

## 9 Garantieurkunde

# Garantieurkunde

für



**Die Qualität und alle Funktionen wurden vom  
Hersteller vor dem Versand geprüft.**

Wir gewähren Ihnen deshalb vom Zeitpunkt des Kaufdatums

**zwei Jahre Garantie**

Beschädigungen durch Naturkatastrophen oder unsachgemäße Nutzung  
durch den Kunden sind von dieser Garantie ausgeschlossen.

Bitte vervollständigen Sie anhand Ihrer Rechnung und dem Typenschild  
folgende Tabelle:

<b>Artikel</b>	<b>WHM Heizmantel ohne Steuerung</b>
<b>Typ</b>	
<b>Seriennummer</b>	
<b>Datum</b>	

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# 1 Introduction

Thank you for purchasing our **WHM Heating Mantle without Controller**. You did a good choice buying a **Wisd** product.

Before use, please read this manual and use it properly.

To cover the user's health and avoid the product's destruction you have to follow the safety instructions of the second chapter.

Please keep this operating manual in a save place for future reference and hand it out if you consign the device to a third person.

**Witeg** reserves to modify the capsule or make amendments for the improvement of quality and efficiency without prior notice.

# 2 Safety Instructions

## 2.1 Description of symbols



**WARNING**

Information for avoiding injuries or fatal accidents.



**ATTENTION**

Safety instruction to avoid a damage of the product.



**ATTENTION**

Information about technical parameters.



**Environment**

Information about the operating environment.



**WARNING of explosions**

Safety instruction to avoid explosions.



**ATTENTION to high temperatures**

Instructions to avoid injuries caused by high temperatures.

## 2.2 Instructions

For a safety and faultless using of the device it is indispensable that you read the following instructions purposely and follow them by the use.



- Only use our controller **WHM-C10D** (Art.-No.: DH.WHM12500) or **WHM-C10A** (Art.-No.: DH.WHM13500) to heat up the Heating Mantle
- Connect the device only to the suitable power supply. Please have a look to the identification plate.

- Due to its functions the Heating Mantle is not protected against incoming water. Only a professional handling can avoid hazardous accidents.
- Only persons with sufficient safety knowledge are allowed to use this device.
- Use the device only in electric circuits with ground fault circuit interrupter.
- Do not touch the device if any liquid is flowed into the device (e.g. broken glass vessel) and firstly switch the power supply off. After that please pull out the power plug.
- Check the power supply cord before you stick it into the electrical outlet.
- Do not use power bars to extend the power supply cord.
- Only use extension cables with sufficient cable cross section.
- Do not touch the device with wet hands during the usage because this might cause an electrical shock.
- If unexpected sound, smell or smog is generated by the device, pull out the main plug and contact the manufacturer or your supplier immediately.
- Disconnect the power supply plug before cleaning or maintenance.
- If you use radiation or contaminated samples the responsibility is only up to you.



- Do not put heat-sensitive items at the device.
- Only use adequate sized vessels and avoid an over boil of the liquids.
- Do not clean the scorching device.



- Use this device only if you read the whole safety instructions.
- This device should only used by persons who are familiarized with safety instructions made for laboratories.
- Pay attention that no liquid reaches the controller or inward of the capsule.
- You have to keep the device clean if you want to get a longer life of it.
- Wear corresponding protective work clothing during the usage.
- Pull out the power cable if you didn't want to use the device for a longer time.
- Please make sure that you use only vessels with heat resistance glass (look at 3.3).
- Do not heat up the heating mantle without any vessel to avoid an overheating.
- Do not heat the up the device more than it is necessary - for lower energy consumption and your own safety.



- Make sure that the device can not slip away.
- To avoid heat congestions or fires make sure that there is enough space for air circulations.
- Avoid direct solar radiation.
- Do not use the device near highly combustible materials.
- Do not set the device outdoors.
- It is superiorly to set the device in a good illuminated place to avoid accidents engendered by handling errors.
- To set the device in wet or dusty places could cause overheating, short circuits or fires.



- Do not use this device in areas with potentially explosive atmosphere.



- Reparations and amendments should only made by **witeg** authorized people. Contraventions exclude the warranty.

## 3 Product description

### 3.1 Key features

The **Wisdom WHM Heating Mantle with Controller** is designed for chemical, biological, medical and pharmaceutical heating and extraction applications up to 750 °C. The device was developed for simplest usage and a very long life. You can use round flasks and beakers of all brands of vessels (Schott-DURAN, IWAKI, PYREX and Kimble). This Heating Mantles has to be used only with our **WHM-C10D** or **WHM-C10A** external controller.

Devices with aluminium case can be used with magnetic stirrers. Steel cased devices cannot be used with magnetic stirrers.

### 3.2 General survey



### 3.3 Restrictions

- Please only use glass vessels that are made for heating applications. A minimum heat resistance like borosilicate glass 3.3 has is needed.
- Usage is only allowed with controller **WHM-C10D** controller (Art.-No.: DH.WHM12500) or **WHM-C10A** controller (Art.-No.: DH.WHM13500).
- Heating mantles with steel case are not suitable with magnetic stirrers.
- Fabric housed heating mantles does not have an implemented temperature sensor and need to be used with an external temperature sensor (DH.WHP503040 **SS300**, DH.WHP503041 **SS310**, DH.WHP503050 **SS400**, DH.WHP503051 **SS410**).

## 4 Package content

quantity	denomination
1	<b>WHM Heating Mantle without Controller</b>
1	operating manual

## 5 Positioning the device and commissioning

1. Follow especially the safety instructions marked with following symbol:
2. Remove the package carefully.
3. If there are any unexpected transport damages, please inform your forwarder and your customer service.
4. Remove perhaps soiling and package material.
5. Before you connect the device with the electrical outlet, please let some time laps until the device is acclimatised.
6. Make sure that you follow all safety instructions.
7. Connect the device with the power outlet.
8. Switch the device on and start the process (look at job description).



## 6 Job description

The WHM Heating Mantle without controller is only usable with **WHM-C10D** or **WHM-C10A** remote controller. Please follow the job description of **WHM-C10#** controller.

## 7 Maintenance and cleaning

- Please read the whole safety instructions before you start to maintain or clean the device.
- Pull the power plug out of the electrical outlet.
- Only use care cleaning agents and soft cleaning rags.
- Organic lotions, strong chemicals and rough cleaning rags can damage the device.
- If you not want to use the device for a long time, pull of the power plug and keep it dry in the package.
- Only use original spare parts and accessories.
- Make sure that no liquid gets into the device.
- Do not clean the hot device.

## 8 Technical data

Heating Mantles for spherical flasks								
Temperature	Max. 450 °C							
Material Heating zone	Glass cloth							
Material housing	Powder coated Aluminium							
Safety class	IP10							
Article number DH.WHM12...	Size flasks (ml)	Ø flasks (mm)	Rated power (W)	Inside depth (mm)	Housing size (mm) Ø x H	Stand rod (mm) Ø x H	Flask brand	
230 V 50 Hz	110 V 60 Hz							
050	061	50	49-52	80	48	145 x 75	13 x 440	all
051	062	100	63-66	80	50	145 x 75	13 x 440	all
052	062	250	83-86	140	50	145 x 75	13 x 440	all
053	063	500	102-105	240	85	190 x 110	13 x 440	all
054	064	1.000	130-133	350	85	190 x 110	13 x 440	all
055	065	2.000	165-169	450	110	270 x 135	13 x 660	DU/Iw*
0551	0661	2.000	161-164	450	110	270 x 135	13 x 660	Ki/Py*
056	066	3.000	184-187	550	110	270 x 135	13 x 660	DU/Ki*
057	067	5.000	221-224	800	140	325 x 165	13 x 800	all
058	068	6.000	234-237	800	140	325 x 165	13 x 800	DU/Ki*

\*) DU = Schott-DURAN, Ki = Kimax, Iw = Iwaki, Py = Pyrex

Heating Mantles for spherical flasks								
Temperature	Max. 450 °C							
Material Heating zone	Glass cloth							
Material housing	Powder coated steel							
Safety class	IP10							
Article number DH.WHM12...	Size flasks (ml)	Ø flasks (mm)	Rated power (W)	Inside depth (mm)	Housing size (mm) Ø x H	Stand rod (mm) Ø x H	Flask brand	
230 V 50 Hz	110 V 60 Hz							
073	083	10.000	278-282	1.400	160	390 x 240	13 x 800	DU
074	084	20.000	344-348	2.000	200	470 x 260	13 x 800	DU

\*) DU = Schott-DURAN, Ki = Kimax, Iw = Iwaki, Py = Pyrex

Heating Mantles for spherical flasks								
Temperature		Max. 650 °C						
Material Heating zone		Glass cloth						
Material housing		Powder coated Aluminium						
Safety class		IP10						
Article number DH.WHM12...		Size flasks (ml)	Ø flasks (mm)	Rated power (W)	Inside depth (mm)	Housing size (mm) Ø x H	Stand rod (mm) Ø x H	Flask brand
230 V 50 Hz	110 V 60 Hz							
091	101	100	63-66	120	50	145 x 75	13 x 440	all
092	102	250	83-86	200	50	145 x 75	13 x 440	all
093	103	500	102-105	350	60	190 x 85	13 x 440	all
094	104	1.000	130-133	450	85	190 x 110	13 x 440	all
095	105	2.000	165-169	600	110	270 x 135	13 x 660	DU/lw*
0951	1051	2.000	161-164	600	110	270 x 135	13 x 660	Ki/Py*
096	106	3.000	184-187	700	110	270 x 135	13 x 660	DU/Ki*
097	107	.000	221-224	1.200	140	325 x 165	13 x 800	all
098	108	6.000	234-237	1.200	140	325 x 165	13 x 800	DU/Ki*
099	109	10.000	278-282	1.800	160	390 x 240	13 x 800	DU

\*) DU = Schott-DURAN, Ki = Kimax, lw = lwaki, Py = Pyrex

Heating Mantles for Beakers								
Temperature		Max. 450 °C						
Material Heating zone		Glass cloth						
Material housing		Powder coated Aluminium						
Safety class		IP10						
Article number DH.WHM12...		Size beaker (ml)	Ø beaker (mm)	Rated power (W)	Inside depth (mm)	Housing size (mm) Ø x H	Stand rod (mm) Ø x H	Beaker brand
230 V 50 Hz	110 V 60 Hz							
170	180	100	50-52	80	50	145 x 75	13 x 440	all
171	181	250	68-70	140	50	145 x 75	13 x 440	all
172	182	400	79-81	240	85	145 x 110	13 x 440	DU*
1721	1821	400	76-78	240	85	145 x 110	13 x 440	lw/Ki/Py*
173	183	600	88-90	240	85	145 x 110	13 x 440	all
174	184	800	98-100	300	90	145 x 110	13 x 440	all

\*) DU = Schott-DURAN, Ki = Kimax, lw = lwaki, Py = Pyrex

Heating Mantles for Beakers								
Temperature	Max. 450 °C							
Material Heating zone	Glass cloth							
Material housing	Powder coated Aluminium							
Safety class	IP10							
Article number DH.WHM12...		Size beaker (ml)	Ø beaker (mm)	Rated power (W)	Inside depth (mm)	Housing size (mm) Ø x H	Stand rod (mm) Ø x H	Beaker brand
230 V 50 Hz	110 V 60 Hz							
175	185	1.000	105-108	350	115	190 x 140	13 x 440	all
176	186	2.000	130-132	450	140	270 x 200	13 x 660	all
177	187	3.000	151-153	550	175	270 x 200	13 x 660	DU/lw*
178	188	4.000	160-162	700	175	270 x 200	13 x 660	Ki/Py*
179	189	5.000	169-171	800	175	270 x 200	13 x 660	DU*
1791	1891	10.000	216-219	1.400	245	325 x 270	13 x 660	DU*

\*) DU = Schott-DURAN, Ki = Kimax, lw = lwaki, Py = Pyrex

Heating Mantles for Reaction Vessels								
Temperature	Max. 450 °C							
Material Heating zone	Glass cloth							
Material housing	Powder coated Aluminium							
Safety class	IP10							
Article number DH.WHM12...		Size vessel (ml)	Ø vessel (mm)	Rated power (W)	Inside depth (mm)	Housing size (mm) Ø x H	Stand rod (mm) Ø x H	
230 V 50 Hz	110 V 60 Hz							
211	221	500	110	240	80	145 x 105	13 x 660	
212	222	1.000	110	350	115	145 x 140	13 x 660	
213	223	2.000	130	450	140	190 x 165	13 x 660	
214	224	3.000	160	550	210	270 x 235	13 x 800	
215	225	5.000	215	800	210	270 x 235	13 x 800	
216	226	6.000	215	800	210	270 x 235	13 x 800	
2161	2261	7.000	215	850	210	270 x 235	13 x 800	
217	227	10.000	215	1.400	245	325 x 270	13 x 800	
2171	2271	10.000	24	1.400	245	325 x 270	13 x 800	

Heating Mantles for Reaction Vessels							
Temperature		Max. 450 °C					
Material Heating zone		Glass cloth					
Material housing		Powder coated steel					
Safety class		IP10					
Article number DH.WHM12...		Size vessel (ml)	Ø vessel (mm)	Rated power (W)	Inside depth (mm)	Housing size (mm) Ø x H	Stand rod (mm) Ø x H
230 V 50 Hz	110 V 60 Hz						
218	228	20.000	270	2.000	360	390 x 410	13 x 800
2181	229	20.000	290	2.000	360	390 x 410	13 x 800
219	229	50.000	315	4.000	720	470 x 800	13 x 800
220	230	100.000	415	6.000	800	570 x 900	13 x 800

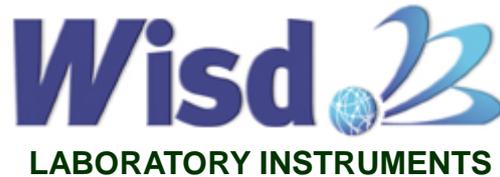
Heating Mantles for Reaction Vessels with bottom opening								
Temperature		Max. 450 °C						
Material Heating zone		Glass cloth						
Material housing		Powder coated Aluminium						
Safety class		IP10						
Article number DH.WHM12...		Size vessel (ml)	Ø vessel (mm)	Rated power (W)	Inside depth (mm)	Housing size (mm) Ø x H	Stand rod (mm) Ø x H	Bottom- opening  L x B (mm)
230 V 50 Hz	110 V 60 Hz							
231	241	500	110	240	80	145 x 105	13 x 660	72 x 40
232	242	1.000	110	350	115	145 x 140	13 x 660	72 x 40
233	243	2.000	130	450	140	190 x 165	13 x 800	72 x 40
234	244	3.000	130	550	210	270 x 235	13 x 800	120 x 70
235	245	5.000	160	800	210	270 x 235	13 x 800	120 x 70
236	246	6.000	215	800	210	270 x 235	13 x 800	120 x 70
2361	2461	7.000	215	850	210	270 x 235	13 x 800	120 x 70
237	247	10.000	215	1.400	250	325 x 270	13 x 800	120 x 70
2371	2471	10.000	240	1.400	250	325 x 270	13 x 800	120 x 70

Heating Mantles for Reaction Vessels with bottom opening								
Temperature		Max. 450 °C						
Material Heating zone		Glass cloth						
Material housing		Powder coated steel						
Safety class		IP10						
Article number DH.WHM12...		Size vessel (ml)	Ø vessel (mm)	Rated power (W)	Inside depth (mm)	Housing size (mm) Ø x H	Stand rod (mm) Ø x H	Bottom- opening  L x B (mm)
230 V 50 Hz	110 V 60 Hz							
238	248	20.000	270	2.000	360	390 x 410	13 x 800	120 x 70
2381	2481	20.000	290	2.000	360	390 x 410	13 x 800	120 x 70
239	249	50.000	315	4.000	720	470 x 800	13 x 800	120 x 70
240	250	100.000	415	6.000	800	570 x 850	13 x 800	120 x 70

## 9 Certificate

# Certificate

for



**The quality and all features were checked by the manufacturer before the shipment.**

We grant from date of purchase

**two years guaranty.**

This certificate excludes damages by natural disasters or incorrect usages by the costumer.

Please look on your account and complete following table:

<b>Article</b>	<b>WHM Heating Mantle without Controller</b>
<b>Typ</b>	
<b>Serialno.</b>	
<b>Date</b>	

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