

# **INTERNATIONAL SKATING UNION**

## **SPECIAL REGULATIONS & TECHNICAL RULES**

### **SPEED SKATING**

**and**

### **SHORT TRACK SPEED SKATING 2016**

as accepted by the 56th Ordinary Congress  
June 2016

In the ISU Constitution and Regulations, the masculine gender used in relation to any physical person (for example, Skater/Competitor, Official, member of an ISU Member etc. or pronouns such as he, they, them) shall, unless there is a specific provision to the contrary, be understood as including the feminine gender.

See also the ISU Constitution  
and General Regulations

## **B. Tracks**

### **Rule 203 Standard Tracks**

1. A Standard Speed Skating Track is an open, covered or enclosed ice rink with a double-laned competition track, maximum 400 meters, minimum 333 1/3 meters long, with two curved ends each of 180°, in which the radius of the inner curve should not measure less than 25 meters and not more than 26 meters.
2. The crossing area shall be the whole length of the straight from the end of the curve.
3. The width of the inner competition lane shall be 4 meters. The width of the outer competition lane must be at least 4 m.

### **Rule 204 Other Speed Skating tracks**

Speed Skating tracks which do not comply with the form or length of the standard track shall be arranged as a double-laned competition track at least 200 meters long, with an inner radius of at least 15 meters, and a crossing area of length not less than 40 meters and competition lane widths of at least 2 meters. For competitions not following the general racing rules (see Rule 200, paragraphs 2 and 3) the track may be arranged without separate competition lanes, for example on lakes, rivers, etc.

### **Rule 205 Track at ISU Championships and ISU World Cup Competitions**

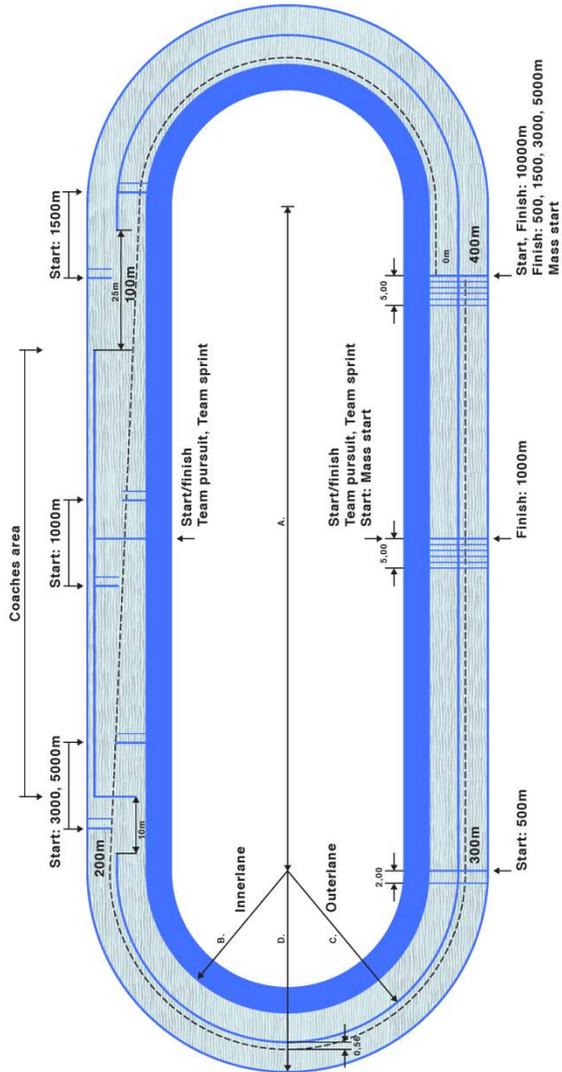
The ISU Championships and ISU World Cup Competitions must be run on a 400 meters standard Speed Skating track. Inside the competition lanes the track should have a warm-up lane with a width of minimum 4 m.

### **Rule 206 Track at Olympic Winter Games**

The Speed Skating Competitions of the Olympic Winter Games must be skated on a standard ISU 400 meters Speed Skating track on artificially frozen ice. The track must be laid out in accordance with ISU Regulations, and must have a warming-up lane of minimum width 4 meters inside the competition lanes. The ice rink must be enclosed within a heated building to be protected from wind and weather. The area inside the competition track (infield) must be accessible without crossing the surface of the ice. A reasonable number of spectator seats must be provided, together with proper facilities for Competitors, Officials, guests, television and other media.

## A. Track

### Track measurements and partitioning of the standard speed skating track



## Example of standard speed skating tracks

$$\begin{aligned}
 1 &= 2 \times \text{mean axis} = 2 \times A & 3 &= \text{Outer Curve} = C \times \pi \\
 2 &= \text{Inner Curve} = B \times \pi & 4 &= \text{Crossing} = \\
 & & & \sqrt{A^2 + (\text{width of track})^2} - A
 \end{aligned}$$

### 400 m Tracks

Radius inner curve	25 m
Width of each track	4 m
1 = 2 x 113.57	= 227.14 m
2 = 25.5 x 3.1416	= 80.11 m
3 = 29.5 x 3.1416	= 92.68 m
4 =	= 0.07 m
$\sqrt{113.57^2 + 4^2} - 113.57$	= 0.07 m
	400.0 m

Radius inner curve	25.5 m
Width of each track	4 m
1 = 2 x 112.00	= 224.00 m
2 = 26 x 3.1416	= 81.68 m
3 = 30 x 3.1416	= 94.25 m
4 =	= 0.07 m
$\sqrt{112^2 + 4^2} - 112$	= 0.07 m
	400.0 m

Radius inner curve	26 m
Width of each track	4 m
1 = 2 x 110.43	= 220.86 m
2 = 26.5 x 3.1416	= 83.25 m
3 = 30.5 x 3.1416	= 95.82 m
4 =	= 0.07 m
$\sqrt{110.43^2 + 4^2} - 110.43$	= 0.07 m
	400.0 m

### 333 1/3 m Tracks

Radius inner curve	26 m
Width of each track	4 m
1 = 2 x 77.08	= 154.16 m
2 = 26.5 x 3.1416	= 83.25 m
3 = 30.5 x 3.1416	= 95.82 m
4 =	= 0.10 m
$\sqrt{77.08^2 + 4^2} - 77.08$	= 0.10 m
	333.33 m

Radius inner curve	25 m
Width of each track	4 m
1 = 2 x 80.22	= 160.44 m
2 = 25.5 x 3.1416	= 80.11 m
3 = 29.5 x 3.1416	= 92.68 m
4 =	= 0.10 m
$\sqrt{80.22^2 + 4^2} - 80.22$	= 0.10 m
	333.33 m

## **Rule 226 Demarcation of the competition track**

(See also Rules 203 and 204 in the Special Regulations)

For demarcation of the competition lanes, fully painted lines, 5 cm wide, should be used, both in the straights and in the curves.

Normally, and always on indoor tracks, the demarcation of the lanes in the curves must include movable blocks of rubber or synthetic material (of maximum height 5 cm), 50 centimeters apart for the first 15 meters of the curve and 2 meters apart for the remaining part of the curve. The blocks shall touch the inside of the painted lines. Closed cones (20-25 centimeters high) shall be used as the first block at the entrance of each curve. When considered necessary for the visibility of the demarcation, blocks may be placed on the painted demarcation lines on the straights, with a distance of 10 meters between each block.

On open-air tracks snow may be used instead of movable blocks, but the snow must not be iced. The snow lines must then lie along the whole competition track except the crossing straight.

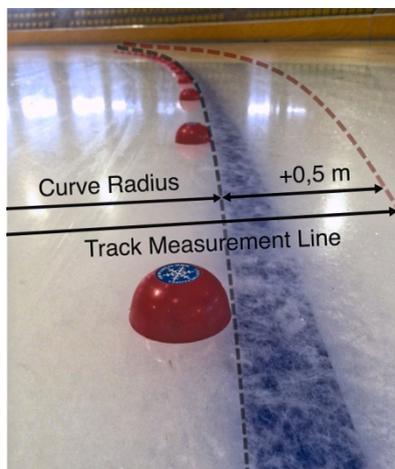
The Referee decides if the demarcation is in conformity with the rules.

## **Rule 227 Layout of the track**

### **1. Measurement**

The track must be measured by a qualified surveyor, detailed for the purpose, and with the correct position of all starting and finishing lines fixed. A protocol signed by the surveyor shall be handed to the Referee before the start of the event. This protocol remains valid for one (1) year only, unless reconfirmed by a qualified surveyor on an annual basis.

The measurement of the track shall be made half a meter outside the inner edge.



## **2. Starting and finishing lines**

The starting and finishing lines are to be denoted by colored lines, not more than 5 centimeters wide, drawn at right angles to the straight or its extension. A pre-start line shall be placed two (2) meters before the starting lines. For the last five (5) meters before the finishing line each meter of the track shall be clearly marked. (see diagram A page 37).

On standard 400 meters tracks, the starting and finishing lines for all distances shall be at right angles to the finishing straight. The finishing line for 1000 meters shall be placed in the middle of the finishing straight and the starting lines accordingly. For Team Pursuit and Team Sprint races the starting and finishing lines shall be placed in the middle of the straights. For all other distances the finishing line shall be placed towards the end of the finishing straight, and the starting lines positioned accordingly. (see diagram A page 37)

On other tracks the starting and finishing lines should be placed so that neither the start nor the finish is in a curve.

## **3. Coaches' area**

For coaches there shall be a specially marked area on the crossing straight. The coaches' area shall be marked by a line two (2) centimeters wide, drawn one meter from the outside edge of the track. The line begins 25 meters from the end of the curve and goes all along the crossing straight until 10 meters before the entrance to the next curve. During Team Pursuit races the coaches' area for each Team is on the opposite straight of where the respective team starts. During the starting procedure the coaches must stay at least 20 meters away from both the Starter and the starting lines of the Competitors.

a) For distances 1000m and shorter and for races with quartet starts, maximum one (1) person for each Competitor is allowed in the coaches' area. For longer distances without quartet starts and for Team Pursuit races maximum two (2) persons for each Competitor or team are allowed in the coaches' area. For Mass start and Team Sprint races coaches are not allowed in the coaches' area;

b) In order to ensure a clear view of the finishing line for photo finish and television cameras, coaches are not allowed to pass through the finishing line area during Team Pursuit races;

c) During competition (while racing is occurring) coaches are not allowed to accompany a Skater in the warm-up lane.

## **Rule 228 Measures to protect safety of Skaters**

### **1. Measures to avoid accidents**

Measures must be taken to protect the safety of the Skaters against accidents. The Referee has to review and approve such measures before the competition starts.

During warm-up and training sessions Skaters and Coaches are responsible to act consciously in order to reduce risks of accidents.

## **2. Protection measures – minimum requirements for all competitions**

The demarcation of the skating track and racing lanes by fixed stakes is not permitted. Permanent installations should be at least 3 meters from the inner edge of the skating track.

The organizer of competitions shall provide adequate protection against accidents in situations when Skaters fail to stay inside the skating track (i.e. racing lanes and warm-up lanes). On open-air tracks snow may be used for protection, on the condition that the snow is not iced. If a sufficient amount of snow of adequate quality is not available, the use of protection mats (padding) is mandatory, with the following minimum requirements:

- a) The design of the mats and the materials used must give an adequate absorption effect when a Skater hits the padding;
- b) The surface of the padding should be made of anti-abrasive and water resistant material;
- c) The protection mats shall be at least 80 cm high and at least 30 cm thick;
- d) Mats must be used in the curves and at least 20 meters onto the straight after the end of each curve;
- e) Fixed objects (e.g. fences, benches or poles) within 3 meters from the inner edge of the skating track, must be protected with adequate padding;
- f) The padding must be fixed in such a way that a collision between a Skater and the padding will not in itself create a significant risk for injuries.

## **3. Protection measures at ISU Events and Olympic Winter Games**

The organizer of ISU Championships, other ISU Events and Olympic Winter Games must provide protection beyond the minimum measures described in paragraph 2 above. The organizers of these events must submit a technical description of their existing or planned safety installations, including relevant technical or scientific test results, in due time for the proposed solution to be reviewed by the ISU Sports Director or the ISU Representative/Technical Delegate for the event. The following conditions and guidelines must be observed:

- a) The mats can be either of rectangular shape or a trapezium, or some other shape that has proven suitable to provide adequate protection of the Skaters. The mats may be composed of several foam layers with different densities, or any other material or solutions, on the condition that adequate protection qualities (absorption of impact, reducing the bounce-back effect) can be proven through technical/scientific tests;
- b) The padding cover should be composed of anti-abrasive and non-rubberized water resistant material. At open-air rinks the solution has to be adapted to avoid water and snow to reach the inside structure of the mats. An overlapping Velcro strap shall cover the joint between the mats to present a smooth exterior surface;

c) The protection mats should be at least 60 cm thick. The minimum height should be 100 cm, but not exceed 120 cm in order to allow an adequate viewing angle for the spectators;

d) Protection mats must be used for the full length of the straights and in the curves;

e) Fixed objects (e.g. fences, benches or poles) within 3 meters from the inner edge of the skating track, must be protected with adequate padding;

f) The padding must be fixed so as to inhibit a fallen Skater from passing underneath the mats on impact. In the case the mats are resting on the ice, a smooth ice surface with no obstacles or sharp edges underneath the padding must be guaranteed. Belts or any other system that is used to control the movement of the padding should be in place and controlled continuously. The use of posts to secure the padding in the curves should be avoided, or at least be reduced to a minimum with additional adequate protection applied to the posts;

g) Adequate protection, as indicated in a) through f) above, must be in place also for the official training sessions.

More detailed specifications of adequate safety measures may be given at any time in an ISU Communication and/or in relevant ISU Memoranda. The above specifications should be considered as guidelines also for organizers of International Competitions and other high-performance speed skating competitions.

## **Rule 229 Ice preparation procedures at ISU Events and Olympic Winter Games**

### **ISU Ice Commission**

The ISU Ice Commission for the Event shall consist of the Referee(s) and a Representative of the ISU Speed Skating Technical Committee (or, when not present, another ISU Representative) or the ISU Technical Delegate. The ISU Ice Commission shall determine the ice preparation procedure in consultation with the technical expert of the ice rink, with the aim to give the participants equal conditions.

The Team leaders shall be informed about the procedure for ice preparation at the Team leaders' meeting before the opening draw. The detailed ice preparation schedule shall be made available to Team leaders when the start lists are announced (see also Rule 216, paragraph 1 f).

The ISU Ice Commission has the right to alter the announced ice preparation schedule. In this case the team leaders will be immediately informed about the changes and the revised schedule.

### **Information from the ice technical expert**

The ice technical expert of the ice rink must submit to the ISU Ice Commission all information that is relevant to decide the ice preparation schedule and to monitor the ice and racing conditions at all stages during the competition. This shall include historical data on ice preparation procedures under different climatic and meteorological conditions (air temperature, ice temperature, air humidity, snow, wind, air pressure, etc.) with different spectator capacities, the amount and quality

(temperature, any chemical additives, etc.) of water used during ice cleanings, as well as statistics on ice temperatures and climatic conditions during the competition. The ISU Ice Commission should be given the opportunity of direct access to instruments or systems providing the data mentioned. On in-door tracks the ice technical expert has to provide information also on wind or air-flow conditions at any time during racing, and is responsible that the ventilation system of the track is controlled so as to avoid unequal conditions due to differences in air-flow on the level of the competition track.

## **B. Organization of the Competitions**

### **Rule 230 Announcement and conduct of ISU Championships**

(See General Regulations, Rule 129)

### **Rule 231 Communication during ISU Championships**

(See General Regulations, Rule 132)

### **Rule 232 Date and contents of Announcements, Supplementary conditions**

(See General Regulations, Rules 110–112)

#### **Rule 233 Late announcements**

(See General Regulations, Rule 113)

### **Rule 234 Postponement of dates of Competition**

#### **Withdrawal of an announcement**

(See General Regulations, Rule 114)

### **Rule 235 Entries, Nicknames/Preferred names, Post Entries**

(See General Regulations, Rule 115)

### **Rule 236 Reserved**

#### **Rule 237 Validity of events**

(See General Regulations, Rule 118)

### **Rule 238 Expenses at ISU Championships, Reimbursement to Skaters and Officials**

(See General Regulations, Rule 137)

### **III. SPECIAL REGULATIONS SHORT TRACK SPEED SKATING**

#### **A. Tracks**

##### **Rule 280**

##### **Track**

1. a) For ISU Events, the Olympic Winter Games and Winter Youth Olympic Games the track shall be an oval of 111.12 meters in a covered, enclosed and heated ice rink with minimum measurements of 60 x 30 meters (see diagram in the Technical Rules);
  - b) The width of the straight shall not be less than seven (7) meters;
  - c) The measurements from the apex block of the bends to the barrier shall not be less than four (4) meters;
  - d) Curves and turns should be made symmetrically, there should be a symmetrical curve from the end of one straight to the point where the next straight begins;
  - e) Besides the standard track there will be four (4) other tracks laid out which are moved one and two meters in either direction of the standard track to preserve good ice conditions. For all tracks one (1) finish line will be used. For the starting lines see diagram in the Technical Rules;
  - f) In Semi-Finals and Finals of 500 meters only the three (3) middle tracks as marked on the diagram shall be used.
  
2. a) The starting lines and finish line are to be denoted by lines (colored) drawn at right angles to the straight and not more than 2 cm wide;
  - b) Starting lines are drawn from the barrier and will have a length equivalent to the actual width of the straight. The finish line is drawn from the barrier and will have a length of the actual width of the straight plus 1.5 meters;
  - c) Only for 500 and 1000 meters: Starting at 50 cm from the inner side of the track, dots 2 cm diameter shall mark five (5) starting positions every 1.3 meters in order to define the starting positions.
  - d) If the inner surface of the track is colored differently from the surface of the track for esthetic purposes, then this inner surface shall be symmetrical to the layout of the track, and start exactly at the end of the finish line (see diagram in the Technical Rules.
  
3. For International Competitions on ice rinks of less than 30 meters in width the track that may be used is shown in the diagram in the respective Announcement.

### **Track markers**

4. Track marking blocks of an approved design by the ISU Short Track Speed Skating Technical Committee shall be used and seven (7) must be used in the curves.

### **Rink Board padding**

5. a) Protections must be installed to cover the boards. All measures must be taken to improve the safety of the Skaters. Mats must be covered with a water-resistant, not necessarily cut-resistant, material. Mats must be attached to the boards and to each other, with their weight on the ice. For minimum specifications see the respective Communication. A technical description of material properties and drawing of the construction of the mats must be submitted with the initial application;

b) For the Olympic Winter Games the rink board padding system must be moveable in nature with no fixed boards behind the padding system to allow for Skaters to be absorbed into the pad system upon impact.

### **Facilities at rink**

6. a) For ISU Events and the Olympic Winter Games, electronic equipment capable of producing an image of the finish and the times of the competitors shall be used. Times shall be produced in thousands of a second. These results shall be considered Official Results;

b) For ISU Events, Olympic Winter Games (OWG) and Winter Youth Olympic Games (YOG), an Instant Video Replay System (IVR) and Race Reporting System (RRS) approved by the ISU shall be used;

c) For International Competitions a manual procedure explained in Rule 290, paragraphs 13 and 14 may be used, if the above equipment is not available;

d) For ISU Events and the Olympic Winter Games, only computer software approved by the Short Track Speed Skating Technical Committee shall be used to document the results of races, prepare the make-up of the next round of races, and produce the final results and Protocol of the competition;

e) For International Competitions the procedure outlined in Rule 296 can also be done manually;

f) All technical equipment shall be located in areas restricted to public access.

## **B. World Championships**

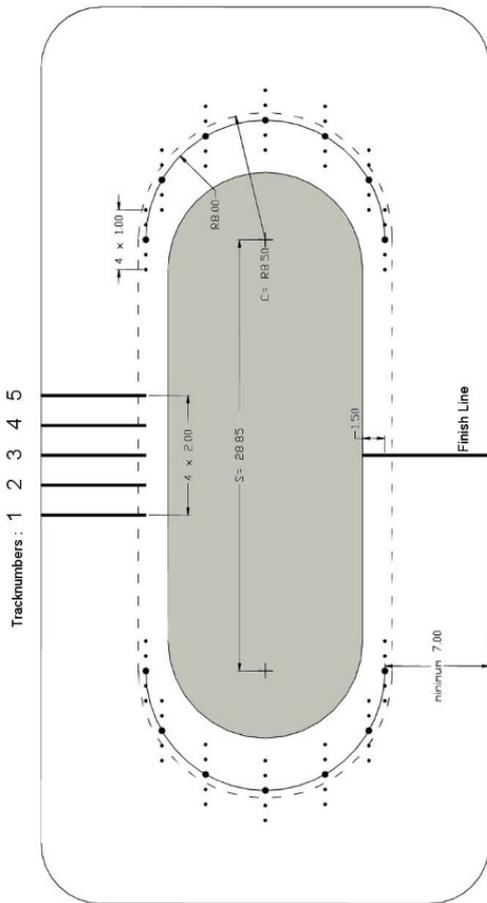
### **Rule 281**

#### **Distances and program**

1. a) The distances will be: 500, 1000, 1500 and 3000 meters individual, 3000 meters Relay for Ladies and 5000 meters Relay for Men;

b) On the distances 500, 1000 and 1500 meters there will be two (2) Finals, A and B. The qualification for the Finals will be through Qualifying rounds, according to Rule 295, paragraph 2. On the 3000 meters there will be one (1) Final, which will be skated as a Super-Final;

Track 2, 3 and 4 to be used for semi-finals and finals over 500 meters.



111.12 meters Track  
 2 x S 57.71 meters  
 2 x C x pi 53.41 meters  
 One Lap 111.12 meters

Tolerance for all measurements  $\pm 0.01$  m

Laps in different distances:	500 m	=	4½	laps
	1000 m	=	9	laps
	1500 m	=	13½	laps
	3000 m	=	27	laps
	5000 m	=	45	laps