

## External venetian blinds from Griesser. Grinotex Sinus®



### Energy efficiency:

Up to 50% more use of daylight, thanks to the Sinus slat



Grinotex Sinus® is available as a MINERGIE®  
module in an automated version.



min. 600 mm, crank drive  
min. 800 mm, gearbox in slat area  
min. 760 mm, motor drive  
min. 825 mm with operating position  
max. 4000 mm



min. 380 mm  
max. 4250 mm



max. 8 m<sup>2</sup>, single blind  
max. 24 m<sup>2</sup>, connected systems with  
motor drive

**External venetian blind with metal joints for durability.**



**Built-in system**



**Front mounted system**



**Technology in detail**

- 1 Self-supporting blind system as built-in or protruding system.
- 2 Guide rail with integrated lifting mechanism.
- 3 More use of daylight thanks to the wave-shaped design of the slat.
- 4 Slat support connection: stainless steel wire cable coated with UV-stable plastic.
- 5 Plastic sealing lip.
- 6 Lifting chain and drive chain made from steel.
- 7 Guide pin at all slat ends.
- 8 Robust end rail made from extruded aluminum.



**Up to 50% more use of daylight, thanks to the Sinus slat**



**Safety locking device in each position.**



**Safety sensing edge.**

## Limit dimensions

*bk* Width of construction  
(rear edge of guide rails)

Minimum

- Crank drive 600
- Gearbox in slat area 800
- Motor drive 760
- Operating position 825

Maximum 4000

Buildings and high-rise structures which are exposed to high wind should decrease this maximum value as required (see operating instructions).

*hl* Opening height

Minimum 380

Maximum 4250

*bk* × *hl* Maximum surface area

Single blind

- With crank drive 8 m<sup>2</sup>
- With motor drive 8 m<sup>2</sup>

Connected systems

(Max. system width 10 m)

- With crank drive
- 2 blinds 8 m<sup>2</sup>
- 3 blinds (max.) 6.5 m<sup>2</sup>

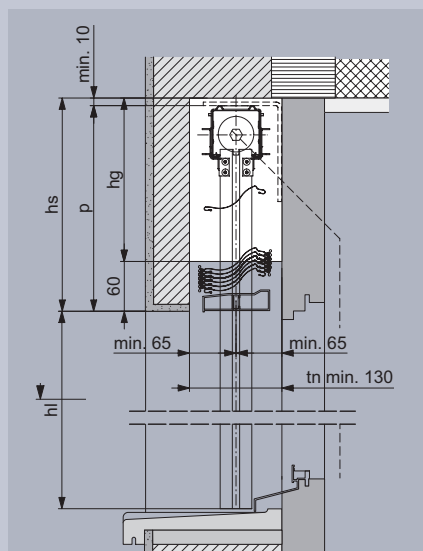
In the case of 3 connected blinds, the drive should be positioned between two blinds.

- With motor drive
- 2 blinds 16 m<sup>2</sup>
- 3-4 blinds (max.) 24 m<sup>2</sup>

For 3 or 4 blinds, the motor should be positioned in the center.

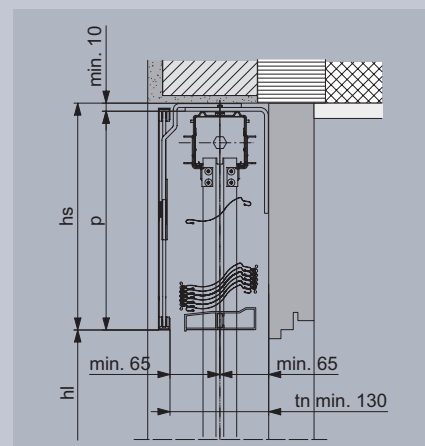
## Built-in system

Side elevation: Example of header

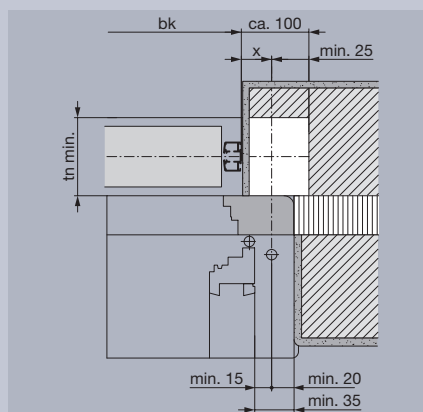


## Front mounted system

Side elevation: Example with cover



Top elevation for crank drive



With recess (white) for gearbox (not necessary for motor drive).

MBMA+ = Dimension from rear edge of guide rails to center of drive; depending on window construction – min. 25 mm. With gearbox in slat area:  $hs + 20$  mm. A dimensional tolerance of  $\pm 5$  mm is observed for the header height. Depth of niche  $tn$ : 130 mm + possible addition for protruding weather-board or doorknobs.

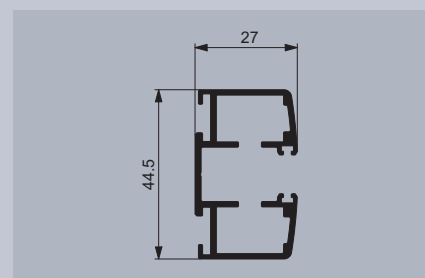
If crank drive is in slat area: maximum surface area and crank position available on request.

## Grinotex Sinus® header dimensions (hs)

hl	bk up to 2000	2001-2250	2251-2500	2501-2750	2751-3000	3001-3250	3251-3500	3501-3750	3751-4000
up to 750	230	230	230	230	230	230	235	235	235
751-1000	230	230	230	240	240	240	255	255	255
1001-1250	245	245	245	260	260	260	270	270	270
1251-1500	260	260	260	275	275	275	290	290	290
1501-1750	285	285	300	300	300	310	310	310	310
1751-2000	300	300	315	315	315	330	330	330	330
2001-2250	320	320	335	335	335	345	345	345	345
2251-2500	340	340	355	355	365	365	365	365	
2501-2750	355	355	370	370	380	380			
2751-3000	380	395	395	395	405				
3001-3250	395	410	410	410					
3251-3500	410	425	425						
3501-3750	430	445	445						
3751-4000	455	470							
4001-4250	470	485							
End rail	23 mm	38 mm	50 mm						

Header dimensions are approximate values which may exhibit negative or positive deviations depending on the technical circumstances.

Guide rails



Key

- bk** = Width of construction
- hl** = Opening height
- p** = Height of package
- hs** = Header height ( $p + \text{min.}10$ )
- hg** = Height of gearbox recess ( $hs - 60$ )
- tn** = Depth of niche

All dimensions in mm.

## Design description

### *Blind system*

Composite metal technology and guide pins on each individual slat give Grinotex Sinus® stability in high wind areas. Metal pivotal slat connections and steel cables coated with UV stable plastic lend added system durability. The lateral lifting mechanism operates using steel roller chains with an automatic safety locking feature in every position. A standard reversing edge prevents the blind from being damaged when it encounters obstacles in motion (up to 2250 mm in height). Although starting from a closed position, the slats can be adjusted between open and closed at every height.

### *The self-supporting*

The self-supporting blind design preserves the insulation in the header and reduces service costs. Up to a width of 2000 mm the system requires no fastening for the housing – the insulation remains intact and noise transfer is reduced. The stable guide rails 45 x 27 made from extruded aluminum feature service openings. Integrated guide rails are available on request.

### *Slats*

The robust Grinotex Sinus® slat resists bending and twisting using rolled edge reinforcement and a plastic sealing lip that offers not only quieter operation, but provides an extra level of light control. Each 93 mm slat comes standard with a polyamide guide pin for smooth operation and greater system stability. End rail made from extruded alumi-

num, transparently anodized (baked enamel finish for an additional charge).

### *Guide rails*

Made from extruded aluminum 45 x 27 mm, with weatherproof noise insulation inserts, transparently anodized (baked enamel finish for an additional charge).

### *Housing*

Made from galvanized sheet steel, open at the bottom, with wind-stable slat adjustment mechanism.

### *Use of daylight*

As well as being esthetically pleasing, the sinusoidal slat allows up to 50% more daylight into the room. Thanks to the wave-shaped design of the slat, there are no sharp edges to break up the light; instead, the light is guided better to the ceiling without causing glare at low levels.

## Option

### *Operating position*

The shade produced when lowering the blinds is often annoying – particularly in the work place. The slat operating position of around 48 degrees prevents the room from getting dark when the blind is lowered.

### *Solar solution*

Also available with a solar drive.

## Colors

### *GriColors*

The GriColors range includes 100 color shades in four collections, Glass & Stone, Sun & Fire, Water & Moss and Earth & Wood – from cool white and sunny red to natural blue and earthy brown.

### *BiColor*

External venetian blinds get a new color; when the outside of the slat is brightly colored, a neutral light tone on the inside can optimize the blind functions. The interior view shows the colors outside on the border edges. The guides and end rails are transparently anodized (baked enamel finish in one color for an additional charge). Operating instructions

- The solar shading systems should be retracted if it is windy.
- The systems must not be operated if there is a risk of ice.
- The systems must be accessible for maintenance work.
- Observe the VSR data sheets or information in EN 13659 wind classes.



## Your partner

Subject to change without prior notice