

# FÉDÉRATION INTERNATIONALE DE GYMNASTIQUE













FIG Apparatus Norms

II		
WAG		
01.01.2009		
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2.2 WAG Women's artistic gymnastics

# Vaulting Table

Use

## Women's Artistic Gymnastics

## Construction / Description of material, measurements

#### Form

The apparatus consists of a slightly inclined table body which is mounted onto a "monostand" bottom frame. The table body consists of a front surface (A) which, seen from the direction of the vault, is inclined to 8° to the vertical and merges into two arched bends (B1 and B2) and then into a linear cover surface (C) which is inclined 3° to the horizontal. The table body is divided into a bounce area (A) and a push away area (B and C) with a clear colour contrast. The different surfaces merge into each other without any gaps in between. The push away area is slightly rounded in transversal direction (D).

All corners and edges are rounded. The bottom frame must offer the table body a stable and secure supporting surface and must guarantee the abidance by the technical safety regulations. The bottom frame with cushioning may not present any parts that protrude from under the vaulting table's body except on the landing side. As a collision protection dangerous metal parts of the support must be cushioned.

Recommendation: All levers and locking mechanisms should be incorporated into the under construction.

At the landing side the legs of the bottom frame must be cushioned at the same height level as the landing mat (20cm).

The vaulting table including the cushioning of the bottom frame must represent a "monostand" - construction.

#### Measurements

Table body: length: 120 cm +/- 1 cm width: 95 cm +/- 1 cm

Height at the given measurement point (see drawing))<sup>1</sup>: 125 cm +/-1 cm

Upper height at the bounce area (see drawing) )<sup>1</sup>: 112 cm +/- 1 cm

Remark: For competitions the vaulting table must be positioned on a rigid board which has the same height as the run up area (see below).)<sup>1</sup>: In competitions the apparatus height must correspond to the top level of the run up area.

Maximal orthogonal deviations from the given profile lines in longitudinal and transversal directions:

1 cm

Protrusion of the leg construction below the table body on the landing side (only allowed with appropriate cut-outs in the landing mat):

15 cm maximal

Height of the leg frame 8 cm maximal

Circumference of the (cushioned) bottom frame including all levers and fixation devices between the height of 50 cm up to 85 cm

182,8cm maximal

Distance between the (cushioned) leg construction including all levers and fixation devices and the projection of the table body on all four sides between the height of 50 cm up to 85 cm 25 cm minimal

The adjusted height of the vaulting table must be clearly signed at the side.

# Vaulting Table

# Functional Properties

Additional Measurements see drawing. The profile lines towards A, B1, B2 and D are to be respected as indicated in the drawing. Maximum deviations 1 cm – measured at a right angle to the profile line.

The push away area must be shock-absorbing so that shoulders and wrists are protected.

The rebound properties must be guaranteed to be as homogeneously as possible for all the possible impact points on the table body.

Extended time-shift for rebounding energy at the impact points caused by extreme deflections is not acceptable.

The table body must be evenly cushioned over the entire push away area. The cover material must be non-slippery but not rough. It may not cause a burning sensation on sliding.

The bounce area must be cushioned with a high-quality material in order to provide a good collision protection.

In order to avoid swaying, vibrations and shifting, the apparatus must have a device for fastening it to the floor

The colour of the surface material may be chosen according to taste. For certain events the colour may be determined by the FIG.

Run up area

Colour

The run-up area is composed of a run-up mat and a rigid board underneath the vaulting board.

The start of the run-up (2500 cm) shall be marked.

length (measured from the vertical projection of the beginning of the vaulting table – see "reference point" in the drawing)  $2500\ + 10\ cm$  width (run-up mat)  $100\ cm\ +/- 1\ cm$  width (rigid board underneath)  $100\ cm$  min. height (same height for run-up mat and board underneath) max  $2,5\ cm$  length of the rigid board underneath the vaulting board  $320\ cm\ +/- 1\ cm$  The colour of the run-up area must have a clear contrast to the colour of the vaulting board. The whole run up area (run-up mat and the rigid board underneath) shall have the same colour.

Authorized Landing zone

Marking on the supplementary mat above the landing mat (see drawing). Width of the landing corridor at the table site:

95 cm
Width of the landing corridor (end of 600 cm landing mat):

150 cm
When the authorized landing zone is marked out by stripes:

Marking strip width on the supplementary mat

5 cm +/-0.5 cm

The marking strip width on the supplementary mat 5 cm +/-

Additional marking strip width in the centre of the

landing corridor (see drawing): 5 cm +/-0.5 cm

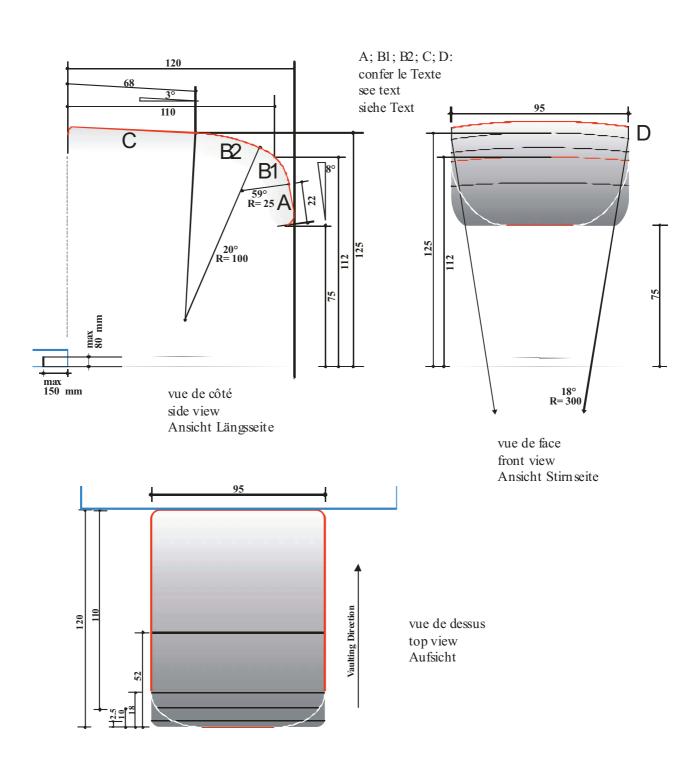
Remarks concerning the drawings:

- Bottom frame construction schematized.
- All dimensions in cm
- Tolerances for all dimensions: +/- 1cm
- Maximal Orthogonal Deviations from the given profiles in longitudinal and transversal directions:
   1 cm

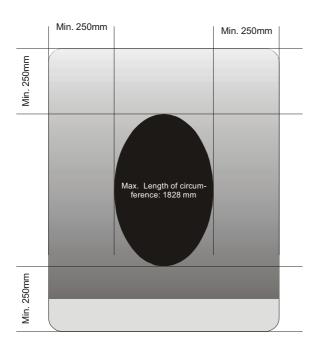
Dimensions binding; Construction may be different- drawing as example.

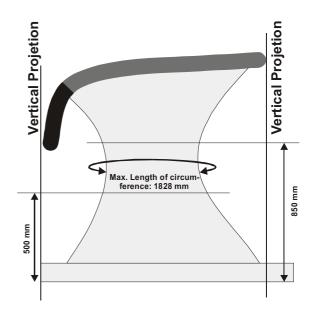
Norms / Functional properties

Regarding tests carried out by FIG Tests Institutes : please see chapter IV

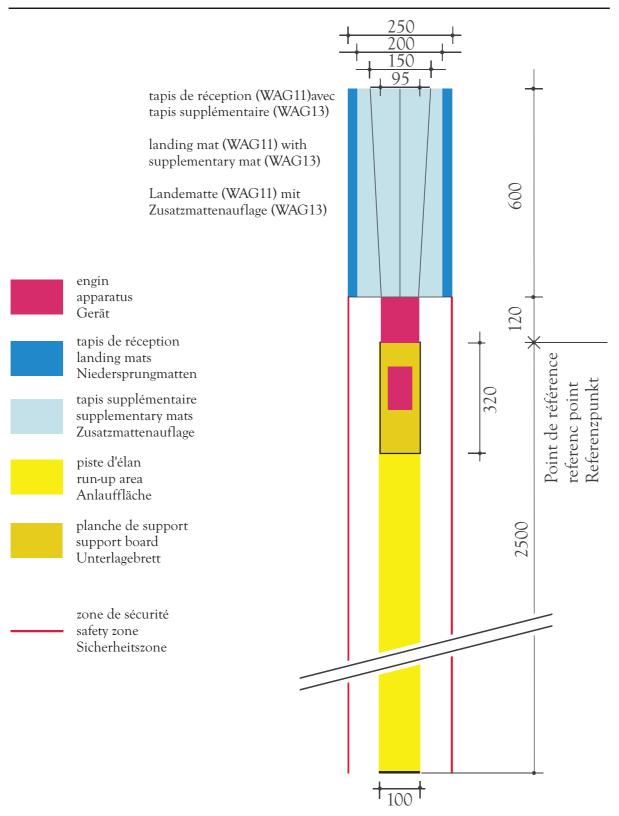


# Vaulting Table





# Vaulting Table



## **Uneven Bars**

Use	Women's Artistic Gymnastics
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### Construction / Description of material, measurements

#### Form

The apparatus consists of two bars, which run parallel, but at different heights, and are carried by a support base.

The support base has four uprights, which are held by tension cables (Ø max 1 cm) anchored to the floor.

Each bar is carried by 2 supports.

One low and one high support are connected to a floor device and a width adjustment device.

#### Measurements

Bars:

Diameter 4,0 cm \* 0,1 cm Length 240 cm \* 1,0 cm Distance between the sockets min 200 cm \* 1,0 cm

Height of the upper edge of the bars in inner diagonal position 180 cm:

upper bar (to the floor) 250 cm \* 1,0 cm lower bar (to the floor) 170 cm \* 1,0 cm

The height must be adjustable by 5 cm.

Inner diagonal distance (see drawing) between

the 2 bars adjustable from min 130 - 180 cm max \* 1,0 cm The diagonal distance must be adjustable continuously or with increments of max 2 cm.

The diagonal distance (expressed in cm) must be shown on a scale at the distance adjustment device.

Distance of floor anchors:

lengthwise 550 cm \* 5 cm crosswise 400 cm \* 5 cm

# Functional Properties

Both bars must have the same, uniform elasticity. To assure this, their supports must be articulated.

The bar surface must provide a good glide and turn capability but may not be slippery.

To ensure grip stability, the bars' surface must absorb moisture.

The bars must be secured (reinforced) against breaking through.

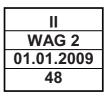
A safeguard system must prevent an unintended release of the movable components of the apparatus.

When the apparatus is used for performances, no hindering sways or vibrations and counter swings should occur.

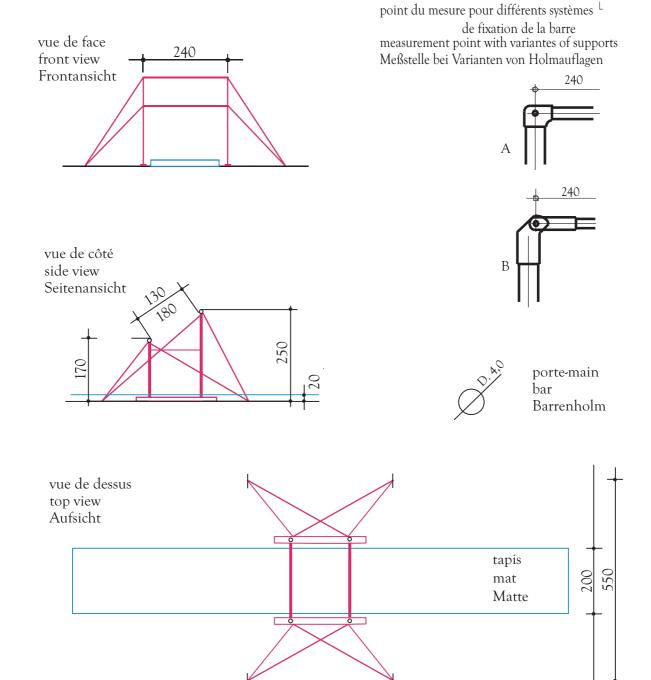
## Colour

The bars retain the natural colour of wood. They are neither lacquered, nor polished.

Norms / Functional properties
Regarding tests carried out by FIG Tests Institutes : please see chapter IV



## **Uneven Bars**



surface d'appui 550 x 1400 floor area for apparatus 550 x 1400 Gerätestellfläche 550 x 1400

cotes obligatoires; construction selon le gré; dessin en exemple dimensions: mandatory; design: at your discretion; drawing: typical example

700

400 1400

> Maße bindend; Konstruktion freigestellt; Zeichnung als Beispiel

700

### **Balance Beam**

Use

## Women's Artistic Gymnastics

### Construction / Description of material, measurements

#### Form

The apparatus consists of a beam, which is held by a base consisting of 2 supports.

Lengthwise, the beam is straight and its upper surface and axis are even and horizontal.

Viewed in cross section, the sides of the beam are arched.

The base design is not prescribed.

However, its legs may not protrude beyond the projection of the beam in its longitudinal direction. The supports of the beam must be cushioned. The cushioned parts shall not protrude the vertical projection of the beam.

The front parts of the beam must be cushioned by rounded, damping padding. The padding must reach the top edge of the beam, but the radius of the rounding must begin immediately at the end of the beam to guarantee that the padding does not prolong the total length of the beam (examples see drawing)

#### Measurements

Beam	٠
Deam	

Length		500 cm	* 1 cm
Cross section:	- Upper surface	10 cm	* 0,5 cm
	- Horizontal axis	13 cm	* 0,5 cm
	- Vertical axis	16 cm	* 0,5 cm
	- Bottom surface	10 cm	* 0.5 cm

Height of upper surface

measured from the floor 125 cm \* 1 cm

Legs of base:

Distance max. 500 cm Width max. 125 cm

Cushioning of the supports:

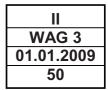
Thickness min. 15 mm Width of the supports incl. cushioning max. 13 cm

Cushioning of the front parts of the beam:

Thickness min. 15 mm up to max. 30 mm

The Beam might have a height adjustment. It can be continuous or in 5 cm increments. However, the prescribed height of 125 cm \* 1cm shall be observed at competition site.

Continuous height adjustment is recommended for levelling purposes.



## **Balance Beam**

# Functional Properties

The surface must have impact absorbent characteristics to protect the gymnast's joints and limbs. It should also have elasticity to support the jumps.

One of the most important properties of the beam is that it must be step safe. Elasticity must be equally distributed and must not disturb a sure step.

The upper surface material of the beam must permit effortless gliding and turning, but not be slippery.

The front parts of the beam must be padded.

The cover material must not produce skin burns.

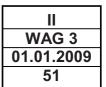
The upper edge of the padding at the front parts of the beam shall not be harder than the surface of the beam.

All protruding parts, especially screws underneath the balance beam shall be cushioned or hidden.

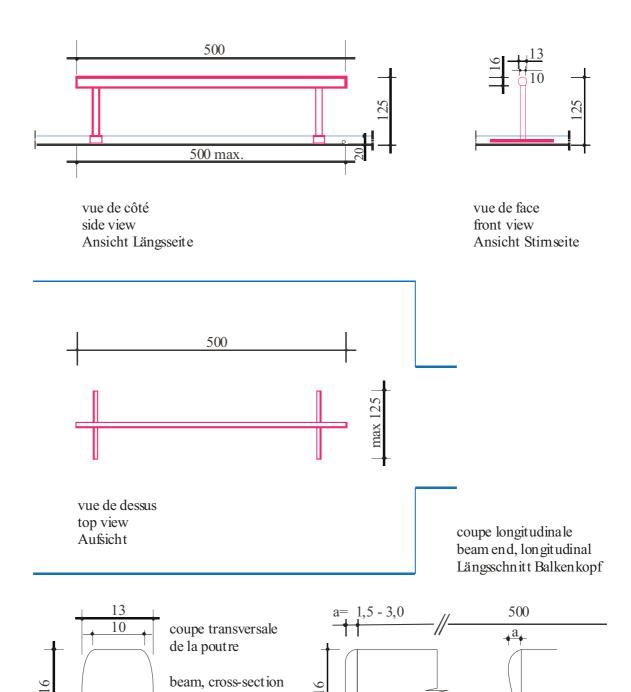
During an exercise, the beam may not move, topple or sway.

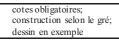
#### Colour

The colour of the beam must distinctly differ from the colour of the mats.



# **Balance Beam**





Balken-Querschnitt

Variante

### Floor

Use

## Women's Artistic Gymnastics

### Construction / Description of material, measurements

#### Form

The Performance Area shall have a square format. The surface must be horizontal, even and without gaps

#### Border:

Horizontal and even, at the same height as the surrounding performance area.

#### Border, variation:

Width 50 cm, horizontal and even, at the same height as the performance area, additional 50 cm inclination border, slope may not exceed 25 %.

#### Safety zone

The safety zone shall be kept totally free as a surrounding zone around the performance area and the border. It shall be horizontal, even and without gaps.

#### Measurements

Performance area 1200 cm x 1200 cm Tolerance +/- 3 cm
Diagonals of the performance area: 1697 cm +/- 5cm
Border 100 cm, min.

Border as a variant

Horizontal part, width 50 cm, min.
Slope max. 25 %, width 50 cm, min.
Height of outer border 3,5 cm, max.

When there is an delimitation strip between the performance area and the border:

Width of the delimitation strip 5 cm +/- 0,5 cm

The delimitation strip is part of the performance area.

# Functional Properties

Performance area and border:

- Equal elasticity and absorbency.
- While in use, no counter swings must be produced.
- Elasticity and absorbency of the floor must be balanced in such a way, that they guarantee the gymnast stability and freedom of movement. They must not restrict turns and slide movements.
- The surface cover of the performance area must provide a balance between anti-skid and slippage. It must not cause skin burns.
- The floor must not produce disturbing sounds. It must assure a low noise level.

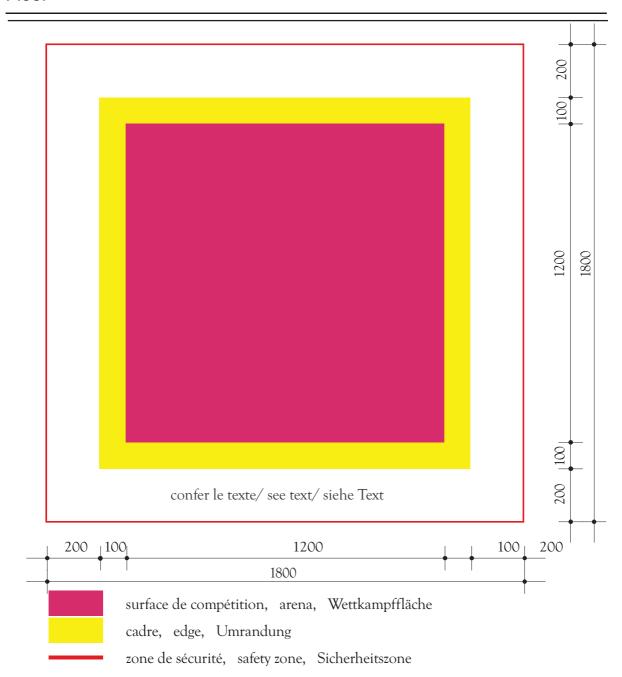
#### Colour

Plain colour, left to the discretion of the manufacturer. For certain events the FIG may stipulate the colour. The delimitation shall have a clear contrast to the performance area.

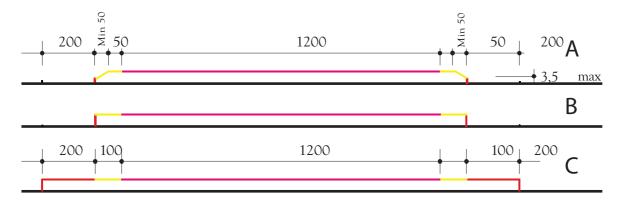
Norms / Functional properties

Regarding tests carried out by FIG Tests Institutes: please see chapter IV

# Floor



variantes, profile - variants, Schnitt - Varianten A, B, C



## **Landing Mats**

Use

## Women's Artistic Gymnastics

### Construction / Description of material, measurements

Form

Their upper surface must be horizontal, even and without gaps.

Specially designed mats must be used to cover the basis of the apparatus evenly.

Measurements

Height of landing mats (WAG1, WAG2, WAG3): 20 cm +/- 1 cm Width and length see drawing

Functional Properties

Absorbency:

The mats must absorb motion energy, in order to reduce the reaction transmitted to the body of the landing gymnast, to a tolerable proportion.

They must respond to increased penetration with an evenly increasing resistance.

Stability and Freedom of Movement:

Absorbency of the mats must be balanced in order to guarantee standing, walking stability and freedom of movement, there must be an equal balance between elasticity and absorbency properties.

Indentations caused by the incidence of compressive forces must not encase the body parts, thereby hindering freedom of movements mainly of rolling a part of the body.

If a cover is used, such cover may not cause hindering folds. The mats' upper surface material must offer a balance between anti-slip and slippage. It must be neither slippery nor possess inhibitory resistance.

By no means should mats be dislocated during performances. An anti-skid cover on the mats' underside may provide this condition.

The border zones of the mats which are pushed together should practically have the same functional properties as the remaining surface. Impacts on the border zones should not cause different indentations than on the remaining surface. For this purpose, and to bridge joints, continuous runners are permitted.

Colour

Preference should be given to uniform colours.

The upper surface must not show optically disturbing patterns or insignia.

The FIG may designate the colour of certain events.

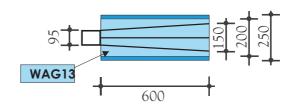
Norms / Functional properties
Regarding tests carried out by FIG Tests Institutes : please see chapter IV

II		
WAG 11		
27.03.2008		
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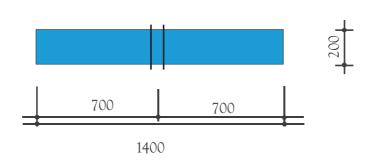
# **Landing Mats**

cotes minimales en cm, minimum dimensions in cm, minimale Maße in cm

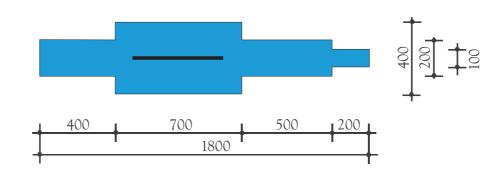




WAG 3 barres asymétriques uneven bars Stufenbarren







# **Supplementary Mats**

Use	se Women's Artistic Gymnastics			
Construction / Description of material, measurements				
Use	The usage is compulsory for the athletes at Uneven Bars, Balance Beam and at the vault.			
Form	Their upper surface must be horizontal, even and without gaps. The supplementary mats have to be laid on the landing mats (WAG11). At the vault the supplementary mat shall be attached (i.e. using Velcro).			
Measurements	Height of the supplementary mats:  Vault (WAG1):	10 cm 600 x 200 cm	* 1 cm	
	Uneven bars, balance beam (WAG2, WAG 3):  * Tolerance +/-	400 x 200 cm	* 1 cm	
	For the marking of the landing zone see WAG1.			
Functional Properties  The foam of the supplementary mats shall have a density of 25 kg / m³ (+/- 2 kg /m³). The ultimate tensile strength of the foam ≥ 115 kPa, the compression stress value 40% shall be 4,0 (+/- 0.5) k				
	By no means should mats be dislocated during performances. At the vault the supplementary mat shall be attached to the landing mat			
Colour	Colour Preference should be given to uniform colours.			
	The upper surface must not show optically disturbing patterns or insignia.			
The FIG may designate the colour for certain events.				

II	
WAG 14	
01.01.2009	
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# Vaulting Board

Use

Women's Artistic Gymnastics

- Vault (WAG1) "hard" and "soft"
- Uneven bars (WAG2) "soft"
- Balance beam (WAG3) "soft"

## Construction / Description of material, measurements

### Form

The profile of the vaulting board must adhere exactly to the respective blue print.

Its upper surface rises in an arched form, approaching the horizontal between 75 cm and 95 cm, measured from the frontal angle. The height reached at this point, may not be exceeded. After this point, the upper surface may continue horizontally or slope downward.

The rise of the arch is 3.5 cm +/- 0,5 cm.

For competitions a "soft" and a "hard" vaulting board shall be available. The "hard" board shall be marked with a dot on the surface.

#### Measurements

- Length	120 cm		* 1 cm
- Width	60 cm		* 1 cm
- Height	20 cm		* 1 cm
- Height (run-up side)	max 3 cm		
- Cushion Cover	2 cm		* 0,5 cm
- Total height with cushion cover 22 cm * 1,5 cm			
- Free space between floor and the lower edge			
of the vaulting board at	the run-up side	max. 1	cm

<sup>\*</sup>Tolerance +/-

The stipulated length and height refers to the vertical projection of the upper plate, i.e. the take-off plate.

The base may be larger, but cannot extend more than 2 cm beyond the projection of the board.

Labelling of the "hard" vaulting bard on the surface by a dot with clear contrast on the longitudinal midline:

Distance to the side of run up 5 cm Diameter 8 cm

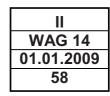
# Functional Properties

The functional properties of the vaulting board (hardness, damping, elasticity) shall not be adjustable (i.e. springs must be fixed so that they cannot be easily removed by hand).

The elasticity of the vaulting board must be most effective in the area between 75 cm and 95 cm, measured horizontally from the frontal angle.

The vaulting-board must dampen the counter pressure, i.e. reduce motion energy.

Elasticity and absorbency must be evenly distributed, so that the effect of the vaulting board differs only slightly, regardless whether the force of the impact is at the middle axis, or away from it.



# Vaulting Board

The upper surface of the vaulting board must offer slip resistance.

The vaulting board must not produce disturbing sounds during its use.

The vaulting board must not dislodge during use.

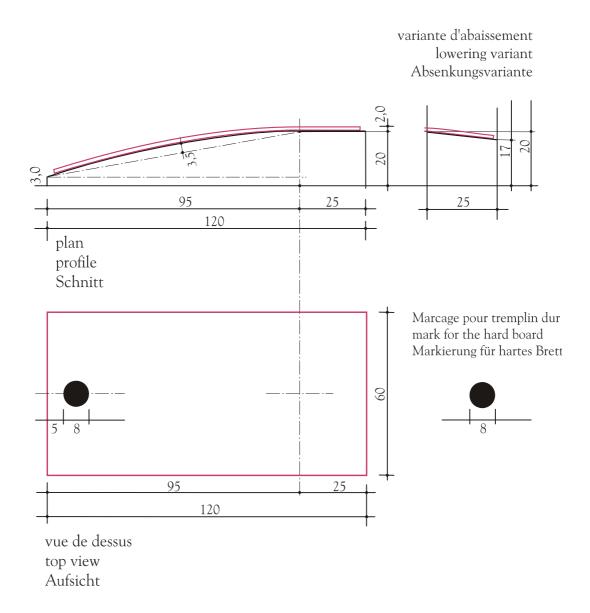
The vaulting board and its base may not have any sharp corners, edges and no protruding parts. Mainly the upper and under edge of the upper part of the Vaulting board towards the apparatus side (Vaulting Table, Balance Beam or Uneven Parallel Bars) shall be cushioned and rounded.

#### Colour

The choice of colour is left to the discretion of the manufacturer.

With exception of the dot for "hard" vaulting boards optically disturbing patterns, stripes or insignia on the upper surface are not permitted.

The FIG may designate the colour for certain events.



II		
WAG 15		
01.01.2009		
60		

# Vaulting Board safety collar (Round off vaults)

Use Women's Artistic Gymnastics

## Construction / Description of material, measurements

Use

The usage of the safety collar around the vaulting board is compulsory for round-off entries at the vault. It is not allowed to place the safety collar on the foot of the vaulting table or underneath the vaulting table.

Form

The safety collar is "u-shaped" and surrounds the vaulting board at the sides and the front toward the vaulting table. At the sides of the vaulting board its upper surface rises in an arched form in the same level as the vaulting board. At the front side of the vaulting board the surface of the safety collar is horizontal and even.

The whole surface of the safety collar and the corresponding surface of the vaulting board need to be of the same height level..

Measurements

Overall length: 120 cm (± 1 cm)

Minimal width at the side of the vaulting board: 20 cm Length at the front part of the vaulting board: 20 cm ( $\pm$  0,5 cm)

Maximal Difference between the height

of the safety collars' and the boards' surface

(respecting the arched form): ±1 cm

Maximal gap between the safety collar and the vaulting board on all three sides: 0,5 cm

Functional Properties

The safety collar has to provide a safe area around the vaulting board in case of an athlete misses the board for a take off towards the vaulting table, therefore the safety collar must provide sufficient stability and cushioning at the whole upper surface. The bottom side shall have an "anti slip" surface (i.e. velcro) to prevent the safety collar from slipping away.

Colour

The upper surface must not show optically disturbing patterns or insignia. The colour must be uniform and in contrast to the vaulting board.

The FIG may designate the colour for certain events.

# Mat for Hands (Vault)

Use	Women's Artistic Gymnastics			
Construction / Desc	Construction / Description of material, measurements			
Use	A mat for hands can be used by the athletes for round-off entries on the vault			
Form	The upper surface must be horizontal and even. The mat for hands can be laid on the run-up area to cushion the hand contact during round-off entries onto the vaulting board.			
Measurements	Length in direction of the run-up:	120 cm	* +10 cm	
	Width:	100 cm	* ±1 cm	
	Height of the mat for hands:	3 cm	* ±0,5 cm	
	* Tolerance  The foam of the mat for hands shall have a density of xx kg / m³ (+/- 2 kg /m³). The ultimate tensile strength of the foam shall be ≥ xx kPa, the compression stress value 40% shall be xx (+/- xx) kPa			
Functional Properties	The cover material must be non-slippery but not rough. It may not cause a burning sensation. If a cover is used, such cover may not be bulged and create hindering folds.  The bottom side shall have an "anti slip" surface (i.e. velcro) to prevent the mat for hands from slipping away.			
Colour	The upper surface must not show optically disturbing patterns or insignia. The colour must be uniform and in contrast to the run-up area. The FIG may designate the colour for certain events.			