SPECIFICATIONS FOR COMPETITON EQUIPMENT

SNOWBOARD, FREESTYLE, FREESKI AND SKI CROSS

Edition 2025/2026

INTERNATIONAL
SKI AND SNOWBOARD
FEDERATION

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Oberhofen, June 2025

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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

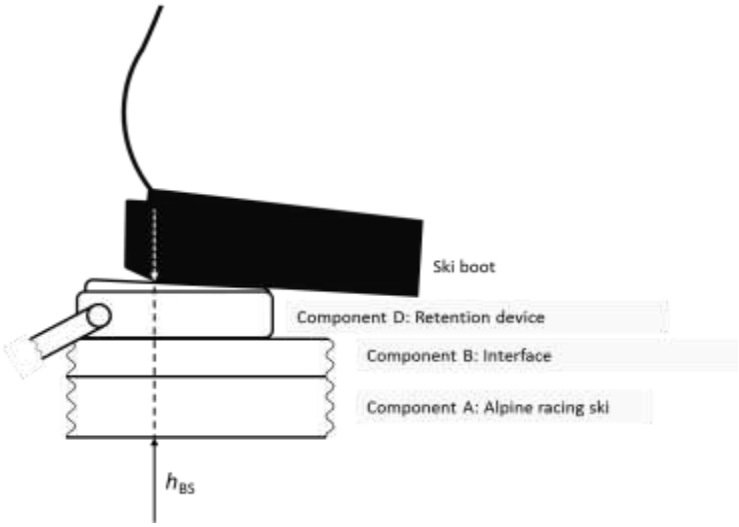
Mounting of such plates is permitted under the following conditions:

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 (hBs – see diagram) is 50 mm.



3.3 Ski stoppers

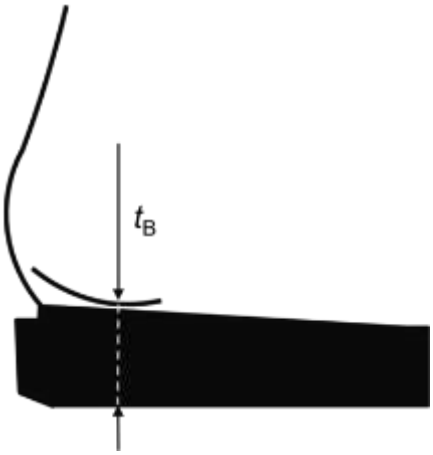
The ski stopper is a catching apparatus for skis, whose function is to stop or bring to a standstill the loose ski following the release of the safety binding within the intermediate area of the skiers fall. In competitions and official training skis without ski stoppers are not permitted. Ski Stoppers 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 (tB – 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 amour 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 protection is highly recommended in general. The use of so called airbag back protectors is highly recommended.

10.2 Specifications

The back protector must adapt to the anatomical bend of the athlete's spine and lie flat against the body. The top edge of the back protector must be situated in the area of the spinal column and may not go above the 7th cervical vertebrae (C7). The maximum thickness must be in the middle part and may not exceed 45 mm; the thickness is reduced at the edges of the back protector. Designs with the alter to improve aerodynamic properties are forbidden. The back protector must be worn underneath the competition suit.

It is strongly recommended to use protectors that are certified according to the latest EN1621:2 standard.

10.3 Protector with airbag technology

Specification

10.3.1 Definition: Airbag back protection for ski cross skiing is an additional piece of protective equipment based on an inflatable aircushion, electronically inflated with the aim of improving the protection level for athletes who are participating in ski cross competitions.

10.3.2 General Specifications
The presence of this device must not limit the freedom of movement for the athletes during competition. The airbag system must only be activated when the algorithm detects a crash and is triggered autonomously (without any voluntary intervention). Protectors with airbag technology must be worn underneath the competition suit, and fulfil the requirements given in art. 10 (Back Protectors).
Annually, manufacturers are required to state their compliance of the FIS equipment specifications. Each manufacturer confirms the reliability of the airbag system, which bears sole responsibility for the function and guarantees the innocuousness of their products in terms of materials and design. A nonremovable FIS compliance label affixed to the protector is mandatory.

10.3.3 Technical specifications
- Once triggered, the inflation time must not be greater than 200 milliseconds (in the temperature range -20°C to +30°C)
- Once inflated, the airbag cushion should not deflate immediately but remain fully inflated for minimum 3 seconds.
- Once inflated, the airbag cushion shall cover minimum one of the following areas: shoulders, back, or chest.

For body parts protected by aircushion: To assess the effect of energy absorption in the airbags, a specific test template must be used by the specified test institute. To meet the requirements, the maximum average impact value must be below 18 kN, and at least one of the impact values must be below 6 kN, based on European standard EN1621 protocols.

The airbag must be designed so that unintentional deployment does not prevent athletes from continuing to ski.
The maximum thickness of protectors (untriggered) with airbag technology must not exceed 55 mm.
The airbag must include a back protector based on European Standard EN1621:2.

Fulfilment and compliance with the FIS equipment specifications and the supplier´s safety standards (product description) is to be attested by a conformity label shown below. The non-removable label is to be placed on the outside of the airbag protector, centered at the back, 1 cm below the top edge of the protector. The conformity label shall include the following text: “Conforms to FIS Specifications AIRBAG 2024”. The label must show a minimum size of 20mm x 30mm (width x height) and must be accessible before starting the competition or official training (e.g., elongated label).

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 HD images or Audio (e.g. wireless cameras, ski goggle cameras, on board audio) must be worn by the competitors, if provided by the television production. The used systems must be approved by the Ski Cross Sub-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

3.1 For Snowboard Cross, 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.

3.2 For Snowboard Alpine, competition suits must be two piece – pants and separate top that are separate and worn independently.
Race Pants: clothing that extends to the top buckle of the boot, belts may be worn, but must be removable.
Race Jackets: clothing that can be worn independently and are removable and must reach the hips (hip bone). Race 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. Non protruding body protection and padding is recommended.
One piece suits (Speed or downhill suits) even worn under a separate top are prohibited.

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

6.1 For the purpose of improved television presentation and the technical development of the events, devices for the collection of HD images or Audio (e.g. wireless cameras, ski goggle cameras, on board audio) must be worn by the competitors, if provided by the television production. The used systems must be approved by the Snowboard Cross Sub-Committee and the Competition Equipment Committee.

6.2 At major Snowboard 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.

7. Cut resistant undergarment **(Implementation Season 2026/27)**

Parameter	Value
Uncut length (mm)	200_{Min}
Cutting force 1 star level (N)	100
Cutting force 2 star level (N)	200
Cutting force 3 star level (N)	300
Cutting force 4 star level (N)	400
Cutting force 5 star level (N)	500

7.1 Cut resistant undergarment

7.2 Definition

Cut-resistant undergarment are clothing items worn underneath the competition suit, designed to improve the athlete's protection against cut injuries.

7.3 General Specifications

In order to provide appropriate protection, the cut-resistant undergarment must be sized correctly based on producer´s guidelines and worn in strict compliance with manufacturer instructions of use. The undergarment shall be used without alteration/modification, as certified by the manufacturer. Cut-resistant undergarment is intended to provide supplementary protection and not infinite cut protection.

7.4 Technical specifications

The cut-resistant undergarment level of protection is defined by the specifications of the FIS-DITF test standard 2021.
Basic definition parameters are:
The minimum uncut measuring length for each level are: 200mm, cut resistance at cutting force of the corresponding level. Out of 5 tests of the same textile must have the corresponding cut resistance in 3 directions of textile positions: 0° / 45° / 90°. The direction with the lowest cut resistance value defines the FIS star level.

Force (N)	100	200	300	400	500
FIS-star	*	**	***	****	*****

Fulfilment of requirements is to be attested by these standardised conformity labels, affixed on the outer side of the protection garment in a non-removable way at the back of the lower left leg above the top of the ski boot cuff area.
“Conforms to FIS Specifications CRU 2021” and depict the achieved FIS-star(s) level.
The conformity label certifies that the manufacturer has obtained the required certifications (FIS-DITF 2021) fulfils the above requirements. To receive the label, the test protocol must be submitted to FIS Athlete Health Unit.

Label attesting conformity with FIS specifications for cut resistant undergarment.

7.5 Implementation of cut resistant undergarment

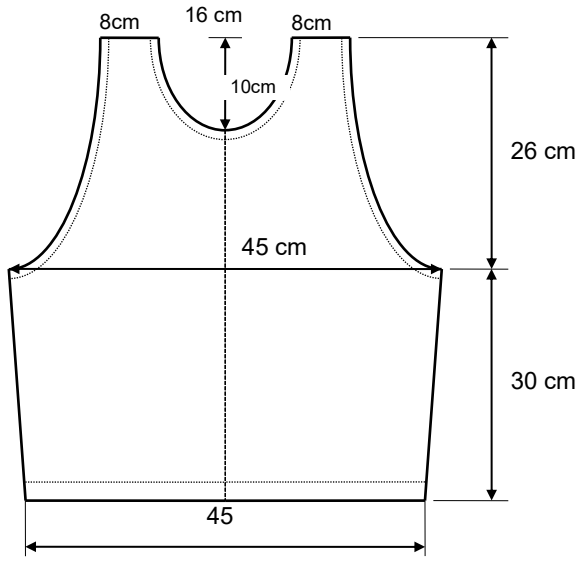
The use of cut-resistant undergarment is mandatory for all events at race level 1 (WC / WSC / OWG / WJC, YOG) from season 2026 / 2027 onwards. The mandatory implementation requires a minimum protection level of 3 stars according to the FIS-DITF test standard for all body parts covered by the competition suit i.e. from the top of the boot to the collar of the competition suit and the wrist). It is strongly recommended to cover the neck as comprehensive as possible.

D. Bibs

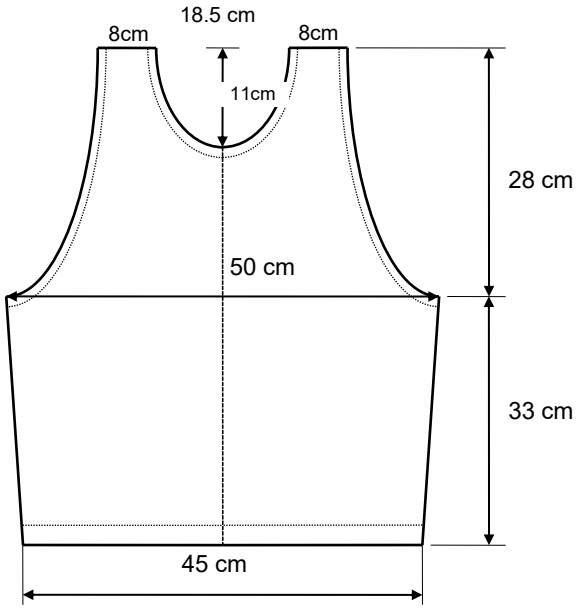
Freestyle / Freeski / Ski Cross

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

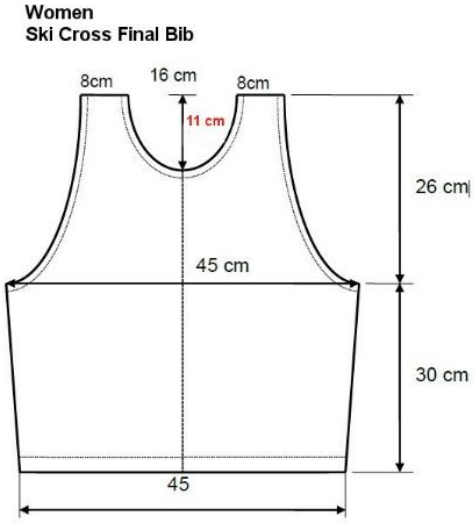
Women - Aerials and
Ski Cross Qualifications Ladies

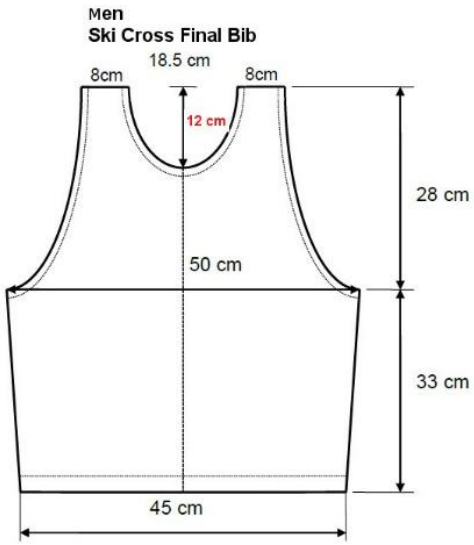


Men - Aerials and
Ski Cross Qualifications

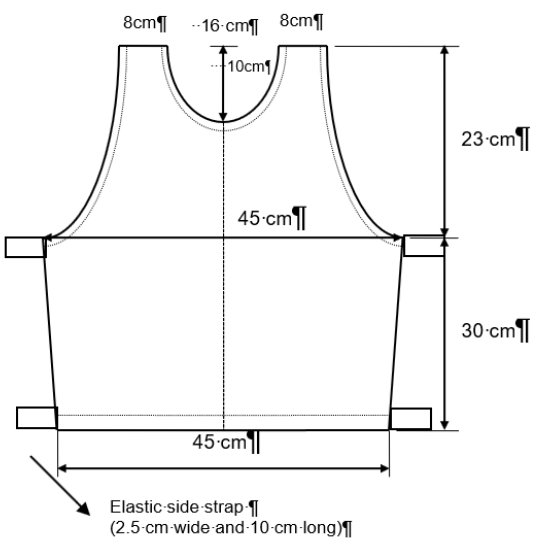


Ski Cross: The qualification bibs and the final coloured jerseys shall have the same size. The final coloured jerseys shall have a wider neckline (red).

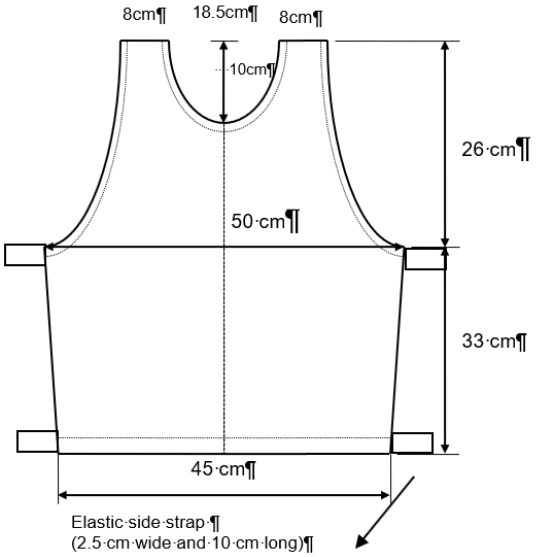




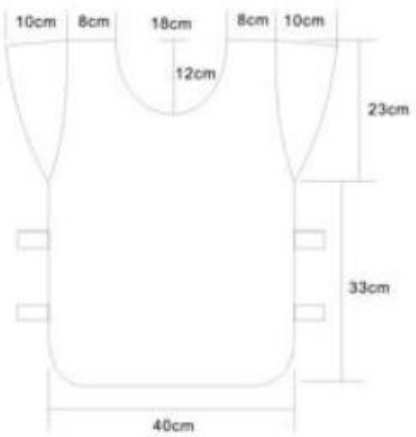
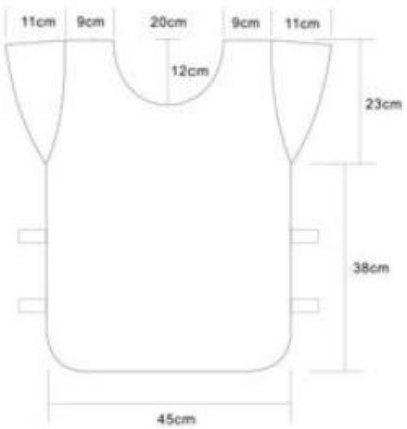
Women – Moguls
open sides and 4 elastic straps



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