



FÉDÉRATION INTERNATIONALE DE GYMNASTIQUE



FIG Apparatus Norms

II
01.01.2009
11

2 Apparatus of the FIG disciplines Construction and material description, dimensions



2.1 MAG Men's artistic gymnastics

Use Men's Artistic Gymnastics

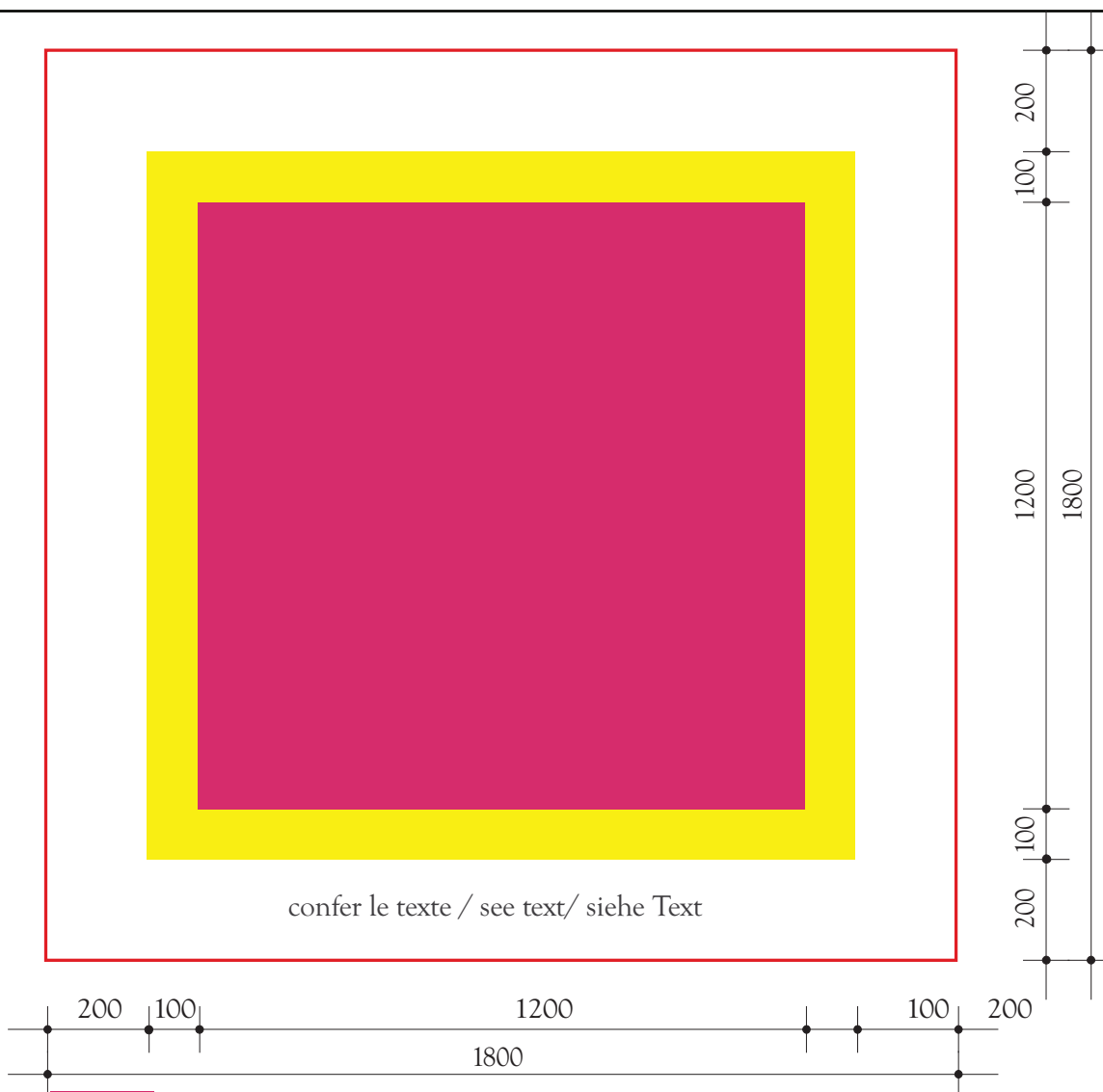
Construction / Description of material, measurements

Form	<p>The Performance Area shall have a square format. The surface must be horizontal, even and without gaps</p> <p>Border :</p> <p>Horizontal and even, at the same height as the Performance area</p> <p>Border's variant :</p> <p>Width 50 cm, horizontal and even, at the same height as the Performance area, additional 50 cm inclination border, slope may not exceed 25 %.</p> <p>Safety zone:</p> <p>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.</p>																					
Measurements	<table><tr><td>Performance area</td><td>1200 cm x 1200 cm</td></tr><tr><td></td><td>Tolerance +/- 3 cm</td></tr><tr><td>Diagonals of the performance area:</td><td>1697 cm +/- 5cm</td></tr><tr><td>Border</td><td>100 cm, min.</td></tr><tr><td>Border as a variant</td><td></td></tr><tr><td>Horizontal Area, Width</td><td>50 cm, min.</td></tr><tr><td>Slope max. 25 %, Width</td><td>50 cm, min.</td></tr><tr><td>Height of outer border at the very end</td><td>3,5 cm, max.</td></tr></table> <p>When there is a delimitation strip between the Performance area and the border :</p> <table><tr><td>Delimitation strip width</td><td>5 cm,</td></tr><tr><td></td><td>Tolerance +/- 0,5 cm</td></tr></table> <p>The delimitation strip is part of the Performance area.</p>		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 Area, Width	50 cm, min.	Slope max. 25 %, Width	50 cm, min.	Height of outer border at the very end	3,5 cm, max.	Delimitation strip width	5 cm,		Tolerance +/- 0,5 cm
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 Area, Width	50 cm, min.																					
Slope max. 25 %, Width	50 cm, min.																					
Height of outer border at the very end	3,5 cm, max.																					
Delimitation strip width	5 cm,																					
	Tolerance +/- 0,5 cm																					
Functional Properties	<p>Performance area and border</p> <ul style="list-style-type: none">- Equal elasticity on the surface as well as dampening.- When in use it should not have any hindering motion energy- Elasticity and dampening must be balanced in such a way that they guarantee the gymnast stability and freedom of movement. It 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 sound during the execution of an exercise. It must assure a low noise level.																					
Colours	<p>Of plain colour which choice is left to the manufacturer's discretion. For certain events the FIG may stipulate the colours. The delimitation shall have a clear contrast to the performance area.</p>																					

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

Floor

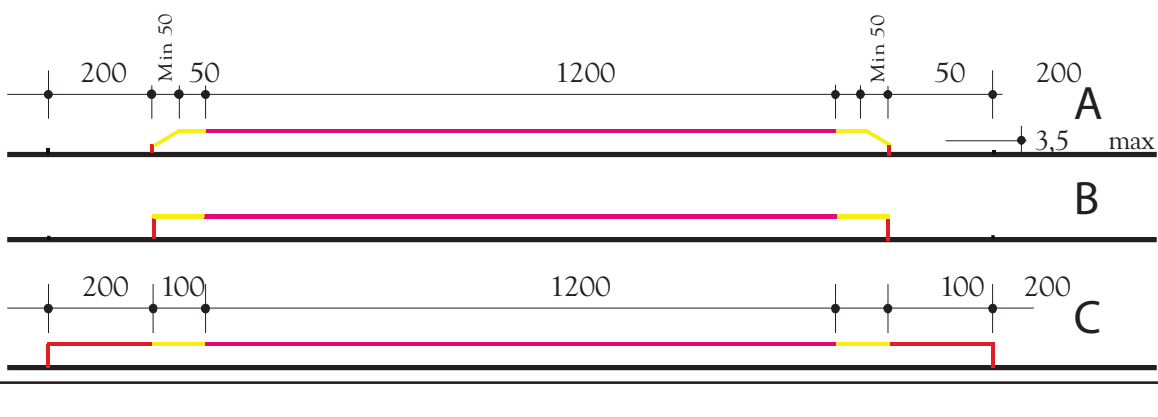
II
MAG 1
01.01.2009
13



confer le texte / see text/ siehe Text

- surface de compétition, arena, Wettkampffläche
- cadre, edge, Umrandung
- zone de sécurité, safety zone, Sicherheitszone

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



II
MAG 2
01.01.2009
14

Pommel Horse

Use Men's Artistic Gymnastics

Construction / Description of material, measurements

Form

The apparatus consists of a prismoid body which is placed horizontally onto a base. On the upper surface of the body, two pommels are attached crossways.

The Horse Body :

Its sides - viewed from the two length and two front sides - slant inward.

In cross section the upper surface shows an arch, in length section, it is horizontal, and even, and without gaps, except for the points of attachments.

All corners and edges are rounded.

The Pommels:

They are circular in profile, rise from their bases and then make a slight circular transition to the horizontal.

The base which serves as a support conforms to arched upper surface of the horse body.

The Base :

Forms and conception do not have any prescriptions.

It must assure stability of the body and the horizontal position of its length and cross axis; all technical safety rules must be observed.

Measurements

Body :	Length at top	160 cm	Tolerance: * 1 cm/ ¹
	Length at bottom	155 cm	* 1 cm/ ²
	Width at top	35 cm	* 1 cm/ ¹
	Width at bottom	30 cm	* 1 cm/ ²
	Height	28 cm	* 1 cm
	Height from upper surface to the floor:	115 cm	* 1 cm
Pommels:	Inner vertical diameter	≥ 7 cm	
	Width at base	31 cm	* 0,2 cm
	Height	12 cm	* 0,5 cm
	Profile diameter (at the nearly horizontal part)	3,4 cm	* 0,1 cm
	Span of the nearly Horizontal part	15 cm	* 0,2 cm
	Distance between Pommels:		
	Minimum	≤ 40 cm	
	Maximum	≥ 45 cm	

* refers to the tolerance, +/-,

II
MAG 2
01.01.2009
15

Pommel Horse

Functional Properties

l^1 and l^2 are measurements linked to each other. In case of variation, they must move in the same direction, e.g. if width at top is 355 mm, the width at the bottom must be 305 ± 10 mm.

Adjustments :

Pommels The distance between the two pommels, inside measurement, must be continuously adjustable from 40 cm to 45 cm.

Body :

Its support area must be elastic and absorbing.

The side surfaces, as well as corners and edges must have a dampening effect.

Indentations caused by support may not hinder turns of the palms.

The tear proof cover material, which tightly covers the body, may not slip or wrinkle.

The upper surface must offer the ability to glide, but not be slippery.

The cover material must be moisture absorbing and not cause skin burns.

The vertical and cross axis of the horse must be horizontal. During use, the horse must remain static.

Pommels :

In principle, they are made of stiff materials.

A slight flexibility, which must not affect support stability, is provided by the padded upper surface of the body.

The anchoring to the body must assure immobility.

The upper surface is slip proof, but must allow the palms to turn and slide in support.

The pommels must be moisture absorbent and neutral to the use of magnesia.

Base :

It must allow exact levelling of the body, and assure its immobility.

Floor anchoring for stabilization purposes is permitted, as well as anti-skid, dampening floor covering.

With exception of parts on the floor (feet) the base may not protrude from the body of the horse. The height of the feet must allow an even, horizontal mat covering.

Pommel Horse

Colours

No parts of the base may show sharp corners or edges, nor rough surfaces.

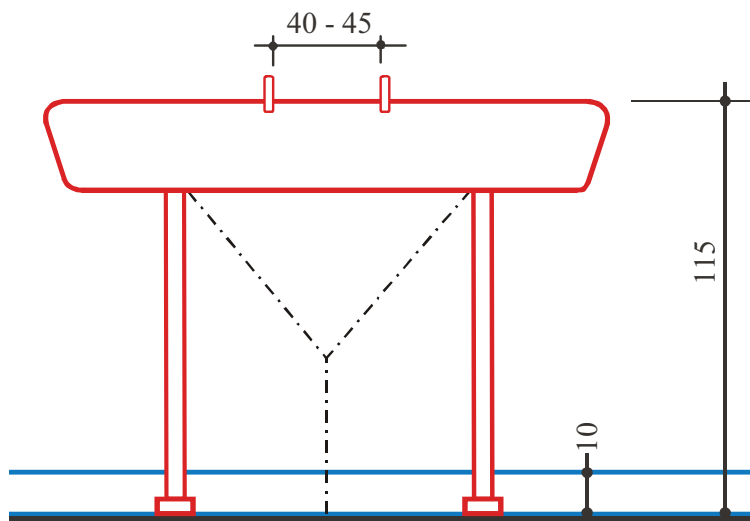
Since the body is attached to the base, the stability of the apparatus depends on it as well. This is also one of the most important requirements for safety.

- Are left to the manufacturer's discretion
- For certain events the FIG may choose the colour.
- Based on practical tests and considered allowed are :
- For the body : The natural colour of leather, even when synthetic materials are used for the revetment
- For the pommel : Natural wood colour, or a light neutral shade, if synthetic materials are used
- For the base : Varnished colour

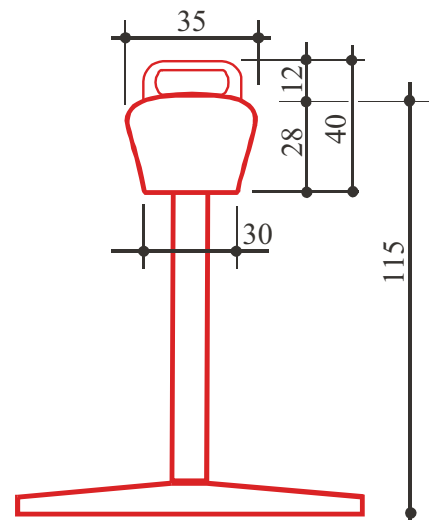
Mats

- The mats used for pommel horse must have a height of 10cm (MAG 11/12)

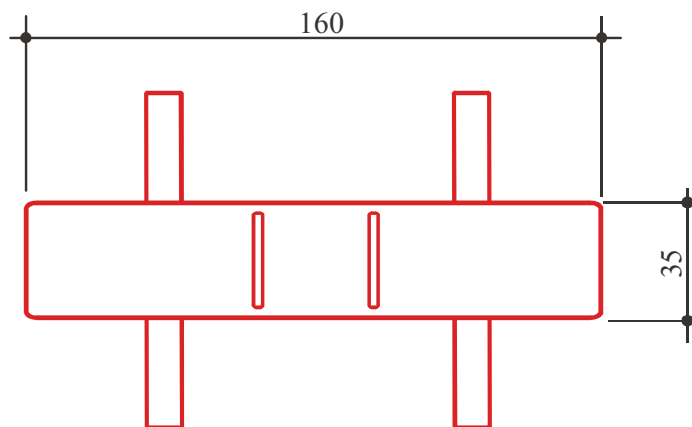
II
MAG 2
01.01.2009
17



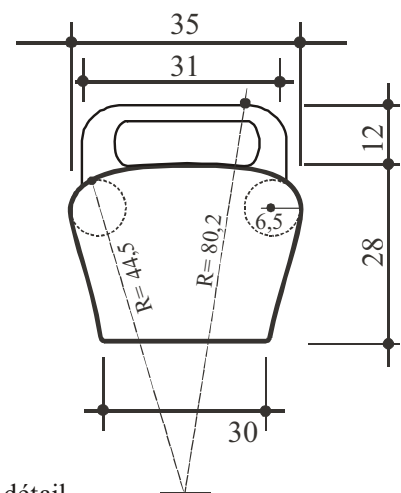
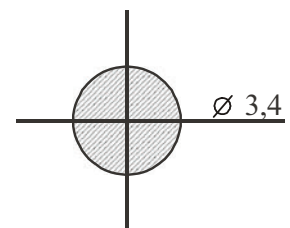
vue de côté
side view
Ansicht Längsseite



vue de face
front view
Ansicht Stirnseite



vue de dessus
top view
Aufsicht



détail
detail
Detail

cotes obligatoires;
construction selon le gré;
dessin en exemple

dimensions: mandatory;
design: at your discretion;
drawing: typical example

Maße bindend;
Konstruktion freigestellt;
Zeichnung als Beispiel

II
MAG 3
01.01.2006
18

Rings

Use Men's Artistic Gymnastics

Construction / Description of material, measurements

Form

The apparatus consists of two circular rings, attached to cables suspended on a frame.

The rings have a uniform, circular profile.

The cables have a pivoting mechanism at their suspension point on the frame. In the still position, the cables must hang in the vertical.

The frames consist of two supports and a horizontal beam which contains the attachment devices of the cables.

The frame is held upright by four tension cables, anchored to the floor. (Max. Ø 1 cm).

To distribute the pressure, the supports have widened floor plates.

Measurements

Rings:

Inner diameter

18 cm

* 0,1 cm

Diameter of profile

2,8 cm

* 0,1 cm

Pendulum length below suspension device:

Distance from point of attachment to Lower inner side of the rings

300 cm

* 1 cm

Distance of lower inner side of the rings :

- to floor

280 cm

* 0,5 cm

Straps :

- Length

70 cm

* 1 cm

- Width

4 cm

* 1 cm

Distance between the 2 points of attachment on the frame

50 cm

* 0,5 cm

Frame:

Height of attachment point at horizontal beam:

- to the floor

580 cm

* 1 cm

Inner Distance of supports on the floor

260 cm

min

At height of 320 cm (point of indentation)

280 cm

min

Length of horizontal beam

120 cm

min

Measured 30cm under the attachment point

Distance of tension cables :

- in vertical direction of apparatus

550 cm

* 5 cm

- in cross section to apparatus

400 cm

* 5 cm

* Tolerance, +/-

Rings

Functional Properties

The suspension device and the rings must be able to swing out freely in all directions. With the exception, of course, of the cable's direction.

Even submitted to tension, the rings must rotate easily. For this purpose, the pivoting device exists.

Under load both rings shall have the same height above the ground.

The rings must guarantee a sure grip and therefore must not be slippery.
The rings must absorb moisture.

The rings as such are made of a stiff material; in effect however, the apparatus must have a certain elasticity, to protect the gymnast's joints. This is done partly through form and the method by which the frame is held, and can be helped by an elastic dampening device on the suspension cables.

This device however may not produce springy or counter swings.

Rings are either made of wood or synthetic material.

Except for sanding, the rings' upper surfaces receive no other treatment. The material must remain natural in order to absorb magnesia and moisture so as to assure a sure grip.

The pivoting mechanism, the elastic dampening device and the stepless height regulator are connected to the hanging points.

The cables are protected by a smooth synthetic cover material.

The straps, to which the rings are attached, are made of leather or of a sturdy equivalent material.

Aside from the required resistance of materials, the stability of the apparatus must be assured.

During the exercise, the frame and the suspension device must not move or cause hindering sways or vibrations.

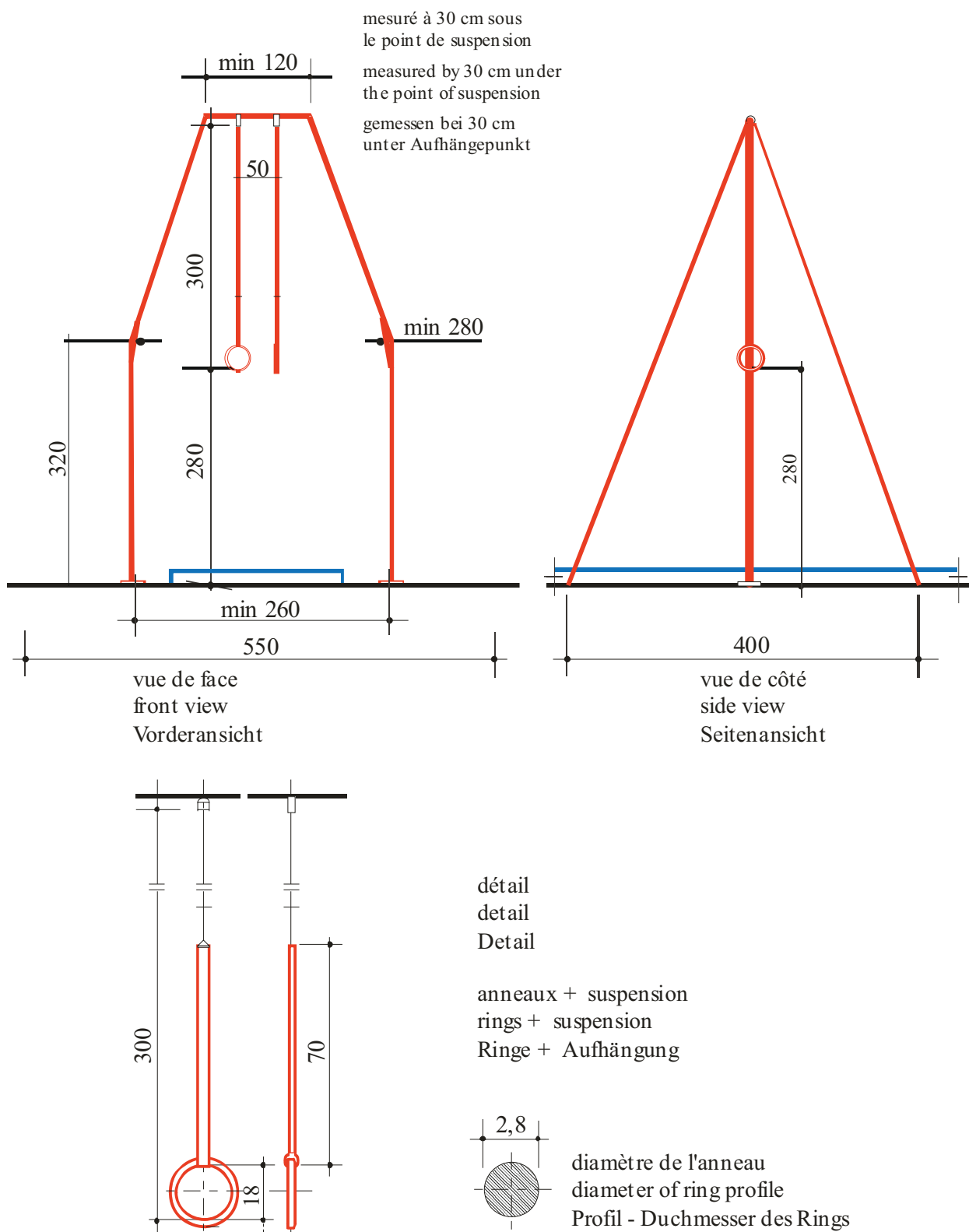
The required elasticity of the suspension device must not produce springy or counter swings.

Sharp corners and edges and rough surfaces are to be avoided.

Colour

The rings retain the natural colour of the material.

Rings



II
MAG 4
01.01.2009
21

Vaulting table

Use Men's Artistic Gymnastics

Construction / Description of material, measurements

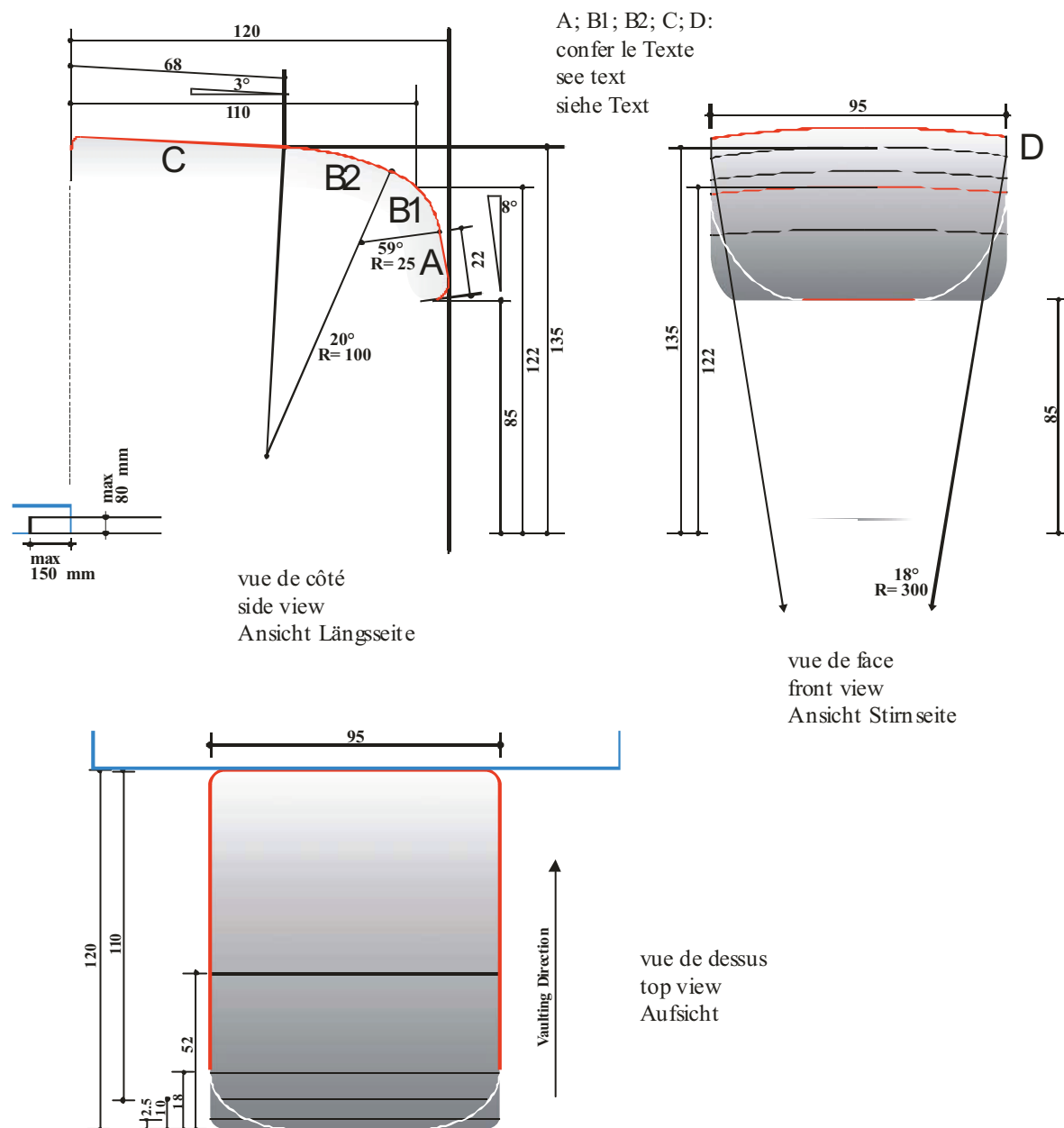
Form	<p>The apparatus consists of a slightly inclined table body which is mounted onto a "monostand" bottom frame. The table body consists of a front surface (A) which, seen from the direction of the vault, is inclined to 8° to the vertical and merges into two arched bends (B1 and B2) and then into a 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).</p> <p>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.</p> <p>Recommendation: All levers and locking mechanisms should be incorporated into the under construction.</p> <p>At the landing side the legs of the bottom frame must be cushioned at the same height level as the landing mat (20cm).</p> <p>The vaulting table including the cushioning of the bottom frame must represent a "monostand" - construction.</p>		
Measurements	Table body:	length:	120 cm +/- 1 cm
		width:	95 cm +/- 1 cm
	Height at the given measurement point (see drawing)) ¹ : 135 cm +/- 1cm		
	Upper height at the bounce area (see drawing)) ¹ : 122 cm +/- 1 cm		
	<p>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)</p> <p>)¹: In competitions the apparatus height must correspond to the top level of the run up area.</p> <p>Maximal orthogonal deviations from the given profile lines in longitudinal and transversal directions: 1 cm</p>		
	<p>Protrusion of the leg construction below the table body on the landing side (only allowed with appropriate cut-outs in the landing mat):</p> <p>15 cm maximal</p>		
	Height of the leg frame	8 cm	maximal
	<p>Circumference of the (cushioned) bottom frame including all levers and fixation devices between the height of 50 cm up to 85 cm</p> <p>1828mm maximal</p>		
	<p>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</p> <p>25 cm minimal</p>		
	The adjusted height of the vaulting table must be clearly signed at the side.		

Vaulting table

Functional Properties	<p>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.</p> <p>The push away area must be shock-absorbing so that shoulders and wrists are protected.</p> <p>The rebound properties must be guaranteed to be as homogeneously as possible for all the possible impact points on the table body.</p> <p>Extended time-shift for rebounding energy at the impact points caused by extreme deflections is not acceptable.</p> <p>The table body must be evenly cushioned over the entire push away area.</p> <p>The cover material must be non-slippery but not rough. It may not cause a burning sensation on sliding.</p> <p>The bounce area must be cushioned with a high-quality material in order to provide a good collision protection.</p> <p>In order to avoid swaving, vibrations and shifting, the apparatus must have a device for fastening it to the floor.</p>
Colour	<p>The colour of the surface material may be chosen according to taste. For certain events the colour may be determined by the FIG.</p>
Run up area	<p>The run-up area is composed of a run-up mat and a rigid board underneath the vaulting board.</p> <p>length (measured from the vertical projection of the beginning of the vaulting table – see “reference point” in the drawing) 2500 + 10 cm</p> <p>The start of the run-up (2500 cm) shall be marked.</p> <p>width (run-up mat) 100 +/- 1 cm</p> <p>width (rigid board underneath) 100cm min</p> <p>height (same height for run-up mat and board underneath) max 2,5 cm</p> <p>length of the rigid board underneath the vaulting board 320 +/- 1 cm</p> <p>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.</p>
Authorized Landing zone	<p>Marking on the supplementary mat above the landing mat (see drawing).</p> <p>Width of the landing corridor at the table site: 95 cm</p> <p>Width of the landing corridor (end of 600 cm landing mat): 150 cm</p> <p>When the authorized landing zone is marked out by stripes:</p> <p>Marking strip width on the supplementary mat: 5 cm +/-0.5 cm</p> <p>The marking strip is part of the authorized landing zone.</p> <p>Additional marking strip width in the centre of the landing corridor (see drawing): 5 cm +/-0.5 cm</p> <p><i>Remarks concerning the drawings:</i></p> <ul style="list-style-type: none"> - 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 <p>Dimensions binding; Construction may be different– drawing as example.</p>

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

Vaulting table



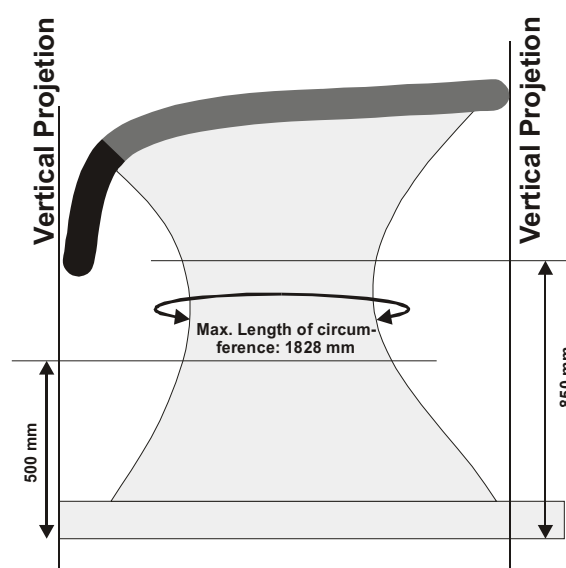
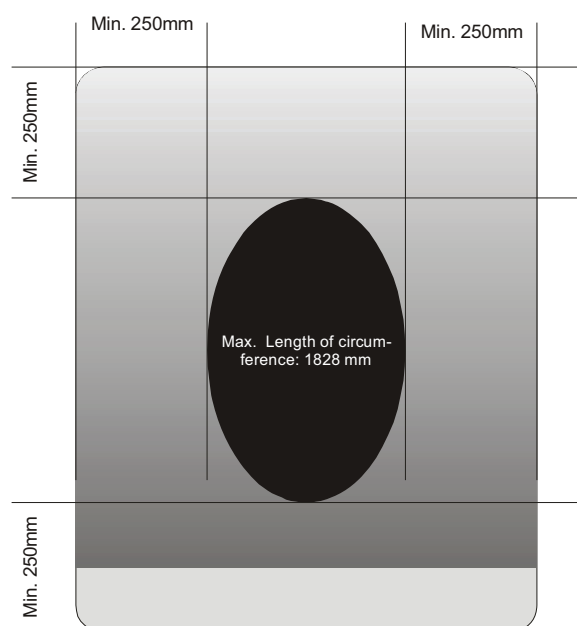
cotes obligatoires;
construction selon le gré;
dessin en exemple

dimensions: mandatory;
design: at your discretion;
drawing: typical example

Maße bindend;
Konstruktion freigestellt;
Zeichnung als Beispiel

II
MAG 4
01.01.2009
24

Vaulting table



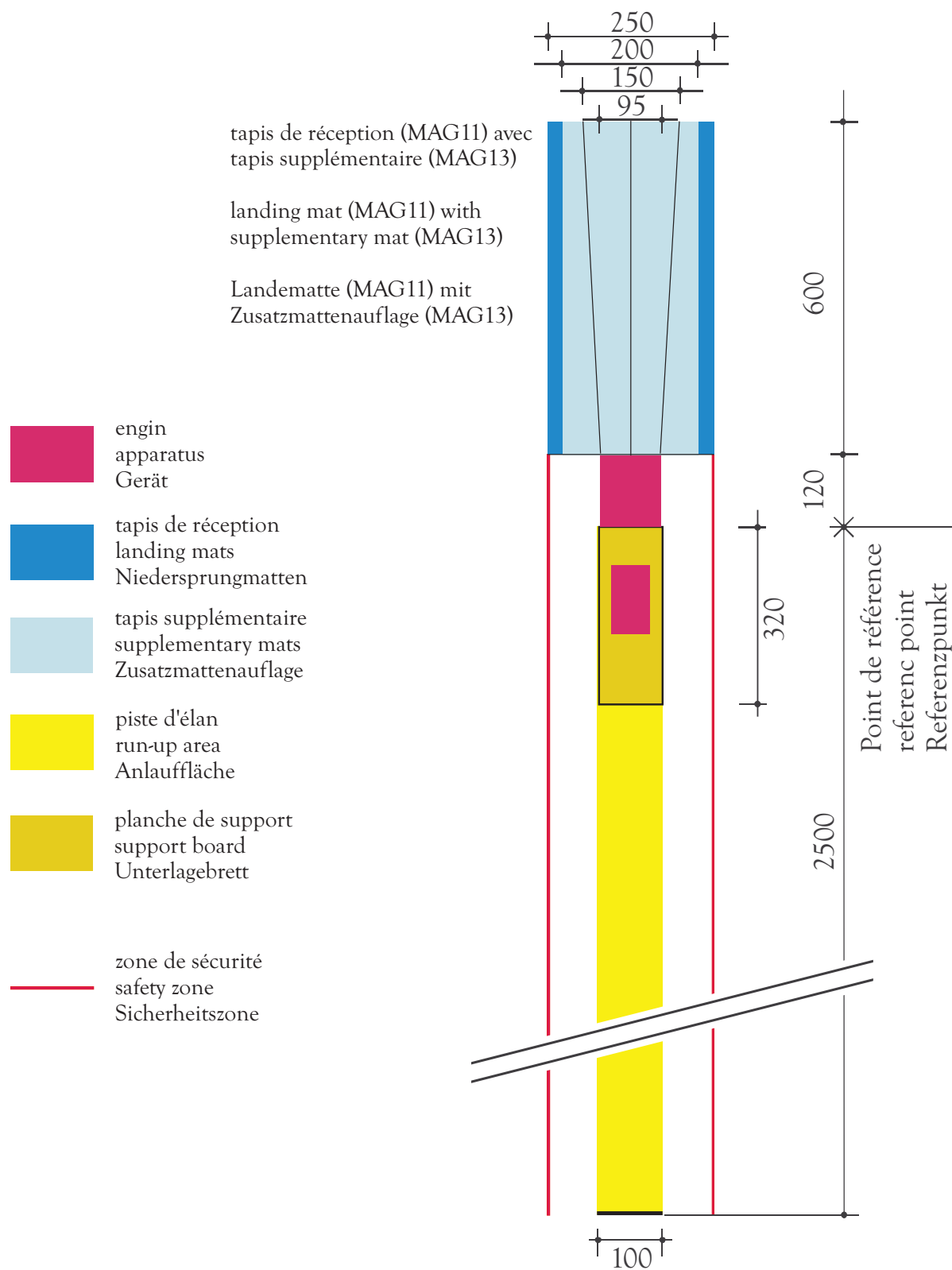
cotes obligatoires;
construction selon le gré;
dessin en exemple

dimensions: mandatory;
design: at your discretion;
drawing: typical example

Maße bindend;
Konstruktion freigestellt;
Zeichnung als Beispiel

II
MAG 4
01.01.2009
25

Vaulting table



II
MAG 5
01.01.2006
26

Parallel Bars

Use Men's Artistic Gymnastics

Construction / Description of material, measurements

Form

The apparatus consists of two bars of equal dimensions, which run parallel and at the same height.

The position of the bars is parallel, pre-stressing is allowed.

Each bar is supported by two upright supports, which stand on a stable base frame.

The uprights consist of a static and mobile part, that allow the height and width adjustment of the bars.

In cross section, bars present a drop like profile, which remains unchanged for their entire length.

Measurements

Bars :

Length	350 cm	* 1 cm
Vertical axis of profile	5 cm	* 1 mm
Horizontal axis of profile	4 cm	* 1 mm
Height of upper edge measured from the floor near to the supports	200 cm	* 1 cm
Distance between points of attachment	230 cm	* 1 cm
Distance between bars from	42 cm	
to	52 cm	

Distance between the columns at adjustment levels, min.

48 cm

Heights of mats

20 cm

* 1 cm

* Tolerance +/-

Width adjustment : continuous adjustment of the distance between bars from at least 42 cm to 52 cm must be possible.

Functional Properties

The bars must have elasticity.

To assure the efficiency of this elasticity the fixing points of the bars on the uprights must be articulated.

No significant swaying of bars in the longitudinal and transversal sense must occur.

The entire apparatus must be stable. Incident vertical and transversal forces must not move the apparatus.

The upper surface of the bars must be hygroscopic, and not be slippery.

II
MAG 5
01.01.2006
27

Parallel Bars

The upper surface of the bars must be made of wood. Except for sanding, it receives no other treatment.

The core may be made of wood or of another material.

The rails must be secured against breaking through.

The apparatus must not have sharp corners or edges or any protruding parts.

Rough surfaces are to be avoided.

The adjustment screws must be warranted against unintended adjustments.

The adjustment devices must be double locked to assure that they do not cede during use.

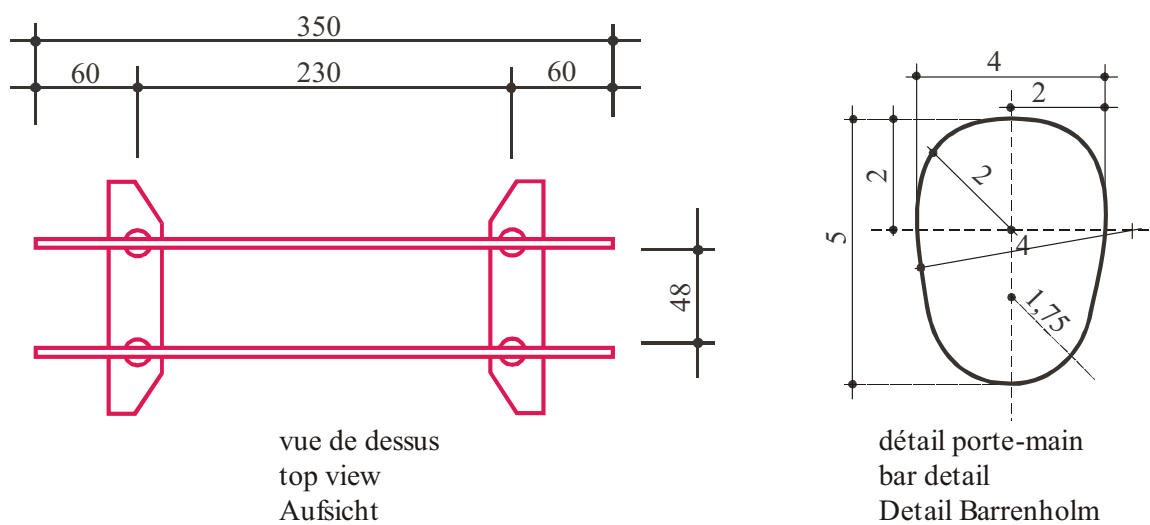
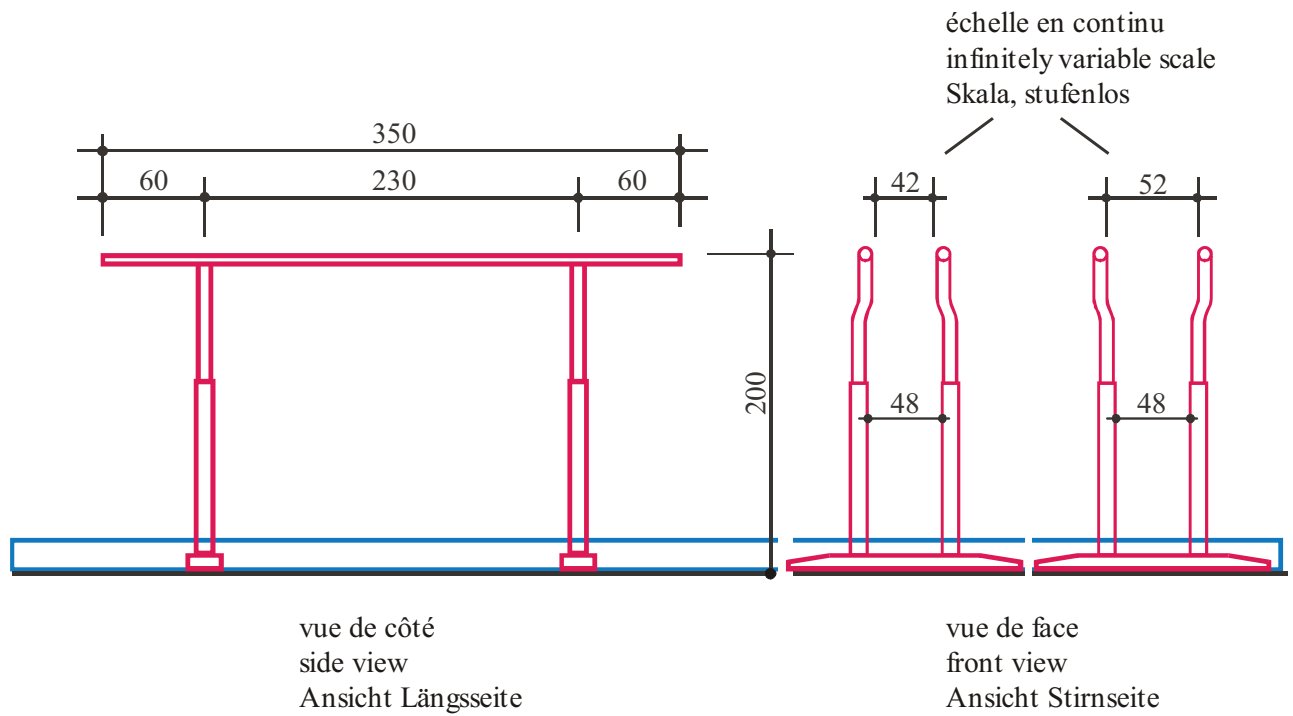
The base girders as well as the space between them must be covered by mats. They must be even and without gaps and of the same height as the surrounding mats, forming a uniform surface, from which only the uprights rise.

Colours

The rails retain the natural wood colour.

II
MAG 5
01.01.2006
28

Parallel Bars



cotes obligatoires;
construction selon le gré;
dessin en exemple

dimensions: mandatory;
design: at your discretion;
drawing: typical example

Maße bindend;
Konstruktion freigestellt;
Zeichnung als Beispiel

II
MAG 6
01.01.2009
29

Horizontal bar

Use Men's Artistic Gymnastics

Construction / Description of material, measurements

Form	The Horizontal bar consists of a round bar with a constant diameter, which is held horizontally by two supports.			
	The supports stand erect on the floor and have additional floor plates for displacing force.			
Measurements	They are held upright by tension cables (Ø max. 1 cm), connected to four floor anchors.			
	Horizontal bar :			
	Diameter	2,8 cm		* 0,01 cm
	Length between attachment points	240 cm		* 1 cm
	Distance between the sockets	min 200 cm		* 1 cm
	Height of upper edge :			
	- measured from floor	280 cm		* 1 cm
	Distance of floor anchors :			
	- Lengthwise	550 cm		* 5 cm
	- Crosswise	400 cm		* 5 cm
Functional Properties	* Tolerance +/-			
	Adjustments :			
	The height adjustment must be possible to increase the height by 5 cm.			
	The horizontal Bar must be elastic, and be secured against breaking through.			
	The elasticity is not just determined by the bar but also by the apparatus, acting as a whole. That is why the placement of the floor anchors, the supports and the tension cables, as well as the degree of tension must be strictly observed to insure uniform elasticity.			
	The bars attachment to the uprights must be articulated, to assure the effectiveness of its elasticity.			
	The bar must allow turn and glide movements without slipping.			
	The apparatus must be stable. The supports must not move or sway during use.			

II
MAG 6
01.01.2009
30

Horizontal bar

Colours

Neither the bar nor the tension cables should produce disturbing sounds during use.

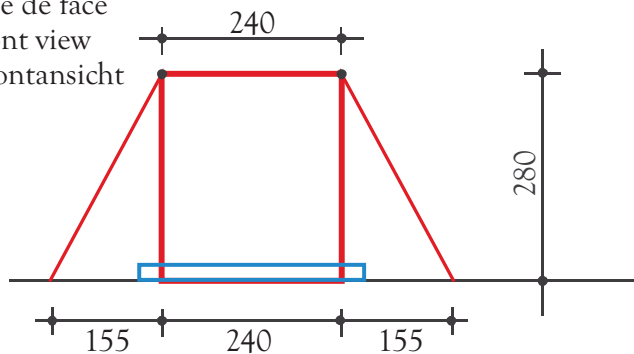
Preferably such materials should be used which guarantee a slim form and should not block the view.

The bar retains the colour of natural polished steel.

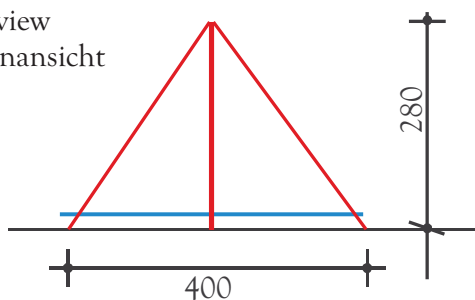
Colours or designs of the remaining parts are left to the discretion of the manufacturer. The FIG may designate the colour for specific events.

Horizontal bar

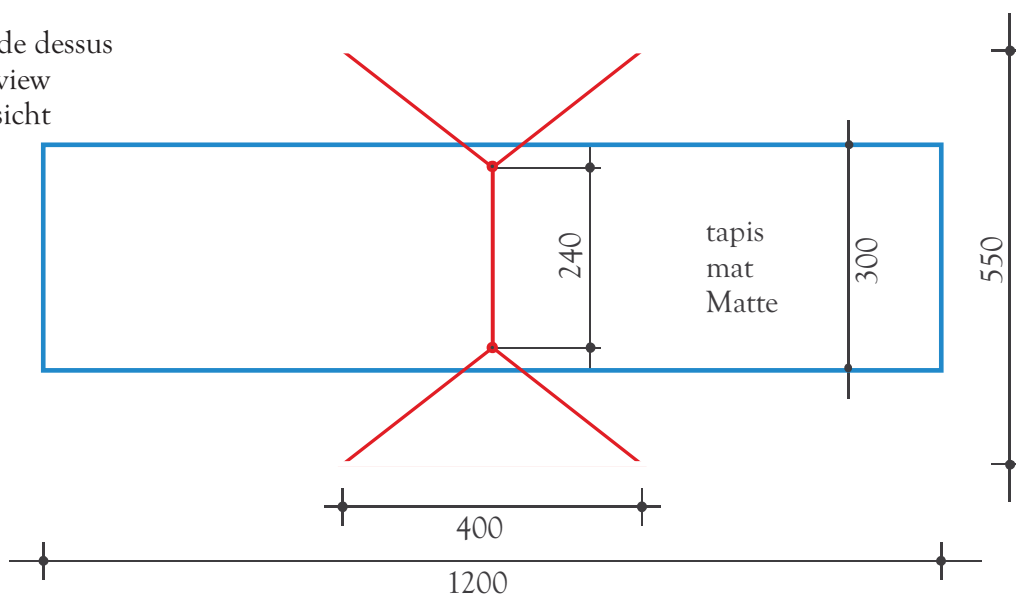
vue de face
front view
Frontansicht



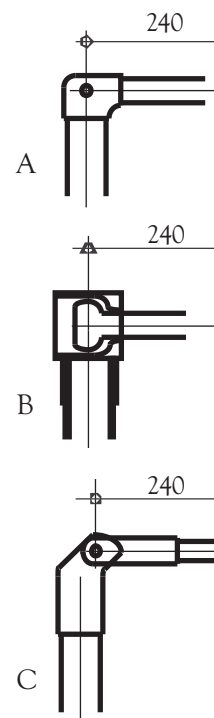
vue de côté
side view
Seitenansicht



vue de dessus
top view
Aufsicht



point du mesure pour différents systèmes^L
de fixation de la barre
measurement point with variants of supports
Meßstelle bei Varianten von Reckauflagen



surface d'appui 550 x 1200
floor area for apparatus 550 x 1200
Gerätstellfläche 550 x 1200

II
MAG 11/12
01.01.2009
32

Landing mats

Use Men'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 the landing mats (MAG 3, 4, 5, 6): 20 cm * 1 cm

Height of the landing mats pommel horse (MAG 2): 10 cm * 1 cm

* Tolerance +/-

lengths and widths see drawing

Functional Properties

Absorbency :

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.

Indentations caused by the incidence of compressive forces must not encase the body parts, thereby hindering freedom of movements. They may not be too deep or narrow.

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

II
MAG 11/12
01.01.2009
33

Landing mats

Colour

Preference should be given to uniform colours.

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

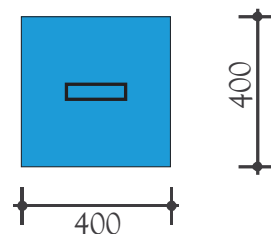
The FIG may designate the colour for certain events.

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

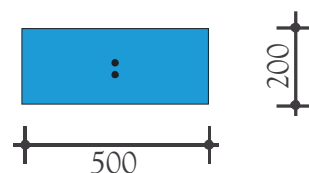
Landing mats

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

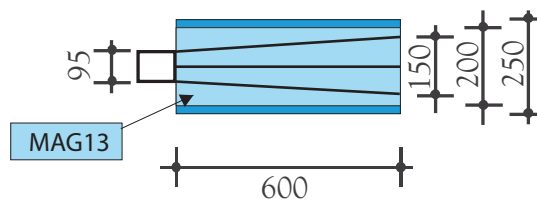
MAG 2
cheval d'arçons
pommel horse
Pauschenpferd



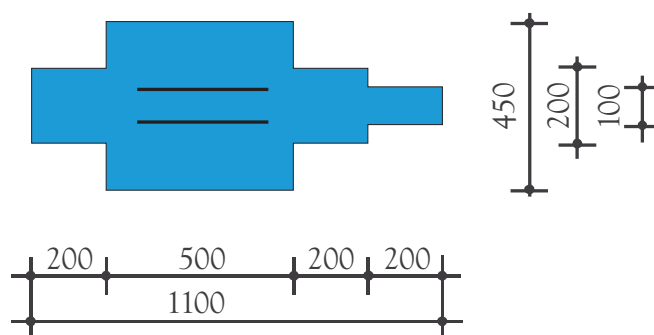
MAG 3
anneaux
rings
Ringe



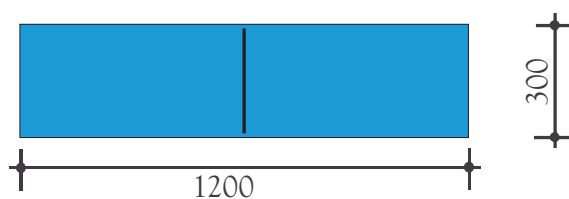
MAG 4
saut
vault
Sprung



MAG 5
barres parallèles
parallel bars
Barren



MAG 6
barre fixe
horizontal bar
Reck



II
MAG 13
01.01.2009
35

Supplementary mats

Use Men's Artistic Gymnastics

Construction / Description of material, measurements

Use	The use of a supplementary mat is compulsory for the athletes on the vault and on Horizontal bar.
Form	Their upper surface must be horizontal, even and without gaps. The supplementary mats have to be laid on the landing mats (MAG11). At the vault the supplementary mat shall be attached (i.e. using Velcro).
Measurements	<p>Height of the supplementary mats: 10 cm * 1 cm</p> <p>Vault (MAG4): 600 x 200 cm * 1 cm</p> <p>Horizontal bar (MAG6, at both sides): 400 x 200 cm * 1 cm</p> <p>* Tolerance +/-</p> <p>For the marking of the landing zone see MAG4.</p>
Functional Properties	<p>The foam of the supplementary mats shall have a density of 25 kg/m^3 (+/- 2 kg/m^3). The tensile strength of the foam shall be $\geq 115 \text{ kPa}$, the compression stress value 40% shall be $4,0$ (+/- 0.5) kPa</p> <p>By no means should mats be dislocated during performances. At the vault the supplementary mat shall be attached to the landing mat</p>
Colour	<p>Preference should be given to uniform colours.</p> <p>The upper surface must not show optically disturbing patterns or insignia.</p> <p>The FIG may designate the colour for certain events.</p>

II
MAG 14
01.01.2009
36

Vaulting board

Use	Men's Artistic Gymnastics
	- Vault (MAG4) – “hard” and “soft”
	- Parallel bars (MAG5) – “hard”

Construction / Description of material, measurements

Form	<p>The profile of the vaulting board must adhere exactly to the respective blue print.</p> <p>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.</p> <p>The rise of the arch is 3.5 cm +/- 0,5 cm.</p> <p>For competitions a “soft” and a “hard” vaulting board shall be available. The “hard” board shall be marked with a dot on the surface.</p>																									
Measurements	<table><tr><td>- Length</td><td>120 cm</td><td>* 1 cm</td></tr><tr><td>- Width</td><td>60 cm</td><td>* 1 cm</td></tr><tr><td>- Height</td><td>20 cm</td><td>* 1 cm</td></tr><tr><td>- Height (run-up side)</td><td>max 3 cm</td><td></td></tr><tr><td>- Cushion Cover</td><td>2 cm</td><td>* 0,5 cm</td></tr><tr><td>- Total height with cushion cover</td><td>22 cm</td><td>* 1,5 cm</td></tr><tr><td>- Free space between floor and the lower edge of the vaulting board at the run-up side</td><td>max. 1 cm</td><td></td></tr></table> <p>*Tolerance +/-</p> <p>The stipulated length and height refers to the vertical projection of the upper plate, i.e. the take-off plate.</p> <p>The base may be larger, but cannot extend more than 2 cm beyond the projection of the board.</p> <p>Labelling of the “hard” vaulting bard on the surface by a dot with clear contrast on the longitudinal midline:</p> <table><tr><td>Distance to the side of run up</td><td>5 cm</td></tr><tr><td>Diameter</td><td>8 cm</td></tr></table>	- 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		Distance to the side of run up	5 cm	Diameter	8 cm
- 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																									
Distance to the side of run up	5 cm																									
Diameter	8 cm																									
Functional Properties	<p>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).</p> <p>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.</p> <p>The vaulting-board must dampen the counter pressure, i.e. reduce motion energy.</p> <p>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.</p> <p>The upper surface of the vaulting board must offer slip resistance.</p>																									

II
MAG 14
01.01.2009
37

Vaulting board

Colour

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

The board must not dislodge during use.

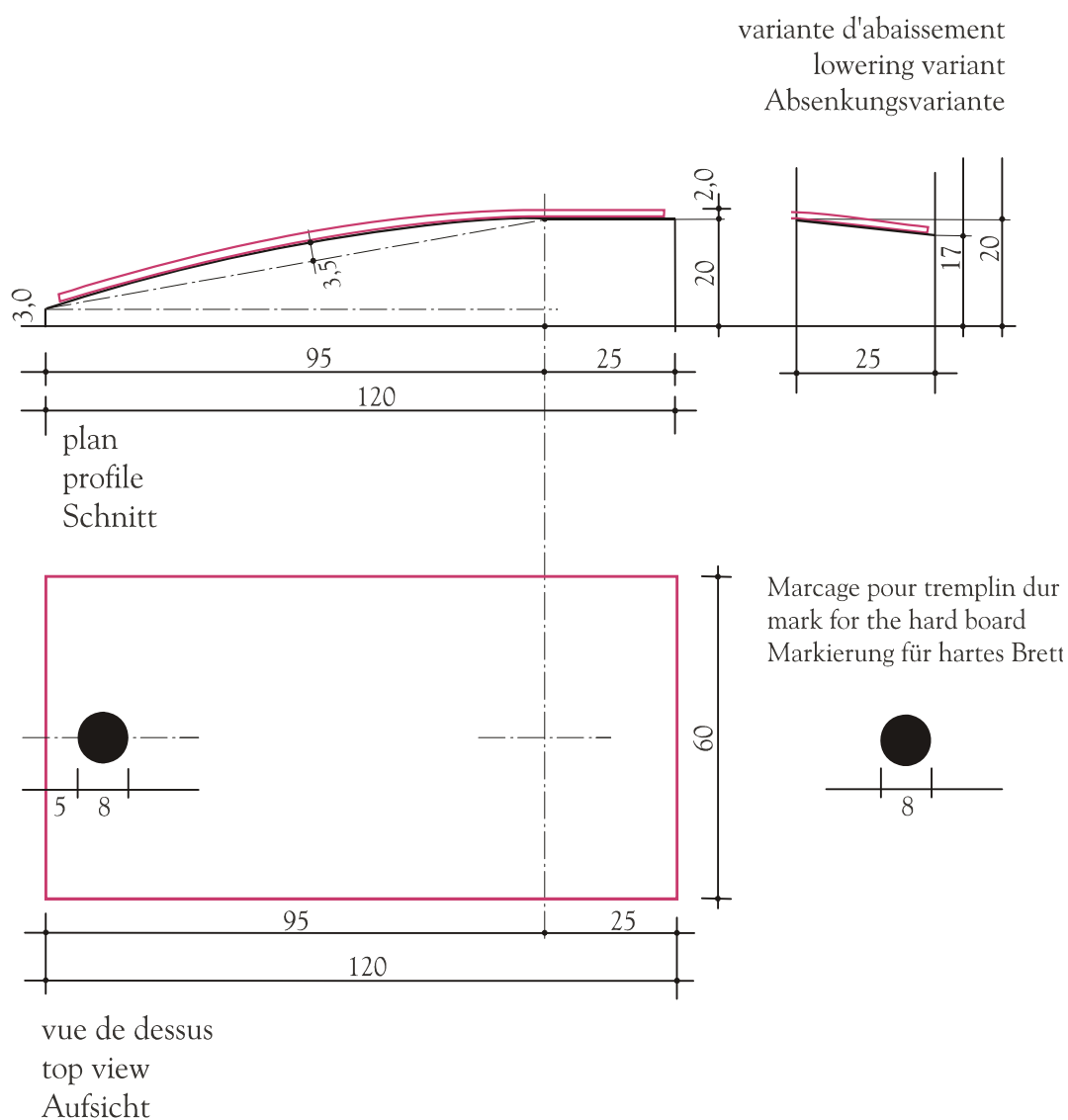
The vaulting board and its base may not have any sharp corners, edges and no protruding parts. Mainly the upper and under edge of the upper part of the Vaulting board towards the apparatus side (Vaulting Table, Balance Beam of Uneven Parallel Bars) shall be cushioned and rounded.

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.

Vaulting board



II
MAG 15
01.01.2009
39

Vaulting Board safety collar (Round off vaults)

Use Men'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	<p>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.</p> <p>The whole surface of the safety collar and the corresponding surface of the vaulting board need to be of the same height level..</p>
Measurements	<p>Overall length: 120 cm (± 1 cm)</p> <p>Minimal width at the side of the vaulting board: 20 cm</p> <p>Length at the front part of the vaulting board: 20 cm ($\pm 0,5$ cm)</p> <p>Maximal Difference between the height of the safety collars' and the boards' surface (respecting the arched form): ± 1 cm</p> <p>Maximal gap between the safety collar and the vaulting board on all three sides: 0,5 cm</p>
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	<p>The upper surface must not show optically disturbing patterns or insignia. The colour must be uniform and in contrast to the vaulting board.</p> <p>The FIG may designate the colour for certain events.</p>

II
MAG 16
1.01.2009
40

Mat for Hands (Vault)

Use Men's Artistic Gymnastics

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		
Functional Properties	The foam of the mat for hands shall have a density of xx kg / m ³ (+/- 2 kg / m ³). The ultimate tensile strength of the foam shall be ≥ xx kPa, the compression stress value 40% shall be xx (+/- xx) kPa		
	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.		