

Operating Instructions

Pantograph shutters



Congratulations

With a purchase of a Griesser product, you have chosen quality.

Please read these instructions before using the product for the first time.

 **GRIESSER**

General Information

The function of pantograph shutters (hereinafter referred to as "shutters") is to shade open areas from unwanted solar radiation. They should not be considered security equipment.

The operating instructions must be handed out to the user and to the person responsible for the maintenance.



General Hazard and Safety Information

- Property damage and bodily injury may result from improper handling or disregarding safety information.
- The window shutters should not be subjected to any additional loads.
- If the wind speed reaches the maximum value, the pantograph shutters must be retracted (not shading).
- In the event of damages resulting from non-observance of these instructions or of the accompanying documentation, all warranty claims become null and void.



Safety Information for Operation and Use

Risk of injury or damage to the product from improper operation

- Attach operating controls within view of the shutter, in accordance with national regulations.
- Keep operating controls out of the reach of children.
- May only be operated by trained persons.
- Do not touch moving parts when deploying or retracting blinds. Risk of crushing obstacles in the deployment area.
- Do not allow jewelry, clothing, hair or body parts to become entangled in the product.
- Stand clear until the end position has been reached.
- Do not touch any interior parts that are exposed due to damage (e.g. cables/cords, control elements).
- To reduce the risk of damage to the product, it may only be moved if the path of travel is free of obstacles.

Damage to the product from icing

- In winter, check products for icing before operating. In the event of icing, do not operate.
- Discontinue automatic operation in winter, even if icing has not been predicted.

Risk of injury due to inadequate maintenance

- Check products regularly for signs of wear.
- Do not use products that require repairs.
- Malfunctions may only be rectified by trained and qualified personnel.

Use only original Griesser replacement parts

- No assurance is provided that the product will function with accessories, parts or operating equipment made by other manufacturers. Modifications to the product that are not expressly approved by Griesser render warranty claims null and void.

Risk of injury or damage to the product from unintentional operation

- Disconnect products from the power supply power when maintenance work is taking place.
- Observe safety distances.

Risk of damage to the product from improper operation

- When operating manually, do not use force to deploy/retract blinds.
- Do not operate products beyond their mechanical limits.
- Retract shutters before permitted wind load is exceeded.

Risk of injury and damage to the product from interruptions to the power supply (e.g. power outages)

Ensure that situations dangerous to people and the product do not arise



Electrical Installations

Electrical connections may only be carried out by certified electricians

- Additional national regulations regarding the maintenance and repair of electrical systems shall be observed. These may result in an increase in the maintenance intervals.

Operation

Motorized operation

Shutters are operated using central or local wall-mounted or hand-held controls with an Up / Down / Stop button. The operating functions of the controls are described in the operating instructions for the controls.

Use

- The window shutters meet the requirements of the wind classes indicated in the declaration of conformity and may remain extended only up to the specified wind class.
- Window shutters provide solar shading and may not be used as security equipment.
- The system is not to be used unless it is in a technically flawless condition. Equipment, in particular security equipment, may be neither removed nor disabled. Malfunctions must be rectified by expert personnel before reuse.
- When operating a window shutter, ensure that no obstacles (flower pots, toys, chairs, etc.) are located in the shutter's path.
- The system is not fully functional in the presence of frost, strong wind or other adverse environmental influences.

Maintenance / Inspection

Interval	Location	Task
Every three months	Entire product	Check of normal and desired function
Annually	Soiling of the runner and guide rails	Check runner and guide rails and remove any soiling or foreign objects (e.g. leaf residue, stones, other mechanical obstacles, etc.)
	Fastening of the product	Check fastening points for stable attachment and contact the manufacturer or installer as necessary
	Metallic parts that rub against each other	Oiling of the parts

Any repairs are to be made by a specialized company.

Behavior in the event of faults

If a fault is detected, move the unit to the parking open position and shut it down and contact the manufacturer or installer. Do not operate the product anymore.

Cleaning

The system shall be cleaned every six months and function tests shall be carried out in order to ensure that any non-functioning of the system is discovered at an early date and to detect any possible hazards. For anodized surfaces, use only cleaning agents that have a pH value of 5.5 – 7 or that are approved in accordance with GRM-RAL GZ 632. No scratching of the surface is permitted when polishing agents are used for cleaning. Under no circumstances should objects be used such as knives or steel wool that could lead to scratches on the surface or on any part of the product.

What to clean	How to clean
Glass surfaces	Wipe off with a damp cloth
Stainless surfaces	Wipe off with a non-scratching cloth
Lacquered surfaces	Wipe off with water and soap
Anodized surfaces	With non-alkali soft soap (pH value 5.5 – 7)

Cleaning agents with alkaline, acidic or abrasive active ingredients and pressurized steam cleaning may not be used! These could lead to irreparable damage to the surface.

Aggravated environmental conditions prevail in areas within around 10 km (6 miles) of the ocean, resulting in corrosion. Cleaning and oiling of the moving parts is required at least once annually. Rinse off salt deposits with fresh water. Allow to dry. Spray the armatures with corrosion protection spray after drying. Care must be taken to ensure that no other objects are sprayed (e.g. facade, untreated wood).

Wind classes of Griesser window shutters

Product	Sash width	Sash height	Shading width	Permissible wind resistance classes (WRC) limit values ¹
	max.	max.	max.	
Pantograph shutter	550	2600	3300	6 [8] ²

¹ Tests in accordance with product standard EN 13659. Product size limitations according to technical data sheet.

[] Class [8] corresponds to an internal standard. That corresponds to a safety test pressure of 800 Pa.

The tests are carried out and evaluated in accordance with the provisions of EN 1932.

² The specified wind resistance class applies for pantograph shutters with installation type S1 (bottom wall mounting).

Pantograph shutters with the installation type S2 (bottom floor mounting) achieve in their maximal sizes the WRC 5.

The values in the table apply with the following reservations:

- Product dimensions and use comply with the Griesser technical data sheet.
- Installation, fastening and operation are carried out in accordance with installation and operating instructions.
- The products should be installed in the soffit / directly on the facade, with the sashes <100 mm away from the facade.
- If the distance from the facade is between 100 and 300 mm, the value in the table must be reduced by 1 class.
- If the distance from the facade is between 300 and 500 mm, the value in the table must be reduced by 2 classes.
- In the event of a facade offset > 500 mm (e.g. for use on balconies and loggias), the system must be structurally inspected and tested in situ. Please contact us for further information.

Application note

In the event of an approaching storm, the shutters must be fully retracted at a wind speed corresponding to the wind resistance class. The retracted position corresponds to the parking position (the product does not shade the window area)..

Attention! Wind sensors do not guarantee sufficient protection in the event of sudden gusts of wind.

Maximum admissible wind speed – Setting values for sensors

Sensors fitted next to product.

Class 0	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class [7]	Class [8]
<9,0 m/s	9,0 m/s	10,7 m/s	12,8 m/s	16,7 m/s	21,0 m/s	25,6 m/s	29,2 m/s	33,3 m/s
<32,5 km/h	32,5 km/h	38,5 km/h	46 km/h	60 km/h	76 km/h	92 km/h	105 km/h	120 km/h

[] No wind resistance class in accordance with DIN EN 13659 and SIA 342.

griesser.com

