



winkler

Operating Instructions

Base Drum Heater (0 - 150 °C) **WODBH**



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Disclaimer

All information - including illustrations and graphical representations - corresponds to our current state of knowledge and has been written to the best of our knowledge. Specifications are subject to change without notice. In addition, we reserve the right to make changes without notice to the design, materials or workmanship in the interest of technical progress.



In these operating instructions you will find all the important information on mounting and commissioning. In addition, you will find important information for your safety as well as for help in case of problems.

The user of this product must decide on his own responsibility about its suitability for the intended use.

1. Introduction

Base drum heaters are used to heat drums made of metal in order to protect the contents filled in them from frost, to heat them to a certain processing temperature or to facilitate their removal and dispensing by reducing their viscosity. The heating element is installed within the base heater, which ensures even heat distribution. The heater has a surface structure that allows it to optimally fit the bottom surface of the drum to be heated. It is to be used in connection with the digital temperature controller, which can be manually set to the desired temperature of up to 150 °C.

The light weight heater has integrated insulation to minimize unwanted heat loss. Equipped with robust handle, it can be quickly and easily be placed underneath and removed from standard drums.

With the relatively low specific surface power, it is only suitable to a limited extent for rapid heating of liquids or melting of solid ingredients. Much more, it is ideally suited for frost protection as well as slow heating and maintaining the temperature of already heated drums. Insulation lids are available as accessories to improve the efficiency and protect personell against burns on the hot surfaces of the drums.

With its high-quality materials and workmanship, the heaters provide a safe, efficient and durable solution for heating drums in industrial applications when operated as intended.

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2. Application standards

The base drum heaters are designed for use in industrial applications. During planning, erection, testing, operation, maintenance and servicing, the minimum requirements to follow are:

- this operating manual,
- EN 60519-1 and EN 60519-2 "Safety in electrical heating installations", Part 1: General requirements (= IEC 519-1 = VDE 0721 Part 911),
- applicable parts of VDE 0100,

as well as other applicable standards and regulations (e.g. of the employers' liability insurance associations) and directives that must be observed depending on the application. The protective measures against dangerous fault currents must be carried out in accordance with VDE 0100 Part 410 and Part 540 (grounding or system grounding) as well as the specifications of the standards listed above.

3. Intended operation

The heaters are only considered to be operated as intended if the following points are taken into account:

- The heater may only be operated with the specified nominal voltage.
- The heater may only be operated in the range of up to 150 °C.
- Only instructed persons may work on the heater.
- The safety and operating instructions must be observed.
- The operating instructions of the plant owner must be complied with.
- The statutory accident prevention regulations must be observed.

The following is considered improper operation:

- Operation in potentially explosive atmospheres.
- Operation by untrained persons.
- Operation in disregard of safety regulations.
- Operation with deactivated, modified or defective safety devices.

4. Scope of delivery

Check that the packaging is intact and that the delivery is complete. Contact your supplier immediately if any parts are missing or defective.

Scope of supply: 1 pc. Base Drum Heater)
 1 pc. Operating instructions

5. Safety instructions



Please read these operating instructions before commissioning the device! Failure to observe these safety instructions may result in damage to property and personal injury due to fire or electric shock!

Drum heaters are electrical equipment which may only be installed, connected and commissioned by trained personnel. Suitable electrical disconnecting and protective devices must be provided by the operator in accordance with the relevant legislative regulations.

We recommend the use of a residual current circuit breaker (RCD) with 30 mA.



All base drum heaters are suitable for operation in closed rooms and covered outdoor areas (degree of protection IP 54). They must not be directly exposed to the weather.

Before commissioning

Remove the heater from the packaging and make sure that it is not damaged. Never lift the heater by the connection cable. Check that the mains voltage corresponds to the product label.

Always use the heater only for the intended drum of the corresponding design and size. Never use the heater without the suitable corresponding container!

When using, make sure of the maximum temperature and heating time specified by the manufacturer are followed.



Keep informed (e.g. Safety Data Sheet) about which max. permissible temperature of the ingredient must not be exceeded and whether flammable gases or vapors can escape (risk of fire and explosion!).

Make sure that the outside of the drum to be heated is clean and dry.

Do not use additional heating or heat sources and never expose the heater to temperatures above the nominal temperature.

Assembly

Lay the base drum heater in such a way that it lies smoothly and evenly under the drum and that the heating/insulation jacket does not overlap onto the base heater. Use the existing fasteners on the heating/insulation jacket to secure

it against slipping. Do not use any fasteners other than those supplied with the heating/insulation jacket and do not use any tools for assembly that could overstress the material.

Always maintain a safety distance of at least 50 cm between two heated drums. The same applies to the distance to radiators, warm surfaces, etc.

Commissioning

Do not connect the temperature controller to the power supply until after installation. To do this, remove the temperature controller from its packaging and attach it to the fleece hook and loop pad provided on the heating/insulation jacket or wall mounting adapter. Connect the heater to the controller 6+PE female socket using the round plug connections. Use the controller to set the desired temperature set point. The temperature of the ingredient must be determined by separate fluid sensor, if necessary.



Monitor the heating phase and the operation of the tank heater to observe any overheating or irregularities and initiate appropriate measures.

If necessary, open the lid or bungholes of the container so that it does not expand inadmissibly due to a pressure build-up during heating. Monitor the fill level of the drum while removing the contents. In the event of any leakage, take the heater out of operation immediately.



Caution: At temperatures above 60°C, there is a risk of burns on the surfaces of the containers. Protect yourself against this, e.g. by using a drum heating jacket and/or insulation covers available as accessories.

During initial start-up, an odor may be emitted for technical reasons; this does not constitute a defect. Please ensure good ventilation. A heater that is not in operation must be disconnected from the power supply.

Disassembly and storage

Switch off the heater and allow it to cool down completely. Disconnect it from the power supply before disassembly. Then check it for damage and contamination and the connection cable for defects.

Do not use solvents or abrasive cleaners to clean the heater and never immerse it in liquids. To clean, gently wipe the surfaces and controls with a damp cloth. Keep the heater away from sharp edges and pointed objects.



If you find defects or damage of any kind, do not put the heater into operation again. Do not attempt to repair a damaged one yourself.

When the heater is not in use, it should be stored in a dry and clean environment in its original packaging.

6. Base Drum heater WODBH

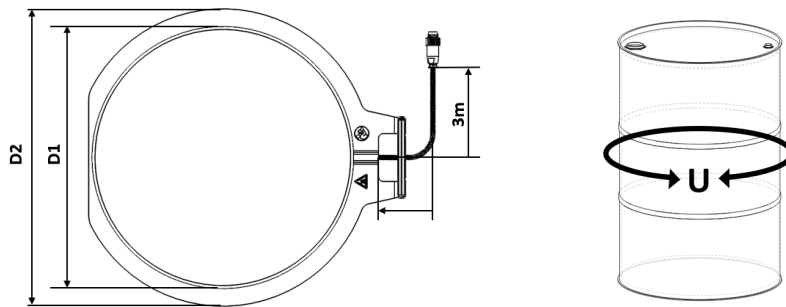
6.1 Intended use and application

Base Drum heaters are designed for heating metal drums up to max. 150 °C **within areas NOT subject to explosion hazards**. For the best heating results, we recommend the use of drum heating jackets and insulation lids designed for temperatures up to 150°C.

6.2 Technical data

Structure	
1. Carrier plate	Glass fibre reinforced plastic (GRP) in grey, flattend at the front
2. Heating plate	Made out of aluminium for optimal heat transfer
3. Heating	Fluoropolymer-insulated heating conductor, laid directly under the heating plate
4. Carrying handle	For simple transport
5. Connection cable with 7-pin round plug	Suitable for our temperature controllers, which are available as accessories.

Technical data	
Operating voltage	230 VAC (± 10 %)
Nominal power	1.000 W (± 10 %)
Operating temperature	0 – 150 °C
Temperature sensors	2 x Pt100
Temperature control	WRL430PW-0150WIN2
Protection class	I ⊕ (Protective earth)
IP-Code	IP54
Connection cable	3 m with 7-pole round plug suitable for WRL430PW-0150WIN2
Max. load capacity	250 kg



Dimensions	Base Drum heater
Diameter d1	550 mm
Diameter d2	620 mm
Height	40 mm
U min. Scope barrel	1.800 mm
U max. Scope barrel	2.100 mm
Weight	4,9 kg

6.3 Commissioning (Figure 6.3.1)

Before commissioning, make sure that the operating manual of the temperature controller is available in order to obtain detailed information about the settings and the control behavior.

Fundamental (WRL430PW): The hook and loop strip on the back of the temperature controller allows you to attach it to the cover of the heating jacket. A hook and loop fleece pad on the heater is provided for this purpose, which is located next to the cable with 0.3 m connection cable. Connect the 6+PE plug to the 6+PE socket of the temperature controller. The drum heater is connected to the power supply using the controller connection cable (1). The controller

is switched on by pressing the up and down (2) keys simultaneously for a longer period of time. After switching on, the controller performs a self-test (white indication light). If everything is OK, the display briefly lights up green (3) and then drum heater begins heating. If an error is detected, an error message on display or signal LED (3) is displayed immediately.

Usually, after switching on, the set temperature has not yet been reached. The status LED (3) flashes blue slowly. This means that the heating is active and the set temperature has not yet been reached. If the temperature is within the good range of the setpoint, the status LED (3) is permanently green. Note: The controllers are delivered with a basic setting (4) of 40°C. In the delivery state, the controller switches on automatically. Detailed information can be found in the controller operation manual.

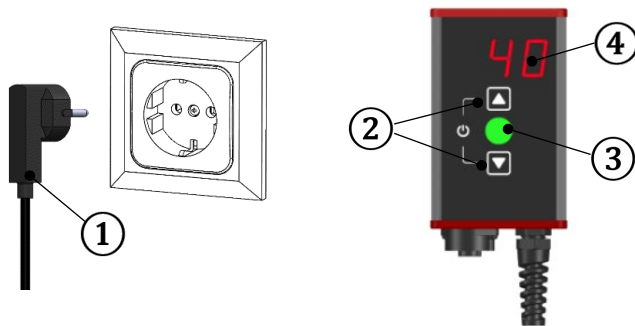


Figure 6.3.1

Monitor the heating process and the behavior of the contents. If necessary, open the lid or bungholes of the drum so that it does not expand inadmissibly due to a pressure build-up during heating. In case of liquid leakage, immediately take the drum heater out of operation and remove it.

7. Troubleshooting and problem solving

Please read these instructions before contacting us. These instructions are designed to answer frequently asked questions. If you cannot identify the problem or need additional help, please contact your dealer or our service department.

PROBLEM	SOLUTION
Container heater does not heat	Make sure that the heater is connected to a suitable voltage supply. The type plate on the connection cable shows the rated voltage of the heater. If an error occurs, the heater is switched off and the error is indicated by rapid flashing (4 Hz). In addition, read the operating instructions of the temperature controller used.
Ground fault circuit interrupter or fuse trips	Check whether the circuit breaker is suitable for the current requirement of the heater. The type plate on the connection cable shows the current requirement. Inspect the heater and the connection cable for damage indicating a short circuit.
Light soiling of the outside/inside	Use a clean cloth with household detergent to wipe off the contamination. The cleaner must not contain solvents or abrasives.

If it is determined or can be assumed that safe operation is no longer possible, the heater must be put out of operation and secured against unintentional startup. This also includes clear marking.

This case occurs:

- If the heater shows visible damage (e.g. dented plate).
- When the heating jacket no longer heats.
- If the heating jacket has suffered overstressing of any kind where the permissible limits have been exceeded (e.g. due to storage, transport, assembly, commissioning, operating conditions, etc.).

8. Service and maintenance

Maintenance and servicing should be carried out at regular intervals in accordance with the standards specified under "Safety instructions" and the regulations and provisions applicable to the application. The function of the heating element, the controller and the limiter must be checked and documented at least once a year.

The inspection must be performed after the heater has cooled down to ambient temperature and has been disconnected from the power supply. The insulation of the connection cable must not have any visible damage. The heater should have no accumulations of dirt, oil, grease or foreign matter. Warning notices and type plates should be undamaged and clearly legible.

Heaters in which the heating conductors overheated. They must be taken out of service immediately and must not be used again.

8.1 Repair

Conversions or modifications to the heater may impair its function. Repairs may only be carried out by qualified personnel. Only original spare parts and accessories may be used.

Do not attempt to repair a damaged heater yourself!

Replace it instead

8.2 Return

For returns, we ask that you always decontaminate the heater beforehand, confirm this in writing and enclose it with the heater as information. If you need a decontamination confirmation form, please contact your supplier.

9. Warranty

Winkler warrants the product to the original purchaser for a period of twelve (12) months from the date of delivery (handover of the goods).

In the event of justified complaints, Winkler shall, at its option, either remedy the defect or deliver a replacement. Winkler shall be entitled to have the defects remedied by third parties.

For details, please refer to our General conditions of purchasing and ordering at www.winkler.org.

10. Disposal

Environmental information for industrial customers within the EU:

The WEEE Directive 2012/19/EU aims to prevent waste from electrical and electronic equipment and to reduce such waste through reuse, recycling and other forms of recovery.



The symbol indicates that the product should be disposed of separately from regular commercial/household waste. It is your responsibility to dispose of this product only through the legally prescribed disposal channels or the appropriate collection points designated by the government or local authorities.

Proper disposal and recycling will help prevent potential negative consequences for the environment and human health. If you need more information on how to dispose of your waste equipment, please contact your local authorities, municipal waste disposal services or the dealer where you purchased the product.

11. Contact

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12. Quality management according to ISO 9001: 2015

CERTIFICATE
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Management Service

CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH

certifies that



Winkler AG

Englerstr. 24 • 69126 Heidelberg • Germany
for the scope of application
**Development, manufacture and sales
of heat engineering products with
control and monitoring systems**

Kleinfeldweg 38 • 69190 Walldorf • Germany
for the scope of application
**Manufacture of heat engineering products
with control and monitoring systems**

has established and applies
a Quality Management System.

An audit was performed, Order No. **70002379**.

Proof has been furnished that the requirements
according to

ISO 9001:2015

are fulfilled.

The certificate is valid from **2021-04-20** until **2024-04-19**.

Certificate Registration No.: **12 100 28096 TMS**.



Head of Certification Body
Munich, 2021-04-12




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www.tuev-sued.de/certificate-validity-check

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13. EU Declaration of Conformity

**EU-DECLARATION OF
CONFORMITY**

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Product group : heating jackets / heating mantels / insulation jackets

Product : **WOB..., WOC..., WOD..., WRZ...**

Directives : Low voltage directive 2014/35/EU
Electromagnetic compatibility directive 2014/30/EU
RoHS directive 2011/65/EU+2015/863/EU
REACH regulation 1907/2006

We hereby declare that in planning and manufacturing of this product the basic safety and health requirements of the EU Directives mentioned above have been observed.

Other national standards and technical specifications applied:

DIN EN IEC 60519-1:2020-12; VDE 0721-1:2020-12

DIN EN 60398 VDE 0721-50:2016-02; IEC 60398:2015;
EN 60398:2015

Any modification to the product without our consent will make this declaration invalid.

Heidelberg, October 10th 2022

Winkler AG

B. Henkel
General Manager