

EN INSTRUCTION MANUAL
Large umbrella MV

Congratulations on your decision to purchase a Meissl large umbrella MV! You have chosen a very high-quality product, which offers the highest functionality and reliability. The selection and quality of all components speaks for itself. Hundreds of Meissl large umbrellas have met all the demands from operators for decades and offer safety in all weathers, even in extreme locations. They are the proven basis for predictable success in the outdoor business industry.

For guaranteed safety and a long service life with full function, appropriate treatment and care are essential. Therefore, please be sure to observe the usage rules and warnings in this instruction manual. Read the following pages carefully and instruct anyone who is to work with/handle this product in order to avoid any possible risks of injury and damage to property.

We wish you much enjoyment and lasting success with your Meissl large umbrella MV!



Hermine Meissl
CEO

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Product description

This umbrella system has been developed as a weather protection solution for outdoor use and must be operated in accordance with the operating instructions.

Meissl umbrellas are designed for demanding conditions. All structural components are protected against corrosion, in some cases with multiple layers. The technical textiles are manufactured in accordance with applicable norms and standards. The fabrics are easy to care for, dirt-repellent and rot-resistant.

The umbrella may only be used in an undamaged condition! Before the limit loads (see "TECHNICS") are exceeded, the appropriate countermeasures must be taken immediately.

Any modification that could alter the safety concept of the system (electrical, static, mechanical, fire protection, etc.) is expressly prohibited and may only be carried out with the written approval of Meissl. Any unauthorised changes will void all liability, warranty and guarantee claims.

The operator undertakes to have the system operated exclusively by instructed individuals. All necessary maintenance, inspection, cleaning and repair work must be carried out by relevant specialists. Subsequent additional loads in the form of lighting, sound and heating elements, as well as their electrical connections, are only permissible up to the limit load specified in the technical data.

To avoid damage caused by the flapping of the canopy, wind and excessive soiling, we highly recommend using the groundsheet and the day cover every day after closing the umbrella. There may be a little bit of noise when opening and closing the umbrella.

Assembly and first operation

Assembly

The assembly of an MV umbrella is carried out exclusively by qualified Meissl employees or authorised partner companies.








Installation

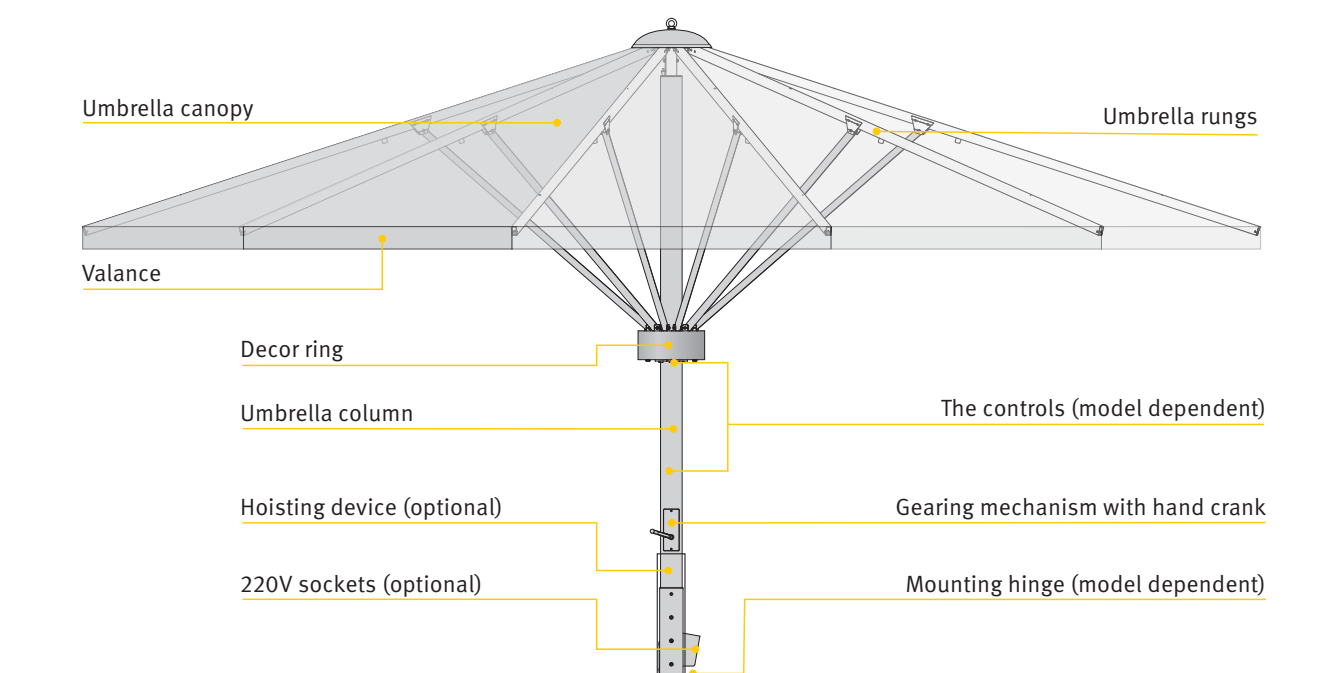
- Electrical work may only be carried out by relevant specialists.
- Necessary information for connection by external personnel is noted in the electrical diagrams.

First opening and re-opening of the umbrella

The system, including all safety-related protective measures, has been inspected by our expert installation personnel after installation and properly handed over to the operator. This is documented in the acceptance report. During assembly, the load-bearing elements and connecting pieces must be checked for obvious defects/damage.

Symbols in this instruction manual

Symbol	Note
	Important information
	Dangers and risks
	Danger of falling
	Do not walk on the canopy
	Do not use a steam cleaner
	Do not use a high-pressure cleaner
	Dispose of in accordance with local regulations



Before starting-up

The system may only be operated if the umbrella is intact. Therefore, check the function daily by means of visual inspection before starting operation.

- Check the condition of the canopy covering for cracks and damage.
- The condition of the load-bearing movable and fixed elements.
- The condition of any electrical equipment and wiring.

If you find any dangerous defects, the danger area must be secured against access and immediate repairs must be arranged. In case of electrical defects, the main switch of the installation must be switched off and secured against restarting.



The system may only be operated by instructed and competent people!

Instructed person: Person of at least 18 years of age who has been adequately informed or supervised by a qualified person and who is thus able to recognise risks and avoid possible hazards caused by the installation of the giant umbrella.

Competent person: Person who has a reliable understanding of safety-related issues due to their specialist knowledge from training, professional experience and professional activity. The competent person must keep their knowledge up to date regarding the task which is to be performed and the hazards to be observed.

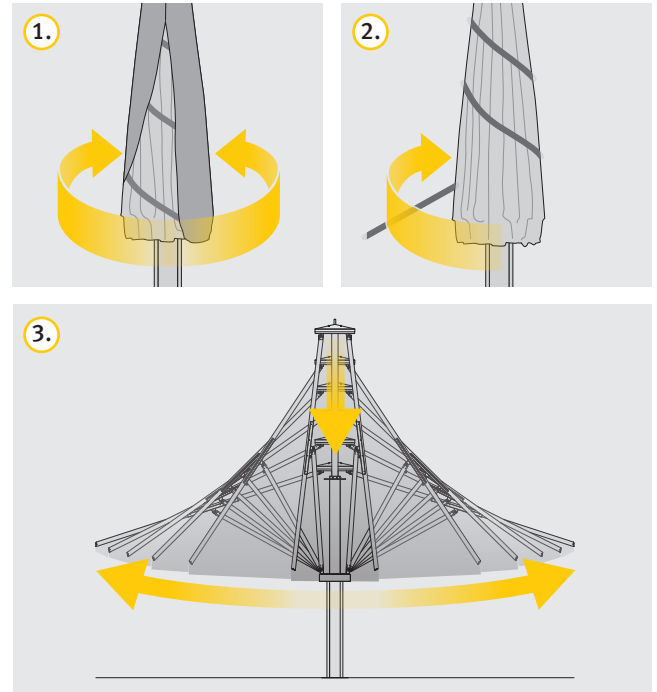


Please read the instructions in the “SAFETY” chapter before starting!

Operating the umbrella

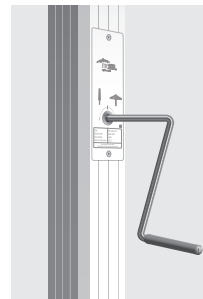
Opening the umbrella

Before opening the umbrella, make sure that the protective cover has been removed and the bracing strap has been loosened. Make sure that there are no people or objects within the range of movement of the umbrella.

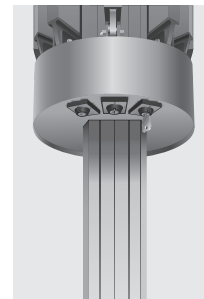


The controls

Different controls are used depending on the type of umbrella and its features:



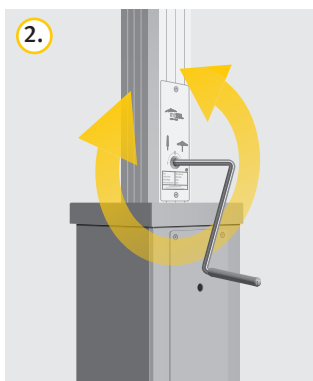
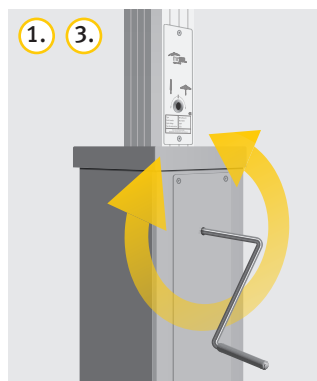
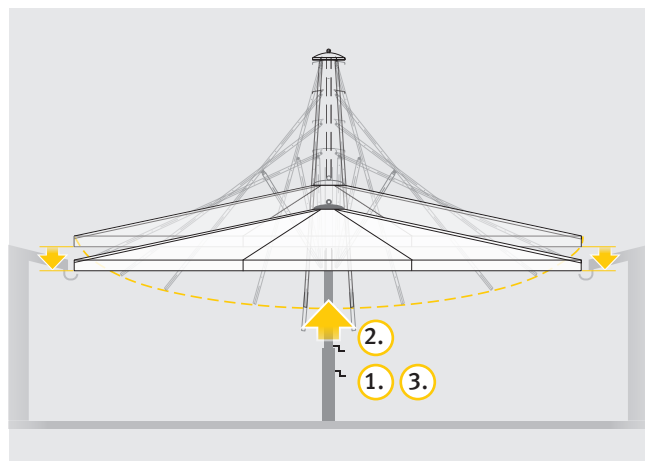
Manual drive system



Electric drive system – control dependent upon model



Hoisting device



With the optional hoisting device (only for manual drive versions), the MV umbrella fits perfectly onto existing building elements. However, due to the movement range of the umbrella construction, the umbrella must be lifted before it is opened. When the umbrella is fully open, it is lowered to its end position. Finally, a visual check should be carried out to ensure that the valance is positioned exactly above the rain gutter.

Set up the umbrella with the hoisting device:

1. Insert the crank into the opening of the hoisting device and crank the closed umbrella upwards until the mechanical end position has been reached.
2. Place the crank handle into the opening of the umbrella column and then open the umbrella fully.
3. Insert the crank into the opening of the hoisting device and crank the umbrella downwards until the mechanical end position has been reached.

To close the umbrella, follow the steps in reverse.

Closing the umbrella

First of all, loosen or remove all accessory components which are connected to the umbrella to prevent any damage.

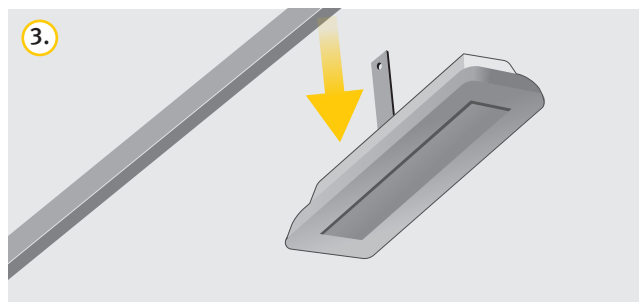
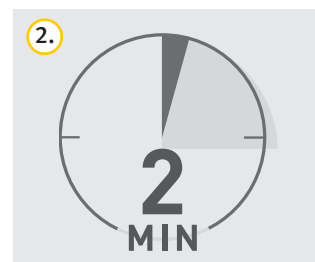
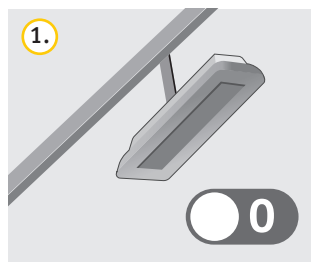
- **Detach the elastic cords from the panelling:**
(see "ACCESSORIES – elastic cords")
- **Detach the weather protection curtains from the rung and floor fixings**
(see "ACCESSORIES – Weather protection curtains")
- **Remove the rung support**
(see "ACCESSORIES – Rung support")
- **Remove rain gutters**
(see "ACCESSORIES – Rain gutters")
- **Remove foreign parts**
Any foreign objects on the umbrella must be removed before closing

Two types of radiant heaters are used for the umbrellas, which must be prepared differently for the closing process.

Clip-on radiant heaters:

These are attached to the rungs and must be removed as follows:

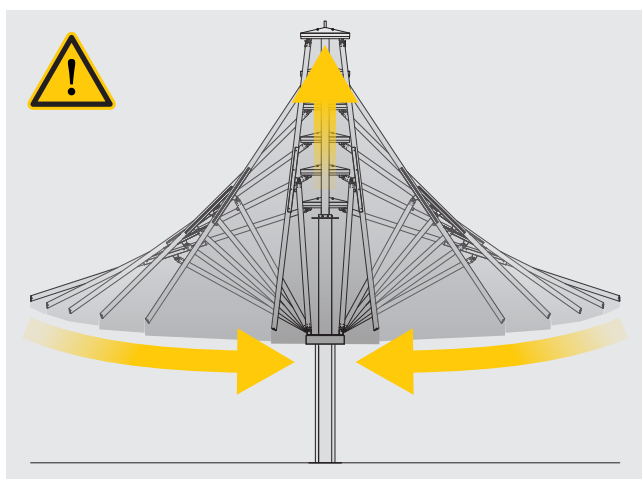
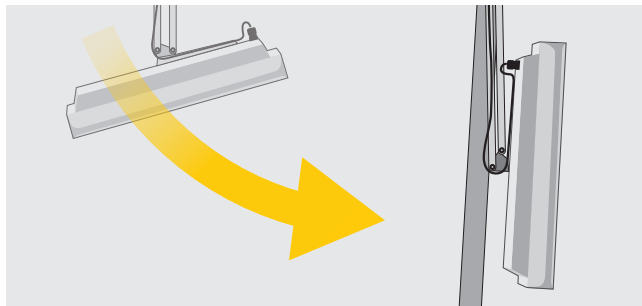
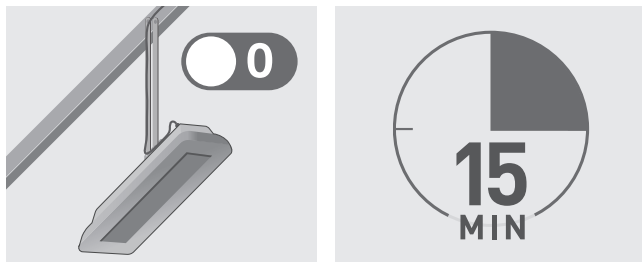
Switch off the radiant heater, allow to cool for at least 2 minutes and remove:



Swivel radiant heaters:

These are firmly attached to the umbrella rungs with a pendulum joint and cannot be removed.

! After switching them off, allow the radiant heaters to cool down for at least 15 minutes!



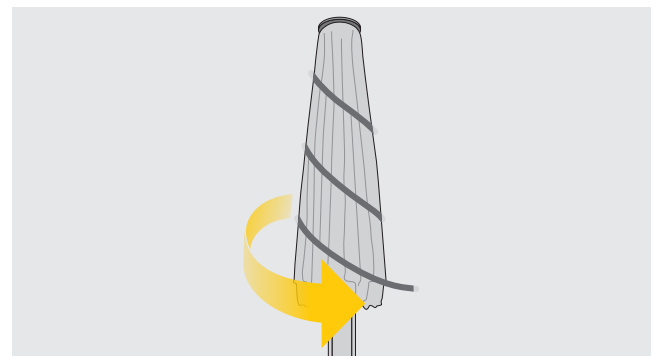
Make sure that there are no people or objects in the danger/movement area of the umbrella.

To close the umbrella, depending on the type of umbrella and equipment, use the hand crank or rotary switch on the controls (see "OPERATION – Umbrella operation/controls").

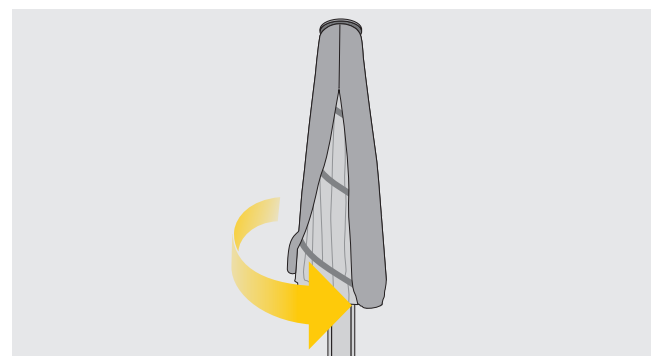


When closing the umbrella, be aware of the danger of falling objects from the umbrella canopy (ice, snow, branches ...).

Securing the closed umbrella

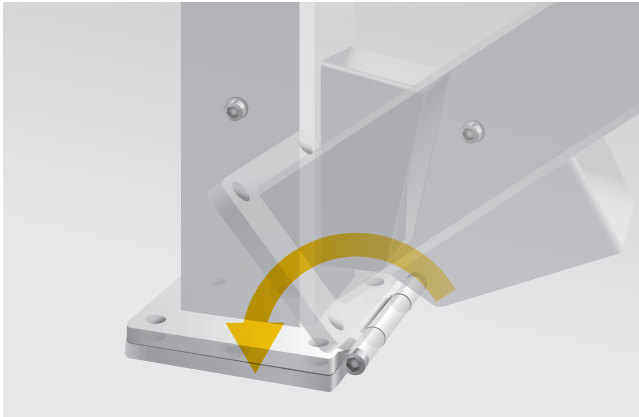


With the umbrella closed, pull the fabric folds of the umbrella canopy outwards, fan them in a circle around the umbrella and wrap and fix them with the bracing strap.



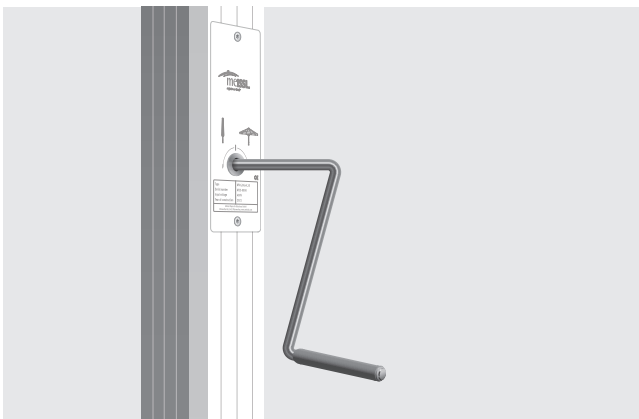
If the umbrella is not going to be used for a longer period of time, it is recommended to attach a protective cover. Make sure that the canopy is absolutely dry! This will protect your umbrella until the next use. In wind-exposed locations, it is strongly recommended that you attach a protective cover after closing the umbrella.

Mounting hinge



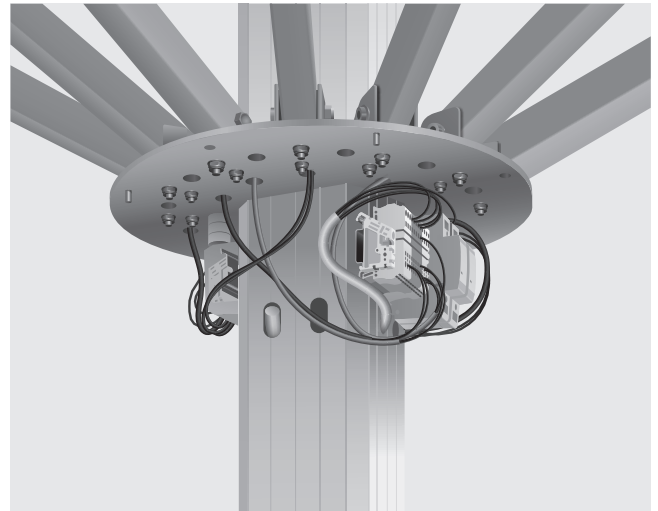
The optional mounting hinge makes it easier to set up the MV umbrellas. Position the lying umbrella so that the hinge opening of the umbrella locks into the pre-mounted base plate. Now push the hinge pin through the hinge openings, check that it is correctly positioned and secure the hinge pin with the Allen Key. The umbrella can now be lifted upright. Once it is in the upright position, secure the umbrella with the base plate attached to the floor. Use the four screws supplied for this purpose.

Hand crank for emergency operation



In the event of a power cut or technical malfunction, the electrically operated umbrella can also be operated using the hand crank provided. To do this, turn the crank clockwise to open the umbrella and anticlockwise to close it. Remove the hand crank after use.

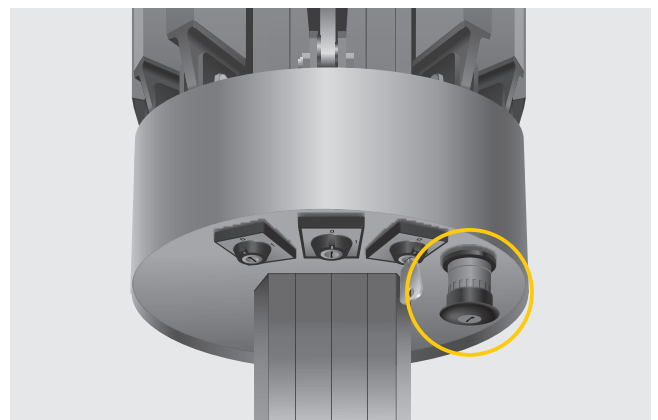
Control unit



Electrical controls

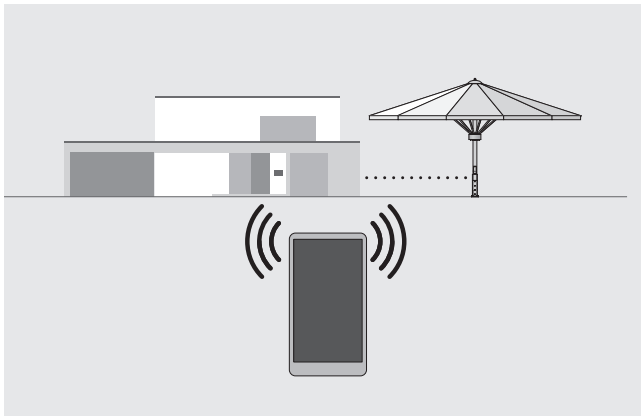
To access the control unit, loosen the rung ring cover and carefully lower it towards the floor. Make sure it is stored safely. Repairs may only be carried out by qualified professionals.

Emergency stop device



For large umbrellas with an emergency shut-off device, please note that only the umbrella function and IR radiant heaters are switched off. The power supply to the lighting function remains on for safety reasons. The pressed emergency shut-off switch must be unlocked again with the key and acknowledged. Only then are all functions reactivated.

Bus / remote control



Caution when operating with a superior Bus/remote control:


- The umbrella may only be controlled by a safety switch.
- The umbrella must be visible during operation.
- The operator must be able to intervene at any time in the event of a potentially dangerous situation.
- Automatic opening and closing of the umbrella is prohibited.
- The design or electrical engineering must not be modified.
- Before closing the umbrella, the 15-minute cooling time of the radiant heaters must be observed.


Set-up condition

Meissl umbrellas may only be set up and operated under the conditions known and specified when the order was placed. Any unauthorised change to these conditions will invalidate the liability, guarantee and warranty conditions.

- The load limits of weather-related influences such as wind and snow are specified in the chapter "TECHNOLOGY".
- Depending on the terrain, a high step may occur between the floor frame and the adjacent terrain. If no Meissl wind protection wall has been ordered, measures for fall protection must be taken on site.

Foundation and floor:


 The installation area and substructure must be checked for its load capacity by a structural engineer. The ground fixing must be made in accordance with the technical information in the drawing and table "Foundation table". Observe the dimensions for the corresponding umbrella type and its foundation sizes. This must be done by a person with construction expertise, using concrete (B 2 C25/30 SB) or equivalent, in compliance with local regulations.

 Installation instructions for the foundation plate for MV large umbrellas and the foundation table were sent to the customer when the order was placed.

Laying cables and hose lines

- Lay cables and hose lines outside walkways and driveways.
- Make sure that cables and hoses cannot be damaged by being driven over, crushed, pulled or the like.
- If necessary, install a step and/or overrun protection.

Electrical connection

 Umbrellas with electric motors, lighting and heating must be connected to the mains by a licensed company in compliance with the country-specific regulations. Earthing and lightning protection must be carried out professionally and confirmed with a protocol of measurement!

Requirements for the staff

Danger due to insufficient knowledge. The system may only be operated by trained and instructed or competent staff.

Instructed user


An individual of at least 18 years of age who has been adequately informed or supervised by a qualified person and is thus competent to recognise risks and avoid hazards caused by the large-scale umbrella system.

Qualified person

Person who, on the basis of his or her specialist knowledge from vocational training, professional experience and recent professional activity has a reliable understanding of safety issues. The competent person must have and maintain up to date knowledge with regard to the task to be performed and the hazards to be considered.

Hazardous areas

Control box – caution against electric shock!

 Work on live components may only be carried out by a competent person.


- When carrying out service or repair work on the umbrella, the main switch must be set to OFF.
- Make sure that all phases of the main switch are disconnected from the mains and cannot be switched on by other people.
- Before closing the umbrella unit, make sure that no cables are trapped.


 **Do not climb on rungs and supports!**

Hazards due to weather change

For safety reasons, the umbrella must be closed outside of operating hours and the canopy must be secured with the bracing strap!

What to do in a storm

 If there is a risk of a storm, close the umbrella immediately and secure it in accordance with the instructions (see “Closing the umbrella”). The umbrella may only be operated by authorised and instructed people. All other individuals must leave the danger zone immediately.

 The Meissl large umbrella is designed in such a way that if the umbrella is overloaded by excessive wind speed, the covering will tear off at the Velcro fasteners (predetermined breaking points). This ensures that neither the construction is damaged nor that there is any danger to people in the facility.

Snow load on the umbrella

The umbrella is calculated for a maximum snow load (see chapter “TECHNOLOGY”). When approaching, at the latest when reaching this load, the snow layer must be removed.

1. Make sure that people do not walk in the area under the umbrella.
2. Carefully remove the snow lying on the umbrella. Do not use sharp objects for this purpose, which could damage the canopy.



The umbrella cannot be walked on! Ensure a safe footing!

Protection from unauthorised access

Ensure that only authorised and instructed persons have access to the control elements. All Meissl umbrella systems are supplied with a non-protected locking cylinder. In their own interest, operators should use a central or in-house locking system.

Falling hazard



There is a risk of falling when assembling/disassembling the protective cover or the radiant heaters and during maintenance work. Only suitable personnel and a suitable ladder may be used for this work. Fall protection must be used in accordance with country-specific regulations and the respective working height. Depending on the terrain, a fall hazard may occur between the umbrella area and the adjacent terrain. Secure the area appropriately.

Unauthorised use

Climbing on rungs and supports or hanging/climbing by individuals is prohibited. When opening and closing the umbrella, make sure that no one or any object is within the range of movement (= danger zone) of the umbrella.

Environmental protection



Dispose of the components, operating materials and other substances in accordance with the locally applicable legal regulations.

Insurance cover

The purchaser is advised to insure the system or umbrella against fire and storm damage as well as vandalism.

Inspection and maintenance plan

WORK	DAILY	SEMI-ANNUAL	ANNUAL
Checking the canopy for any cracks and damage	■		
Checking the load-bearing parts for obvious damage or deformation	■		
Checking the condition of any electrical equipment and wiring	■		
Cleaning of the covering – reimpregnation if necessary		■	
Checking the floor bolting		■	
Regular maintenance			■
Periodic inspection			■

Inspection and maintenance

The kinematic function sequence is to be carried out and checked manually (optionally electrically) on a regular basis. The condition and effectiveness of the following parts and equipment in particular must be checked:

Supporting structure

Umbrella rungs, umbrella joints, screw connections and bearings, advertising roller drive, umbrella valance, bar frame including its fastening, riveted and screwed connections, welded connections, safety devices, in particular anti-tilt devices of the wind protection walls, paint (rust, corrosion). Any defects that may have occurred are to be noted.

Mechanical parts

Spindle, intermediate gear, screws, bolts and chocks with regard to their fit. Check guide of inner and outer tube and protective covers.

Electrical parts

Checking of switches, position switches, residual current circuit breakers, warning device for wind speed, fuses of motor, control sequence, cables, lighting, sockets, music system, heaters, escape route lighting, protective conductors, earthing, lightning protection.

Load-bearing equipment, covering

Check Velcro fasteners, top and bottom bracing straps, general condition (external damage, wear, breaks and tears), overall tension, curtains, bracing strap (for closed condition).

Other maintenance activities

Carry out lubrication, secure moving parts against falling down (e.g. lids, closures, etc.) The functions and visibility of the warning devices, inscriptions and other special equipment of the installation must be ensured. In addition, the system (wind walls, bar, bar equipment, bar furniture, etc.) must be checked for visible damage.

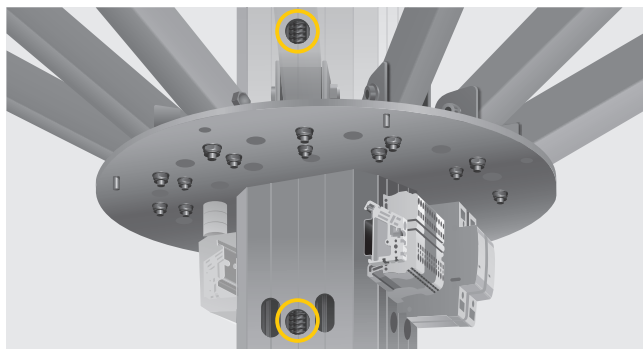
Markings, safety instructions and symbols

Check the proper condition of all markings, notices and symbols attached to the installation.

Regular inspection and maintenance

We recommend having maintenance carried out as part of the annual inspection. This should be done before the end of the season, before the umbrella is packed away in its protective cover for a longer period of time.

The spindle can be lubricated through the lubrication openings. The inner tube should be moved to the middle position (half open):



Meissl will be happy to service your system for you. Ask our customer service team for a quote. Alternatively, a competent person familiar with the system from the field of mechanical engineering and/or electrical engineering or a technical company specialising in mechanical engineering and/or electrical engineering can carry out the inspection and maintenance of your system. Our customer service team will be happy to assist you in making your decision.

Meissl customer service:

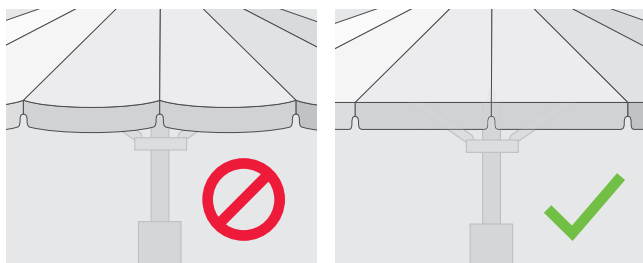
Tel. +43 6462 2510-0

Mail: office@meissl.com

www.meissl.com

Readjusting the umbrella canopy

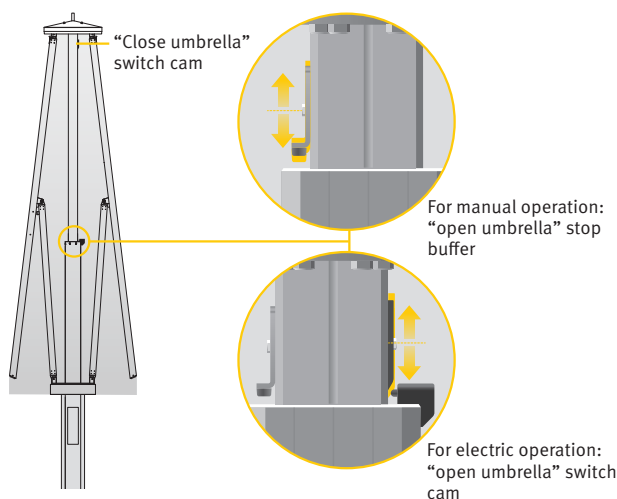
The tension of the fabric should only be checked and adjusted when it is dry (wet fabric stretches more than dry fabric).



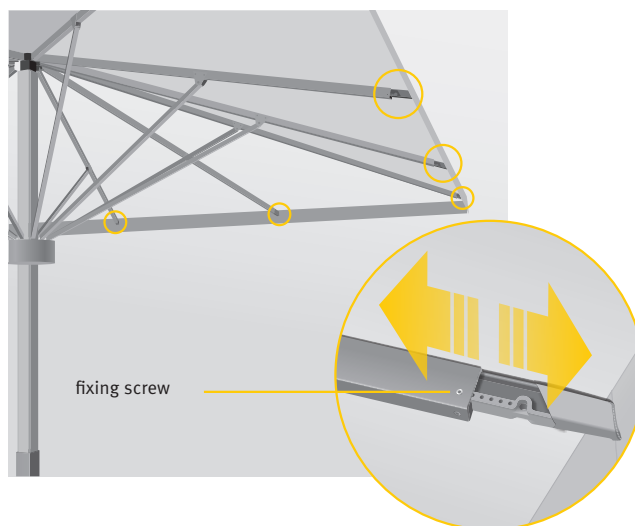
Correct tightness: The edge between the canopy and the valance should be straight and must not sag. The fabric must not be stretched tight; it should be easy to lift in the middle between two rungs. Excessive tension can damage the seams.

Adjusting the tightness:

1. For umbrellas with manual operation, change the position of the “open umbrella” stop buffer. For umbrellas with electric operation, change the position of the switch cam on the “open umbrella” end switch.
2. To do this, loosen the fixing screws. Move the stop buffer or the switch cam upwards to increase the tightness of the umbrella. Move it downwards to reduce the tightness of the canopy.
3. Once you have reached the desired position, tighten the screws




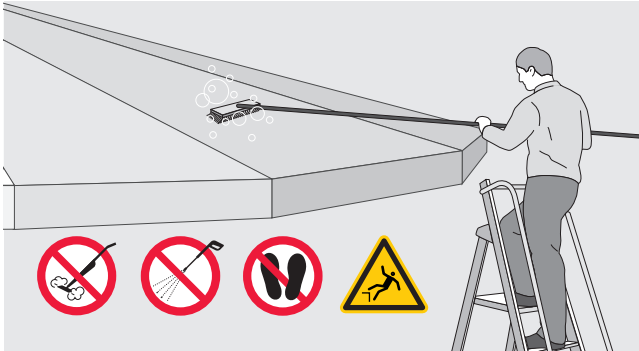
4. Open the umbrella until it stops or until it stops automatically.
5. Make sure that the canopy forms a straight edge with the valance without pulling too hard.
6. If the tension is not tight enough, repeat the steps.



In addition, the length of the rungs can be adjusted using the tightening device to correct the umbrella cover in segments. To do this, loosen the fixing screw, move the tightening device in the appropriate direction and then tighten the screw again.

Umbrella cleaning and care

 Please never use high-pressure washers, steam cleaners or steam jets to clean the canopy, as this will cause the waterproofing of the umbrella to be lost. Valance and weather protection curtains are excluded from this.



The Umbrella cannot be walked on! Caution, danger of falling!

- The cleaning of acrylic umbrella fabrics Art. 308, 324 and 386 should be carried out regularly at least 1–2 times a year.
- For normal soiling, cleaning with just clean water (hose cleaning) is usually sufficient.
- For heavier soiling, a mild detergent should be added. Rinse with plenty of water.
- The use of a soft brush or sponge for better cleaning is advantageous. Be careful not to damage the fabric.
- Avoid cleaning the canopy in extreme heat as the water will evaporate with the cleaning agent and an uneven result may occur.
- Remove loose dirt (fallen leaves, bird droppings ...) immediately if possible.
- The umbrella construction can be cleaned with a damp, soft cloth. The coating colours can be refreshed with car polish.
- Before a major clean, a cleaning trial should be carried out on a smaller area.
- Please note that when cleaning with special cleaning agents, colour changes may occur on prints in rare cases. We ask for your understanding that we cannot accept any guarantee for this. Therefore, before cleaning large areas, please clean a small patch as a test before starting.
- After cleaning with a special cleaning agent, re-impregnation should be carried out. In very rare cases, the impregnating agent can also cause colour changes in imprints. We do not accept any liability for this.

Meissl recommends the following cleaning agents:

Poly-Tex Cleaner – for intensive basic cleaning

Weather soiling is usually on the outside of the fabric and can be easily removed with Poly-Tex Cleaner. Mould stains, recognisable by black dots on the inside, can only be removed with TENTO-CLEAN or special mould agent.

Special Mould Agent – for mould stains on light-coloured fabrics

To be used for the removal of mould stains and organic-biological soiling (mould, algae, soot, bacteria ...) on light fabric colours 010, 021 and 023.

Tento-Clean – Mould stains on dark fabrics

Tento-Clean is used for the removal of mould stains and organic-biological soiling (mildew, algae, soot, bacteria ...) on all fabric colours except 010, 021 and 023.

Easy-Top impregnation – for reimpregnation

After each cleaning with cleaning agents, it must be re-impregnated. Use Easy-Top Impregnation for this purpose.

All the special cleaners mentioned can also be obtained directly from Meissl.

Biological and chemical information

Fungicide and rot-inhibiting finish

Micro-organisms (mould, bacteria, blue-green algae, algae) occur particularly when the factors of moisture, dirt and heat act simultaneously on the material over a longer period of time. Under certain conditions, textiles can be protected from infestation by micro-organisms by integrating so-called microcides.

However, individual microcides are not effective against all microorganisms, but each microcide has a typical spectrum of activity, i.e. it is very effective against certain fungi, bacteria, etc. In recent years, many microcides that were very effective have been banned by law in almost all Western European countries due to their toxicity and replaced by other, less polluting microcides. However, these in turn have a different, usually more limited spectrum of effects.

Note from the fabric manufacturer on the fluorocarbon finish

“The production of our acrylic fabrics is carried out with due diligence. Pre-products of European origin are used, which are manufactured in accordance with the guidelines of the REACH Regulation (EC No. 1907/2006). Our high-quality acrylic fabrics do not contain any substances or mixtures of concern and do not pose a risk to people or the environment. Our quality products are coated with octylisothiazolinone (OIT) or zinc pyrithione (ZP) for better dirt repellency.”

Warranty terms and conditions

Guarantee

After reviewing the complaint, Meissl guarantees to repair or replace the canopy. If the corresponding material is no longer available, an equivalent replacement product will be selected from the existing range.

Prerequisites for granting the guarantee

In order to benefit from this guarantee, it is necessary that:

- The canopy cover is recognisable as a Meissl cover by means of a sewn-in label.
- The defect is reported in writing to Meissl within 15 days of its occurrence.
- The Meissl company is given the opportunity to inspect damage itself on site beforehand.
- Meissl is entitled, in case of doubt, to take samples of the defective material for testing purposes.

Warranty exclusions

Reasons for exclusion from the warranty are:

- Improper handling or cleaning of the material,
- damage due to environmental influences (air pollution, bird droppings, etc.),
- damage due to wind overload (storm damage – at the velcro fasteners torn off at the predetermined breaking points, torn all-round seam),
- holes and damage caused by hail,
- damage caused by objects placed by the customer (e.g. decorations, beamers, TV consoles ...),
- damage caused by fire, mechanical damage, normal wear and tear.

Impregnating the concrete base

For concrete umbrella stands, we recommend impregnating the concrete base every three years. Based on our own experience, we recommend using the following product: RECKLI® OS HO

Malfunctions and troubleshooting

The electrically controlled umbrella can no longer be opened or closed.

CAUSE OF FAULT	TROUBLESHOOTING
No power supply	- Check whether the residual current circuit breakers and fuses in the distribution board are switched on.
“Open umbrella” end switch (on the umbrella column)	- Check for mechanical defects on the “open umbrella” end switch on the umbrella column – the end switch may have been misaligned; call Meissl service.
“Close umbrella” end switch (on the umbrella rung)	- Check for mechanical defects on the “close umbrella” end switch on the umbrella rung; the end switch may have been misaligned; call Meissl Service

Meissl Service: +43 6462 2510-0


Umbrella canopy

Damp and mould:

Only leave the umbrella canopy folded for a longer period of time when it is dry. The canopy must be completely dry before putting on the protective cover.

Correct heating and ventilation:

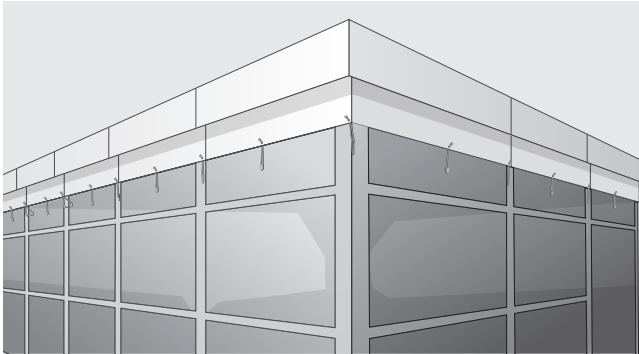
Thin-walled constructions such as tents, umbrellas or single-shell wind walls have a higher condensation rate. Cold outside temperatures meet warm inside air at the outer shell, which can cause condensation to form on the canopy. If there is a constant layer of moisture, this can lead to the formation of mould. You can improve the indoor climate by regularly ventilating and avoiding an overheated interior. In this way, condensation can be reduced and mould formation avoided.

 **To prevent scuffing and damage to the canopy, the umbrella should be secured with straps before prolonged periods of non-use. A protective cover should also be fitted in windy locations.**

The use of the safety straps, the pull-up protective cover or the closed protective cover is necessary in order to offer the wind as little contact surface as possible, in order to avoid tears, friction points and breakages caused by the flapping of the canopy. These are caused by the wind pushing the lower folds between the rungs together when the canopy is closed, bending them and - depending on the wind exposure – stressing them several times at the same point. This is not a material defect! Damage in this respect can only be avoided by careful and consistent care of the umbrella when it is closed and is therefore excluded from the warranty.

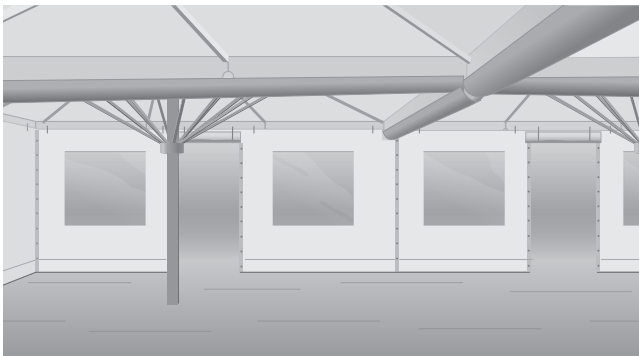
Optional accessories

Elastic cords



With additional wind protection walls, the umbrella can be secured by means of elastic cords. On the one hand, these give the canopy greater stability against the wind, and on the other hand, they seal off the interior and protect it better. The elastic cords should be hooked in at the latest when the wind starts to blow. The elastic cords can tear over time and must then be replaced.

Weather protection curtains



The weather protection curtains serve as an ideal supplement. They are attached to the umbrella rungs and can be opened or dismantled if required. The installation may only be carried out by qualified people.

Assembly

Tabs are sewn to the top and bottom of the curtains. The upper flaps are hooked into the hole provided on the insertion part of the rung with a hook or carabiner. The bottom flaps are attached to the bottom of the curtain by means of a hook or carabiner. These fastening profiles must be provided by the customer or can also be provided and installed by Meissl by arrangement.

Opening the weather protection curtains

The weather protection curtains can be opened if necessary. To do this, unhook the lower flaps on the fastening profiles, roll up the curtains and fix them in the upper position with a strap.

Integrated window panels

If windows are provided in the weather protection curtains to be opened, the connection can be loosened on the lower side, the window panel rolled upwards and fixed with a strap.

Integrated opening door

Optionally, a door opening can be provided in the weather protection curtain. This is connected to the curtain by a zip fastener. After opening the zip fastener, the door curtain can be rolled to the side and fixed with a strap.

Disassembly and storage

Before closing the umbrella, the weather protection curtain must be dismantled. To do this, the lower tabs on the fastening profiles must be unhooked, the curtain rolled upwards and fixed with a strap. Then the upper connection to the insertion part can be loosened and the curtain can be removed.

Rung support



For increased wind loads (up to 160 km/h), the canopy can be secured with the optional rung supports. These connect the canopy rungs with the wind protection walls and thus stabilise the entire construction. The umbrella must be secured in this way when the wind starts to blow or when the umbrella is temporarily left.

Rain gutters

Self-supporting rain gutters

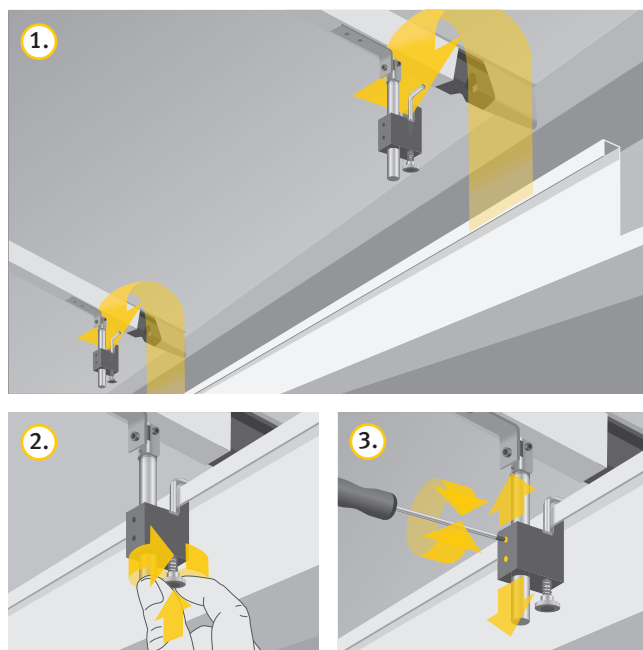
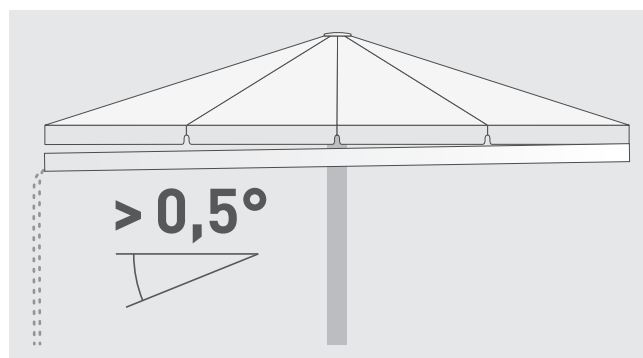


Fig. 1: Hook the aluminium rain gutter system into the holder provided.

Fig. 2: Push the retaining bracket upwards and turn it over the rain gutter. The rain gutter is only secured in the bracket when the bracket clicks into the final position.

Fig. 3: Ensure that there is a sufficient gradient so that the water can run off unhindered in the direction of the drain. To do this, loosen the locking screws and adjust the height to the desired position.



Ensure that the rain gutters have a sufficient downward gradient.

Non-self-supporting rain gutters

These are rain gutters that are suspended on both sides. This can be either from the umbrella to the building wall or to another umbrella. These gutter systems can be made of aluminium or polyplan. With these systems, too, it is important to ensure that there is a sufficient slope to allow the water to flow unhindered towards the drain.



Ensure that the gutters are adequately secured to prevent them from falling off - risk of injury! The rain gutters must be cleaned regularly to prevent clogging by leaves etc.

Mist cooling system

If required, the umbrella can be prepared with a spray mist cooling system. For this purpose, the spray nozzles including the wiring are attached to the umbrella with high-pressure hoses and wired up to the base of the umbrella. For the operation of the spray mist cooling system, the external high-pressure pump must be connected to the base of the screen via a high-pressure hose. Regular maintenance of the system is necessary to prevent the formation of germs or legionella. Filters and hoses must be cleaned regularly and professionally. It is recommended to have the installation and maintenance carried out by a local plumber. Please observe the operating and cleaning instructions of your plumber. In winter, the water in the entire system must be removed, the spray nozzles must be removed and replaced with dummy covers (are included in the standard delivery).

Caution: Improper operation may result in limescale stains on the covering. There is a health hazard if the system is not maintained regularly or properly.

Radiant heater

1.2 kW IR radiant heater with swivel bracket:

The swivel radiant heaters automatically move to the rest position when the umbrella has been closed.

Assembly

Installation and connection of the unit may only be carried out by qualified personnel. Before starting any electrical work, the installation must be disconnected from the power supply!

Initial start-up

After switching on during the first commissioning, as well as after a longer pause in operation, a brief formation of odours could occur.

Cleaning

- First disconnect the unit from the mains.
- After cooling down, the casing can be wiped dry.
- Do not touch the quartz rods with your fingers, otherwise they may stain.
- The reflector should be cleaned regularly from the outside with a brush.
- Do not use abrasive or corrosive cleaning agents!



Never immerse the radiant heaters in water!
Danger to life!

Customer service

- Repairs and interventions in the unit may only be carried out by authorised specialists! Attention! Unprofessional interventions lead to the loss of the warranty claim.
- Improper repairs can result in considerable danger to the user!

Lighting system

The following options can be installed for the umbrella lighting:

White LED light

- LED strips with approx. 8 W/m are used, which are especially weather-resistant (IP67). The standard length of the strips is 1.2 m per rung, which means that normally only every second rung is fitted.
- At the customer's request, however, the lighting can be extended over the entire length of the rung.
- The light can be dimmed via a built-in dimmer in the control box.

RGB LED light

- LED strips with RGB and a total of approx. 8 W/m. The strips are especially weather-resistant (IP67).
- The strips can be applied along the entire length of the rung.
- The light can be adjusted via a built-in RGB touch controller on the shade column.

The detailed operating instructions for the controller are enclosed with the operating instructions or can be downloaded from www.meissl.com.

Protective umbrella covers

There are two different types of protective covers to protect the umbrella and the canopy:

1. Pull-up umbrella protection cover

This is a protective cover that can be attached to the umbrella without the use of ladders. This protective cover can be used for a short time to protect against wind, but it is open at the top and therefore does not provide waterproof protection for the canopy. This protective cover is therefore unsuitable for longer storage of the umbrella, especially in wet weather.

2. Closed umbrella protective cover

This protective cover is closed and is used to protect the umbrella over a longer period of time (also in wet weather). A ladder of the appropriate length is required for the assembly of this protective cover, and care must also be taken to ensure appropriate fall protection during assembly. For particularly wind-exposed locations, this protective cover is also available with an additional tie-down system.

For the exact installation of the respective protective cover, please refer to the enclosed operating instructions. These can also be found at www.meissl.com.

Guidelines and standards

Standards and certification EN 1090

As a manufacturer of load-bearing structures made of steel and aluminium, we at Meissl are subject to EN1090, for which we are also certified up to EXC2. Even if not all of our components are subject to the scope of EN1090, we have subjected our entire production chain to the quality criteria of this standard and attach importance to consistent factory production and quality control.

Standards and certificates MRL 2006/42/EG EMV 2004/108/EG

At the time of delivery, the umbrella constructions are designed, built and CE marked in accordance with the Machinery Directive MRL 2006/42/EC and are CE marked.

Calculation basis (statics)

Standards: EUROCODE 3 Design and construction of steel structures
Materials used:
Steel S355J2G3 and Steel S235JRG2.
Alu Al Mg Si 05 F22
Synthetic acrylic fabric, tensile strength for 5cm strip
Tensor F22= 1,15 kN
Tensor F33= 0,65 kN

Electrical data

See enclosed electrical documentation

Umbrella cover – Labelling according to EU Regulation No. 528/2012 (Biocide Regulation)

Equipment: Fluorocarbon finish
The production of our textiles is carried out by our supplier with due diligence. Pre-products of European origin are used, which are produced under the guidelines of the REACH regulation (EC) No. 1907/2006. Our high-quality acrylic fabrics do not contain any substances or mixtures of concern and do not pose a risk to humans or the environment. Our qualities are treated with octyliso- thiazolinone (OIT) or zinc pyrithione (ZP) for better dirt repellency.

EU Declaration of conformity

Meissl Open-Air Solutions GmbH
Gewerbegebiet Ellmauthal 40
AT-5452 Pfarwerfen

hereby declared that the **Meissl umbrella type MV** with motor drive complies with the regulations complies with the *Machinery Directive 2006/42/EC* including its amendments valid at the time of this declaration.

Compliance with the protection target of the *Low Voltage Directive 2014/35/EU* has been verified according to of Directive 2006/42/EC.

In particular, the following harmonized standards as well as national or international standards (or parts/clauses thereof) and specifications have been applied:

	SAFETY OF MACHINERY
EN ISO 12100	General principles of design - risk assessment and risk reduction
EN ISO 13857	Safety distances against reaching hazardous areas with the upper and lower limbs
EN ISO 14118	Avoidance of unexpected start-up
EN 60204-1	Electrical equipment of machines - Part 1: General requirements
EN 61439-1, -2, -3	Low voltage switchgear and controlgear assemblies
EN 981	Systems of acoustic and optical danger signals
	ELECTRICAL INSTALLATIONS
ÖVE/ÖNORM HD 60364, ÖVE E 8101	Construction of low voltage installations
VDE 0100-713	Construction of low-voltage installations - Requirements for special locations, rooms and installations
EN 61000-3-2	Electromagnetic compatibility EMC - Limits for harmonic current, equipment input current 16A per phase
EN 61000-3-3	Electromagnetic compatibility EMC - Limits, limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with a rated current <16A per conductor that is not subject to a special connection condition



Hermine Meissl, CEO

Pfarwerfen, 08.04.2025

Declaration of performance

No 2390 - P03400414 -

Unique identification code of the product-type 2390 - P03400414 -

Intended use/es: steel frames for windwalls, umbrellas, umbrella bar, foundation stand, flat roof stand, bar stand

Designed for outdoor use

Manufacturer: Meissl Open-Air Solutions GmbH, Ellmauthal 40, 5452 Pfarrwerfen

System of AVCP: 2+

Harmonised standard: EN 1090-1:2009+A1:2011

Notified body: 2390 - SystemCERT Zertifizierungsges.m.b.H

Declared performance/s:

Essencial characteristics:

Declared performance/s:

Geometrical Tolerances: According to EN 1090-2; Functional tolerances: Class 1 in acc. with EN 1090-2

Weldability: Steel acc. EN10025-2, EN 10210, EN 10279, EN 10279-1:SR235JR, S275J2H, S355J2H

Fracture toughness: NPD

Load-bearing capability: Ultimate limit state: Design in acc. with EN 1993-1, see attachments. Applicable are the NDP set for CAD file directory "statik". Reference: CAD file directory "statik"

Deformations at the serviceability limit state: See attachments Austria

Fatigue strength: NPD

Fire resistance: NPD

Reaction to fire: Materials classified in class A1

Emission of cadmium: NPD

Emission of radioactivity: NPD

Durability: Surface treatment in acc. with EN 1090-2, Preparation standard P2. Galvanised in acc. with EN ISO 1461. For more details, please see project specification

Manufacturing: In acc. with project specification and EN 1090-2, execution class EXC2

The performance of the product identified above is in conformity with the set of declared performance/s.

This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Name: Stefan Valtiner

Place: Pfarrwerfen

Date of issue: 08.04.2025

Signature:

Stefan Valtiner



meissl
beyond open-air

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2390

Meissl Open-Air Solutions GmbH, Ellmauthal 40, 5452 Pfarrwerfen

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2390-CPR-P03400414

EN 1090-1+A1:2011

steel frames for windwalls, umbrellas, umbrella bar, foundation stand, flat roof stand, bar stand - Designed for outdoor use

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Emission of radioactivity NPD

Durability: Surface treatment in acc. with EN 1090-2, Preparation standard P2. Galvanised in acc. with EN ISO 1461. For more details, please see project specification

Manufacturing: In acc. with project specification and EN 1090-2, execution class EXC2

Load limits

The load limit describes the maximum load up to which no permanent deformation of the steel/aluminium construction occurs.



Meissl umbrellas are designed to withstand maximum loads. However, standing in the area of the umbrella is only permitted within the specified load limits.

The load limits are calculated according to Eurocode 3. The values with 1.5 times the safety are required by the authorities as maximum limits, while the values with 1 times the safety define the limits of the construction and covering.

In addition, the umbrella is designed in such a way that the fabric tears off at the velcro fasteners (predetermined breaking point) in the event of increased winds. This ensures that the construction is not damaged and that there is no danger to anyone in the facility.

Load limits of the MV large umbrella in windy conditions

Example of the round model MV 8.5 m.	Wind	Safety
- Umbrella open without direct connection of the wind protection curtain to the umbrella	65 km/h	1,0
- Umbrella closed	147 km/h	1,0

Meissl Open-Air Solutions GmbH

Schirmbar und Wetterschutzkonzepte

Ellmauthal 40

5452 Pfarrwerfen

AUSTRIA

www.meissl.com

Version: 1
2025

