JYSK STANDARD

Blinds

Scope

This standard describes JYSK requirements for blinds.

Change-log

Section	Changes
3.2	Self-declaration template 10213 are repealed by JYSK 8004.

Contents

1 Product categories

The blinds category contains the following product types:

Main groups:	Sub groups:
Venetian blinds	Aluminum blinds
	Wooden blinds
Roller blinds	Roller blinds daylight
	Roller blinds blackout
	Duo blinds
	Bamboo blinds
Pleated blinds	Pleated blinds daylight
	Pleated blinds blackout
Vertical blinds	Vertical blinds daylight
	Vertical blinds blackout
Roman blinds	Roman blinds daylight
	Roman blind blackout

2 JYSK Requirements for blinds

This chapter states JYSK requirements that suppliers of blinds must comply with.
For references to external standards the latest published edition applies.

It is the responsibility of the supplier to monitor relevant laws and regulations and make sure that all delivered products conform to these. JYSK will never accept products not complying with current legislation at the point of delivery.

To eliminate the risk of accepting products that may or will become legitimately obsolete in JYSK's possession, suppliers are expected to proactively and appropriately inform JYSK about significant and relevant changes to the legislation. This is based on the assumption that suppliers are the professional experts within the field.

Likewise suppliers are also expected to give JYSK notices and advice regarding interpretation of the referenced content. This means suppliers must act proactively in the processes of conforming to statuary requirements in the most feasible way and avoid misinterpretations.

2.1 Harmonized requirements

To ensure that all JYSK blinds are safe and conforming to the "General Product Safety Directive" (2001/95/EC) they all have to comply with the following harmonized standards:

- ***EN 13120*** (Performance requirements including safety) – clause ***8.2*** and ***15***.
- ***EN 16433*** (Protection from strangulation hazards – Test methods)
- ***EN 16434*** (Protection from strangulation hazards – Requirements and test methods for safety devices)

2.1.1 *EN 13120* clause *8.2* and *15* - JYSK interpretation and comments

Short explanations on how JYSK interpret different clauses and standards will be given here:

Clause 8.2:

This clause describes the requirements regarding "protection from strangulation". It was created to deal with the serious issue of children getting caught and strangled in blind cords. The method of solving the problem is firstly to ensure that cords are out of reach of children by controlling cord lengths and secondly to utilize different safety mechanisms.

Clause ***8.2*** must be tested when the destination of the blind is not defined – This is the case for blinds supplied to JYSK as the origin and intention of the end customer is unknown.

In the interpretation of clause ***8.2*** it should be noted that the term "cord" covers a wide range of definitions. It is the responsibility of the supplier to proactively assess all doubts regarding this issue of cord definition in relation to products.

The requirements for cord lengths, safety devices and need for documentation differentiate depending on the type of pull-, number of inner cord(s) and "*curtain"* height. Great care should be taken when choosing the relevant sub-clause(s) and indents.

According to JYSK's interpretation of clause ***8.2*** the following sub-clauses must be assessed with a contingency approach depending on the specific characteristics of the blind(s):

- ***8.2.3.2 - Internal blinds with operating loop(s)***
- ***8.2.3.3 - Internal blinds with pull cord(s)***
- ***8.2.3.4 - Internal blinds with inner cords***
- ***8.2.4 - Requirements relating to safety devices***

JYSK generally prefers to source blinds for which the installation height is not specified.

If the situation should occur a supplier must ensure and document that a specified installation height is accepted by JYSK before supplying blinds with this characteristic.
Some requirements regarding cord lengths in EN 13120 are based on the assumption that blinds are always placed at least 150 cm from the floor and hence this distance requirement should be given in the instructions. JYSK does not consider such instructions to be a specified installation height.

When assessing cord lengths the correct definition of measuring distance according to JYSK will be the vertical distance between the horizontal plane touching the highest point of the blind and horizontal plane tangent to the lowest point the free hanging cord.

In the rare case where the height of a *curtain* exceeds the threshold distance of 2,5 m setting requirements for cord lengths, JYSK will assume the lesser of the specified nominal height (without tolerances) and the actually measurable *curtain* height to be the valid.

Clause ***8.2.3.1*** states that a warning notice (as specified in clause ***15.2.2.2***) must be attached to the product in "*a conspicuous position*". A conspicuous position is always to be agreed upon between JYSK and the supplier for each product depending on the product characteristics and the packaging method. It is very important that the placement does not damage the blind during transportation or unpacking. JYSK supplies a downloadable digital version of the warning notice that must be used.

In clause ***8.2.1*** it is stated that "*internal blinds presenting no hazardous loops and no hazardous cords*" are deemed to satisfy the requirements. JYSK interprets this as when none of the above is present; tests can logically not be performed and the requirements of clause ***8.2*** and ***15.2.2*** can be avoided. Please notice that inner cords must be tested for accessibility and hazardous loops according to ***EN 16433*** clause ***10*** before avoiding any requirements.

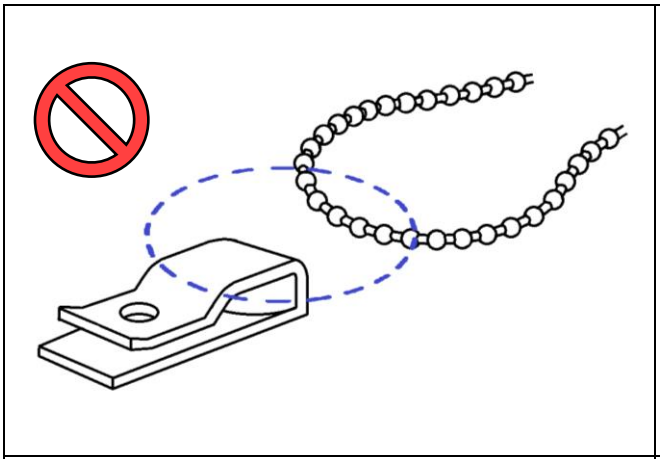
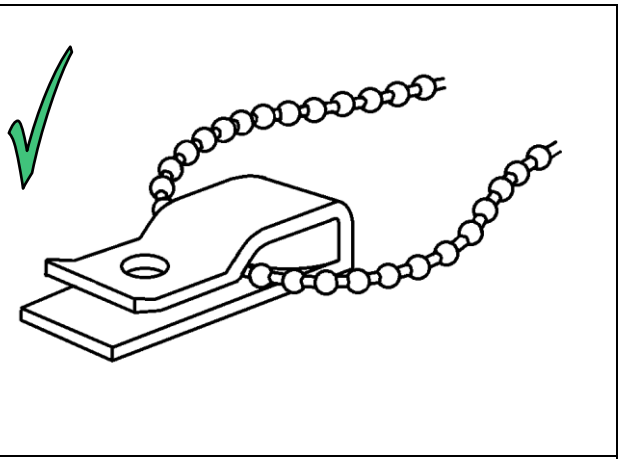
According to clause ***8.2.3.1*** safety systems that are *"non-integral"* must be delivered attached to the blind *"in the position of intended use"* with a warning notice as specified in clause ***15.2.2.3***.
JYSK interprets this statement as the safety device must be actually fitted to the cord(s) in the way as close as possible to how it is intended during use. This means that attachment of safety devices within plastic bags, with loop pins or likewise is not acceptable.

JYSK supplies a downloadable digital version of the warning notice that must be used for attachment to safety devices.

When safety devices are correctly attached specified warnings and any associated parts must be attached to the device with e.g. a loop pin or similar. Associated parts can potentially be placed within a fitting zip loc bag.

The following illustrations should give an understanding of the correct fastening method.

In the illustrations the cord is a ball chain – the same principles apply to all other types of operating cords.
The dashed blue line indicates a fastening method e.g. loop pin or plastic strip.

	
Unacceptable: Safety device not correctly attached.	Acceptable: Safety device properly attached to cord.

According to clause ***8.2.3.4*** internal blinds that are not "made to order" for a specific building opening (i.e. all blinds supplied for JYSK) containing accessible inner cords must have an attached safety device (pull cord stop) locking the internal blind in fully retracted position at delivery.

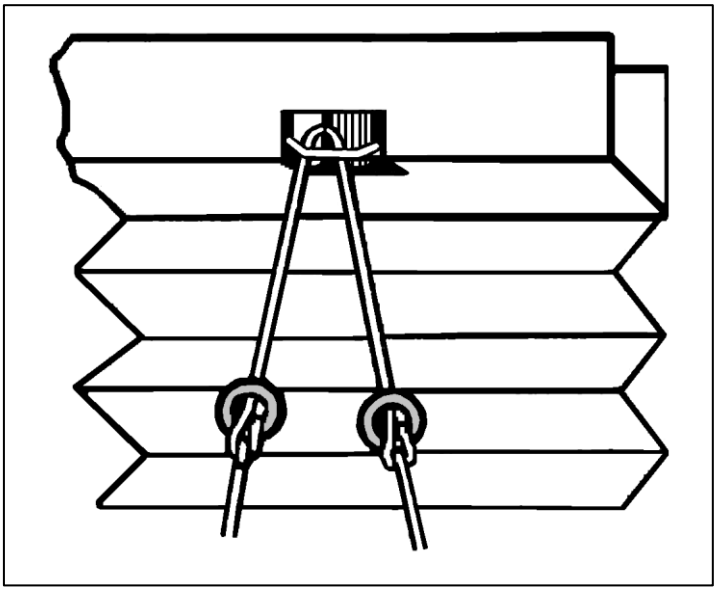


Illustration: Pull cord stops

A safety warning according to clause ***15.2.2.3*** must be conspicuously attached to the pull cord stop(s). JYSK supplies a downloadable digital version of the warning notice that must be used. JYSK consider the requirement for attachment fulfilled by attaching the warning to the device(s) with a loop pin or similar.

Instructions on how to adjust the blind to be fully operational must be given in the manual.

Regarding the contingency-leaden choice of sub clause(s) within chapter 8 please note the documentation requirements stated by JYSK in chapter *2.1.4*!

Clause 15:

Clause ***15*** sets requirements regarding "Information for installation, use and maintenance".

Information for use must be given according to ***EN ISO 12100*** clause ***6.4*** besides the specific requirements from clause ***15*** itself.

According to clause ***15*** all information must be given is in the national language(s) of the country of sale.

JYSK's stance regarding the issue of written texts in the instructions is to keep it to a minimum (i.e. only required safety warnings). This is because as all text must be translated to the language of the many countries JYSK operates in.

Instead of written texts JYSK when possible requires use of easily understandable illustrations and pictograms to communicate the necessary information.

According to clause ***15.2.1*** a warning notice with a pictogram (e.g. according to ***EN 61310-1***) must be attached to the technical instructions. The notice must give a message in the following sense "*The instructions for use shall be read before operating the product*".
The technical instructions must state situations in which "forced operation" may risk damaging the product. Assessment of whether forced operation can occur should be made by the supplier as he/she has the relevant knowledge of the product.

Warning notice(s) for protection from strangulation (clause ***15.2.2***):

Depending on the blind design additional warning notices may be required to follow the blind.

When required the warning notice from clause ***15.2.2.2*** must according to JYSK's interpretation be given in the following three places:

1. Attached to the product in a conspicuous position
2. In the instruction (within manual)
3. On the packaging

Warning texts in locations 1 and 2 must comply with the text height requirements.

- According to clause ***15.2.2.1*** the text in these warnings must be at least 3 mm high with the exception of the initial "WARNING" in upper case which must be at least 8 mm.
- The referenced heights are interpreted by JYSK as cap heights. A cap height is the height of a capital letter above the baseline for a particular typeface.
- The supplier is responsible for securing that text heights are according the height requirements regardless of any additional requirements or directions set by JYSK.
- Note that the 8 mm requirement for the word "WARNING" applies to all translations hereof and not only the English warning.

Warning texts in location 3 (on the packaging) may deviate from the above text height requirements but must always be clearly legible.

JYSK requires the "Risk of strangulation"-pictogram to be included with the warning notice in all three locations. The reason behind including the pictogram on the packaging is to make customers aware of the warnings already at 'point of sale'.

The "Risk of strangulation pictogram" that must follow the strangulation warning texts is available in the file named *JYSK 10174*. The pictogram made available by JYSK is the only version allowed.

The general warning notice that must be attached to the blind is made available under *Downloads* under the file-name *JYSK 10170*.

The warning text that must be stated in the instruction and on the packaging is available as *JYSK 10176*.
Whenever practicable the text "*Read carefully the instructions and install accordingly.*" and translations hereof (available from *JYSK 10170*) must be included with the warning stated on the packaging.

In clause ***15.2.2.3*** are the two warning notices referenced to in clause ***8*** in relation to non-integral safety devices and pull cord stops for accessible inner cords on stock-blinds.

These notices are also subject to the minimum text height requirements of 3 and 8 mm.

JYSK supplies electronic versions of these warnings that must be used.

The warning that must be attached to non-integral safety devices is named *JYSK 10171*.

The warning that must be attached to pull cord stops is in the same folder and is named *JYSK 10172*.

Accompanying documents (clause ***15.3***):

According to clause ***15.3*** written instructions must be provided in accordance with the requirements of ***EN ISO 12100*** clause ***6.4***.

JYSK states requirements to the layout of accompanying documents in *JYSK 5002*.

JYSK comments for the specific requirements regarding "Instructions for storage, transportation, handling, unpacking and installation":

According to clause 15.3.2 instructions must include a repeat of the information with which the product is marked. The requirement is by JYSK considered fulfilled by repeating the name and type of the product besides repeating the supplier contact information from chapter *2.3.1*.

All blinds supplied to JYSK should allow full handling and installation by non-professionals meaning that the statement can be made generally and not on process level within the instruction.

For products containing safety devices certain requirements for the instructions exist to ensure proper installation. Instructions must always include relevant information from clause ***15.3.2.1*** depending on the product.

JYSK comments for the specific requirements regarding "Instructions for use and maintenance":

As stated the instructions must include "the duties and conditions" under which the blind has to be used.

Instructions regarding service, item replacement and maintenance should be few as JYSK generally prefers to source blinds that are service- and maintenance-free throughout the expected lifetime of the blind.

Product specific instructions must be in place when necessary. An example of this could be pleated blinds needing to be exercised to keep their shape.

Necessary operation information must naturally be in place when use of the product can result in dangerous situations.

2.1.2 JYSK comments to *EN 16433*

This standard is referenced to in ***EN 13120*** clause ***8.2*** and is inherently used for testing of all blinds with safety devices. The purpose of the standard is to test the functionality of safety devices.

"Annex A" of ***EN 16433*** gives a great overview of the different tests specified within the standard.

2.1.3 JYSK comments to EN *16434*

The standard is referenced to in ***EN 13120***. The purpose of the standard is to describe component tests of safety devices.

"Annex A" of ***EN 16434*** gives a great overview of the different tests related to different safety devices.

A quick run through of the most important clauses contained in the standard and JYSK's associated comments will be given here:

Note: Suppliers should always use the actual EN-standard as reference as JYSK does not comment on all topics.

Clause *4*: General:

In this clause general requirements are stated. Especially important is the statement saying that all parts associated with the protection from strangulation shall be included in the tests. According to JYSK's interpretation this means that supplied fastening elements should be considered part of the safety device they are supplied with and be subject to the same requirements.

Clause ***4*** sets requirements for continuous test sampling during production runs referencing ***ISO 2859-1***. Furthermore testing should be performed every time changes in design, composition, raw material or raw material supplier occur.

Clause *5*: Artificial ageing:

This clause describes different conditions that safety devices must be subjected to as a part of the full testing. In most cases (please refer to "***Annex A***" and relevant clauses ***6*** to ***10***) the safety devices must be tested in their original condition before treatment even though stated "before testing" in this clause.

Please note that the 5000 test cycles related to mechanical endurance for the safety device is independent on the class requirements of the blind itself.

Clause *6* to *10*: Test methods and requirements:

Specific test methods and requirements are described in their own clause for each type of safety device. The tests are naturally different depending on the type.

Clause *11*: Additional requirements:

Clause ***11*** describes additional requirements concerning release of small parts and impact resistance.

Testing of released small parts is made on all blinds on parts becoming detached during testing of clause ***6*** to ***10***. Testing is carried out by trying to fit any detached part within a defined "small part cylinder" simulating the mouth of a child.

Impact resistance is only applicable for safety devices that are attached to fixed surfaces (e.g. tensioning and accumulation devices). Testing for impact resistance is carried out by dropping a metal weight on the test subject in different conditions.

Clause *12*: Information for installation, use and maintenance:

Specific requirements regarding information for installation, use and maintenance are stated for safety devices within ***EN 16434***.

The requirement for marking the manufacturer/importer name is by JYSK considered to be covered by the requirements set in chapter *2.3*.

The standard requires that *information about the type of blind the safety device has been designed for and tested with* is stated. To limit unwanted use and misuse of safety devices JYSK makes a text and translations hereof available for download stating that the device must only be used with the accompanying blind.

The file containing the texts is named *JYSK 10173*.

The supplied texts must be repeated in the manual with the installation instructions for all types of safety devices.

"Information for use" including purpose and limitations must be given in conjunction with the installation instructions for all safety devices.

The last general requirement is to give warnings against release of small parts which can result in internal asphyxiation of a child. The warning should be given in relevant cases according to the supplier.

In addition to the general requirements within clause ***12.2*** safety device type-dependent information requirements exist. The type specific information in all cases addresses the physical limitations of adjacent elements to the specific safety device.

According to clause ***12.4*** the safety devices must be marked to allow for traceability.

The requirement can be avoided if the placement of a sticker is not practicable due to the physical size of the safety device.

Clause *13*: Factory production control:

Supplementary to the continuous test sampling requirements stated in clause ***4*** the manufacturer shall establish and maintain a Factory Production Control (FPC) system according to clause ***13***.

2.1.4 Documentation of tests for harmonized standards

JYSK requires that testing of harmonized content should be done according to the highest level referenced rather than the just the applied sub-clauses.

An outcome of this interpretation is that even though many of the harmonized requirements are tested under the contingency approach, JYSK requires documentation for assessment of all referenced (sub)-clauses.

References not tested against must be documented "Not applicable" and preferable with a relevant explanation of the reason leading to that particular conclusion.

*Examples for **EN 13120**:*

8.2.3.2 – N/A (no operating loops)

8.2.3.3 – N/A (no pull cords)

8.2.3.4 – N/A (no inner cords)

8.2.4 – N/A (no safety devices)

15.2.2 – N/A (no operating loops, pull cords or hazardous inner cords)

15.3.2.2 – N/A (product not power operated)

15.3.3.2 – N/A (product not power operated)

For an overview of test documentation requirements see table in chapter *3*.

2.2 General safety during use, handling and storage

Regarding the general safety of blinds the supplier must pay special attention to ensuring that no parts of the blind can cause harm to individuals directly or indirectly when using, installing, assembling, handling or else wise being in the immediate vicinity of the product.

Assessment of safety can be carried out as a risk assessment containing at least the topics described in ***Annex B*** of ***EN 13120***.

As a part of maintaining general safety JYSK has chosen to reference the passage of clause ***8.1*** making the contents within formal requirements:

"Sharp and projecting edges of … protected by foam or rubber."

The passage describes specific design requirements for edges on blinds.

2.2.1 Specific safety related focus areas

Operating loops:

Operating loops must be permanently closed (endless) and not closed with a connector or assembly device.

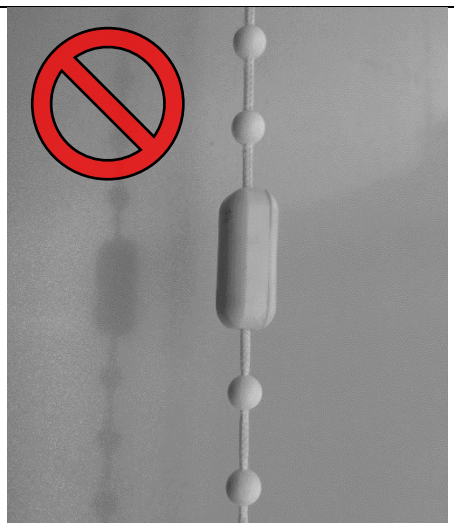


Illustration: Example of ball chain connector – Not permitted.

Tensioned pleated blinds:

Tensioned pleated blind are generally considered safe by design as all cords are held under constant tension by e.g. a spring mechanism. To prove the safety of the design JYSK requires testing including relevant principles and methods from ***EN 16433***.

Bottom chains on vertical blinds:

Bottom chains are a potentially hazardous element that is not directly covered by ***EN 13120*** clause ***8.2***.

Due to the potential strangulation risk JYSK requires that the supplier makes an assessment of the subject as part of the general safety assessment.

2.3 Marking and traceability

2.3.1 Supplier contact information

*JYSK Company info*rmation must be printed on the packaging in accordance with *JYSK 6101* and repeated in the manual in accordance with *JYSK 5002*.

2.3.2 Information for full traceability of the product

For reasons of safety and identification (e.g. in case of withdrawal) all blinds must be *permanently marked* with a sticker according to *JYSK 6101*.
The supplier must ensure full traceability of the product by correctly filling in the information on the sticker.

Placement of markings must be on the head rail on a non-visible place after assembly and installation. The marking must not be located within areas possibly removed when shortening the blind. The markings must be placed neatly and may not interfere with the operation of the blind. The marking should stick during the expected lifetime of the product.

Some blinds do not have a head rail. In these cases a feasible placement must be found in collaboration with the category manager.

All placements of markings that are different from the above specified must be agreed upon by the category manager. The supplier must be able to document the category manager acceptance of any divergent marking solution.

2.4 Operating effort and design of the operating mechanism

The comfort and ease of operation is considered significant contributions to the overall quality perception for products within the blinds category. Furthermore operating effort also contains aspects of safety as blinds that are hard to operate will inherently be less safe.
JYSK wants to deliver products with a pleasant, easy and comfortable operation meaning that all blinds must be designed, constructed and produced with this specific goal in mind.

To formalize the more or less intangible product qualities related to operating effort JYSK has chosen to refer to clauses ***4*** and ***5*** of ***EN 13120***. These clauses address general expectations regarding ease of operation and present quantifiable measures that can be tested. The requirements should in both cases be seen as minimum acceptable performance levels.

Clause ***4*** describes the allowed force for operating different types of operation mechanisms. The clause is determined by testing according to ***EN 13527***.
Supplied blinds must at least comply with ***class 1*** in the clause.

Clause ***5*** describes dimensional requirements of operating mechanisms relative to the operating force of the specific product. The diagrams in this clause can be used for dimensioning the operating mechanisms. JYSK require designs complying with the specifications of the clause.

2.5 Misuse

The blinds sold at JYSK must be able to withstand expected misuse during operation as customers are very diverse and use their products differently.
Supplied blinds must inherently be robust and strong by design and choice of materials.
JYSK requires suppliers to ensure that every blind can "take a beating" and handle the expected stresses.

To formalize requirements related to misuse of blinds JYSK has chosen to refer to clause ***6*** of ***EN 13120:2009+A1:2014***. The clause describes the forces blinds must be able to withstand without surpassing the allowed operating effort (chapter *2.4*) or changing appearance outside specifications. JYSK refers to chapter *2.7* regarding appearance requirements as the appearance clauses of ***EN 13120*** are not directly referenced!

The requirement of not changing appearance remains the same.

Clause ***6*** is determined by testing according to ***EN 12194***. The requirements should be seen as the minimum acceptable performance level.

2.6 Mechanical endurance

Blinds are products with a relatively long life-time due to their relatively static positioning. JYSK expects suppliers to supply blinds that will be mechanically functioning at least throughout the expected lifetime for a blind in the specific category.

To formalize requirements related to mechanical endurance JYSK has chosen to refer to clause ***7*** of ***EN 13120***. The clause describes the amount of operating cycles blinds must be able to go through without surpassing the allowed operating effort (chapter *2.4*) or changing appearance outside specifications. JYSK refers to chapter *2.7* regarding appearance requirements as the appearance clauses of ***EN 13120*** are not directly referenced! The requirement of not changing appearance stays the same.

Clause ***7*** is determined by testing according to ***EN 14201***. Supplied blinds must comply with at least ***class 1*** in the clause to be accepted by JYSK. The requirements should be seen as the minimum acceptable performance level.

2.7 Appearance

In this chapter requirements for the immediate appearance and form of blinds will be stated. This chapter uses a contingency approach meaning that suppliers must go through and familiarize with all subchapters but only apply the ones relevant for the specific supplied product.

Some requirements concern usage of specific materials while other requirements will be product specific for certain subgroups within the blinds category.

In all cases it is the responsibility of the supplier to ensure that all relevant requirements are applied. The stated requirements will often be based on explicit wishes or problematic issues experienced for a specific topic or blind-category. If something is important enough to be described here it most likely means that the requirement is a focus area for JYSK and will be regularly monitored.

All distances and tolerances are specified at a reference temperature of 23° C ±5° C.
Please be aware of the specific thermal stability requirements from chapter *2.8.2* that exists concurrently to the appearance requirements.

2.7.1 Colors

Every visible part/element of the blind must be defined with a specific reference color.
JYSK prefers Pantone reference color for textile and plastics. For painted parts JYSK prefer reference colors in RAL.
In the event that a color of a part is left unspecified the supplier must contact JYSK for a reference.

2.7.2 Painted parts

To ensure consistency parts must always be painted in the agreed color and with the correct layer thickness within specified tolerances if any.

Furthermore the painted surfaces must be free of flaws, errors and scratches.

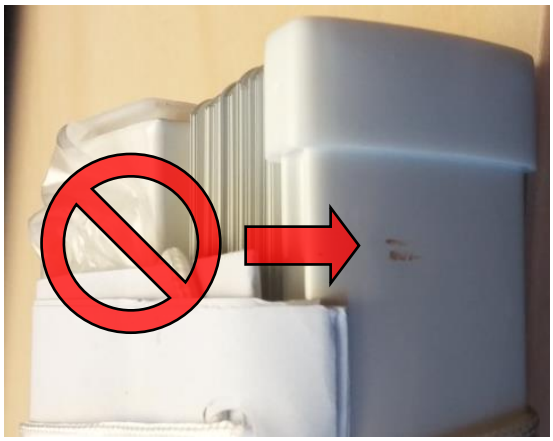


Illustration: Example of unacceptable scratch marks

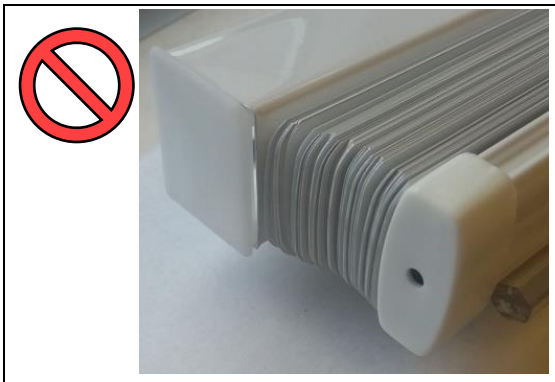
2.7.3 Plastic parts

Blind often contain several plastic parts made of different types of plastics. Visual appearance has great influence on the overall quality perception and hence makes quality management of plastic parts an important task.

JYSK requires suppliers to perform the necessary actions to ensure uniformity and consistency of both color and form for plastic parts. JYSK expects suppliers to proactively advise and recommend solutions for the issue of achieving consistent color and form.

Uniformity is expected at delivery but should also be expressed by even aging of the different parts throughout the lifetime of the blind.

Examples of non-uniformity of plastic parts:

	
Different end cap colors (top: semi transparent grayish, bottom: yellowish)	Different cord colors on a single blind-unit

Another problematic topic regarding plastics is the issue of molding errors.

Molding errors must not be present as they can ruin and compromise the perception of quality even when the part might be functioning.

As customers in most cases assemble the blinds themselves, they frequently see parts from angles that may not else wise be visible. Visual molding errors will not be accepted in places that might be visible for the customers during assembly. Function disabling molding errors will logically never be accepted.

Molding error types includes but is not limited to the following:

- Air bubbles and blisters
- Burn marks
- Disproportionately visibly or large burrs
- Embedded contaminates
- Flow marks
- Sink marks

2.7.4 Blinds containing textile

Textiles require great quality management as blind parts made of these materials are often fundamental elements that have a highly visible placement.

Textile must always be delivered in the correct agreed color within the specified tolerance. Any prints or patterns agreed must also be in a uniform appearance in relation to the specifications agreed upon.

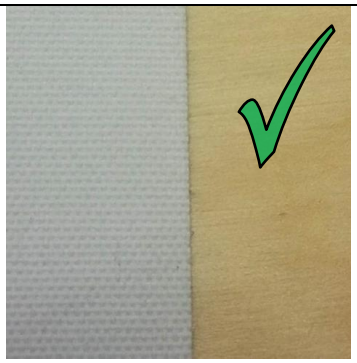
The textile must also conform to any other agreed specification. Examples hereof include but are not limited to:

- Composition of material(s)
- Yarn type/count
- Density
- GSM or g/m2
- Texture
- Specifications related to coating
- Transparency/opacity

Products containing textile(s) must be designed and produced to minimize known problems related to textiles.
JYSK will not accept products with significant textile errors. This includes but is not limited to the visual appearance of the following phenomena:

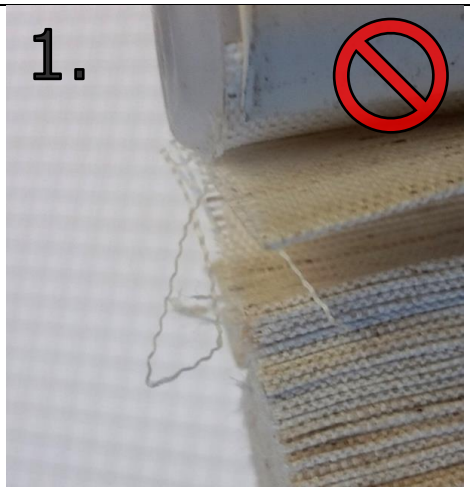
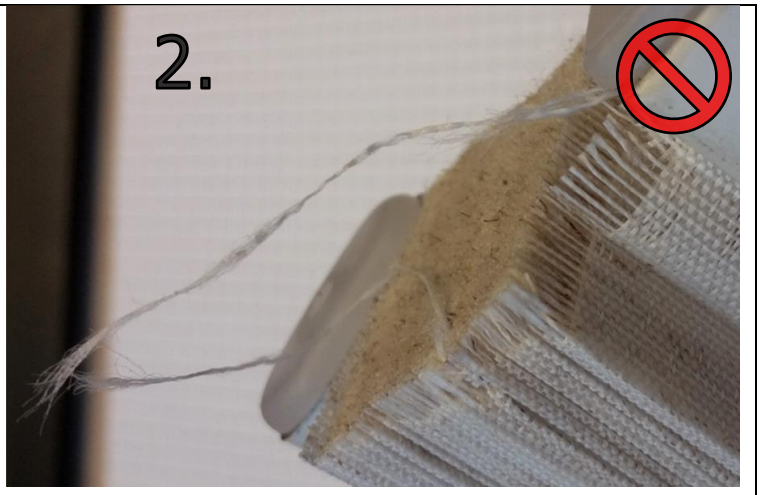
- "V-ing" and "A-ing" due to deflection of tubes/rails
- Ripples and waves in the textile
- Curling/cupping
- Puckering
- Twisting
- Telescoping (bad tracking)

The edges of textiles must always be cleanly cut in a suitable production process to ensure that they will not fray or unravel.

	
Fraying	No fraying

The main reason for fraying being unacceptable is that even smaller threads will often unravel a lot of fabric when the customer instinctively tries to remove it. The problem scales significantly if the fabric is not aligned with the cuts.

JYSK's customers cannot be expected to know how to correctly handle frays.

	
Small errors can easily unravel bigger problems.	

2.7.5 Horizontal and vertical deviation

Suppliers must ensure that blinds are tracked correctly and not crooked or skewed.

To formalize requirements related to horizontal and vertical deviation JYSK has chosen to refer to clause ***12.5*** of ***EN 13120***.

All blinds (excluding vertical blinds) must be able to comply with ***Class 1*** requirements of the clause except the special cases described within the clause itself.

The reference for setting allowed deviation will always be the specified nominal height and width dimensions of the blind and not the actual measurable distances.

2.7.6 Bend of rails

A visual detail of great importance within the blind category is (in most cases downwards) bow or bend of rails.

Gravity can influence especially bigger and heavier blinds to bend between fastening points.

Bending rails have the unfortunate effect of making the blind look under-dimensioned to customers, even in situations where the blind construction is more than strong enough from a mechanical point of view.

To ensure that all blinds support customer-perceptions of reliable quality products, JYSK requires that rails show no visible bend when mounted according to the instructions given for the product. Assessment of the issue is carried out as a visual inspection of a product mounted according to the supplied instructions.

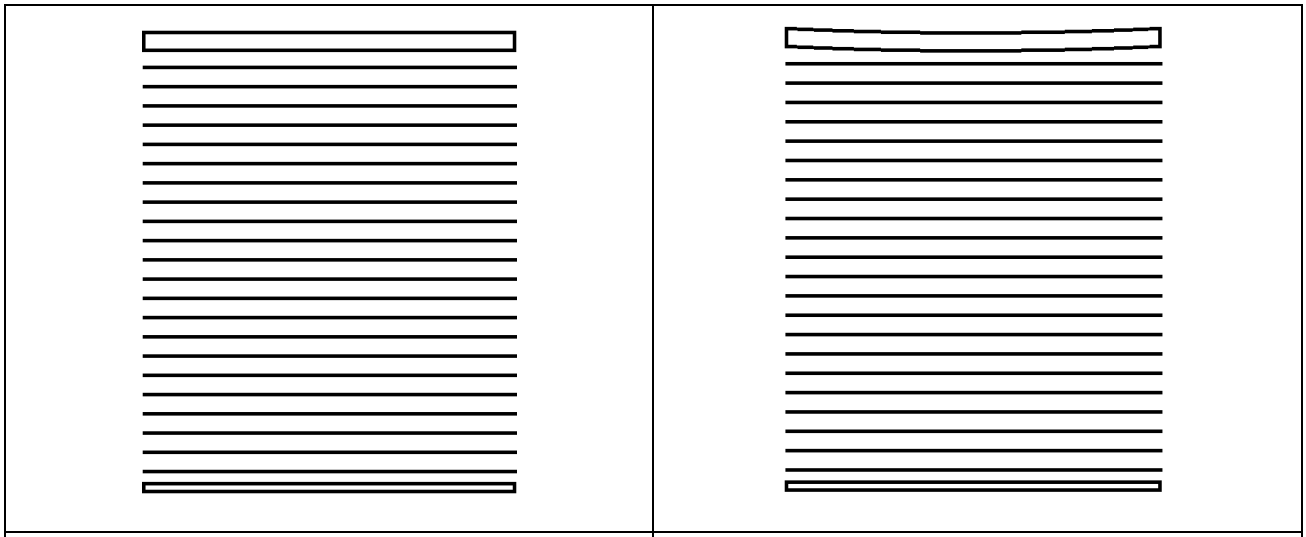


Illustration: Examples of rail bend/bow

To document the extent of potential bend issues the distance (*D*) between the highest and lowest points of the rail can be measured and reported.

As a general rule of thumb "D" is always expected to be less than three millimeters.

In assessment of problems the visual impression during inspection is of higher importance than the measurable distance.

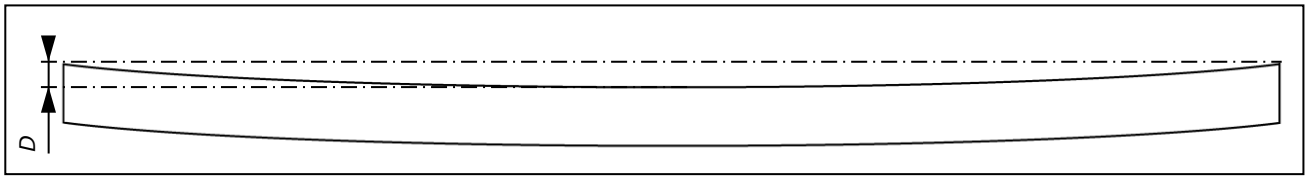


Illustration: Simple drawing of the distance D.

2.7.7 Venetian blinds

For all venetian blinds applies that slats must neatly overlap by 2 mm at any given point along the slat. The overlap must be seen perpendicularly (from the 90° angle) onto the plane of the "curtain" in fully extended and closed position.

By neatly overlapping is meant without significant gap changes between slats when seen in the plane of the curtain.

Slats must neatly align with the ends of the top and bottom rails including end caps and other potential elements.

Width of venetian blinds:

Venetian blinds must be delivered in the specified nominal width W with a negative tolerance of maximum (+0 -4) mm.

Measurements should be taken between the outermost elements of the blind with all relevant parts correctly assembled.

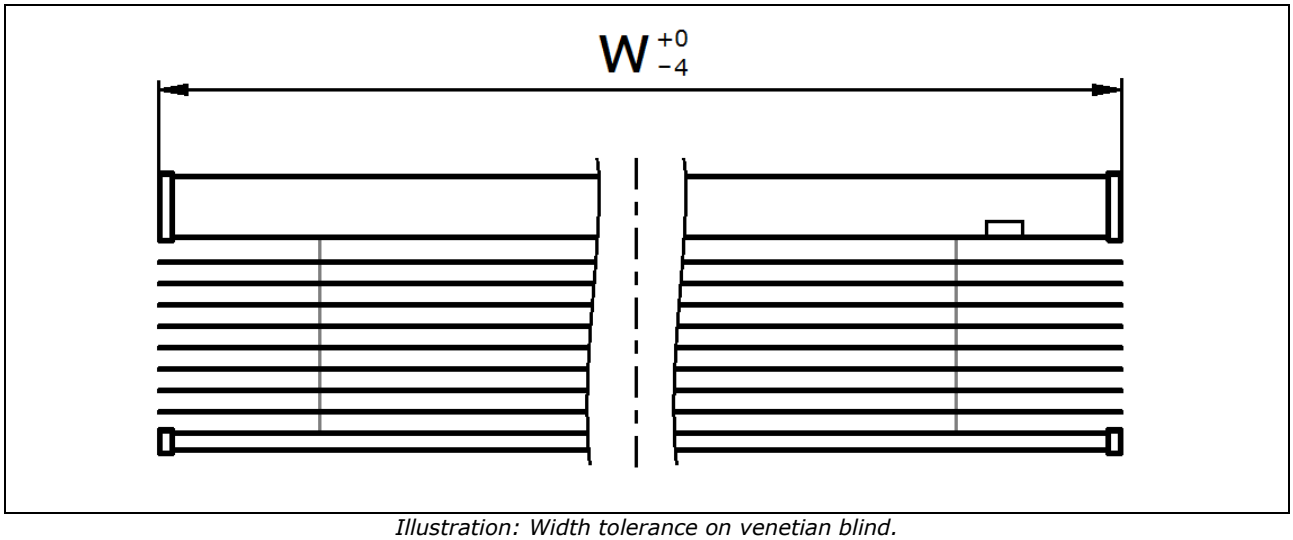


Illustration: Width tolerance on venetian blind.

Length of slats:

Slats must be supplied in the specified length which is equal to the width of the blind and with the same tolerance.

For visual reasons slats must be delivered with a maximum deviation of 1 mm between slats in a single package.

Potential differences in length between slats and rails must be equally distributed in both ends of the blind.

Width of slats:

The width of slats on venetian blinds must be the specified distance ±0,2 mm at any point along the slat.

Flexibility of slats:

The ability of slats to return to their original position must comply with the requirements of ***EN 13120*** clause ***12.2***.

Ladder braids:

Ladder braids are the elements setting distance between slats. The distance between slats must be uniform showing no prominent differences in distance between slats when looking at the blind.

Placement of ladders must be at least 10 cm from the ends of the slats allowing customers to shorten the blind.

Cupping of slats (Aluminum):

Aluminum slats in most cases inherently have cupping as a part of their design.

JYSK requires that the cupping of aluminum slats is uniform across the blind with a maximum deviation of 1 mm in cupping height between slats.

Cupping of slats (Wood, faux wood and plastics):

Wood and faux wood slats in most cases are intended to be flat (i.e. without cupping).

JYSK requires that the cupping of wood and faux wood slats is less than a maximum allowed deviation of 1 mm in cupping height at any point across the slat.

2.7.8 Roller blinds

Note that the requirements for bamboo blinds are stated in chapter 2.7.12.

Width of roller blinds:

Roller blinds supplied must be delivered in the specified nominal width W with a tolerance of maximum (+0 -4) mm.

Measurements must be taken between the outermost elements of the blind including brackets and potential covers with all relevant parts correctly assembled.

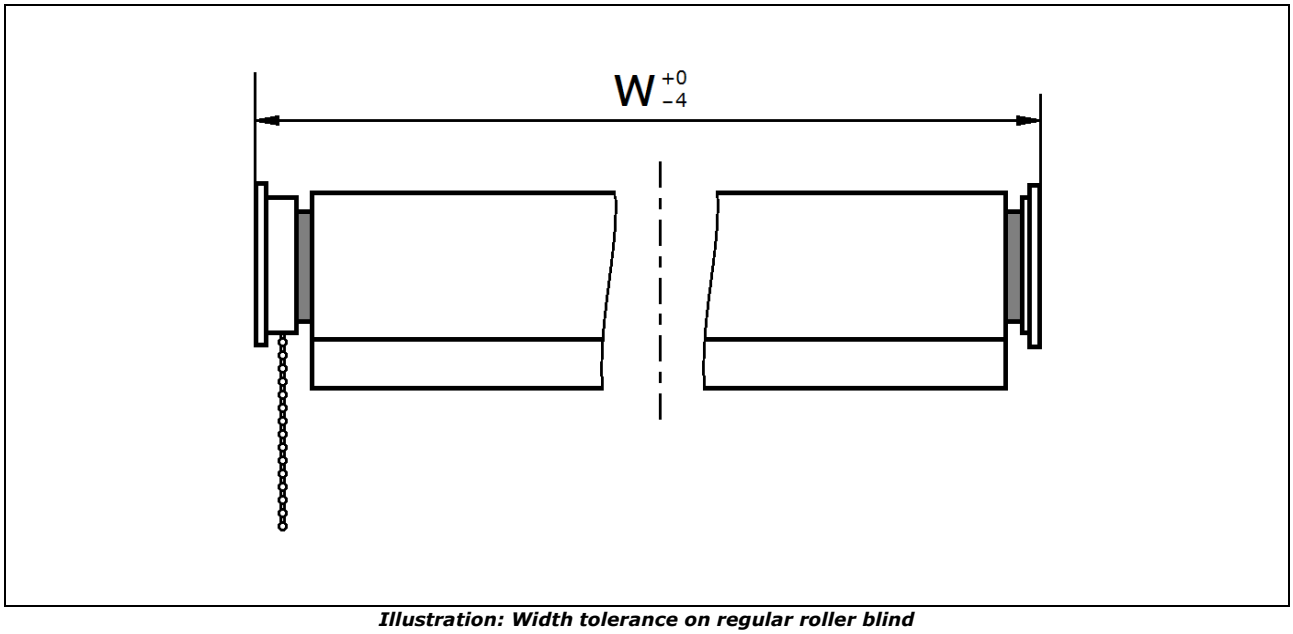


Illustration: Width tolerance on regular roller blind

Width of curtain:

To make sure that the edges of the roller blind will not rub against other parts and fray the curtain must be narrow enough to allow a distance of 5 ±1 mm from the edges of the textile to the ends of the tube.

Length of curtain:

On roller blinds the length of the textile curtain must be at least the specified length measured from the top side of the mounting bracket (top side of head rail for duo blinds) to the lower side of the bottom rail. JYSK will accept greater lengths to the extent that the extra textile does not obstruct with the function of rolling up the blind.

Length of bottom rails:

The length of the bottom rail must be appropriate for the width of the blind.

Sewn in bottom rails on regular roller blinds may have lengths up to 10 mm smaller than the width of the textile curtain. If sewn in bottom rails are fixed the distance from curtain edge to rail end must be equal in both of the two sides.

Illustration: Bottom rail significantly smaller than width of textile

Alignment of textile:

In designs with sewn in bottom rails the textile in the curtain should be neatly aligned before sewing the pocket.

JYSK will not accept misalignment resulting in free corners with a height (X) greater than 1 mm.

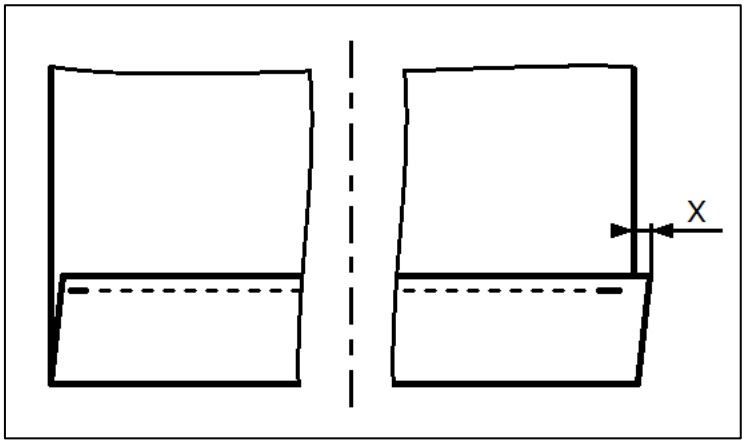


Illustration: How to measure textile alignment on roller blind fabric

2.7.9 Pleated blinds

Width of pleated blinds:

Pleated blinds must be delivered in the specified nominal width W with a negative tolerance of maximum (+0 -4) mm.

Measurements should be taken between the outermost elements of the blind with all relevant parts correctly assembled.

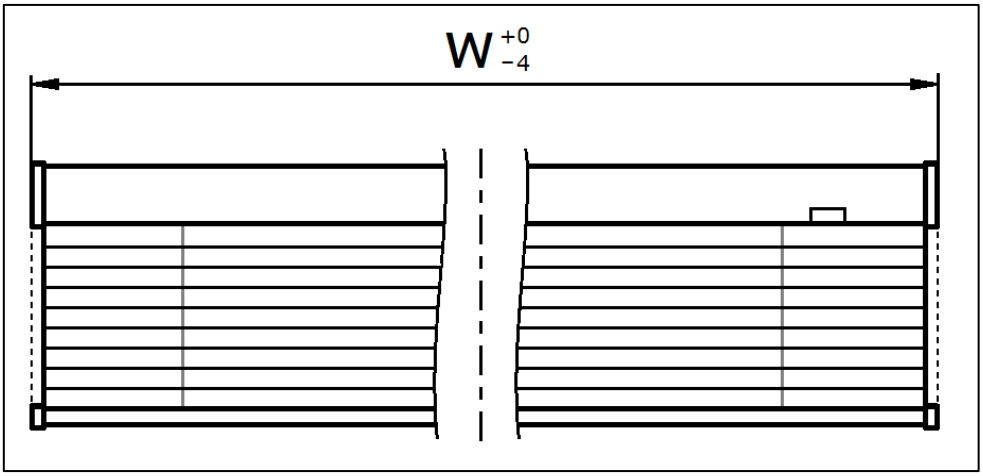


Illustration: Width tolerance on pleated blind

The textile curtain must neatly align with top and bottom rail.

Length of curtain (drop height):

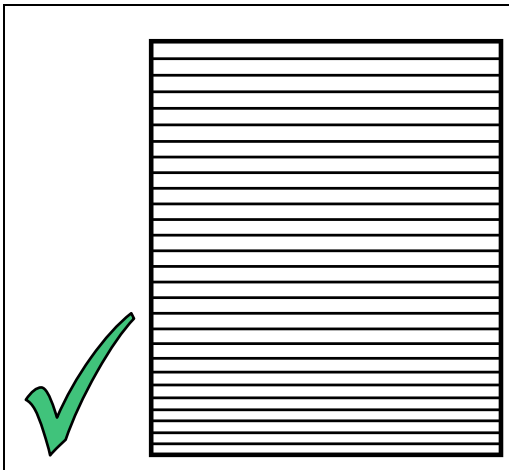
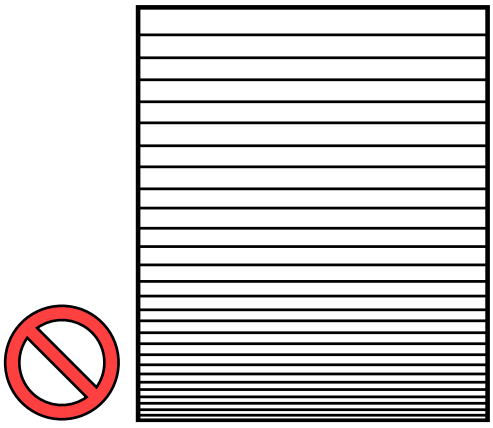
Pleated blinds must be able reach their specified nominal length without forcing or overstretching the textile.

Measurements of drop height should be taken from the upper side of the top rail to the lower side of the bottom rail.

Stiffness of curtain folds:

The textile for pleated blinds must be strong enough that textile will distribute relatively evenly along the curtain when the blind is fully extracted.

If the textile of the upper half of the blind is stretched too much the functionality of the product is compromised and at some point the blind will not be able to fold correctly.

	
Visually equal distribution of textile.	Clearly unequal distribution of textile.

2.7.10 Vertical blinds

For all vertical blinds apply that slats must neatly overlap by 5 mm at any given point when seen perpendicularly (from the 90° angle) onto the plane of the curtain.

The overlap must be measured in fully extended and closed position.
By neatly overlapping is meant without significant differences in the gaps between slats.

The outermost slat away from the operating mechanism must neatly align with the end of the top rail including end caps and other potential elements in fully extended and closed position.

Length of slats:

Slats must be at least the specified length L with a positive tolerance up to 10 mm: L $^{+10}_{0}$ mm.

Furthermore slats must be delivered with a maximum deviation of 5 mm between slats in a single package.

Width of slats:

The width of slats must be within the specified tolerance of ±0,5 mm.

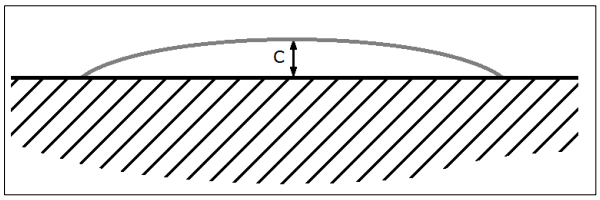
There must be no clearly visible changes in width along the length of the slat.

Cupping of slats:

The form tolerance of slats is a critical factor for vertical blinds. JYSK aims to source slats with no to little cupping, but can accept cupping up to 4% of the specified width.

> ***Example -*** 89 mm wide slat: $89 \cdot 4\% = 89 \cdot 0{,}04 = 3{,}56$
>
> For a slat with a specified nominal width of 89 mm the maximum allowed cupping is 3,56 mm.

Cupping is measured from the edges of the slat to the deepest point on the inside as illustrated by distance C in the following illustration:



Slats must not exceed the specified value of C at any point along its length.

Alignment of textile in the bottom of slats:

The textiles in the bottom of the slats should be neatly aligned before sewing. JYSK will not accept misalignment resulting in free corners with a height (X) greater than 0,5 mm.

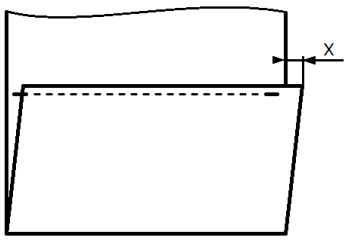


Illustration: How to measure textile alignment on vertical blind slats

2.7.11 Roman blinds

Width of roman blinds:

Roman blinds must be delivered in the specified nominal width W with a negative tolerance of maximum (+0 -4) mm.

Measurement should be taken between the outermost elements of the blind with all relevant parts correctly assembled.

The textile must neatly align with the head rail with a negative tolerance of maximum (+0 -5) mm.

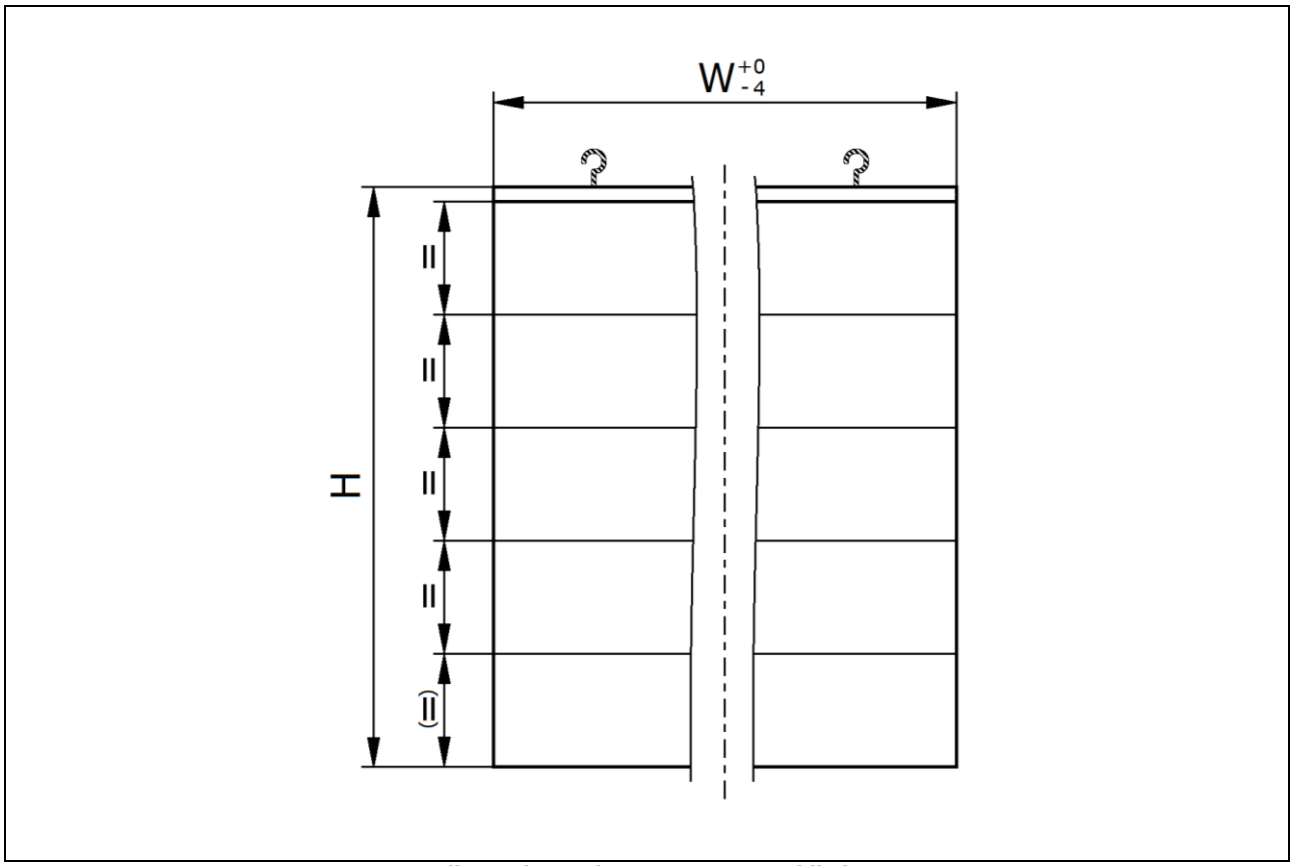


Illustration: Tolerances on roman blinds
(The hooks symbolize different fastening methods)

Length of curtain:

On roman blinds the length of the textile curtain is the biggest factor in setting the height H of the blind. The height must be at least the specified nominal distance measured from the top of the head rail to the lower edge of the curtain. As shown in the illustration height/drop is measured from the head rail and not from the fastening elements. JYSK will accept greater heights of the blind up to 10 mm.

General requirements on alignment of folds:

The stitched folds in the curtain must be correctly aligned meaning without prominently visible changes in the distance between opposing sides of the square created. Furthermore the aim is that all squares have similar heights.

JYSK will not accept heights that clearly differentiate from each other when looking on the blind as a whole.

The lowest square is weighted less in the assessment as the distances have to add up to the height of the blind.

Specific distances and/or tolerances defined must be complied with.

2.7.12 Bamboo blinds

Width of bamboo blinds:

Bamboo blinds must be delivered in the specified nominal width with a negative tolerance of maximum (+0 -4) mm. Measurement should be taken between the outer edges of the head rail including potential elements such as end caps. The bamboo curtain must neatly align with the head rail and is under the same tolerance.

Length of bamboo curtains:

On bamboo blinds the length of the curtain must be at least the specified length measured from the top of the highest head rail to the lower side of the bamboo roll.

JYSK will accept greater lengths to the extent that the extra material does not obstruct with the function of rolling up the blind or any other requirement.

General requirements regarding visual appearance of bamboo:

Bamboo is an organic material meaning that some variation in looks is to be expected.

JYSK will not accept discoloration or any other visual variances due to dead, sick or rotting fibers. This includes fibers attacked by fungus, insects or other pests. The bamboo must not be split, cracked or otherwise broken.

Humidity within the material must be brought within acceptable limits prior to delivery to prevent the material from crooking in the possession of JYSK or JYSK's customers.

2.8 Durability

2.8.1 Resistance to sunlight and other environmental conditions

Blinds are products placed in harsh conditions. Due to the sun blinds will undergo immense radiation including UV and many temperature changes. The placement close to windows strengthens the need for resistance against temperature and entails that humidity can also change a lot. In addition to the environmental conditions is also the fact that warranty differs between countries. When all conditions are summed the durability of blinds are a critical product characteristic with high importance.

Suppliers must perform the necessary actions, tests and assessments to ensure that supplied blinds can handle the harsh environments.

Firstly and most straightforward is that JYSK requires that supplied blinds have a great ability to keep their original color and age in a uniform way.

Secondly but at least as important is that blind-parts must not tenderize, become brittle or else wise perish to an extent making the supplied blinds nonfunctional, nonoperational or dangerous during the expected lifetime of the product.

Durability of textile:

Color fastness of textile must be tested according to the requirements drawn up in clause ***13.2*** of ***EN 13120.***

A look towards the future regarding paint durability:

Regarding visual color fastness aspects of paint JYSK suggests looking into the ***EN ISO 16474*** series describing methods of exposure to different laboratory light sources and the ***EN ISO 11664*** series describing colorimetric principles.

On the more functional aspects of durability for paint JYSK suggests looking into the ***EN ISO 4628*** series describing how to evaluate degradation of coatings looking into the extent of defects and the intensity of uniform changes in appearance.

A push in the right direction regarding plastic durability:

For plastics JYSK suggests looking in the direction of ***ISO 4582*** as it describes procedures used to determine changes in both appearance (including color) and variations in mechanical or other properties.

2.8.2 Thermal stability

JYSK sells blinds for use in many geographical locations and to customers with various definitions of normal usage conditions due to different in climates.

Suppliers must ensure that blinds are functional and operational in the temperature range from -10° to 50° Celsius without significantly changing form or visual appearance outside the specifications from chapter *2.7*.

Blinds must be able to conform to the requirements at any temperature within the specified range both when exposed momentarily and when held for an unlimited period of time.

Requirements regarding thermal stability are especially important to keep in mind for products containing fused materials e.g. laminated textiles.

2.9 Dirt, mold, fungus and pest infestations

The supplier must make sure that no unintended parts or particles are inside the packaging.

JYSK will under no circumstances accept products that are moldy, infected with fungus or pests of any kind, living or dead. Products for which this occurs will be returned and all costs forwarded to the supplier.

This goes for products with unpleasant smells as well as these will be seen as unappealing by customers and therefore unsellable.

2.10 Screws, bolts and other fastening materials

Suitable screws and plugs must always be included for safety devices that require the use of such parts.

Screws and plugs for mounting of blinds should not be included unless specifically agreed upon with *CAM*.
The supplier is responsible for contacting CAM to find a suitable solution for blinds requiring other fasteners than the 4 mm pan head screws sold by JYSK.

The supplier is responsible for securing that any supplied fastening solution is properly dimensioned for the intended use.

The supplier must at request be able to document the functionality and safety of supplied fastening methods by handing over documentation for assessment of structural integrity such as dimensioning calculations, standard references and fastening method specifications.

3 Overview of required tests-documentation

JYSK always requires test-documentation for the following clauses:

Standard:	**Clause:**	
EN 13120	8.1	General (safety in use)
	8.2*	Protection from strangulation
	15	Information for installation, use and maintenance
	14	Handling and storage
	13.2 (All blinds with textile)	Color fastness of fabrics
EN 16434 (required by *EN 13120* clause *8.2.4*)	4 to 11 (all applicable clauses for a given product)	-
	12.2	Information for installation, use and maintenance (safety device)
	13	Factory Production Control (FPC)

Regarding the above requirements (within the table) JYSK only accept test reports from the following testing institutes:

- Bureau Veritas
- Intertek
- SGS

***Testing according to *EN 13120* clause *8.2* inherently includes usage of *EN 16433*.**
Note the specific documentation requirements stated in relation to testing of the harmonized clauses within *EN 13120* in chapter *2.1.4*.

Blind requirements stated within this standard that are not listed in the table will be tested on ongoing basis by JYSK in relation to inbound quality control or whenever considered relevant to highlight a specific topic.

3.1 Using component tests of safety devices for several products

JYSK allows documentation of component tests for safety-devices (i.e. clauses ***5*** to ***11*** of ***EN 16434***) to be used for several products when the exact the same type of safety device is used by all affected products.

The supplier must for each of the affected blinds (divided at least by product name and most cases also by color) send the test-documentation to JYSK.

3.2 Fulfillment of EN 16434 clauses 4 and 13 by self-declaration of conformity

JYSK accepts a Declaration of Conformity made by the supplier as documentation for fulfillment of the requirements stated within clauses ***4*** and ***13*** of ***EN 16434***.

The Declaration of Conformity must be filled out according to *JYSK 8004*.

~~The declaration that must be sent to JYSK by the supplier is made by correctly filling out template *JYSK 10213*.~~
The self-declaration can only be considered valid when JYSK has given the supplier acceptance of the document in writing.