all specific needs of high class hotels and hospitality. Besides the high quality, we also focus on premium design and easy handling.

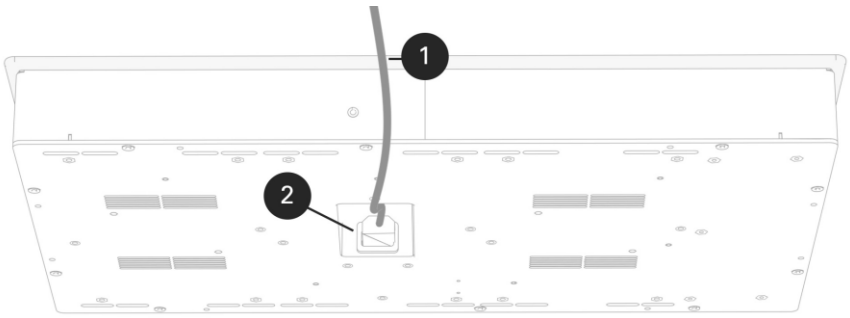
You can find one button on the top of the device for starting and stopping and buttons for controlling the warming operation. The InductWarm® 200 is equipped with a four-level temperature control. The different temperature levels (40°C - 90°C) can be controlled by key functions. The first level corresponds to approximately 40° C.

Deliveries for the InductWarm® 200 Built-In		
Article	Description	Article number
	InductWarm® 200 Built-In 200, 588 x 331 x 64 mm	1 20 111 00
	InductWarm® 200 Infrared Remote control, incl. battery	6 20 502 00
	Power cord, country-specific connector, 10A	6 01 101 00 (CH) 6 01 102 00 (EU) 6 01 103 00 (UK) 6 01 104 00 (AUS) 6 01 105 00 (US)
	Operating Manual InductWarm® 200	8 20 211 00

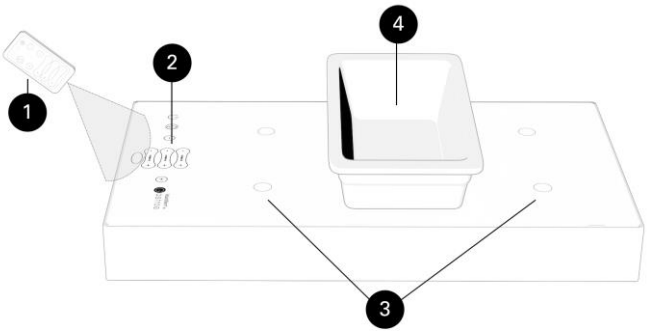
Technical Information of the InductWarm® 200 Built-In	
Voltage range	110 – 230V AC
Maximum input power	1kW
Electrical fuse protection	10A
Frequency	50-60Hz
Dimensions	588 x 331 x 64mm

Initial Start-up and Operation

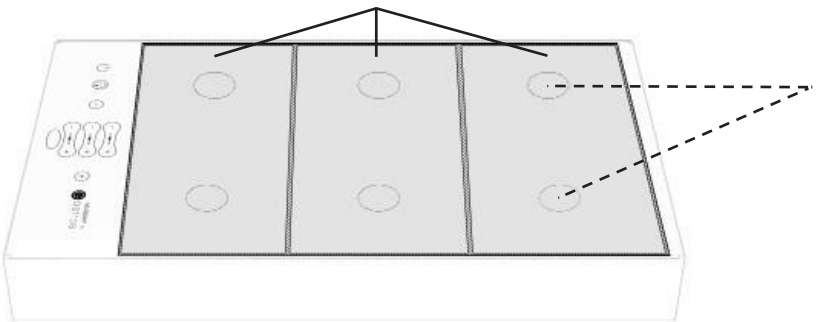
Remove all remaining packaging and check your InductWarm® 200 device for external damage. Do not start up the device, if there are any signs of damage. The rotary switch must be readily accessible. Do not cover the air inlet area on the front of the device. The air inlet temperature must be lower than 40°C. There must be a gap of at least 5 cm between the rear of the device (air outlet area) and the wall or the closest object.
The power socket (2) can be found at the bottom side of the device. Just plug the provided power cable (1) into the socket. Make sure that your electric circuit provides an electric fuse protection of at least 12 A. The InductWarm® 200 can be switched on with the on / off button on the top of the device or on the supplied infrared remote control. The device is turned on, when the red LED of the on / off button is shining and the LEDs of the warming zones on the panel are shining as well. If all of these requirements have been met, press the desired button on the touch-panel or remote control and the warming device will carry out the function requested. You will hear a sound indicating the successful turning-on of the device.



The warming zones (3) can be controlled via the remote control (1) or the integrated touch-panel (2). These warming zones use induction to keep warm any induction-capable pot (4). There are three warming zones (3), each with two marking circles to indicate the center of the underlying induction coils.



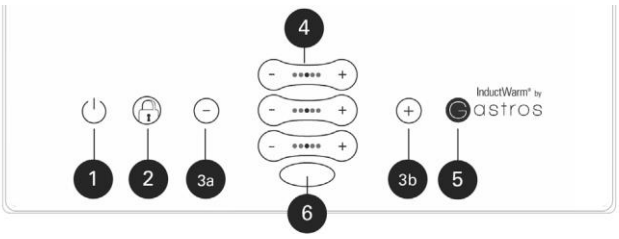
Three warming zones à GN 1/3
(Together combined GN 1/1)



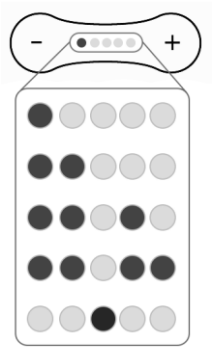
Two induction coils in each warming zone for placing different small dishes on top.

Initial Start-up

- (1) Power on / off
- (2) Lock touch-panel for protection against unauthorized modification (to unlock the touch-panel, touch both buttons 2 and 5 at the same time)
- (3a, 3b) Decrease or increase the overall temperature level of all zones combined
- (4) Decrease or increase the temperature level of the respective warming zone
- (5) Unlock touch-panel (touching both button 2 and 5 at the same time)
- (6) Infrared receiver



Touch-Panel Status-LEDs



Temperature Level 1 (lowest temperature)

Temperature Level 2

Temperature Level 3

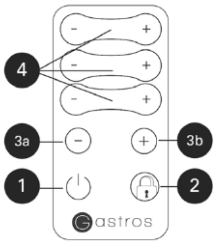
Temperature Level 4 (highest temperature)

Warning LED: The glass top might be hot from reflected heat by the warmed pot

Please note: The flashing of all LEDs at the same time indicates that too many buttons are touched at the same time. Among other things, this can happen while cleaning, when a liquid lays on top of several buttons.

Functions of the Remote-Control

- (1) Power on / off
- (2) Lock / unlock touch-panel
- (3a, 3b) Decrease or increase the overall temperature level of all zones combined
- (4) Decrease or increase the temperature level of the respective warming zone



Infrared Receiver Coverage / Optimum Remote control position

The warming zones can be controlled with the remote control provided. The remote control must be held at a distance between 5cm and a maximum of 40cm from the unit and within a 60° angle to the infrared receiver (6). Please note: A lower battery capacity may lead to a closer range of the remote control.

Operation

The four power levels of the InductWarm® 200 cover different warming levels. The temperature levels are indications only. The actual temperature depends on: material of the dish, surrounding temperature, size of the dish and the positioning above the coil.

The InductWarm® 200 has dish detection. This ensures that the induction field is only active when placing an inductive dish on top. When the InductWarm® 200 is operating with a dish, the small LEDs are shining. If the dish will be removed, the InductWarm® 200 system recognizes the situation and turns off automatically. This is being indicated by four blinking LEDs. If the dish will be replaced within five minutes, the system starts warming on the same level as before, after that the systems will switch to standby mode. The InductWarm® 200 can be used with any induction capable dishes.

You can use the touch-panel or remote control to operate each individual warming zone separately. This allows you a very high level of variety in the combination of meals that can be presented. By pressing one of the overall temperature buttons, you can change the temperature level of all zones combined.

Cleaning and Care

Glass ceramic

We recommend using dishes with flat bases to avoid any potential surface damage such as scratches. However, if signs of use like this do appear on your warming surface, it will not impair the warming process in any way.

Cleaning tips

- First, use a scraper to remove all large pieces of dirt and food leftovers from the warming surface.
- Then squeeze a few drops of a suitable cleaning product on to the cold surface and rub it in with kitchen paper or a clean cloth.
- Then wipe down the warming surface with water and rub it dry with a clean cloth.
- Clean your warming surface regularly, preferably after each use.

⚠ Important: If any plastic objects, aluminum foil, sugar or food containing sugar accidentally melt on to the hot warming surface, wipe them off the hot warming zone immediately with a cleaning scraper to prevent surface damage. Never use scouring sponges or scouring products. Chemically aggressive cleaners such as oven spray and stain remover are also unsuitable. Important: If any plastic objects, aluminum foil, sugar or food containing sugar accidentally melt on to the hot warming surface, wipe them off the hot warming zone immediately with a cleaning scraper to prevent surface damage. Never use scouring sponges or scouring products. Chemically aggressive cleaners such as oven spray and stain remover are also unsuitable.

Daily Cleaning

For cleaning: Switch off the InductWarm® 200 TableTop device. Wait until the InductWarm® 200 device has cooled to hand temperature before starting to clean.

Please note: Do not use steel wool or sharp objects. Your induction warming device is not splash-water resistant. Therefore, do not use running water or steam to clean it. To remove dirt and deposits on side walls, you can use standard pH-neutral cleaning products based on non-ionic and anionic ten sides and mild organic solvents such as alcohol and glycols. Finally, remove all cleaning product residue, wipe down the cleaned surfaces with water, and rub dry with a dry cloth.

Troubleshooting

Possible problems

Fault	Cause	Remedy
No heat, LED is not blinking	No power supply	Plug the device in, check the connector
	Power line fuse tripped	Check and reset the fuse
	Device not switched on	Switch on device with the on / off switch
	Device defect	Contact customer service servicepint@gastros.swiss
LED flashing	Pan is not detected	Pan too small or not induction
Dish is not warm enough	Incorrect placement of dish	Ensure right position above the induction coil
	Too little energy input	Increase power level
	Dish is not induction compatible	Check induction compatibility of dish

Safety Regulations

Responsibility

The InductWarm® 200 reflects the state of the art and has been built in accordance with the valid CE guidelines. Safe operation is assured. The InductWarm® 200 device is not intended to be operated by children or persons with physical or mental limitations, unless they are instructed and monitored while using the device by a person responsible for their safety.

Gastros Switzerland AG disclaims all liability in cases due to unauthorized conversions or modifications by the customer. If the mains supply cable for the device is damaged, it must be replaced by the manufacturer, an authorized service agent or other similarly qualified person in order to prevent hazards. The connection for the mains plug should always be positioned so that it is freely accessible. If this is not possible, a master switch for the device must be installed by the customer. In the event of a malfunction, the device must be switched off completely by unplugging the mains plug or by turning off the master switch.

When transporting, setting up, maintaining and repairing the InductWarm® 200 device, the latest version of the following regulations and guidelines that are applicable in your country must be observed:

- Regulations of professional electricians' associations, e.g. VDE, SEV, etc.
- EC directives (in EU countries)
- Accident prevention regulations
- Guidelines of employers' liability insurance associations
- Trade regulations
- If the InductWarm® 200 device is being installed in close proximity to a wall, partition walls, kitchen furniture, decorative paneling, etc., it is recommended that these objects consist of non-combustible material; otherwise they must be covered with a suitable non-combustible, heat-insulating material and the fire safety regulations are to be observed extremely carefully.

<u>Intended use</u>

- If the glass ceramic shell is broken or even slightly cracked, then the InductWarm® 200 device must be switched off and disconnected from the electrical supply. Do not touch any parts inside the device.
- The surface of the InductWarm® 200 device should not be used for storage.
- Only use suitable pans with a minimum base diameter of 12 cm for induction warming. Theoretically, it is possible to use smaller dishes, but this may result in the following:
    - Reduced efficiency
    - Pan recognition may not be possible
    - Radiation may be greater
- Never heat a pan while empty. This could cause the pan to overheat.
- Once you have removed the pan after warming, remember to switch the InductWarm® 200 device off, unless you intend to use it again straight away. This will prevent the device from heating up accidentally should you or someone else place a pan on the warming surface.
- Do not heat up tins or other sealed containers, as these can explode! Items that are unsuitable for use include any dishes that are not specifically intended for induction devices, as well as metal splash guards, aluminum foil, cutlery, jewelry, watches, metallic objects, etc.
- The induction hob is officially switched on as soon as the rotary switch is moved away from the off position (red line aligned with status indicator). Whenever the hob is not in use, the device must be switched off.
- Symbol explanation:

This exclamation mark shows warnings.

This radiation warns of non-ionizing electromagnetic radiation.

Risks

The InductWarm® 200 device may represent a source of danger if the information in these operating instructions is not heeded, setup, maintenance or repair work is undertaken by non-authorized persons, or the InductWarm® 200 devices is used incorrectly or for purposes other than its intended use. Other risk may be:

- Risk of destruction
  When the induction surface is not only being used for warming, it is necessary to ensure that the devices are turned off. Otherwise damage or burnings may occur.

- Electrical shock
  Do not expose this system to liquids or metal objects, which may cause an electric shock.

- Environmental conditions
  The system must be mounted in a clean, dry indoor place and the relative humidity must not exceed 60%. To avoid overheating, ensure good ventilation. The environmental temperature must not exceed 40°C.

- Risk of burns
  The used dishes are hot during operation and can cause burns. For touching the hot parts please use potholders or gloves.

Because of the reflection heat of the dishes there is a high temperature above the induction area. Therefore a cooling time of five minutes must be followed.

Do not put any melting materials on the heated surface.

It should be noted that necklaces and rings may heat up next to the induction field and cause burnings.

Because of the high temperatures, which may occur and which can destroy the dish, there is a risk of burning, when the dishes are running empty on the induction device.

Do not use any metal spoons in combination with the InductWarm® 200 device.

Before installing the InductWarm® 200 please remove the caution sticker from the device. Otherwise it can cause fire.

General Information

Liability

The manufacturer's warranty covers all defects in design, production and materials. All other claims are excluded. All data and notes in this instruction are prepared with consideration to the statutory standards and regulations. The manufacturer will not be liable for:

- Failure to observe the instructions
- Damages caused by inappropriate handling
- Deployment of unqualified staff
- Unauthorized modification
- Technical modifications
- Use of uncertified spare parts

Please note:

Do not use the InductWarm® 200 device if you notice damage or malfunctions.

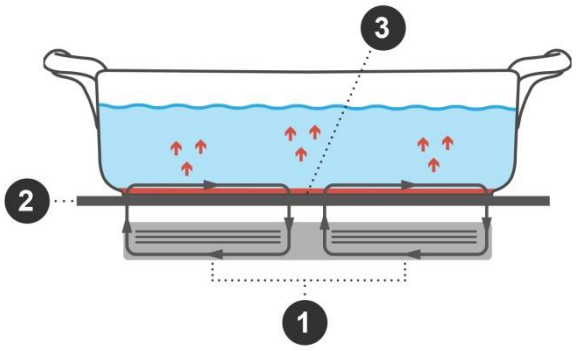
If you wear a pacemaker, check with your doctor whether you are allowed near an induction warming device.

Repairs

Repairs may only be carried out by authorized service personnel. Contact your dealer, a trained Gastros Switzerland AG Service Partner or our customer service department. You can contact our customer service department at: servicepoint@gastros.swiss

Warming with induction

The induction coil (1) beneath the glass ceramic dish generates an alternating electromagnetic field (2) that produces heat in the base of an induction dish item (3) through the principle of eddy currents. The automatic dish recognition only switches on the generator when a pan is placed on the device.



Induction warming has many advantages. Here are the key ones:

- Very high effectiveness of around 95 % = high efficiency = high warming capacity = minimal power loss
- Ready to use immediately at full power, because electrical energy is converted instantly into heat in the pan base no heating-up time!
- Low energy consumption compared to electrical warming systems
- Very short boiling time with highly sensitive energy metering
- Minimal radiation of heat = lowest possible temperature in the kitchen = optimum working environment and minimal levels of vapor
- Optimum hygiene and very easy cleaning
- Very low operating costs (energy, cleaning)
- Safety electronics for high operating safety (dish recognition, idle cut-out, overheat protection)

Dishes

Poor-quality or damaged dishes can pose a risk to your InductWarm® 200 device! Worn-out dishes can cause the electronics to overheat excessively, reducing their lifespan. Buckled and worn-out dishes are dangerous. Because the base of the dish is often deformed as a result, there is no proper heat conducting contact between the dish and the ceramic plate, and the fitted heat sensor cannot respond. Loss of energy can be the result. Make sure that dishes items have flat bases. This will save energy and preserve the warming plate.

If there occurs an overheating of the dishes, because they are brought to a high temperature when empty, the material and the thickness of the base that determine how efficiently induction power is converted into effective heat in the dishes, will be modified. The overheating of the dishes can cause warping's of the bases so warped dishes can no longer lie flat on the glass ceramic. It may not be possible to automatically prevent the pan from overheating again to very high temperatures (potentially becoming red-hot), which could have serious consequences for your InductWarm® 200 induction device or, in the worst-case scenario, kitchen staff.

Induction hobs are designed for a particular range of dish sizes with which they function efficiently and well. Dishes that are much too small being used on a large hob, may not be detected by the automatic dish recognition and the energy supply may stay switched off. Dishes that are much too large, cannot absorb energy from the whole base area, so it will take longer to heat up and may not reach the desired temperature. Square and oval dishes can be easily heated on specially designed hobs. If they are heated on round hobs of insufficient size, the base will not heat up evenly.

Suitable Dishes:

- Vessels with magnetic bottom (ferromagnetic)
- Enamel-coated steel pots with thick bases and ferromagnetic bottom
- Cast-iron pots with enamel-coated bases
- Pots made of stainless steel, multi-layered steel, stainless steel ferrite steel or aluminum with inductive base

Unsuitable Dishes:

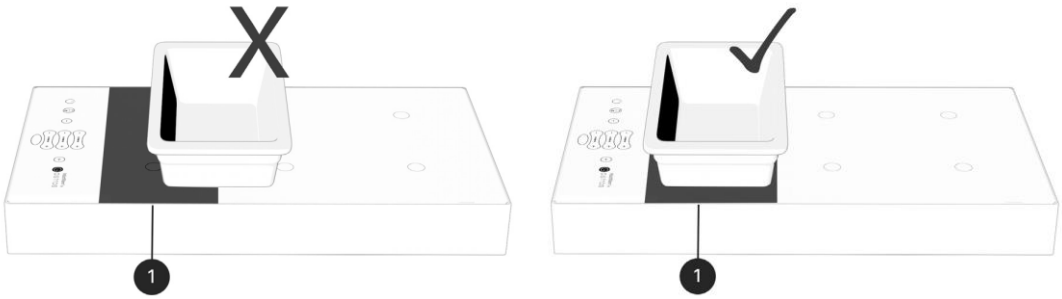
- Pots made of copper, aluminum, heat-resistant glass and other non-metallic pots
- Pots made of stainless steel without a magnet iron core
- Aluminum foil and dished wrapped in aluminum foil
- Pots that do not sit flat on the hob

Gastros recommends using InductWarm® porcelain in combination with InductWarm® 200 device to keep food warm by best quality. The heat-retaining InductWarm® porcelain has been provided with a specially patented coating that allows the inductive effect to occur in the first place. The inductive effect in the warming zone causes the underside of the porcelain to quickly warm up, thus keeping your meal warm. You can purchase additional InductWarm® porcelain at any time. More information can be found on our website at: www.gastros.swiss

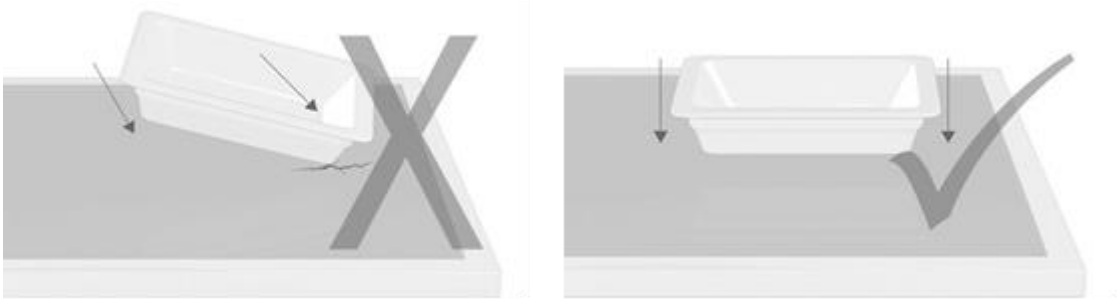
- It is essential to avoid leaving an empty induction-compatible pot dish in the warming zone. The bottom of the dish and the warming zone could suffer damage.

- The ferromagnetic InductWarm® porcelain is not suitable to be used with microwaves or with induction warmers! In addition, avoid allowing the temperature of the porcelain to change too quickly to prevent a risk of rupture or breakage.

The dish must be positioned in the middle of a warming zone, centering the markings (the circles) to the center of the pot. Otherwise the pots may not be recognized by the device or receive only very little energy for warming the dish.



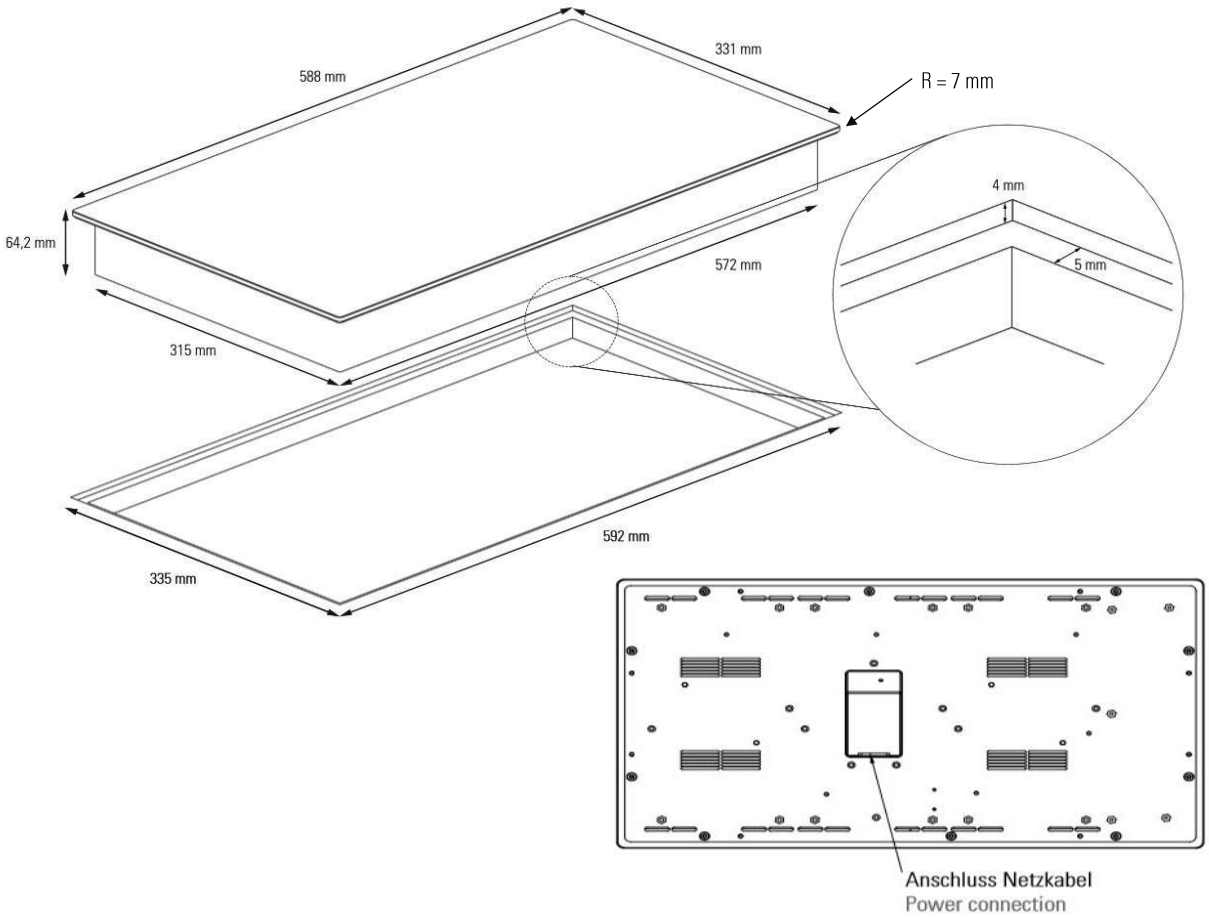
Care should be taken to ensure that the glass plate is not scratched by the edges of the dish when the dish is placed on and taken off the plate.



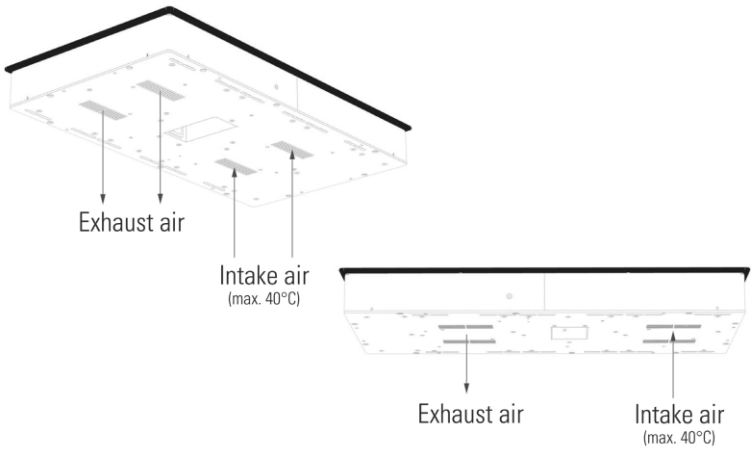
Assembly and Safety Instructions

- The assembler has to make sure, that the device is still approachable after installing to allow for maintenance.
- There must not be drawers, which are opened to the top, underneath the inductive elements.
- The maximum intake air temperature must not exceed 40°C in front of the cooling fans.
- Having a sufficient air supply system you have to ensure that already heated air does not get sucked in by the devices again.
- Please handle the sensitive glass with great care as you can see scratches after installation.
- Maximum worktop thickness: 50 mm.
- There must not be any flammable nor explosive objects beneath the inductive elements.
- Please mind that small parts can get sucked in.
- The devices must be installed / placed with a distance to the wall or the surface's for edge or additional devices of at least 10 cm.
- The built-in device must be provided with enough space to the bottom side to ensure sufficient air ventilation.
- Please ensure that the removal of the plug is to be such that an operator can check from any of the points to which he has access that the plug remains removed.

Overview Drawing



Air cooling / ventilation



Working Steps

1. Marking the recess: to do this, lay the device upside down, flat on the worktop and mark the outline with a sharp pencil. Observe the dimensions 588 mm x 331 mm and the perpendicularity in the drawing opposite.
2. Marking opening in the table plate: similarly, the opening in the table plate must also be marked by copying the already drawn outlines to an inner outline that is scaled down by 5 mm.
3. Cutting out the opening: cut out the opening in the table plate (see 2.) using a suitable tool. Cleanly carve out the 4mm recessed area opposite the table surface for the device support with a suitable tool (e.g. a router) since the corresponding edges remain visible edges. For materials other than wood, please check with your shop fitter for the correct method.
4. Plugging in supply line: plug the supply line into the device and feed the cable down through the opening in the table plate. Ensure the plug is secured properly.
5. Placing the mounting frame: place the device onto the incorporated table edge in the installation position and check the evenness with the table plate surface together with the glass plate. Rework if necessary. Please note: the device should be oriented depending on the operating side desired. Consider carefully the ventilation point as well.
6. Sealing the cut surface: after checking the accuracy of fit, it is recommended to seal the cut surface against the penetration of fluids.
7. Laying cable: expertly fix cable in the sideboard under the table plate. Ensure that the cable is not accidentally chafed by moving parts and subjected to tensile loads. There should be no drawers under the installation device.
8. Masking the surface: it is recommended to mask the joint edges along the glass plate and the worktop surface with suitable crepe tape sufficiently wide to enable clean and quick operation.
9. Filling joints: grout the constant 2 mm wide circumferential groove evenly with a suitable joint sealer (e.g. Sikaflex®-221) according to its handling instructions. Joint sealer is not included in the scope of delivery. Please only use materials suitable for food areas! Pay particular attention to selecting suitable joint sealer (e.g. natural stone silicone) for stone worktops to prevent discoloration. Also ensure an absolutely clean groove to prevent contamination in the joint sealer.
10. Applying joints neatly: Apply joint sealer with the help of a sealant applicator.
11. Leaving joint sealer to dry: Handle joint sealer according to manufacturer's instructions and leave to dry.

EG Declaration of Conformity InductWarm® 200

In accordance with EMV Directive 2004/108/EG, the Low Voltage Directive 2006/95/EG and the RoHS Directive

The Manufacturer / Distributor

Gastros Switzerland AG
Buckhauserstrasse 1
CH-8048 Zürich
Switzerland

hereby declares that the following products:

Product description:	*Induction warming device*
Product designations:	*InductWarm® Tabletop 200 GN 1/1*
	InductWarm® Built-in 200 GN 1/1

meet the regulations of the Directive(s) listed above – inclusive of any alterations valid at the time of the declaration.

EN 55014-1, EN 55014-2, EN 61000-3-2,
EN 61000-3-3 and EN 62233 and EN 61000-6-2

EN 55011:2009 + A1:2010; EN 55014-1:2006 + A1:2009 + A2:2011; EN 62233:2008; Conducted Emission EN 55011:2009 + A1:2010; Radiated Emission EN 55011: 2009 + A1:2010; Discontinuous Disturbance EN 55014-1:2006 + A1:2009 + A2:2011; Disturbance Power EN 55014-1:2006 + A1:2009 + A2:2011; EN 62233:2008; Harmonic Cur- rent Emission EN 61000-3-2:2006+ A1:2009+A2:2009; Flicker EN 61000-3-3:2008; EN 55014-2:1997 + A1:2001 + A2:2008; EN 61000-4-2:2009; EN 61000-4-3:2006 + A1:2008 + A2:2010; EN 61000-4-4:2012; EN 61000-4-5:2006; EN 61000-4-6:2009; EN 61000-4-11:2004; EN 60335-1; EN 60335-2-36

Zürich, the 3rd of March 2014

Roger Bührer, CEO

InductWarm® 130+

Undercounter

4 InductWarm® 130+

4.1 Description

Fully integrated in buffet systems, the InductWarm® Built-in brings keeping your dishes warm to aesthetic perfection. In the interplay with our InductWarm® porcelain your dishes come, through the individual surface - made of stone, glass or wood - into its own.
Using the internal control panel, you can conveniently select one of four different temperature levels for each of the InductWarm® elements, guaranteeing the right temperature for any of your dishes. LEDs will indicate the current operating status at any given time.
The excellent energy efficiency enables you to link up to two built-in solutions GN 1/1 and to operate them from a single 230V power outlet.

Features

- Perfectly flush and level installation in counter tops, tables, etc., made from wood, glass or stone.
- Modular system: custom build with arranging several devices and a custom made full-length surface possible
- Open at side for ventilation of the elements (intake air max. 40° C) and the connection and the cable gland for flexible connection cables
- With one or two integrated InductWarm® elements depending on the variant
- Each InductWarm® element offers four different temperature levels (with LEDs showing the current state)
- Automatic power off when warming plate not in use and dishes are removed (after 5 minutes)
- With memory and restart feature that returns to the previously selected temperature setting, when the dish is put back within 5 minutes.
- Suitable for heating food in porcelain dishware with special undercoating with integrated inductive contact surface and other induction-compatible pots
- Optional InductWarm® remote control and control unit

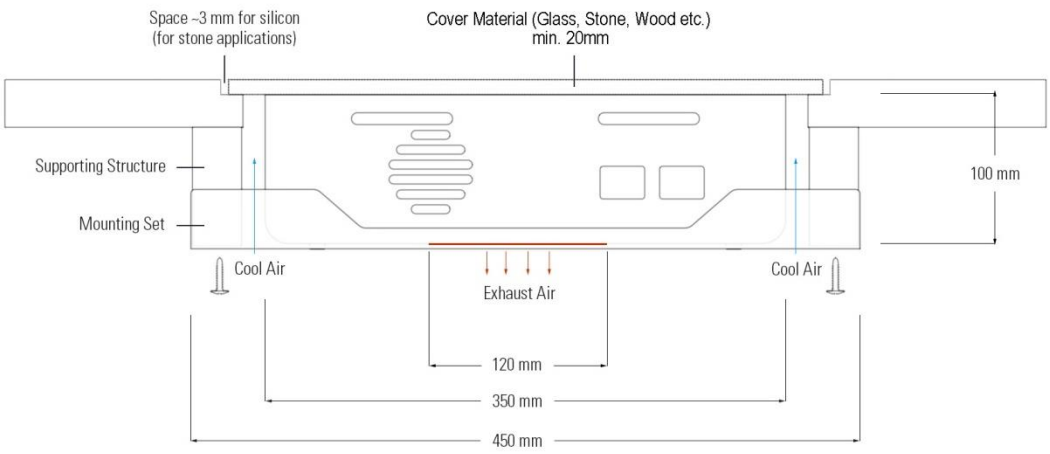
4.2 Specifications for Tenders

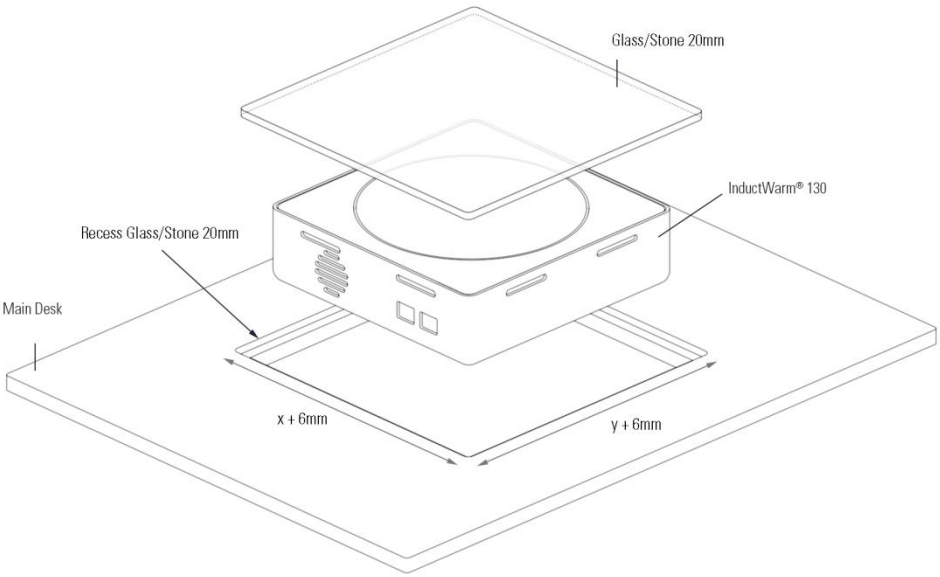
Product:	**InductWarm® 130+**
Manufacturer:	Gastros Switzerland AG
Category:	Inductive Warming Unit
Picture:	
Tender-Text:	InductWarm® 130+ undercounter Inductive warming device with integrated control unit for flush built-in and undercounter in surfaces of artificial stone, glass or even wood. Keeps food warm on four power levels. Can be controlled via either the integrated panel, the external control panel (optional) or an infrared remote control (optional). The device has a 30cm, squared induction coil (GN2/3). The Dynamic Power Control (DPC) detects the pot and automatically adjusts its power accordingly. Up to 16 devices can be connected together via the InductWarm®-BUS (all devices on the same power level). With the integrated USB-Port, software or parameter updates can be up-/downloaded. This feature allows a remote service/maintenance. In addition, the InductWarm® 130+ has a temperature protection to prevent damages and the surface material and/or the dish. The device is compatible with all inductive vessels/pots. The power level is displayed with 4 LEDs. The memory effect will turn back to the previously selected power level, when removing the vessel within 10 minutes. The cover material of min. 20mm is not included. Gastros will support you by selecting the approved material.
Warning:	Never use without cover material of min. 20mm!!  

Article-No.:	Warming Zones	Dimensions	Weight	Electrical	Max. Power
1 13 200 00	1	350 x 350 x 110 mm	6.5 kg	110/230VAC, 50/60Hz	0.8 kW

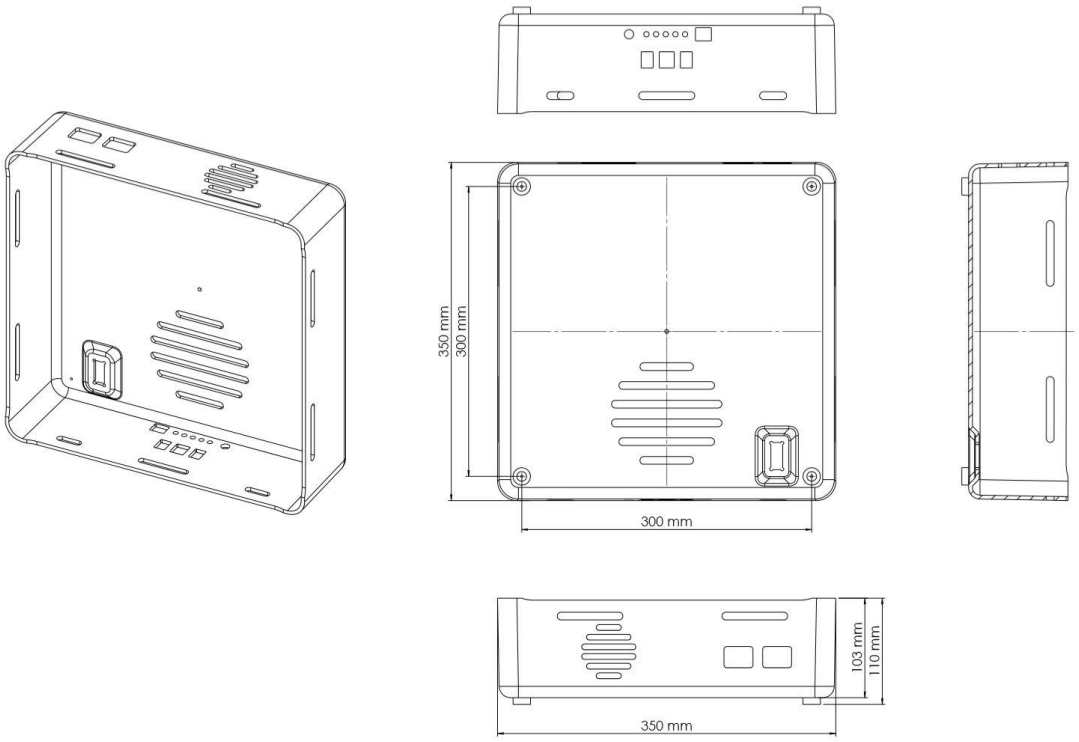
4.3 Technical- & Built-In Drawings

- The induction unit can be covered by a cover plate of any size. Please notice, that Gastros recommends a maximum size of 1,50 m. BUT:
- WARNING: (Artificial) stone and glass as a carrier material can expand when heated, which can cause tensions cracks.
- It is recommended to use an immediate silicone joint for the possible extension of the surface. Kindly see the following installation recommendations.
- Gastros can give advice in the choice of the carrier material but accepts no liability for any damage to the surface.

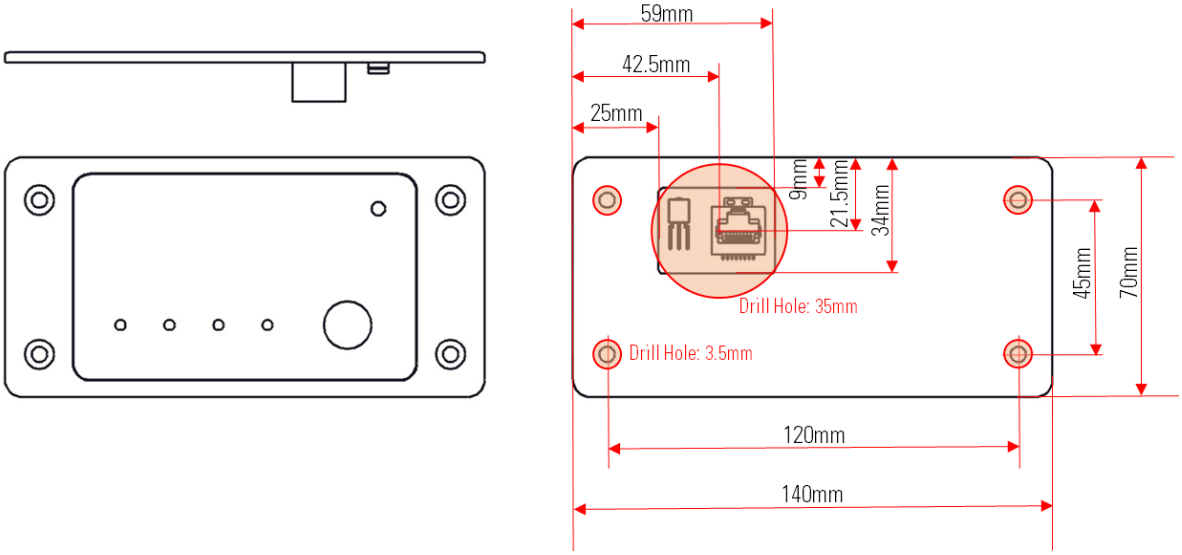




Dimension



External Control Unit



4.4 Impressions

4.5 Advice for covers

Use of **artificial stone**

The InductWarm® 130+ element must be mounted with a distance of > 20mm to the bottom of the pot/vessel.

Cover Material		Advice*
Ariostea	✔	Tested and approved. Use 20mm of thickness. https://www.ariostea.de/
Caesarstone	✔	Tested and approved. Use 20mm of thickness. www.caesarstone.com
Fridurit	✔	Tested and approved. Use 11mm of thickness. www.friatec.de/content/friatec/de/Keramik
Laminam	✔	Tested and approved. Use 20mm of thickness. www.laminam.it/en/home/
Neolith	✔	Tested and approved. Use 20mm of thickness. www.neolith.com
Dekton	⚠	Tested and only partially recommended. Use 20mm of thickness. DEKTON is an extremely hard material. Installation supports/frames must be installed EXTREMELY BALANCED to prevent mechanical tension. Even slight unevenness can cause tension cracks. www.dekton.com
Silestone	⚠	Gastros recommends using Silestone ONLY in combination with silicone pads. Heat test ended with color change on the surface. Mechanical test passed.
Belenco	⊘	Gastros does NOT recommend using Belenco with its systems.
Corian	⊘	Gastros does NOT recommend using Corian with its systems.
Fondovalle	⊘	Gastros does NOT recommend using Fondovalle with its systems.
Sensa Naturstein (from Cosentino)	⊘	Gastros generally does NOT recommend using any natural stone with its systems.

*Gastros can give advice for the choice of cover material but assumes no liability in case of cover material damages.

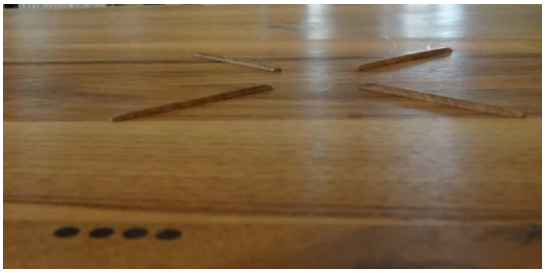
Use of **glass**

Gastros recommends next to artificial stone also glass for use as surface material. This can be colored to almost every RAL-color. In addition, there is also the possibility of attaching logos etc. We are happy to assist you in the choice of the glasses.
Glass specifications:

ESG-Glass, satinated 12-20 mm KH
(Scratch resistant) Long Live
4 edges removed [1/2/3/4/], e.g. 4 round corners removed (r = xy mm) [1/2/3/4]
Heat-Soak-Test HST
Perhaps: digital print (Deco Print)
Size: a x b mm

Use of **wood**

The using of wood represents no technical problem. Do not use painted, varnished or glued wood, use only oiled natural wood. In order to prevent combustion of the wood at idle metal attachments, so-called "Spacer" of 1,5mm Height must to be integrated in to the wood (see picture).
The using of InductWarm® porcelain on wood is uncritical.



In public areas, like hotel buffets, it´s not recommended to use wood as cover material for induction systems (spotting).

4.6 Manual InductWarm® 130+

Introduction

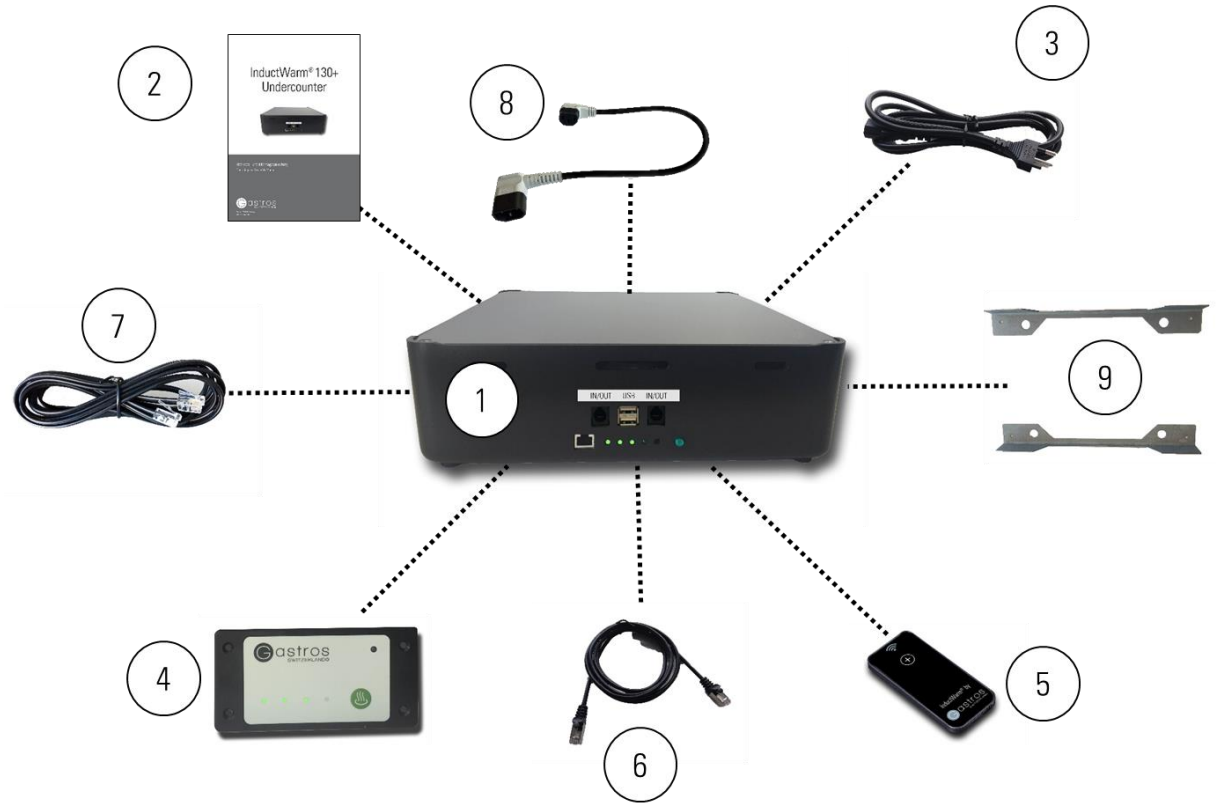
The InductWarm®130+ is being developed to keep food warm and to meet all specific needs of higher class hotels and hospitality. Besides the high quality, we also focus on premium design and easy handling.

The InductWarm®130+ is an undercounted induction system and can be mounted directly under stone, glass or even wood (with 20 mm distance to the dish). The induction field penetrates the cover material and warms the dish bottom. In this way the food can be kept warm, while the cover material itself will not be heated. There is only a reflection heat from the dish bottom to the surface. Therefore the carrier material can expand. But with the right choice of material, this expansion can be reduced to a minimum. Gastros can assist you by selecting the right cover material.

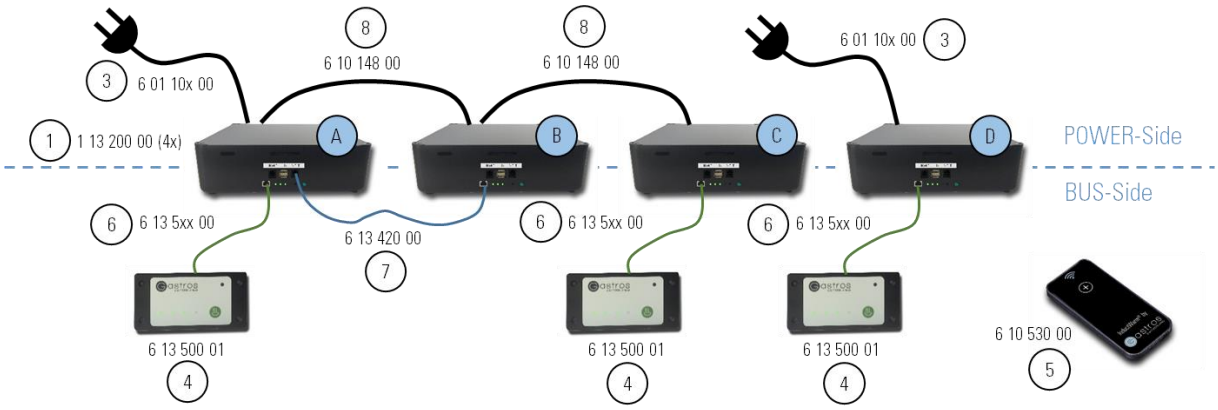
Delivery Content InductWarm® 130+ Undercounter			
Article		*Description*	*Article-No.:*
1		InductWarm® 130+ Element, 800 W, 230V/110VAC	1 13 200 00
2		InductWarm® 130+ Built-in and Undercounter-Operation Manual	8 13 200 00

Optional Accessories InductWarm® 130+ Undercounter			
3		Power Cord 1500 mm, country specific connector, 10A	6 01 101 00 (CH) 6 01 102 00 (EU) 6 01 103 00 (UK) 6 01 104 00 (AUS) 6 01 105 00 (US)
4		InductWarm® External Control Unit	6 13 500 01
5		InductWarm® Infrared Remote Control (incl. battery)	6 10 530 00
6		Connecting Cable to the external Control Unit (6 13 500 01)	6 13 510 00 (1m) 6 13 515 00 (2m) 6 13 530 00 (3m) 6 13 550 00 (5m) 6 13 575 00 (7.5m)
7		InductWarm® BUS-Cable, 2m	6 13 420 00
8		InductWarm® Power Chain Cable 130+, 480 mm 220V/110V – Connecting Cable for up to max. 4 Induction Elements	6 10 148 00 (48cm) 6 10 165 00 (65cm) 6 10 199 00 (115cm)
9		InductWarm® Mounting Kit	6 13 600 00

Accessories



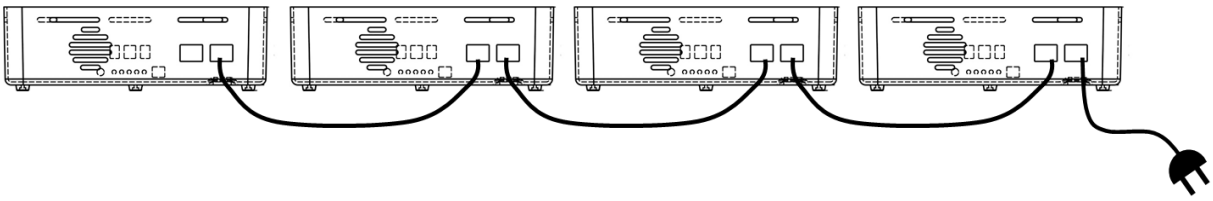
Cabling (Example)



The wiring of the power (POWER-Side) is independent of the wiring of the operation cables (BUS-Side).
Each element must be connected to the electrical power – either direct by a power cord (3) or indirect by a power chain cable (8). In the example above, the induction units A and B are connected with the BUS-cable (7) and controlled by one control unit (4). These two elements always have the same power level.
The infrared remote control (5) can be used to control all individual elements.

Power Supply

You can chain up to four InductWarm® 130+ elements with the power chain cable (article 6 13 1xx 00) and connect them with the power cord (article 6 01 10x 00) to a power outlet 110V/230 V (16A).
The max. power consumption of one element is 800W.



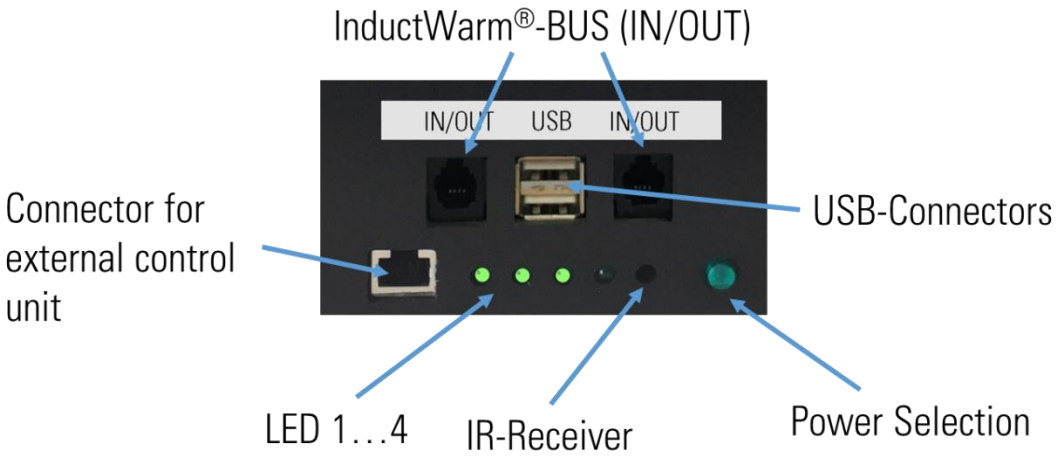
Installation

Remove all remaining packaging and check your InductWarm® 130+ device for external damage. Do not start up the device, if there are any signs of damage.
To make transport easier in the future, please keep the original packaging.
Power on the InductWarm® 130+ by using the power switch on the bottom of the device. The device is on, when the green LED of the power switch and of the power select button are illuminated and the first LED on the front control panel is blinking (stand-by mode).

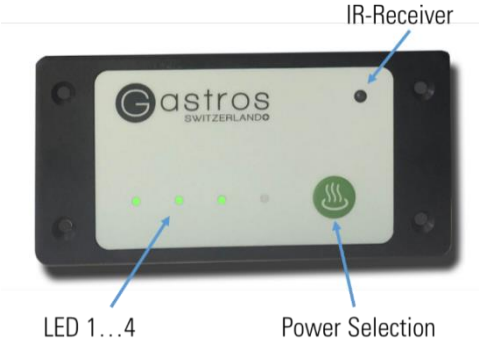
Operation

Your InductWarm® 130+ can be controlled in different ways:

- Using the internal control unit:
  Repeated pressing of the power selection button lets you cycle through the different warming zones 1, 2, 3, 4 and "OFF".



- Using the external Control Unit (optional)
  Repeated pressing of the power selection button lets you cycle through the different warming zones 1, 2, 3, 4 and "OFF"



- Using the Infrared Remote Control (optional)
  Repeated pressing of the power selection button lets you cycle through the different warming zones („off" > „1" > „2" > „3" > „4" > „off" …). The IR-remote must target the IR-receiver of the external control unit or directly the device itself (approx. 30cm).

The InductWarm® 130+ has four different power levels, covering different temperature ranges. The final temperature in the pot/pan very much depends on the following factors:

- Quality of the material of the pan (e.g. flat bottom)
- Quality of the inductive layer of the pan
- Consistency of the food, surrounding temperature
- Pot size
- Position of the pot on the induction unit

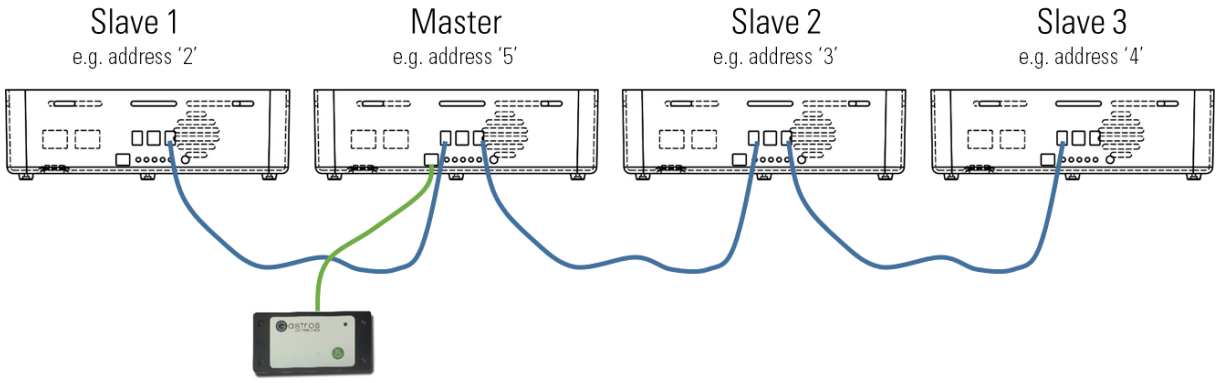
LED-Status	Function
LED 1 flashing slow	Unit in standby mode
LED 1 illuminated	Powel Level 1
LED 2 illuminated	Powel Level 2
LED 3 illuminated	Powel Level 3
LED 4 illuminated	Powel Level 4
LEDs are flashing fast	No pot detected on the unit

The InductWarm® 130+ has an integrated **pot detection** that guaranties that the induction unit is active only if there is a pot placed on the device. If a pot is detected, the power level can be controlled by pushing the power selection button either on the device or on the external control panel. If you remove the pot from the device, the LEDs are flashing fast and the pot detection will turn off the unit into the standby mode after 10min (default value for auto power off). If you put back the pot before the auto power is turned off, the unit will continue warming on the previously selected power level. All inductive pots can be used with the InductWarm® 130+.

The InductWarm® 130+ has an integrated **temperature protection** to protect the device and the cover material from overheating. If the default temperature of 90°C has reached, the unit automatically reduces its power level from level 4 to level 3 (LED 4 is flashing). If the temperature still increases by another 5°C, the device automatically changes its mode to standby mode for security purposes. A restart is possible after the InductWarm® 130+ has cooled down under the protection level. This can last a few minutes.

BUS-Coupling / Network Mode

If you are using the InductWarm® 130+ in a network, you must connect an external control unit to any induction unit. As soon as you press the power selection button on the external remote unit, this specific device will become "MASTER" in the network. All other devices will be "SLAVE".



Every 3 seconds, the master-unit sends it's the power level information to its slave-units.
If there is no pot on all units, the master unit will turn all devices in standby mode after approx. 20 seconds.
(*Note Valid „AutoPowerOff"-time for the entire network is the time set in the "master" (default 600s). Each device must have an individual device address!)*
An individual power control of one single unit is not possible anymore. The "no pot detection" (flashing LEDs) will NOT be active in the network mode.
A maximum of 16 units can be linked together in a network.

USB Connectors

Both, software updates and system parameter updates can be loaded via the USB port. This task should only be performed by trained service staff.

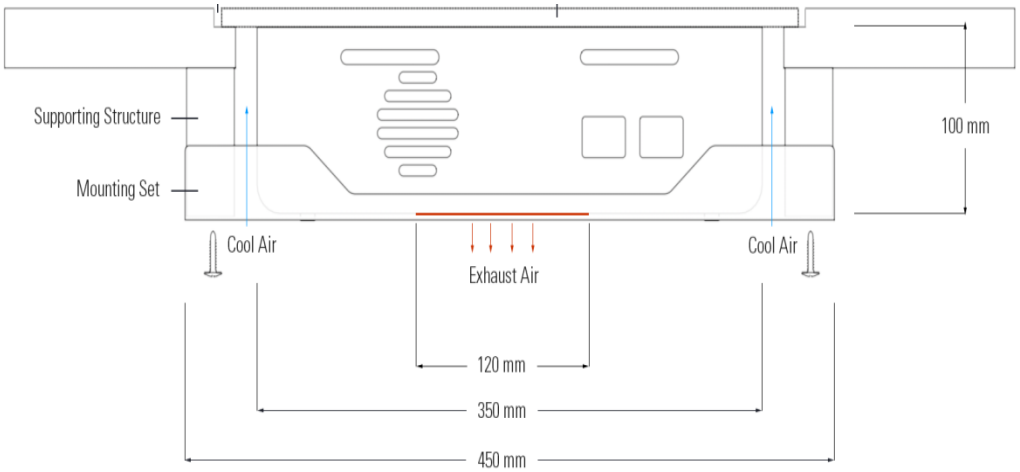
Built-In Drawings

WARNING: stone and glass as a carrier material can expand when heated, which can lead to tensions cracks.

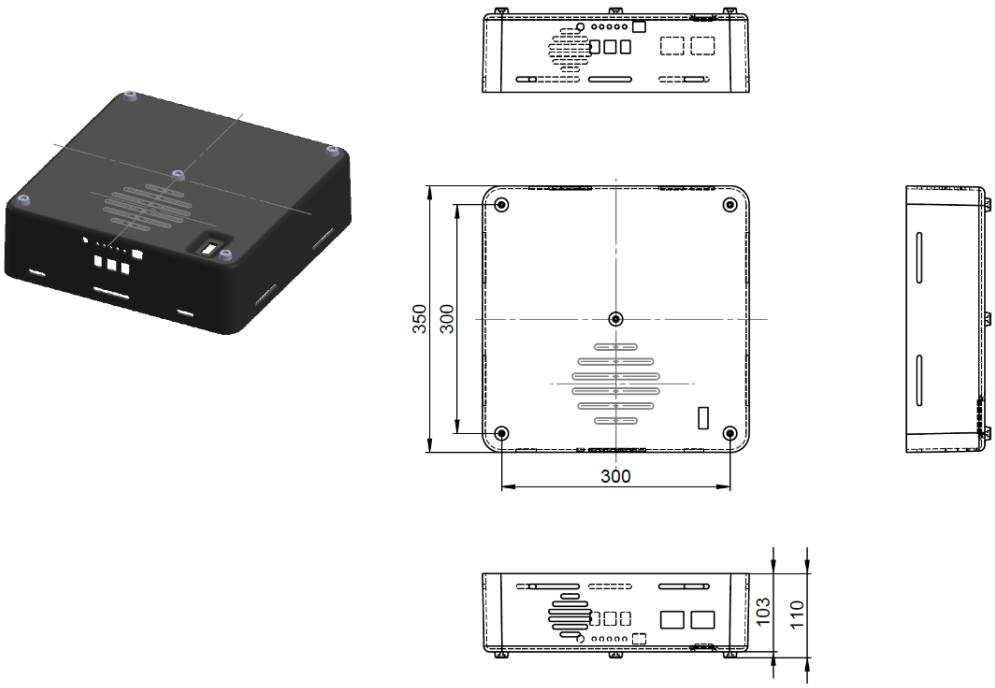
- It is recommended to use an immediate silicone joint for the possible extension of the surface. Kindly see the following installation recommendations.

- Gastros can give advice in the choice of the carrier material, but assumes no liability for any damage to the surface.

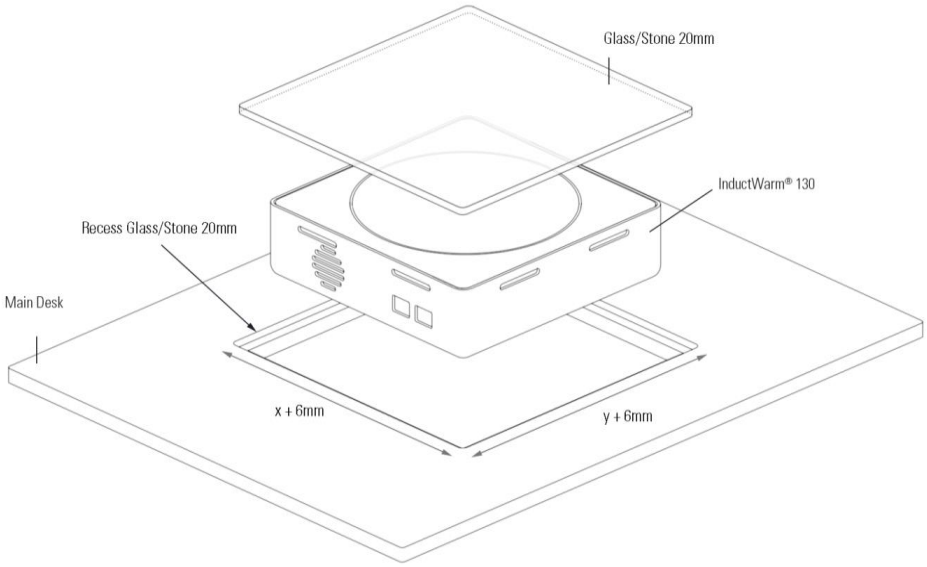
Cross Section

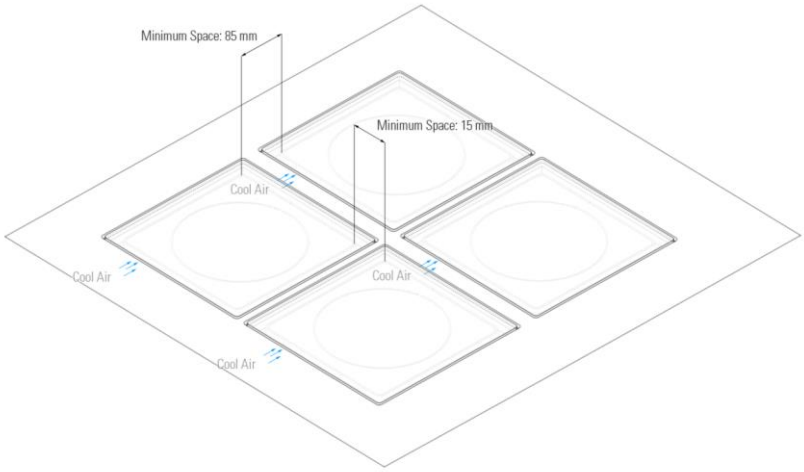


Device Dimension (in mm)

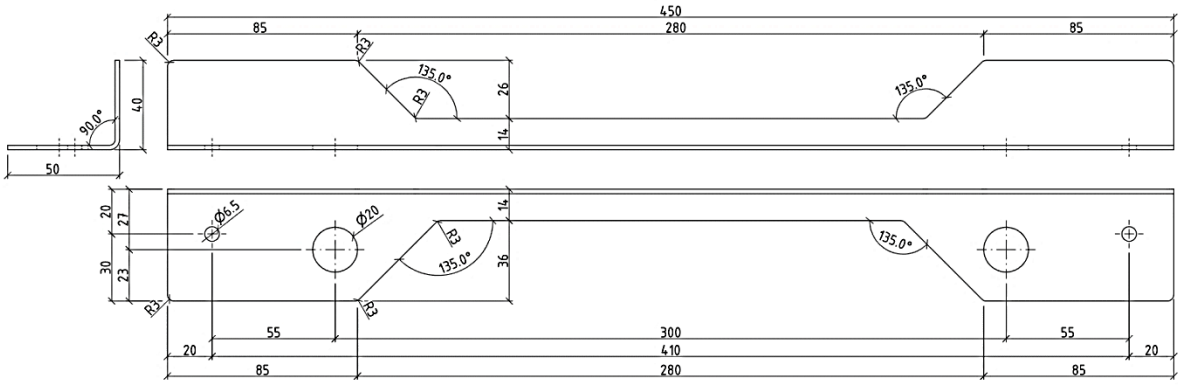


Surface Cut Out



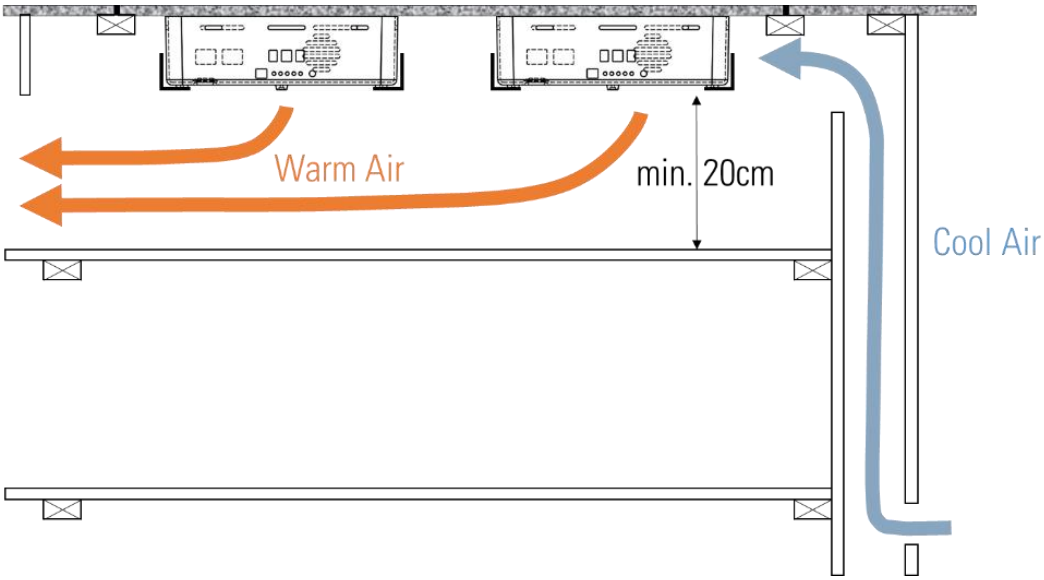


Assembling-Kit

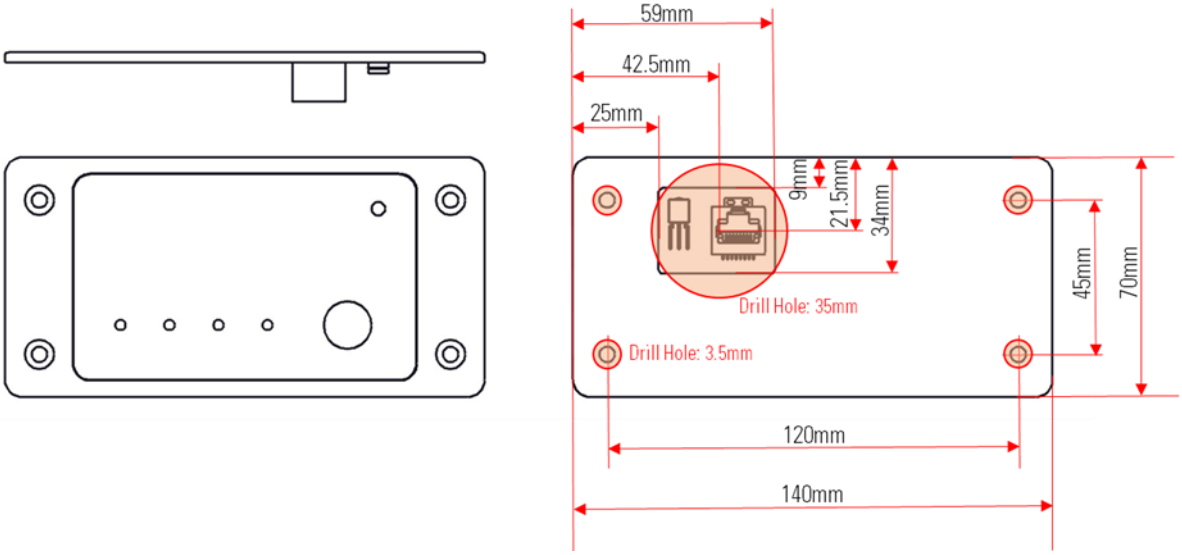


Air Circulation

The air circulation openings at the upper side walls as well as the bottom fan shall not be covered by any other installation parts. The surrounding air temperature shall not be higher than 40 °C. Keep a distance at the back side of the outlets (power connector side) of minimum 5cm to other objects. Keep minimum 20cm distance at the bottom of the device to the next object. Do not plate the device on a plate without a cut out at the place of the bottom fan.



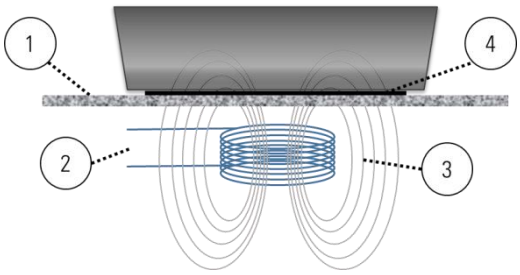
External Control Unit



General Information

Food Warming with Induction

The induction coil (2) underneath the cover material (1) generates an alternating electromagnetic field (3) that generates heat at the bottom of an inductive pot (4). The automatic dish recognition only turns on the generator, when a pan is placed on the device.



Induction warming has many advantages:

- Very high effectiveness of around 95 % > high efficiency > high warming capacity > minimal power loss
- Ready to use immediately at full power, due to the fact that electrical energy is converted instantly into heat in the pan base – no heat-up time!
- Low energy consumption compared to electrical warming systems
- Very short boiling time with highly sensitive energy metering
- Minimal radiation of heat > lowest possible temperature in the kitchen > optimum working environment
- Optimum hygiene and very easy cleaning
- Very low operating costs (energy, cleaning)
- Safety electronics for high operating safety (dish recognition, idle cut-out, overheat protection)

Dishes / Pots

Only use inductive market dishes/pots. If an overheating of the dish occurs, (e.g. empty dish), the material and the thickness of the base that determine how efficiently induction power is converted into effective heat in the dish might change. The overheating of the dishes can cause warping's of the dish bottom plate, so warped dishes can no longer lie flat on the surface. It may not be possible to automatically prevent the pan from overheating again to very high temperatures (potentially becoming red-hot), which could have serious consequences for your InductWarm® 130+ device, in the worst-case scenario also for the kitchen staff.

Induction hobs are designed for a particular range of dish sizes, with which they function efficiently and well. Dishes that are much too small being used on a large hob, may not be detected by the automatic dish recognition and the energy supply may stay switched off. Dishes that are much too large, cannot absorb energy from the whole base area, so it will take longer to heat up and may not reach the desired temperature.

Liability

The manufacturer's warranty covers all defects in design, production and materials. All other claims are excluded. All data and notes in this instruction are prepared with consideration to the statutory standards and regulations. The manufacturer will not be liable for:

- Failure to observe the instructions
- Damages caused by inappropriate handling
- Deployment of unqualified staff
- Unauthorized modification
- Technical modifications
- Use of uncertified spare parts

Do not use the InductWarm® 130+ unit, if you notice damage or malfunctions. If you are wearing a pacemaker, check with your doctor whether you are allowed to near an induction warming device.

Risks

The InductWarm® 130+ devices may represent a source of danger, if the information in these operating instructions is not heeded, setup, maintenance or repair work is undertaken by non-authorized persons, or the InductWarm® 130+ devices is used incorrectly or for purposes other than its intended use. Other risk may be:

- Risk of destruction
  When the induction surface is not only being used for warming, it is necessary to ensure that the devices are turned off. Otherwise damage or burnings may occur.
- Electrical shock
  Do not expose this system to liquids or metal objects which may cause an electric shock.
- Environmental conditions
  The system must be mounted in a clean, dry indoor place and the relative humidity must not exceed 60%. To avoid overheating, ensure good ventilation. The environmental temperature must not exceed 40°C.
- Risk of burning
  The used dishes are hot during operation and can cause burns. For touching the hot parts please use potholders or gloves.

Due to back reflected heat of the dishes there can be a high temperature surface areas above the induction area. Therefore a cooling time of five minutes must be followed.

Do not put any melting materials on the heated surface.

Due to of the high temperatures, which may occur and can destroy the dish. There is a risk of burning, when the dishes are running empty on the induction device.

Do not use any metal spoons in combination with the InductWarm® 130+ device.

Before mounting/installing the InductWarm® 130+ please remove the caution sticker from the device. Otherwise it can cause fire.

Repair

Repairs may only be carried out by authorized service personnel. Contact your dealer, a trained Gastros Switzerland AG Service Partner or. You can contact our customer service department via email: servicepoint@gastros.swiss

Safety Regulations

Responsibility
The InductWarm® 130+ reflects the state of the art and has been built in accordance with the valid CE guidelines. Safe operation is assured. The InductWarm® 130+ device is not intended to be operated by children or persons with physical or mental limitations, unless they are instructed and monitored while using the device by a person responsible for their safety.
Gastros Switzerland AG disclaims all liability in cases due to unauthorized conversions or modifications by the customer. If the main supply cable for the device is damaged, it must be replaced by the manufacturer, an authorized service agent or other similarly qualified person in order to prevent hazards. The connection for the mains plug should always be positioned, so that it is freely accessible. If this is not possible, a master switch for the device must be installed by the customer. In the event of a malfunction, the device must be switched off completely by unplugging the main plug or by turning off the master switch.

When transporting, setting up, maintaining and repairing the InductWarm® 130+ device, the latest version of the following regulations and guidelines that are applicable in your country must be observed:

- Regulations of professional electricians' associations, e.g. VDE, SEV, etc.
- EC directives (in EU countries)
- Accident prevention regulations
- Guidelines of employers' liability insurance associations
- Trade regulations
- If the InductWarm® 130+ devices is being installed in close proximity to a wall, partition walls, kitchen furniture, decorative paneling, etc., it is recommended, that these objects consist of non-combustible material; otherwise they must be covered with a suitable non-combustible, heat-insulating material and the fire safety regulations are to be observed extremely carefully.

Intended Use

- The InductWarm® 130+ is designed to keep food warm in induction capable dishes. Other use can destroy the system or the dishes.
- Only use dishes, which have been approved as induction compatible by the producer.
- The surface of the InductWarm® device should not be used for storage.
- Only use suitable pans with a minimum base diameter of 12 cm for induction warming. Theoretical, it is possible to use smaller dishes, but this may result in the following:
    - Reduced efficiency
    - Pan recognition may not be possible
    - Radiation may be greater
- Never heat a pan while empty. This could cause the pan to overheat.
- Once you have removed the pan after warming, remember to switch the InductWarm® 130+ device off, unless you intend to use it again straight away. This will prevent the device from heating up accidentally should you or someone else place a pan on the warming surface.
- Do not heat up tins or other sealed containers, as these can explode! Items that are unsuitable for use include any dishes that are not specifically intended for induction devices, as well as metal splash guards, aluminum foil, cutlery, jewelry, watches, metallic objects, etc.
- The induction hob is officially switched on as soon as the rotary switch is moved away from the off position (red line aligned with status indicator). Whenever the hob is not in use, the device must be switched off.

Troubleshooting

Error	Cause	Remedy
LED is not flashing	No power supply	Plug the device in, check the plug connection
	Power line fuse tripped	Check and reset the fuse
	Device not switched on	Check the plug connection, turn on the power switch on the bottom of the device
	Device defect	Contact customer service
LED flashing	Pan is not detected	Pan too small or not induction compatible
Infra-red remote control is not working	Low Battery	Replace the battery
	Sender or receiver are solid	Clean sender or receiver
	No electrical contact between battery and remote control	Ensure contact between battery and remote control
Dish is not warming enough	Incorrect placement of dish	Ensure right position above the induction coil
	Too little energy input	Increase power level
	Dish is not induction compatible	Check induction compatibility of dish

EG – Konformitätserklärung

EC Declaration of Conformity

Nach:
According to:

EMV – Richtlinie 2004/108/EG

Niederspannungsrichtlinie 2006/95/EG

Der Hersteller / Inverkehrbringer:
Manufacturer:

Gastros Switzerland AG

Buckhauserstrasse 1

8048 Zürich, Switzerland

Produktbezeichnungen:
Product Description:

InductWarm® 130+	Induktionswarmhaltegerät / *InductWarmer*
Externe Bedieneinheit	Ext. Bedieneinheit / *External Control Unit*

Gastros erklärt hiermit, dass die oben erwähnten Produkte den unten gekennzeichneten Richtlinien – einschliesslich deren zum Zeitpunkt der Erklärung geltenden Änderungen – entspricht:

Gastros herewith declares that the products mentioned above is in conformity with the applicable requirements of the following documents:

EN 55011:2009 + A1:2010

EN 55014-2:1997 + Corr.1997 + A1:2001 + A2:2008

EN 61000-3-2:2006 + A1:2009 + A2:2009

EN 61000-3-3:2008

EN 62233:2008-11

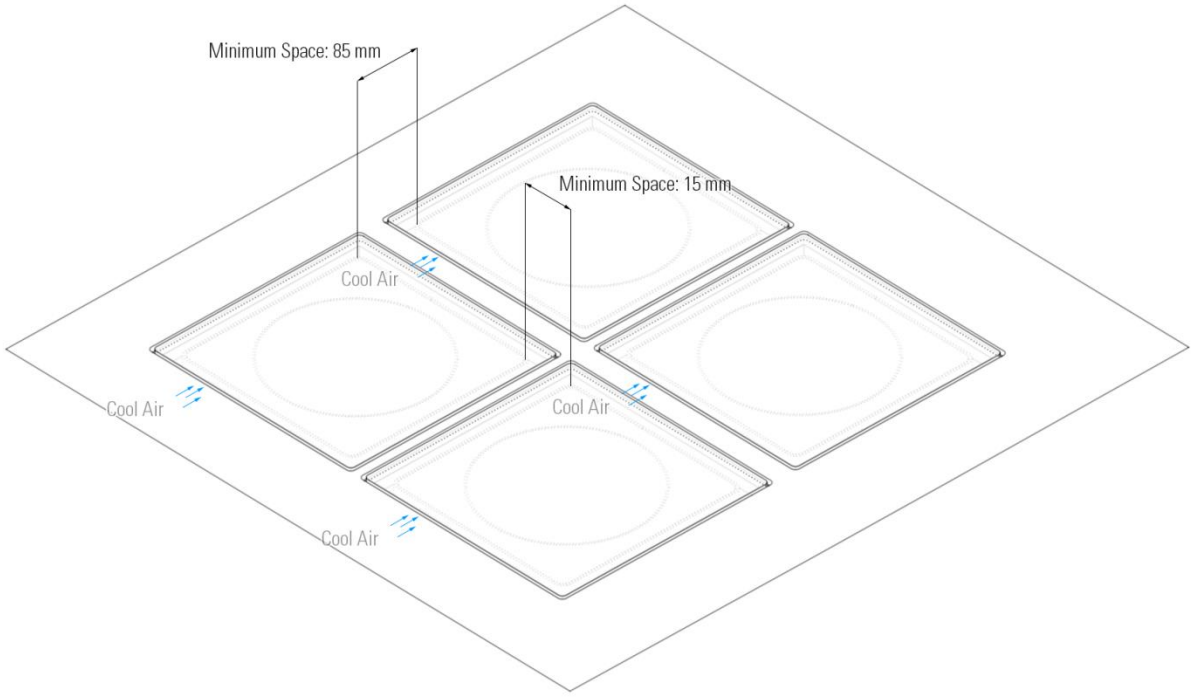
EN 60335-1:2012 + A11:2014

EN 60335-2-36:2002 + A12004 + A2:2008 + A11:2012

Zürich, 01.03.2017

Peter Cairoli
Geschäftsführer / *Managing Director*

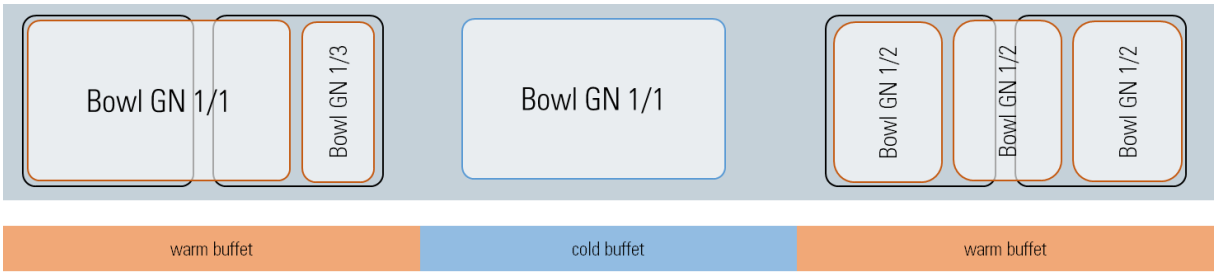
4.7 Built-In Examples



The InductWarm® 130+ built-ins does not stop at the any standardized sizes: The basic InductWarm® Built-in consists in an induction element, optional mounting set and optional remote control. The mounting set helps you to mount the induction device underneath the carrier surface (10-13 mm). Different surfaces can be used: stone, glass or wood.

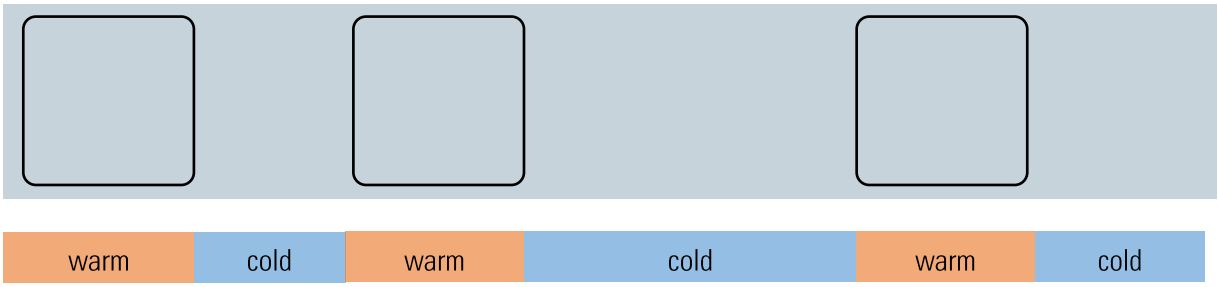
Example 1: Combination of cold and warm buffet

It is also possible to set up free surfaces for any other application you like, or possibly an expansion, with use of a flush glass sheet. This lets you use the cold and warm buffet table in a variety of combinations.



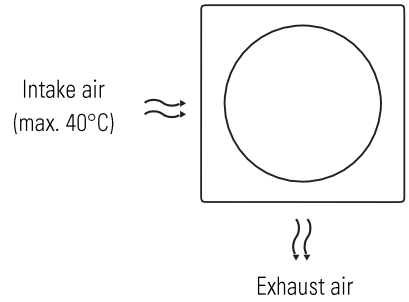
Example 2: Flexible intervals between devices

The InductWarm® 130+ devices does not require any direct interconnections, so they can also be arranged at different intervals.

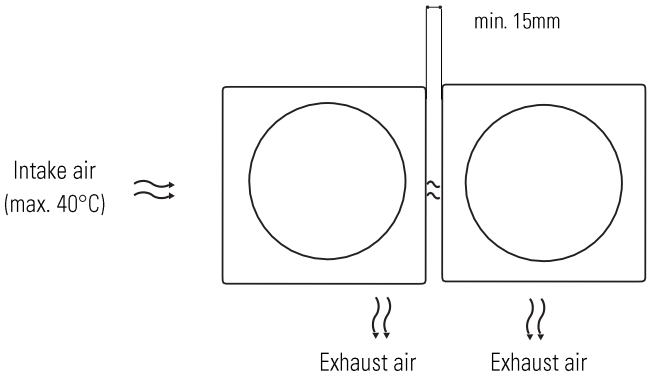


Air Circulation

When arranging the built-in frames and corresponding elements, you must make certain that the intake air does not exceed a temperature of 40° Celsius. It is simple and easy to arrange multiple devices in the same direction.



Ventilation of one InductWarm® 130 device

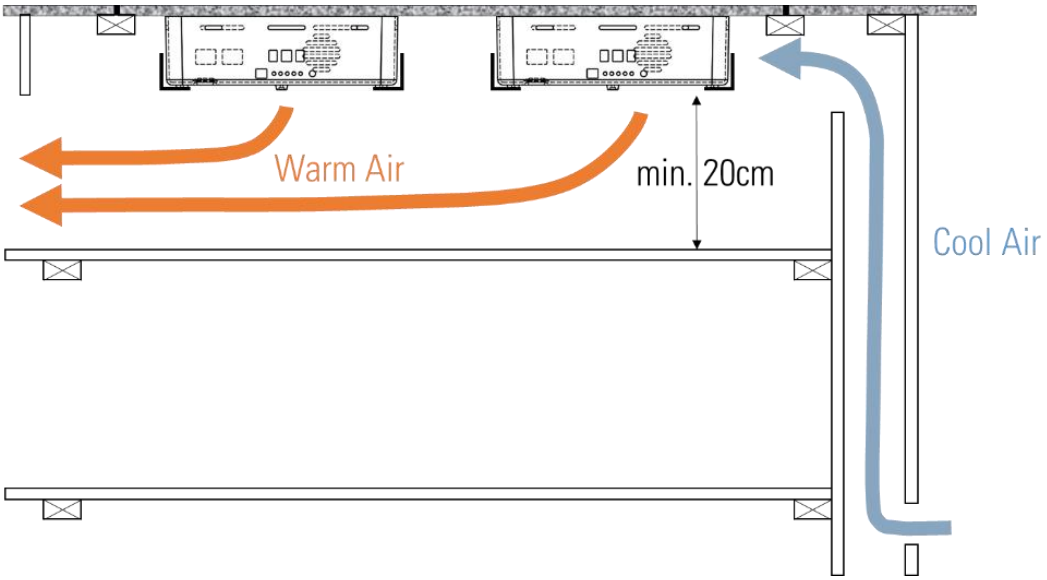


Ventilation of two InductWarm® 130 device

Do not arrange the InductWarm® elements in such a way that the exhaust air openings are directly across each another. This would pose a risk of heat accumulation.

Ventilation Buffet-Example

The air circulation openings at the upper side walls as well as the bottom fan shall not be covered by any other installation parts. The surrounding air temperature shall not be higher than 40 °C. Keep a distance at the back side of the outlets (power connector side) of minimum 5cm to other objects. Keep minimum 20cm distance at the bottom of the device to the next object. Do not plate the device on a plate without a cut out at the place of the bottom fan.



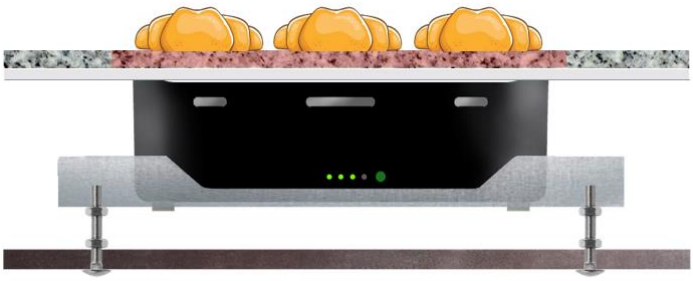
InductPlate®

Induktive Wärmeplatte

5 InductPlate®

5.1 Description

Savory pizza and crispy snacks taste best when they are warm. They also have to be a feast for the eyes. With InductPlate® you keep your snacks warm in an efficient and appealing way. Highlight: InductPlate® works completely without any inductive dish. Food like pizza, pastry and snacks can be placed directly on the surface of the counter.



The induction unit InductWarm® 130+ as well as the special InductPlate® construction are located invisibly underneath the counters surface. Both in combination are warming the surface of the counter from 40°C up to 80°C. According to the kind of food you can chose between four programmable power levels which allows to adjust exactly the right temperature for every snack.

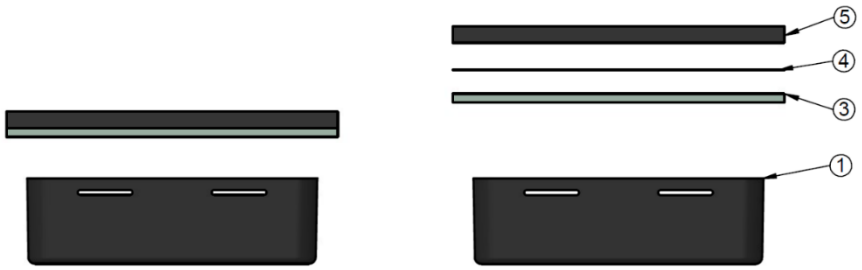
InductPlate® is warming an area of approx. 40 x 40 cm. According to the counters size a flexible number of induction units can be installed and up to 16 devices can be linked with each other. With the external control panel or the optional infrared remote control, you can operate each single device or even the whole network with just one click.

You benefit from the excellent energy efficiency of the system, that saves up to 90% of energy compared to other electrical warming devices.

Features

- Perfectly flush and level installation in counter tops made from glass or artificial stone.
- Modular system: custom build with arranging several devices and a custom-made full-length surface possible
- Open at side for ventilation of the elements (intake air max. 40° C) and the connection and the cable gland for flexible connection cables
- Four integrated LEDs display the chosen power level
- Optional InductWarm® remote control and control unit
- Connection cable 1,5m long, with unit plug and country-specific plug

5.2 Specifications for Tenders

Product:	**InductPlate®**
Manufacturer:	Gastros Switzerland AG
Category:	Inductive Warming Unit
Picture:	
Description-Text:	InductPlate® (based on the InductWarm® 130+ Undercounter) Warming plate for food display counters. Inductive warming device with integrated control unit for flush built-in and undercounter in surfaces of artificial stone. Keeps food like pizza, snacks, pastry warm on four power levels between a range of approx. 40°C - 80°C on an area of approx. 40x40cm. The food is placed directly on the surface of the counter without any inductive dish. Can be controlled via either the integrated panel, the external control panel (optional) or an infrared remote control (optional). Dynamic Power Control (DPC) constantly measures and automatically adjusts the power output of the device. In addition, the device has a built-in temperature monitoring function that switches it off in case of overtemperature. Up to 16 devices can be connected via the InductWarm®-BUS wire and can be controlled with one panel (all devices on the same power level). With the integrated USB-Port, software or parameter updates can be up-/downloaded. This feature allows a remote service/maintenance. The currently chosen power level is displayed with 4 LEDs. The cover material of min. 20mm is not included. Gastros will support you by selecting the approved material.
Warning:	Please keep attention to the correct composition of the sandwich-construction InductWarm® 130+ > glass plate > InductPlate® > artificial stone surface and their measures/thickness.

Article Nr.:	Warming zones	Dimensions	Weight	Electrical	max. Power
1 13 300 00	1	350 x 350 x 110 mm	6.5 kg	110/230VAC, 50/60Hz	0.8 kW

Delivery includes: InductWarm® 130+ (Nr.1) and InductPlate® (Nr. 4). Plates of glass (Nr. 3) and artificial stone (Nr. 5) **are not** included.

5.3 Impressions

InductWarm®

Accessories

6 Accessories

6.1 Inductive Porcelain

Bowl GN 1/1 Series 130 &
Bowl GN 1/1 Series 200
Dimension: 540 x 345 x 65 mm
Weight: 2,4 kg

Art. Nr. 2 20 011 00 (Series 130)

Art. Nr. 2 20 211 00 (Series 200)

Bowl GN 1/2 Series 130 &
Bowl GN 1/1 Series 200
Dimension: 360 x 275 x 65 mm
Weight: 1,4 kg

Art. Nr. 2 20 012 00 (Series 130)

Art. Nr. 2 20 212 00 (Series 200)

Bowl GN 1/3
Dimension: 360 x 120 x 65 mm
Weight: 0,9 kg

Art. Nr. 2 20 013 00 (all Series)

Bowl L
Diameter: 330 mm
Capacity: 4,3 l

Art. Nr. 2 00 030 00

Bowl M
Diameter: 290 mm
Capacity: 3,2 l

Art. Nr. 2 00 020 00

Pot for Sauces
Diameter: 121 mm
Capacity: 0,9 l

Art. Nr. 2 00 010 00

6.2 Covers

Buffet cover GN 1/1
Dimension: 540 x 345 x 80 mm
Weight: 2,4 kg

Art. Nr. 3 20 011 00

Buffet cover GN 1/2
Dimension: 360 x 275 x 80 mm
Weight: 1,4 kg

Art. Nr. 3 20 012 00

Buffet cover GN 1/3
Dimension: 360 x 120 x 80 mm
Weight: 0,9 kg

Art. Nr. 3 20 011 00

6.3 Transport case (for the InductWarm® 200)

Transport case
Dimension: 625 x 465 x 145 mm
Weight: 3 kg

Art. Nr. 6 20 500 00

7 Notes