

# **SPEED LICENCE RULES – SPEED WALLS**



INTERNATIONAL FEDERATION OF SPORT CLIMBING

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## 1. Part I – Artificial structure – Official Speed Walls

### 1.1 Wall specifications

The IFSC approved Speed walls shall be designed as follow:

#### 1.1.1. Heights:

- i. 15.00 m
- ii. The climbing walls start 20 cm above the ground and must continue at least 50 cm above the last panel. The gap between the ground and the start of the wall could be filled with additional panels.

#### 1.1.2. Width:

- i. 3.00 m + 3.00 m
- ii. two climbing walls side by side.
- iii. Additional space of one meter on each side should be kept free from any construction
- iv. The climbing walls can be adjacent or separate, in latter case separation cannot exceed 50cm.

#### 1.1.3. Panel specifications

- i. Height = 1500 mm (tolerance:  $\pm 1$  mm)
- ii. Length = 1500 mm (tolerance:  $\pm 1$  mm)
- iii. In exceptional circumstances, if the panels used are not available in format 150x150, IFSC could accept the use of different panels. However, to be homologated, the global grid shall meet the same requirements than a one built with 150x150 panels. With specific regards to the tolerance, tolerance between 150x150 should always be 1 mm.

#### 1.1.4. Inclination:

- i. The climbing walls must overhang regularly  $5^\circ$
- ii. Average wall inclination tolerances are  $-0.5^\circ/+1.5^\circ$  (maximum between  $4.5^\circ$  to  $6.5^\circ$ ). Between any two measured points the angle difference cannot be higher than  $1^\circ$
- iii. Panel alignment should not exceed 2 mm (see chapter 3 for reference)

#### 1.1.5. Individual Top Protection Point (ITRS)

- i. The Individual top protection points are installed on the metallic structure located between 500mm and 1000mm vertically upwards and between 500mm and 1000mm horizontally outwards from the top edge of the 0,50m top panel (15500mm).
- ii. The ITRS (for each Climbing Line) should be located at the central axis of the route, with a tolerance of  $\pm 50$ mm
- iii. The ITRS of both lanes should be installed with the same distances to each lane
- iv. The ITRS instalment shall respect the EN 12572-1.
- v. The auto-belay should be installed on a fixed anchor point

#### 1.1.6. Grid of Panel Insert Holds

- i. The panels will have a standard grid of holes - see table below on chapter 1.2
- ii. Inter holes vertical distance = 125 mm (tolerance  $\pm 1$  mm)
- iii. Inter-panel – vertical distance = 375 mm (tolerance  $\pm 2$  mm)
- iv. Edge (horizontal) to hole vertical distance = 187.5 mm (tolerance  $\pm 1$  mm)
- v. Inter-panel – horizontal distance = 250 mm (tolerance  $\pm 1$  mm)
- vi. Inter-holes – horizontal distance = 125 mm (tolerance  $\pm 1$  mm)

#### 1.1.7. Vertical distances

- i. The measures between the bottom of the finishing pad and the ground should be mm 14800 (+/- 20 mm)
- ii. The distance between the starting hold (axis of the screw of the lowest starting hand hold) to the ground (no starting pad) shall be mm 1 887 (Tolerance +/- 10mm)
- iii. Similar control should be taken from other parallel holes, to make sure that the distance to the ground is respected.

#### 1.1.8. Friction

- i. The ideal Static Friction Coefficient is between 1 to 1,5. The coefficient measures the friction between the speed panels on horizontal surface and climbing standard rubber (X-Grip2 or equivalent)

#### 1.1.9. Colour

- i. A light grey (ref RAL 7035/7001/7038/7044/9002/9018) must be used for climbable surface

#### 1.1.10. Logos

- ii. The speed wall should be free from any logo

#### 1.1.11. Ground

- i. Measure of the flat platform/ground should be minimum 8 meters wide and 4,3 deep backwards (for competition walls)
- ii. The base of the wall shall be a hard and stable surface. The flatness of the ground should be flat and uniform along the 8 meters.
- iii. In case mats are installed at the base of the wall, they should be removable

#### 1.1.12. Frequency of control

- i. All the specifications included into the current paragraph should be checked at least every 4 years



## 1.2 Walls & Route Plans

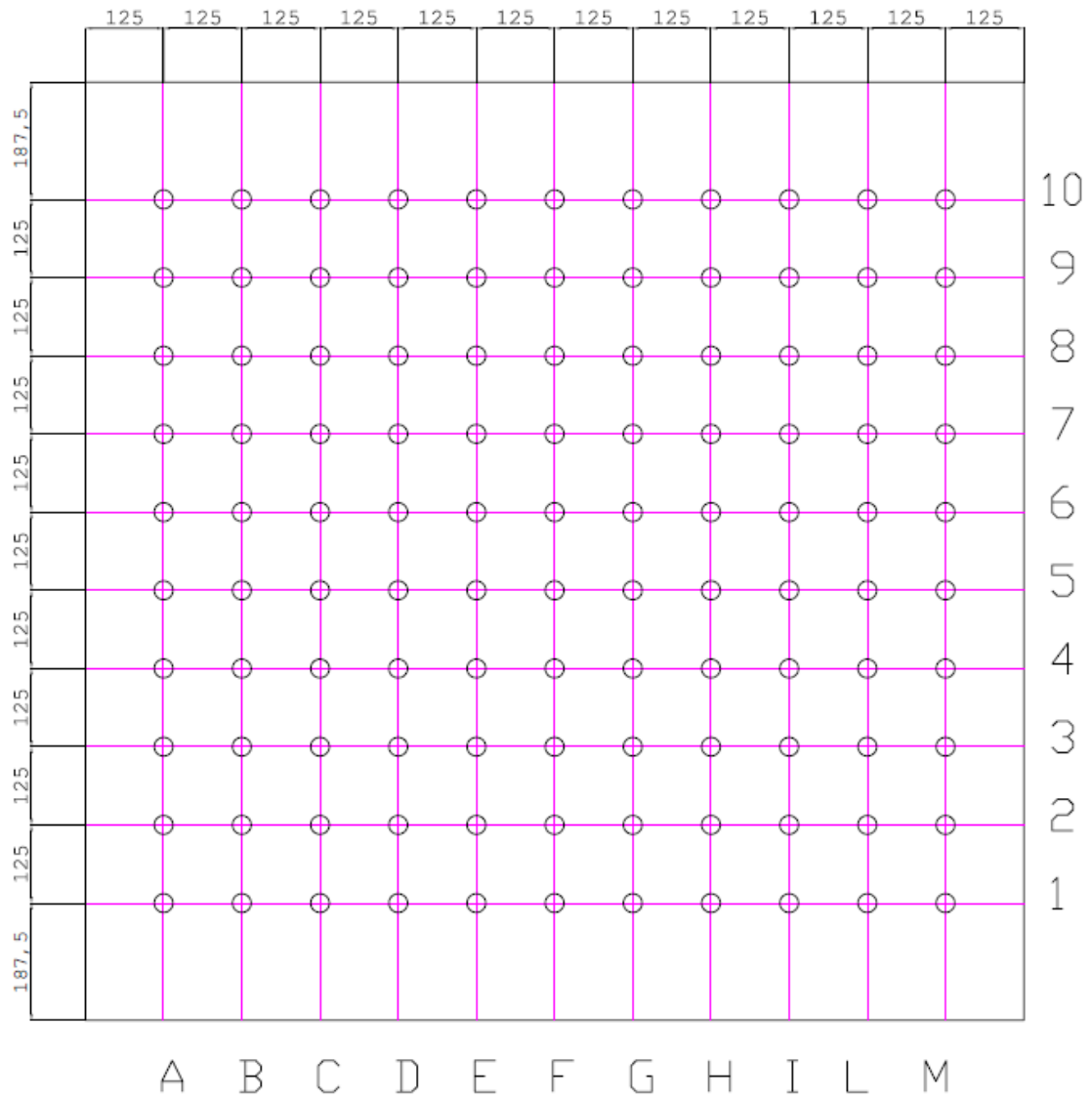
### 1.2.1. 15.00 m speed wall



Figure 2 – 15 m speed wall

Note: For high resolution images refer to the IFSC website

1.2.2. Standard panel:



1.2.3. World record 15 m route:

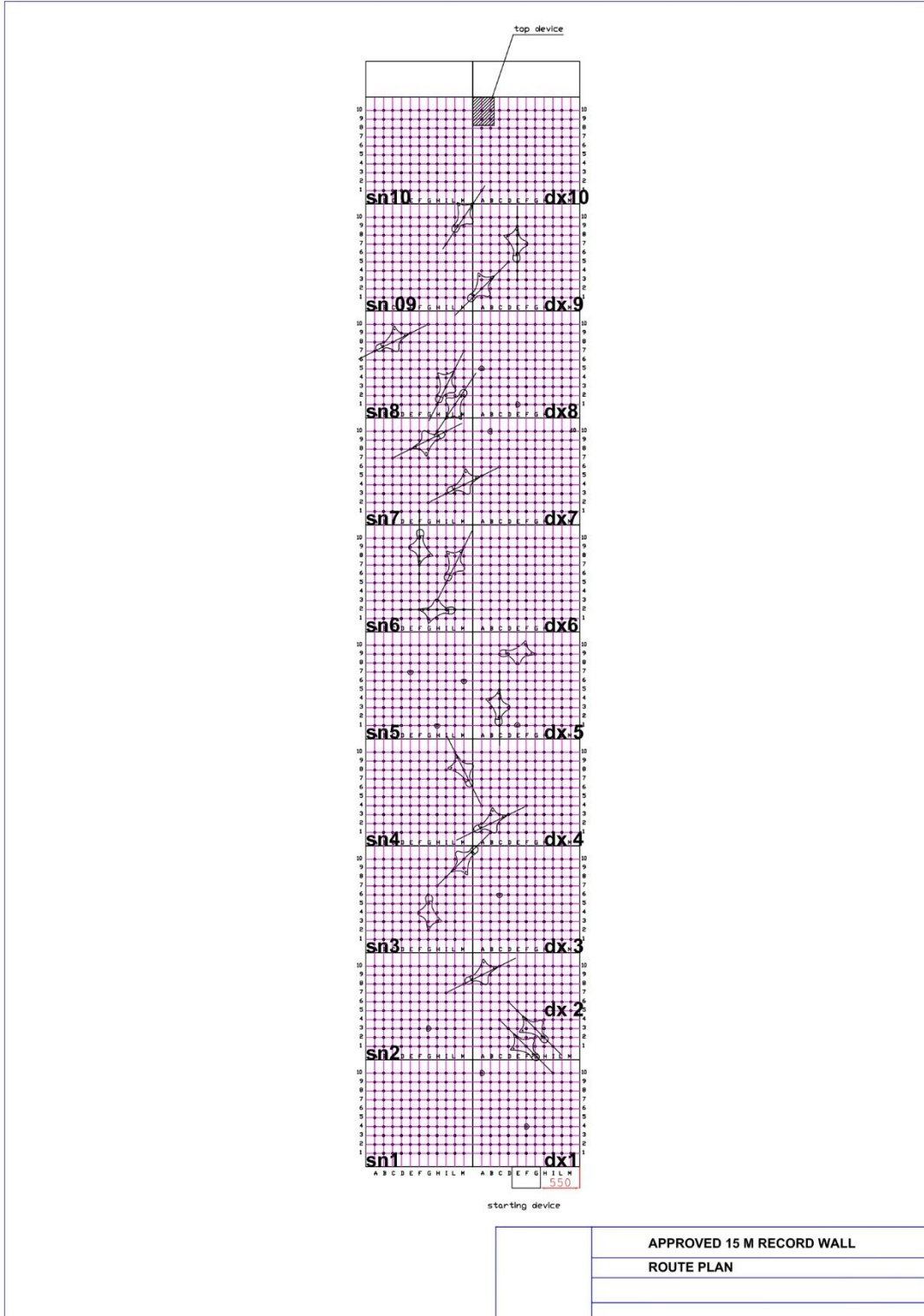


Figure 1 – Top part of the world record 15 m route

1.2.4. World record Speed wall 15 m – Route Plan

PANEL	KIND OF HOLD	HOLD POSITION	HOLD ORIENTATION
DX1	FOOT HOLD	F4	G4
DX1	FOOT HOLD	A10	B10
DX2	BIG HOLD	F1	D3
DX2	BIG HOLD	G3	E5
DX2	BIG HOLD	A9	C10
SN2	FOOT HOLD	G3	H3
DX3	FOOT HOLD	C6	C5
SN3	BIG HOLD	G4	G1
SN3	BIG HOLD	M10	I 8
DX4	BIG HOLD	B2	D3
SN4	BIG HOLD	M8	L10
DX5	FOOT HOLD	E1	E2
DX5	BIG HOLD	C3	C6
DX5	BIG HOLD	E9	H9
SN5	FOOT HOLD	H1	H10 (sn 4 panel)
SN5	FOOT HOLD	M6	M5
SN5	FOOT HOLD	E7	E6
SN6	BIG HOLD	H2	E2
SN6	BIG HOLD	L7	M9
SN6	BIG HOLD	F9	F6
SN7	BIG HOLD	4M	5A (dx 7 panel)
SN7	BIG HOLD	9G	8E
DX7	FOOT HOLD	10B	10A
SN8	BIG HOLD	1L	10H (sn 7 panel)
SN8	BIG HOLD	3 I	5 L
DX8	FOOT HOLD	1E	1F
DX8	FOOT HOLD	5A	6A
SN 8	BIG HOLD	8C	9E
SN9	BIG HOLD	10M	1A (dx 10 panel)
DX9	BIG HOLD	2A	4C
DX9	BIG HOLD	7E	9E
DX 10	STOP DEVICE		



**1.3 Speed wall 15 m homologation – visit procedure**

**1.3.1. General:**

The homologation visit procedure refers only to Speed wall 15 m, as the only one used in IFSC competitions. The Speed wall must be compliant with the requirements outlined in chapter 1 of the present document. All dimensions below are, unless specified, in millimetres (mm).

**1.3.2. Panels or modules**

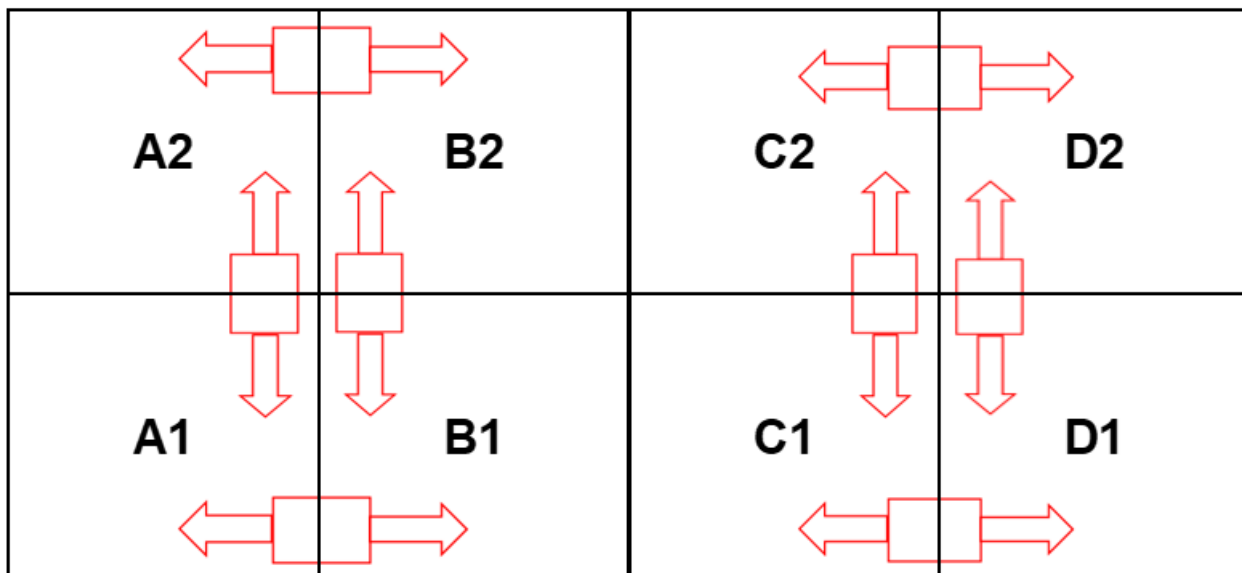
- i. Height = 1500 mm (tolerance:  $\pm 1$  mm)
- ii. Length = 1500 mm (tolerance:  $\pm 1$  mm)

The control should be made on the first 4 panels, at the bottom of the wall. The control should be repeated if there are any doubts on the dimensions of other panels.

**1.3.3. Distance between inserts (holes of the whole grid)**

- Inter holes vertical distance = 125 mm (tolerance  $\pm 1$  mm)
- Inter-panel – vertical distance = 375 mm (tolerance  $\pm 2$  mm)
- Edge (horizontal) to hole vertical distance = 187.5 mm (tolerance  $\pm 1$  mm)
- Inter-panel – horizontal distance = 250 mm (tolerance  $\pm 1$  mm)
- Inter-holes – horizontal distance = 125 mm (tolerance  $\pm 1$  mm)

The checks should be done as for the following draws, and repeated along the speed route.



The checks should be executed with the IFSC Speed Tool, which already included the correct insert to measures the distance. If the screws cannot fit the IFSC Speed Tool Square, the control is not passed.

- On a single panel: 3 screws must be screwed in the square to show a correct internal grid.
- Between two panels: 4 screws must be screwed in the square to show a correct grid. The top square hole being in front of the Panel bottom line.

Note: The square fits the grid 125 x 125. The square top hole gauged at 13mm and other holes at 11mm diameter result in a tolerance of +/- 1mm.

If the grid complies with the requirements, holes must fit. Two examples:



See pictures below for examples of homologation failure.



#### 1.3.4. Vertical Distances

- The measures between the bottom of the finishing pad and the ground should be mm 14800 (+/- 20 mm)
- Distance between the starting hold (axis of the screw of the lowest starting hand hold) to the ground (no starting pad). Tolerance +/- 10mm = 1 887,5 mm
- Similar control should be taken from other parallel holes, to make sure that the distance to the ground is respected.

#### 1.3.5. Wall Angle

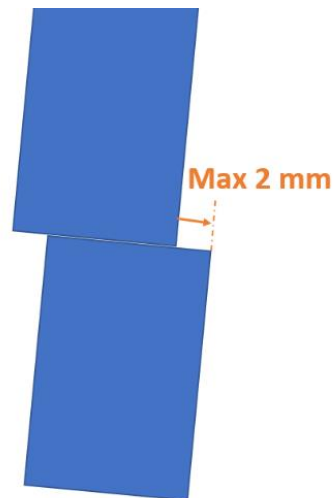
- Average whole wall inclination:  $-0.5^{\circ}/+1.5^{\circ}$  (maximum between  $4.5^{\circ}$  to  $6.5^{\circ}$ )
- Between any two measured points the cannot be more than  $1^{\circ}$

The angle measure should be taken at least once per panel, meaning 40 total minimum number of measures. The measure could be made with an electronic calibrated device of minimum size (no I-phone). The minimum size of the inclinometer should be 40 cm.

Alternatively, the check could be done with the IFSC Speed Square. See pictures below:



The panels alignment shall not exceed 2 mm. Please refer to the picture below:



1.2 Tool measurement: IFSC Speed Square specification

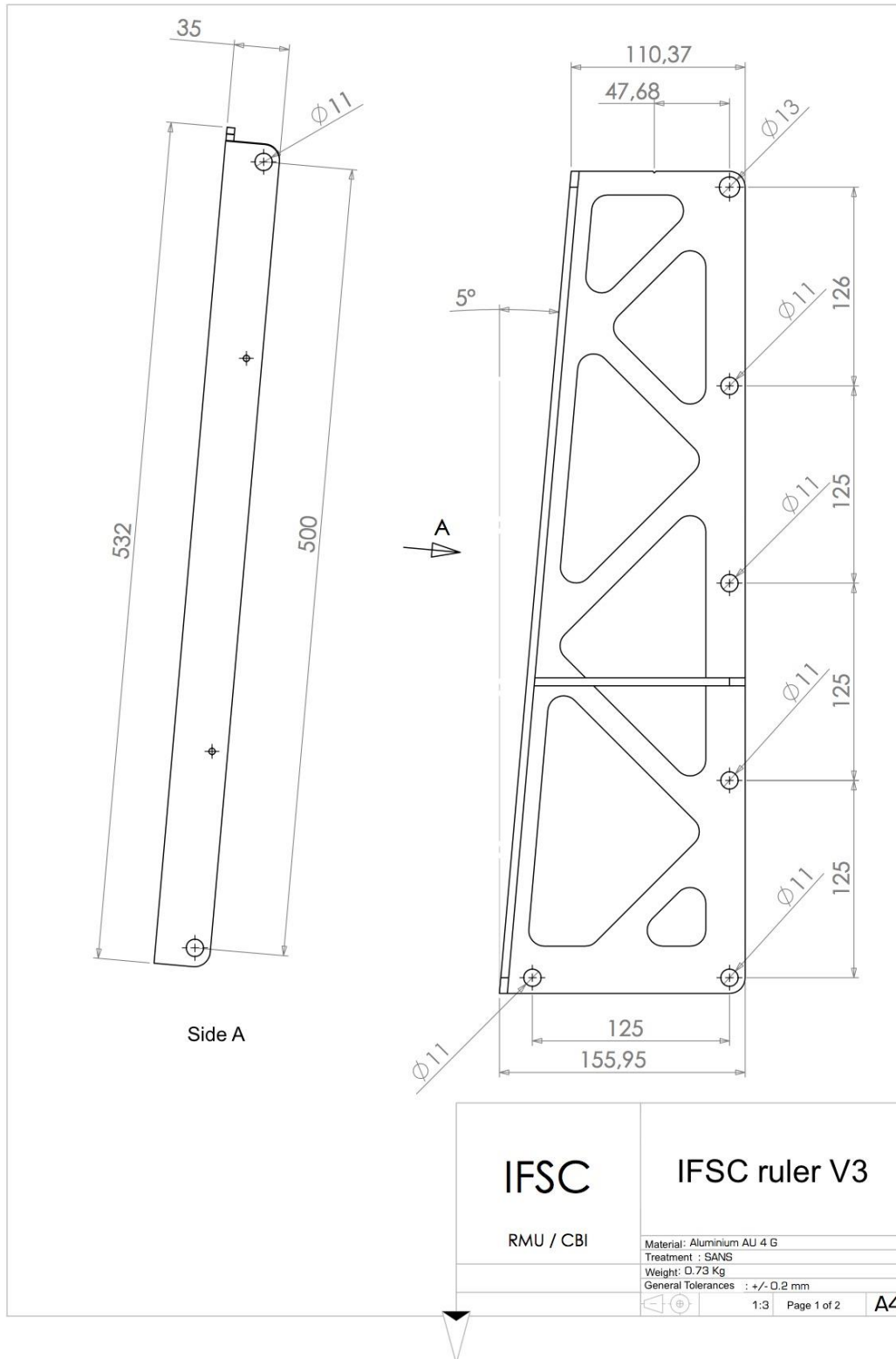


Figure 8 IFSC Speed Square V3



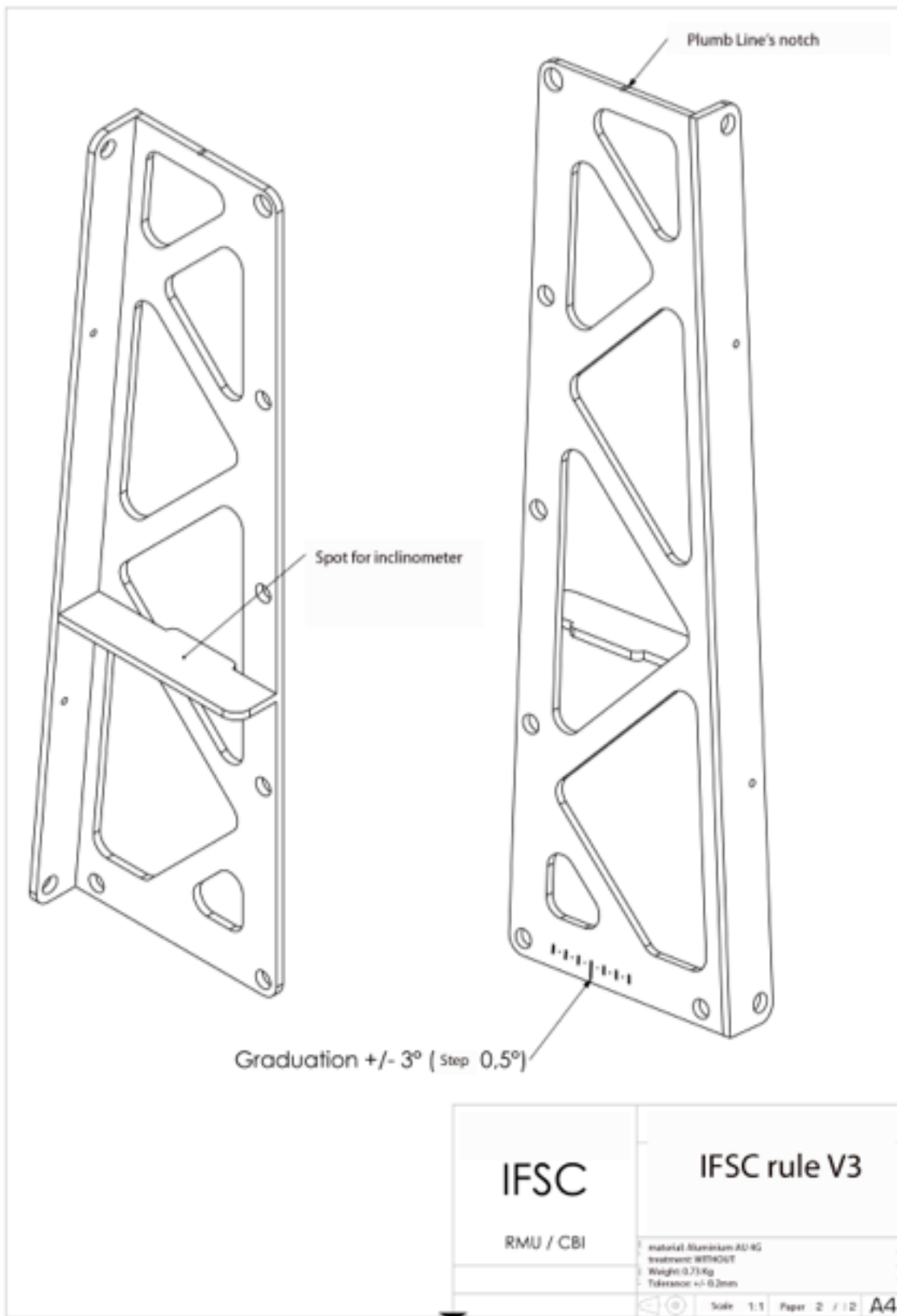


Figure 9 – IFSC Speed Square V3



## 2. Part II – Certified IFSC Speed Wall Manufacturers and IFSC competitions

### 2.1 IFSC competitions and Speed World Record Check (competition check)

IFSC rules specify the conditions to approve a speed world record on IFSC competitions. Among many, two of the mandatory conditions are:

- Speed wall shall be built by one of the certified IFSC Speed Wall Manufacturers
- Completion of Speed World Record Check

IFSC speed World Record Check is described on IFSC website, section IFSC Speed Licence Rules.

### 2.2 Become an IFSC Certified Speed Wall Manufacturer

The companies which wish to become an IFSC Certified Manufacturer need to follow the procedure below:

- i. Company should propose a list of 4 walls to be subject to a Full Homologation (see chapter 1.3 of this document). The company should propose 2 indoor walls and 2 outdoor walls, which should be built maximum in the past 3 years
- ii. The IFSC will assign an IFSC Homologation inspector and select 3 walls to inspect
- iii. IFSC will arrange the visit of the Homologation inspector onsite
- iv. Following the first certification visit period, and provided the visited wall has passed the certification the company shall be granted a provisional status. Provisional status is valid for a 6 months period and cannot be renewed.
- v. The company is granted the certificate of IFSC Certified Speed Wall Manufacturer after:
  - The 3 walls have passed the full homologation (as described in chapter 1.3 of this document)
  - The agreement between the company and the IFSC is signed and all invoices are duly paid
- vi. The certification is valid for 4 years' time, and the IFSC publishes the name of the company on IFSC website
- vii. At the end of each year, the company shall send to the IFSC the complete list of walls built according to IFSC standards. The IFSC will select one of the walls to perform a random check on the quality the following year
- viii. To renew the certificate of IFSC Speed Wall Manufacturer, the IFSC should have checked at least 3 different Speed walls, during the duration of the previous 4 years contract. Otherwise, the process of certification explained above should re-start. Companies that want to renew should give notice of at least 1 year

NOTE: If the homologation from the IFSC Inspector is failed, the certification for the company is suspended. IFSC reserve itself the right to deny access to such company to the process of re-certification.

### 2.3 Fees and expenses

The fees to become an IFSC Certified Speed Wall Manufacturers consist in the following:

- Approval fees: 5 000€, at the moment of the signature
- Homologation visits fees.
  - a) The three homologations are proposed during the duration of the previous contract (one per year, 3 checks) = 2 500€ (for each homologation) + travel and accommodation expenses of the IFSC Homologation inspector
  - b) Homologations proposed over the duration of the previous contract, or for a new contract = 3 500€ (for each homologation) + travel and accommodation of the IFSC Homologation inspector

Appendix I – IFSC Official Speed Route Map

