



SPECIFICATIONS FOR COMPETITION EQUIPMENT

SNOWBOARD, FREESTYLE, FREESKI AND SKI CROSS

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INTERNATIONAL SKI AND SNOWBOARD FEDERATION

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Table of Contents

A. DEFINITION.....	4
1. Competition Equipment.....	4
2. Procedures for the Acceptance of New Developments in Competition Equipment	5
B. FREESTYLE, FREESKI AND SKI CROSS COMPETITION EQUIPMENT	7
1. Definition	7
2. Event Components.....	7
3. Additional Equipment	9
4. Ski Boots.....	10
5. Ski Poles	10
6. Competition Suits	10
7. Crash Helmets	11
8. Ski Goggles.....	11
9. Ski Gloves.....	11
10. Back Protectors.....	11
11. Competition Data and Event Presentation.....	12
C. SNOWBOARDING COMPETITION EQUIPMENT	12
1. Snowboards	12
2. Bindings	12
3. Competition Clothing.....	12
4. Crash Helmets	13
5. Balance and Speed Control.....	13
6. Competition Data and Event Presentation.....	13
D. BIBS	14
1. FIS Specifications for Freestyle / Freeski / Ski Cross Bibs (Jerseys)	14

Specifications for Competition Equipment Snowboard, Freestyle, Freeski and Ski Cross

A. Definition

General Principles

The FIS Council shall be the sole authority for determine whether the use of a name, designation, trademark, logo or any other distinguishing sign complies with the FIS Rules and Guidelines; and

The FIS reserves the right to further interpret and/or supplement these Rules and Guidelines in order to help ensure that their spirit and purpose are respected.

1. Competition Equipment

The term “competition equipment“ implies all items of equipment used by athletes in competitive skiing, including clothing and implements that serve a technical function. The entire competition equipment forms a functional unit. In this connection the following points must be observed:

- a) The principle of safety
- b) The principle of fairness

1.1 Effective manufacturer

“Effective Manufacturer” means the enterprise which itself manufactures the Competition Equipment and/or effectively controls and manages the manufacturing of the Competition Equipment under its own responsibility through customary subcontracting processes, and whose Competition Equipment is effectively offered on the market to end users. If requested by FIS, the manufacturer shall provide documentary evidence of such commercial activities at retail level (such as manufacturing activity in the market of the relevant Competition Equipment, including control over the manufacturing process, retail activity and marketing expenditures linking the brand to the relevant piece of equipment) as a condition for the commercial markings to be accepted as a Manufacturer’s Identification as further defined in these Specifications.

1.2 Manufacturer’s identification

“Manufacturer’s Identification” means the trade name, brand, logo, or other designation of the Effective Manufacturer under which the particular Competition Equipment is manufactured and commercially offered to the market. The Manufacturer’s Identification must be a sports equipment brand, which means that the Manufacturer’s Identification is principally used for Competition Equipment and is not principally used for non-sports equipment, and/or cannot be confused with a similar or identical article used in another line of business, unrelated to Competition Equipment.

1.3 Competition implements

Competition implements refer to equipment which fulfil essential functions during the competition but which can be separated from the actual competition.

Examples: skis, bindings, boots, poles, clothing, helmets, ski goggles.

1.4 Additional equipment (accessories)

Additional competition equipment (accessories) are those components or implements which exert an influence on the technical function of the com-

petition equipment and which are attached directly to the equipment by means of recognised fastenings. Such accessories do not perform essential functions during the competition.

Example: parablacks, plastic tip covers, additional weights, back protectors.

1.5 Auxiliary equipment

Auxiliary equipment refers to those components of the competition equipment which do not fulfil an essential function, and which do not fall under the heading of additional equipment

Example: measuring instruments.

2. Procedures for the Acceptance of New Developments in Competition Equipment

Article 222.4 of the ICR reads as follows:

New developments must be submitted by 1st May, at the latest, for the following season. During the first year new developments can only be approved provisionally for the following season and must be finally confirmed prior to the subsequent competition season.

2.1 Eligible applicants

- a) Manufactures or distributors of the innovation
- b) National Ski Associations
- c) Members of the Committee for Competition Equipment

The FIS Technical representative from each FIS Committee is eligible to submit applications only for new developments to the Committee for Competition Equipment. Manufacturers, distributors and National Ski Associations have to submit their applications to the respective FIS Technical Committee in advance to be decided whether the item is a new development or a further development of an existing product.

2.2 Items for application

Any significant new developments which are to be used as equipment in competitive skiing, may be submitted for acceptance. It is solely the responsibility of the Committee for Competition Equipment to decide whether a new development conforms to the FIS „Competition Equipment Specifications“ taking into consideration the medical, legal and safety standpoints. The Committee can at any time, however, arrange the removal of an application with regard to items of equipment to be used in competition sport, in accordance with the decisions of these guidelines.

2.3 Prototype, samples

The application must include a detailed description of the innovation. A prototype or sample must be submitted with the application. Relevant reports by scientific experts, as well as reports of experiences made by trainers or participants are to be submitted.

2.4 Decisions of the Committee for Competition Equipment

The Committee for Competition Equipment deals with these applications at its next meeting. If the Committee is of the opinion that the item being presented conforms fully to the valid Specifications for Competition Equipment, this decision will be recorded in a relevant decision.

If the Committee reaches the conclusion that the innovation could be accepted in accordance with the relevant principles and decisions of the FIS

Specifications for Competition Equipment in competition sports, the innovation can be provisionally approved for testing for the duration of the following season.

This approval can, however, also be conditionally accepted. On the grounds of fairness, exceptions can be made for certain competitions (Olympic Winter Games, World Championships, etc.).

However, the Committee for Competition Equipment can also take the following measures before provisional approval. These can be dealt with individually or together:

- a) Requesting further information from the FIS Technical Committees, such as reports by experts and technical data.
- b) Seeking reactions from the FIS Technical Committees. These opinions must be submitted in writing and take the following factors into consideration:
 - 1. Explanation with regard to the usefulness and necessity of the new developments
 - 2. Opinions with regard to the safety of the new developments
 - 3. Assurance that in accepting the new developments, the principle of fairness will be guaranteed
- c) Soliciting reports by experts and further information through the Committee for Competition Equipment itself.

Should the new developments not conform to the principles of the FIS Specifications for Competition Equipment, either through the application itself, or during the course of the procedures, the use of the new developments in question will be banned in competition sport. This will also occur if, during the item's probation period, circumstances result which lead the Committee to decide that the new developments do not conform to the principles of the FIS Specifications for Competition Equipment. In such a case, the provisional approval will be rescinded, with immediate effect.

2.5 Proposals to the FIS Council

Changes in the Specifications for Competition Equipment can be proposed to the FIS Council only through the Committee for Competition Equipment - either by means of an initiative from the Committee itself or through an application of one of the National Ski Associations or Technical Committees to the Committee for Competition Equipment.

B. Freestyle, Freeski and Ski Cross Competition Equipment

1. Definition

Competition equipment

The term „competition equipment“ embraces all items of equipment used by the athletes in competition skiing, including clothing and implements that serve a technical function. The entire competition equipment forms a functional unit. In this connection the following points must be observed:

- a) The principle of safety
- b) The principle of fairness

1.1 Competition implements

Competition implements refer to those parts of the equipment, which fulfil essential functions for the competition and which are separable from the competition.

Examples: skis, bindings, boots, poles, clothing, helmets, ski goggles.

1.2 Additional equipment (accessories)

Additional equipment (accessories) to competition equipment are those components or implements which have an influence on the technical function of the competition equipment and which are attached directly to the equipment by means of recognised fastenings. Accessories do not perform essential functions for the competitions.

Example: plastic tip covers, additional weights.

1.3 Auxiliary equipment

Auxiliary equipment refers to those components of the competition equipment which do not fulfil an essential function, and which do not fall under the heading of additional equipment.

Example: measuring instruments.

2. Event Components

2.1. Equipment control

Only measurements which are carried out by the appointed FIS equipment measurement experts using the official FIS measurement tools are valid.

The results of measurements carried out at the time are valid and final, irrespective of previous measurements.

2.2 Freestyle Skis

2.2.1 Definition

Skis employed in Freestyle competition events where the principal source of motive power is gravity. To assist with directional and speed control, the edges of the running surface are constructed from hard materials and sealed into the ski.

2.2.2 Criteria

2.2.3 Geometric features

There are no limitations or restrictions for ski length and radius.

- 2.2.4 *Ski length*
No limitations.
- 2.2.5 *Profile width*
No limitations
- 2.2.6 *Radius*
No limitations
- 2.2.7 *Overall height of sectional view*
No limitations.
- 2.2.8 *Camber*
No limitations.
- 2.2.9 *Contour, length and height of shovel*
No limitations
- 2.2.10 *Contour of tail*
No limitations.
- 2.2.11 *Running surface*
No limitations.
- 2.2.12 *Running Groove*
No limitations.
- 2.2.13 *Flexibility*
No limitations with regard to the rigidity in all grades of flex.
- 2.2.14 *Mass*
No limitation with regard to weight and distribution of mass.

2.3 Construction

- 2.3.1 *Type*
No limitation with regard to composite structure.
- 2.3.2 *Ski components*
- Running surface: no limitations with regard to material and dimensions.
 - Torsion box: no limitations with regard to material and dimensions.
 - Edges: no limitations with regard to material and dimensions.
 - Of top surface: no limitations with regard to material and dimensions.
 - Core: no limitations with regard to material.
- 2.3.4 *Durability*
With regard to the mounting of bindings, the „ISO 8364“ must be fulfilled.

3. Additional Equipment

No additional equipment is permitted which:

- a) makes use of foreign energy (e.g. heaters, chemical energy accumulators, electric batteries, mechanical aids, etc.)
- b) causes or intends to cause changes in the outer conditions of the competition to the disadvantage of fellow competitors (e.g. changes to piste or snow)
- c) increases the risk for the users or other persons, when used for the purpose it was intended for.

3.1 Safety bindings

Safety bindings function as strain limiters. That is, these devices transfer specific demands occurring during skiing to an acceptable limit, and when this limit is overstepped, they release their firm hold to the ski. All competitors shall use a recognised release DIN binding system and devices to prevent runaway ski(s).

3.2 Anti-vibration plates

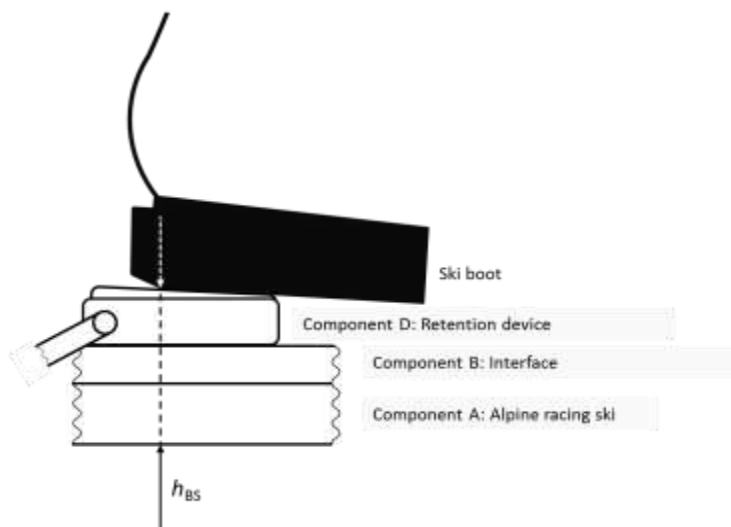
Mounting of such plates is permitted under the following conditions:

3.2.1 Width of ski surface

The plates may not exceed the width of the ski surface.

3.2.2 Maximum height (for Ski Cross only)

The maximum height (h_{BS} – see diagram) is 50 mm.



3.3 Ski stoppers

The ski stopper is a catching apparatus for skis, whose function is to stop or bring to a standstill the loose ski following the release of the safety binding within the intermediate area of the skiers fall. In competitions and official training skis without ski stoppers are not permitted. Ski Stoppers must be mounted in such a way as not to impede the operation of the device. The manufacturer is responsible for a perfect function of the ski stoppers.

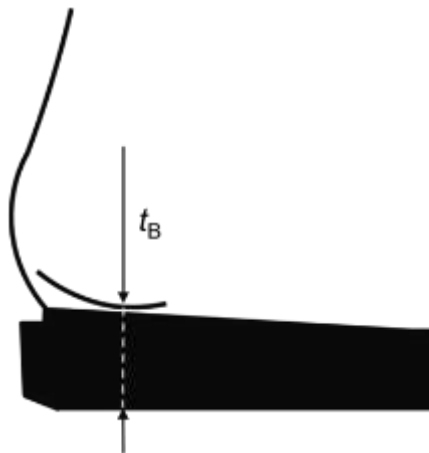
4. **Ski Boots**

Ski boots are robust footwear developed especially for skiing, offering protection against jolts and bumps as well as injury from ski edges and other external causes. The ski boot encloses the foot firmly, while at the same time allowing the movement necessary for skiing techniques, in that the ankle has the room it needs to move, but at the same time allowing the transfer of every steering movement completely to the ski.

The relevant national and international guidelines and norms establish the requirements.

- Thickness of ski boot soles
- Distance between the ski boot sole and the base of the heel including all hard and soft parts (t_B – see diagram):

Women & Men: maximum 43 mm



5. **Ski Poles**

The ski pole is a sports article whose function should aid the skier, facilitate balance and, if necessary, enable stopping. The national and international guidelines and norms establish the minimum requirements for ski pole tips, grips, shaft, baskets, straps, length, etc. Due to risk of injury, metal baskets are not permitted.

6. **Competition Suits**

6.1 **Ski Cross**

Ski Cross suits may be one or two pieces.

Suit base material shall be textile fabrics excluding rubber, neoprene, leather or vinyl like materials or fabrics. Patches of different material are allowed provided that textile fabrics shall remain, in any event, predominant.

Material shall be uniform for the entire suit from top to bottom. There shall be no stiffening or layering of material to create a shape or form to the pants lower cuff.

Non-protruding body protection and padding is recommended.

Protection equipment including back protector or any other padding or body armour must be worn on the body and separate from the Ski Cross competition suit (outer wear). Protection and padding must not be built into the Ski Cross suit or attached to the Ski Cross suit by a zipper, velcro or any other means.

6.2 **Moguls/Aerials**

No limitations.

6.3 Halfpipe/Slopestyle/Big Air

No limitations.

7. Crash Helmets

The use of helmets is compulsory for all events.

Requirements

- Helmet model to be certified under EN 1077 (class B) or ASTM 2040 as minimum standards
- NB1: soft ear padding is allowed
- NB2: crash helmets fulfilling higher safety standards can be used.

This includes:

EN 1077 (Class A), SNELL 98 and all helmets fulfilling the specific standard described above such as CEN 1385.

7.1 Ski Cross Helmets

For Ski Cross, the helmet shall fulfil the following requirements:

- Helmet model to fulfil and to be certified under both ASTM 2040 and EN 1077 (class A – hard sided)
- Helmet model must also pass an additional specific test under EN 1077 test procedure but at higher test speed of 6.8m/s.

8. Ski Goggles

Ski goggles are devices protecting the eyes against weather and rays with optically correct lenses. Their aim is to guarantee good, contrast-free visibility in all weather conditions. The use of ski goggles is recommended.

8.1 For Ski Cross Only

It is prohibited to reshape the ski goggles in order to obtain aerodynamic advantages.

9. Ski Gloves

Gloves offer protective covering against weather and external forces. The wearing of gloves is strongly recommended. Protective padding along the entire length of the glove is permitted. The use of protective guards in the form of shields, which are pulled over the glove, is permitted.

10. Back Protectors

10.1 Definition

The back protector is an additional item of equipment, which protects the athlete's back against weather and external forces. The use of back protections is recommended.

10.2 Specifications

The back protector must adapt to the anatomical bend of the athlete's spine and lay flat against the body. The top edge of the back protector has to be situated in the area of the spinal column. Fastening of the back protector may take place with a stomach belt, straps or suspenders. The maximum thickness has to be in the middle part and may not exceed 45 mm; the thickness reduces towards the edges of the back protector. The back protector may be worn exclusively under the competition suit.

11. Competition Data and Event Presentation

- 11.1 For the purpose of improved television presentation and the technical development of the events, devices for the collection of digital images (e.g. wireless cameras) may be worn by the competitor using systems approved by Snowboard Freestyle Freeski Committee and the Competition Equipment Committee.
- 11.2 At major Freestyle, Freeski and Ski Cross events (WC, WSC, OWG) transponders (or similar devices) may be used for the purpose of capturing certain aspects of performance. The data collected will be used for information and TV graphics to increase fan interest and engagement. At events where these are available all competitors must use and wear the transponders according to directions provided by the Jury in consultation with the data service team present on site. The data collected will be made available to the competitors following each competition and not before the results have been made official. The data will not be available to the Jury or Judges for the purpose of decisions related to the competition and will not be used for scoring purposes.

C. Snowboarding Competition Equipment

1. Snowboards

Only Snowboards can be used in competitions. The boards minimal width is restricted as follows:

Gliding surface length (Minimal width):

up to 135 cm: 14 cm

more than 135 cm: 16 cm

2. Bindings

The bindings must be fixed diagonally on the long axis of the board. The boots cannot overlap each other.

2.1 Plate Systems that connect both bindings are not allowed in SBX (individual plate systems are allowed on each binding)

2.2 Retention devices, leashes

Safety leashes are optional unless required by the organiser or the ski area.

3. Competition Clothing

For SBX and Snowboard Alpine, competition suits must be two piece – pants and separate top that are separate and worn independently.

Race Pants: clothing that extends from the waist to the ankles, belts may be worn, but must be removable. From the upper leg downwards, the pants must be visibly loose. The outer layer of the pants must not be attached to the boot in any way e.g. by elastic

Race Jackets: clothing that can be worn independently and are removable. Braces are not allowed. Jacket should overlap pants when standing. Two parts of the suit should not be able to join together, not even temporarily. Thus the presence of any zips, hook-and-loop (“Velcro”) strips, buttons, hooks and eyes etc. In positions where they might be used to join the two

garments together is considered violation of the rule. Bib pants are not allowed.

Non protruding body protection and padding is recommended.

One piece suits (Speed or downhill suits) even worn under a separate top are prohibited.

This rule does not apply to Park & Pipe events where no specific clothing rules exist.

4. Crash Helmets

The use of crash helmets is compulsory for all snowboard events. Helmets used in FIS Snowboard events shall be specifically designed and manufactured for the respective discipline and shall bear a CE mark and conform to recognized and appropriate standards such as CEE 1077 or US 2040, ASTM 2040. Helmets must be worn according to the manufacturers' recommendations.

5. Balance and Speed Control

The competitors are not allowed to wear anything on the hands besides gloves or to use any kind of devices to additionally support their balance, reduce or accelerate their speed, like poles or sticks etc. Back support may be worn by competitors so long as such equipment does not offer an aerodynamic advantage. (ICR 6903.3)

6. Competition Data and Event Presentation

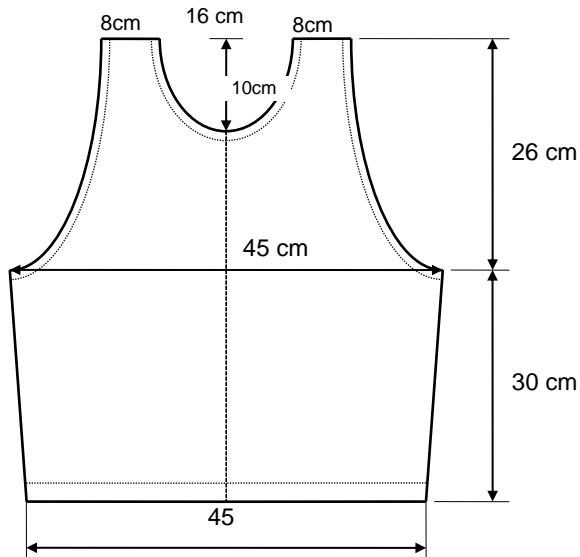
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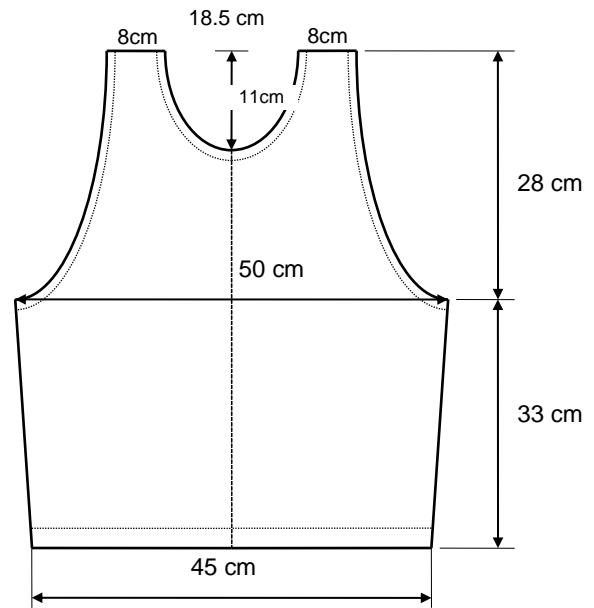
D. Bibs
Freestyle / Freeski / Ski Cross

1. FIS Specifications for Freestyle / Freeski / Ski Cross Bibs (Jerseys)

Women - Aerials and Ski Cross Qualifications Ladies

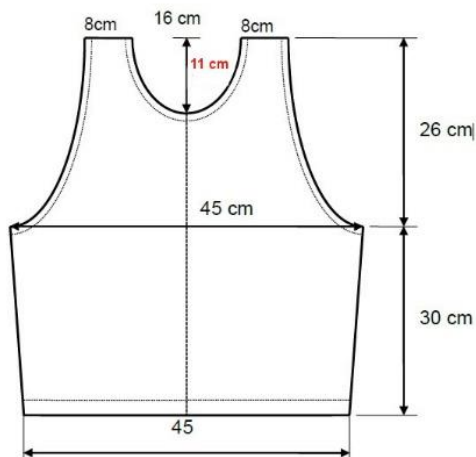


Men - Aerials and Ski Cross Qualifications

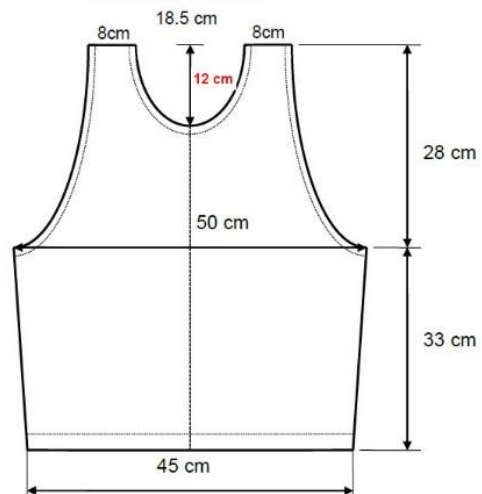


Ski Cross: The qualification bibs and the final coloured jerseys shall have the same size. The final coloured jerseys shall have a wider neckline (red).

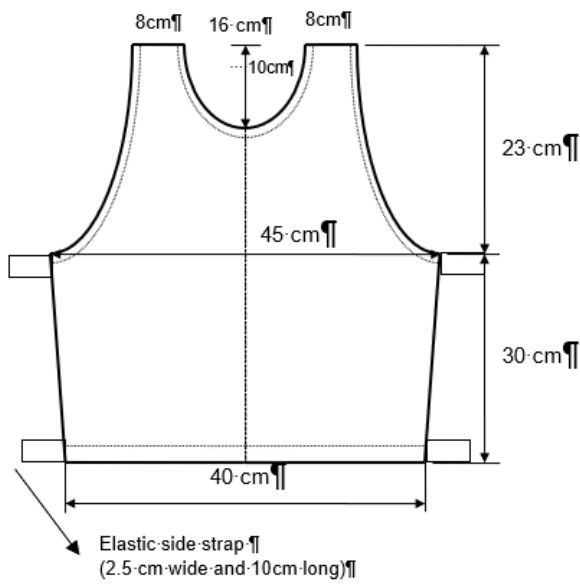
Women Ski Cross Final Bib



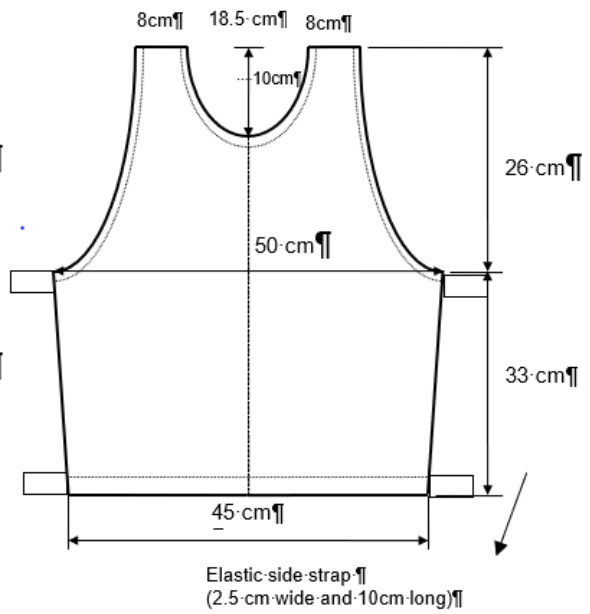
Men Ski Cross Final Bib



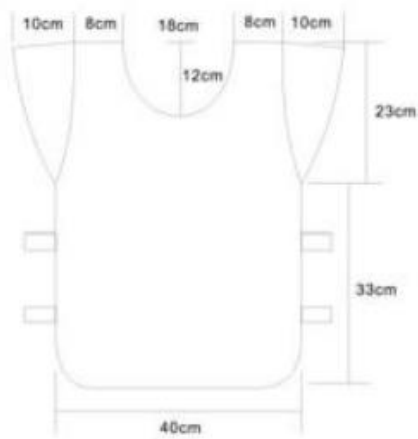
Women – Moguls
open sides and 4 elastic straps



Men – Moguls
open sides and 4 elastic straps



Women – Ski Halfpipe, Ski Big Air,
Ski Slopestyle – open sides and 4 elastic straps



Men – Ski Halfpipe, Ski Big Air, Ski
Slopestyle – open sides and 4 elastic straps

