

*Standards and
Assessment Guide*

**Wall and Floor
Tiling**

Introduction

Welcome to the Standards and Assessment Guide (SAG), a comprehensive resource designed to support excellence in assessment practices for all skills competitions hosted at the WorldSkills Competition. A key component of the SAG is the commitment to continuous improvement through ongoing review, ensuring that these guides consistently reflect the latest industry innovations and high standards of assessment in an open and transparent manner.

Purpose

The primary purpose of this guide is to provide a structured framework for the consistent and fair assessment of each skill competition. It aims to ensure that all assessments are conducted with a high degree of accuracy, reliability, validity, and reflect global industry standards. By adhering to these guidelines, assessors can maintain the integrity of the competition and uphold the high standards associated with WorldSkills.

Note: this guide is not a replacement for the Marking Scheme and should only be used as a reference when required during the assessment process. Competitors are not allowed to have a copy of this SAG in the workshop in either digital or paper form.

Scope

This document covers general assessment practices applicable to a diverse range of industry sectors including:

- Manufacturing and Engineering Technology
- Information and Communication Technology
- Construction and Building Technology
- Transportation and Logistics
- Social and Personal Services
- Creative Arts and Fashion

Each skill competition has its unique requirements and benchmarks, which are detailed within sections of this guide. The consistency of assessment across each skill is the overarching principle, ensuring a unified approach to evaluating Competitor performance to the highest standards.

Key Components

The guide is structured into several key components, each addressing critical aspects of the assessment process:

Assessment Principles and Objectives

- Emphasis on fairness, transparency, and objectivity in assessments.
- Alignment with global industry standards and best practices.

Assessment Methods and Tools

- Description of various assessment methods in Measurement and Judgement.
- Guidance on the application of appropriate assessment tools and equipment (if applicable).

Criteria and Benchmarks

- Examples of assessment criteria and aspects for each skill, outlining the expected competencies and performance standards.
- Benchmarks for different levels of proficiency i.e. Judgement award range 0, 1, 2, 3 or Yes/No criteria alongside clear measurable descriptors.

Expert assessment requirements

- Completion of the Access Programme.
- Approved Curriculum Vitae (CV).
- Reaching **100%** Expert preparedness.
- Full participation of online and in-person Mandatory Assessment Training (MAT).
- Completion of practical assessment testing at the Competition.

Quality Assurance and Improvement

- Monitoring and evaluation: Ensuring assessments are carried out correctly and produce reliable results.
- Continuous improvement: Using feedback from Experts and Skill Competition Managers to enhance future assessments.
- Periodic review: Regularly updating processes to reflect current industry and WorldSkills standards.

Implementation

For effective implementation, this guide should be used for guidance purposes only and in parallel with the Technical Description for each skill. Experts are encouraged to familiarize themselves thoroughly with both the general guidelines and the particular requirements of their respective skill areas. Collaborative efforts between the Skill Management Team, Experts, and Competitors are vital for achieving the ultimate goal of global skills development.

Conclusion

The Standards and Assessment Guide embodies the commitment of the WorldSkills movement to nurturing talent and promoting the highest standards of vocational education and training worldwide. By providing clear and comprehensive guidance, we aim to empower Experts to conduct marking and assessment practices that are not only rigorous and equitable but also inspiring and transformative for all participants.

Thank you for your dedication to upholding these standards and contributing to the success of the WorldSkills Competition. Together, we can continue to champion skills excellence and celebrate the achievements of talented individuals from around the globe.

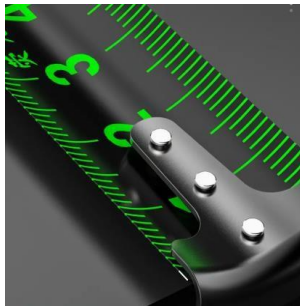
Skill 12 – Wall and Floor Tiling

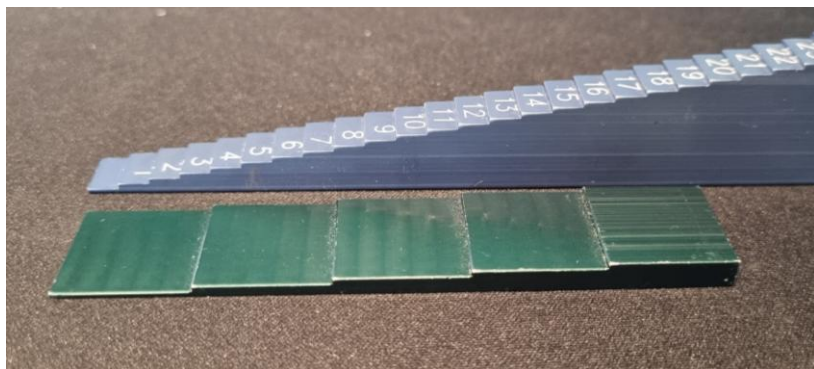
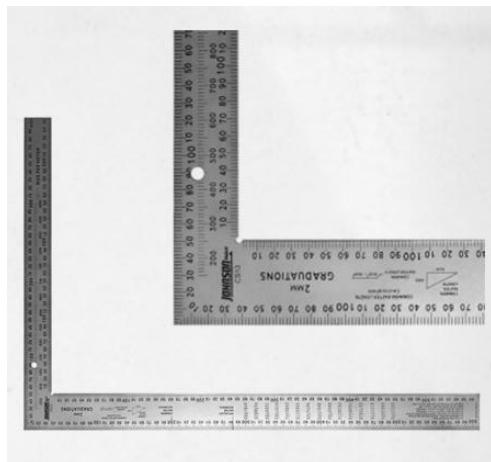
Measurement

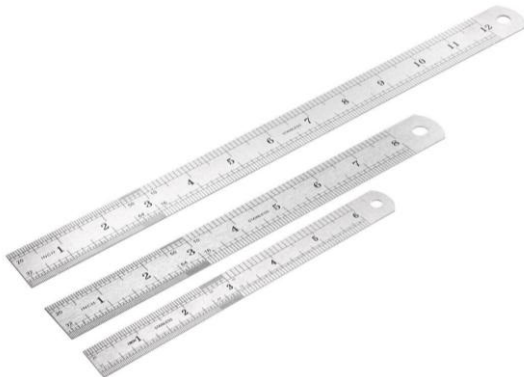
- Measurement is used to assess accuracy, precision, and other performance that can be measured objectively. It is used where ambiguity must be avoided.
- The total marks allocated to measurement marking may vary from competition to competition depending on the Test Project.

For this part of the assessment, Experts will use the Competitor's own tools.

Aspect	WSOS section as per TD	Descriptor
Dimension		• The completed work is measured against the drawings and tolerances. • Measurements are taken at agreed check points. These may include main construction parts and smaller details • Marks are based on how close the work is to the required dimensions. Measurements outside the allowed tolerance will lose marks. • Experts must assess all Competitors using the same check points and measurement method. • This will be shown and discussed using a sample model during Mandatory Assessment Training at the Competition.
Plumb		• The completed work is checked to see if the required parts are vertical. • Checks are made at agreed points, including main parts and smaller details. • Marks are based on how close the work is to the required vertical line or reference point. • Work that is out of plumb and affects appearance or function will lose marks. • This will be shown using a sample model during Mandatory Assessment Training at the Competition.
Level		• The completed work is checked to see if the required parts are horizontal and even. • Checks are made at agreed points, including main parts and smaller details. • Marks are based on how close the work is to the required level line or reference point. • Work that is not level and affects appearance, function, or connection with other parts will lose marks. • This will be shown using a sample model during Mandatory Assessment Training at the Competition.

Aspect	WSOS section as per TD	Descriptor
Measurement Tools	Resource	
Tape measure – good quality accurate tape sourced and agreed for use to measure all competitors work in a designated position over a long span.	 	
Spirit Level- a range of spirit levels checked for accuracy by marking team. Appropriate size range used – 1.8m for plumb and level over large distances vertically and horizontally		

Aspect	WSOS section as per TD	Descriptor
Measurement wedge – a graduated measurement wedge from 1-5mm Used for measuring level, plumb and square		
Square – a range of squares to check for 90 degree angles		

Aspect	WSOS section as per TD	Descriptor
Ruler – In mm for accurate measurement.		
Angle measuring device		 

Aspect	WSOS section as per TD	Descriptor
Laser Level		

Measurement assessment

See below for details around the process of Measurement assessment

Groups of a minimum of four Experts:

- 1–2 Experts take the measurement and confirm the value
- Expert verifies the result provided by the 1–2 Experts and confirms the value entered into CIS
- 1 Expert oversees the process and inputs the measurement into CIS
- All measurements are recorded in millimetres

Example:

- Nominal size: 80 mm
- Measured size: 82 mm (entered into CIS via tablet)
- Deviation: 2 mm (automatically calculated in CIS)

Marks are deducted based on deviation:

- Full marks (2 marks) awarded for exact measurement
- 0.25 marks deducted per mm deviation

Example outcome:

- 80 mm = 2 marks
- 82 mm (2 mm deviation) = 1.5 marks

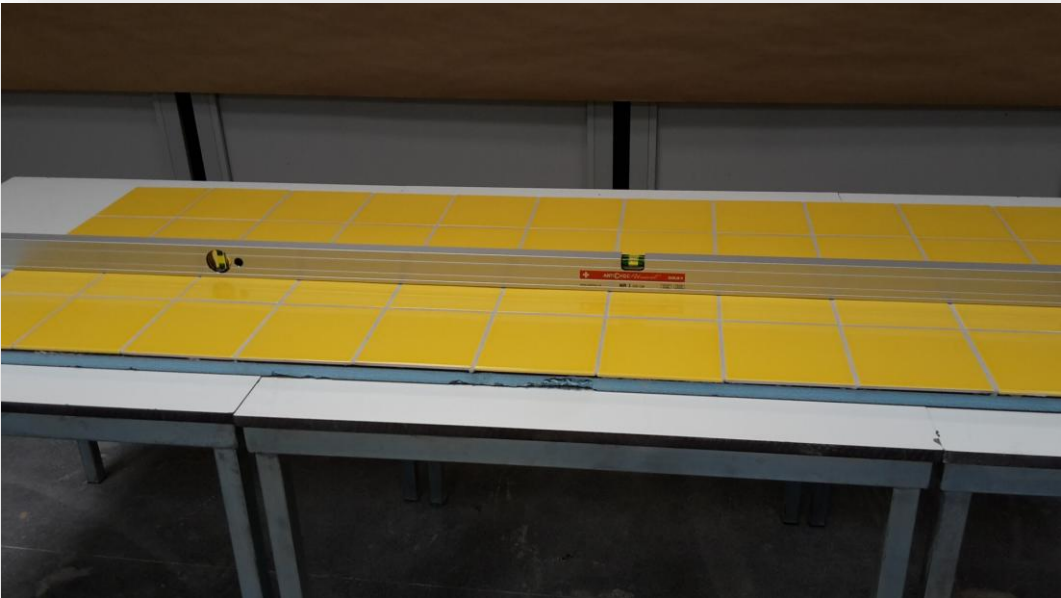
Note: Each marking team will be assigned one aspect of the Marking Scheme to assess across all Competitors, for example dimensions, level, or plumb. A briefing will be provided before assessment begins, outlining the agreed method for measurement. This will emphasise the importance of consistency, ensuring all Competitors are assessed in the same way, in the same location, and using the same technique to maintain accuracy.

Aspect: Subfloor base finished flush (in line) with the side of the floor tile.

Yes or No

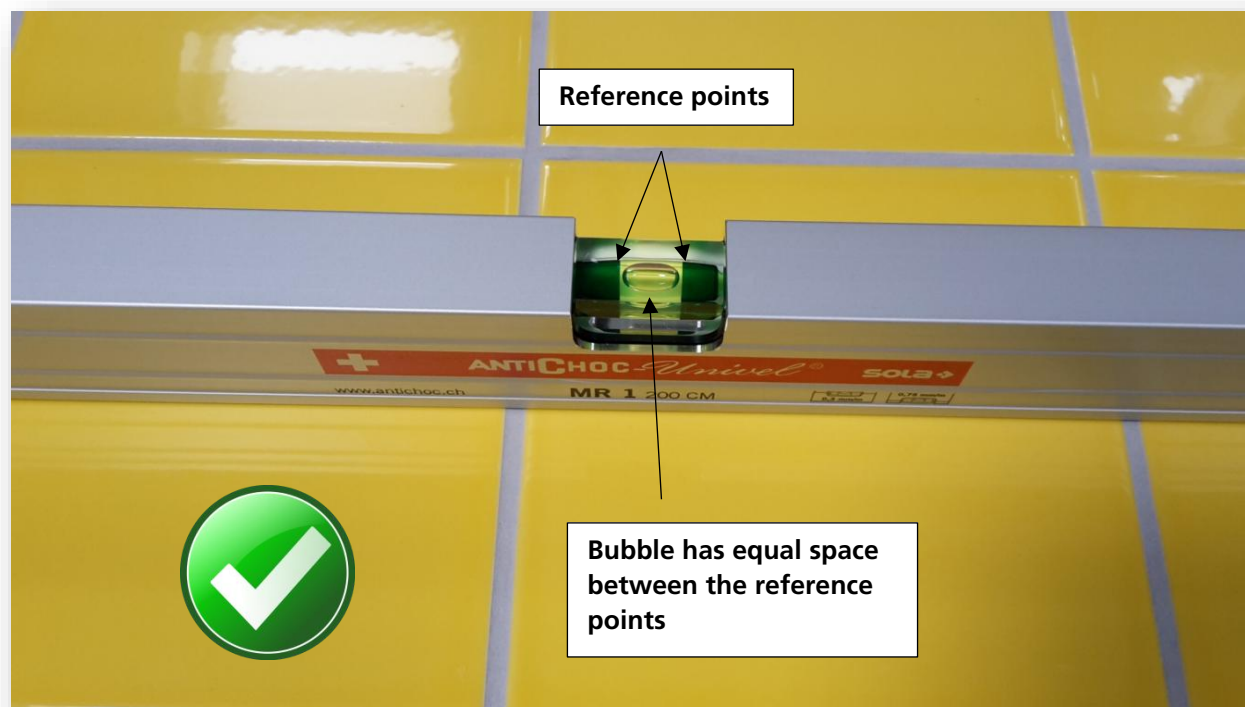
Yes = The subfloor is flush (in line) with the side of the floor tiles and there is no empty hollow space.

No = The subfloor is not flush (in line) with the side of the floor tiles, and there is empty hollow space

WSOS section as per TD	Descriptor	Resource
	Level – Always taken in the same place for each Competitor	

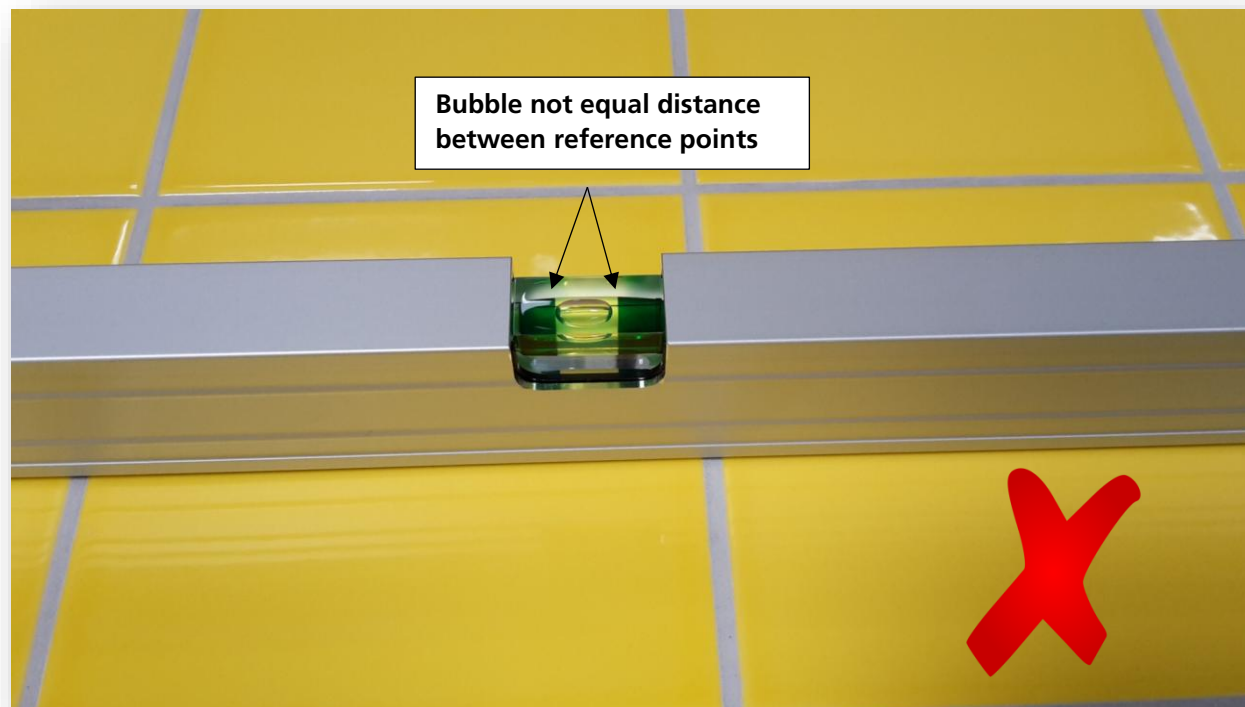
Level – no deviation

- The bubble must be centred exactly between the reference lines
- A 1 mm gauge may be used to check deviation
- If the bubble is closer to the centre without the 1 mm gauge applied, the deviation is recorded as 0 mm



Level – clear deviation

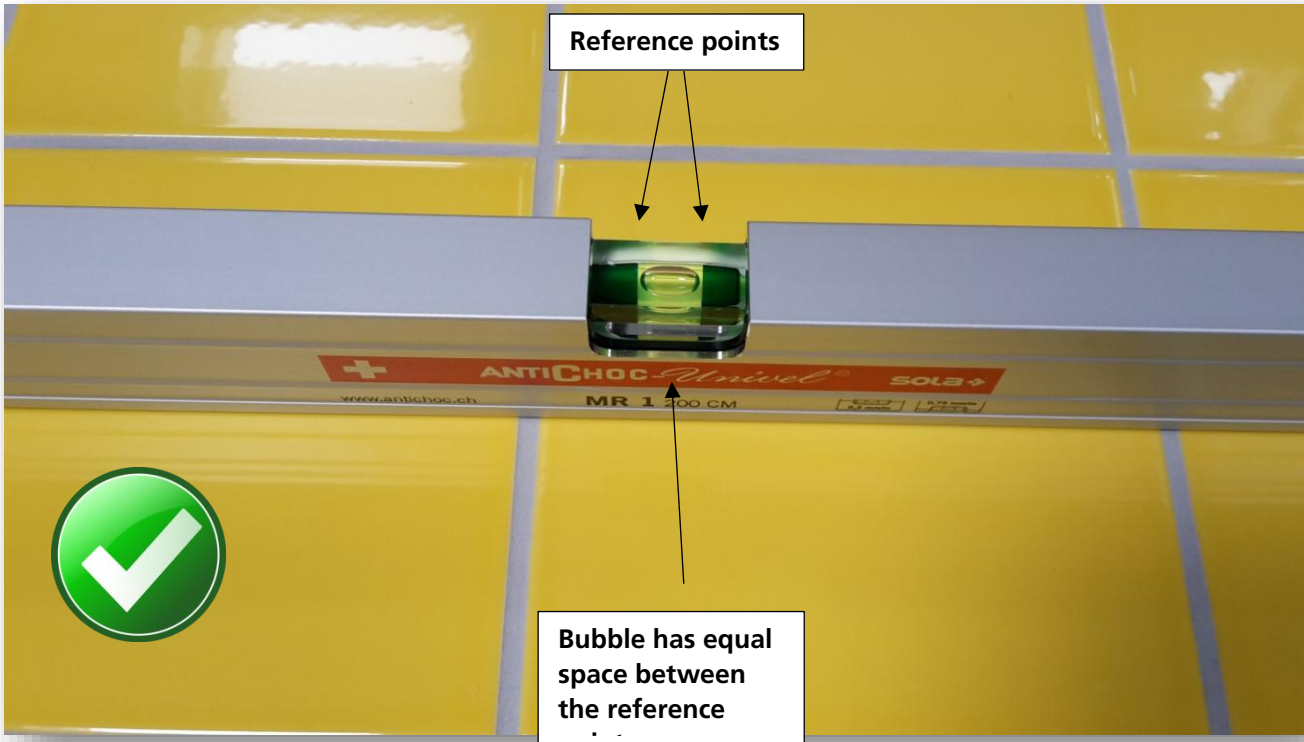
- The spaces on either side of the reference lines are unequal, indicating the level is higher on the left
- A measuring gauge is inserted under the level until the bubble is centred
- If a 1 mm gauge is required to centre the bubble, the measurement difference is recorded as 1 mm

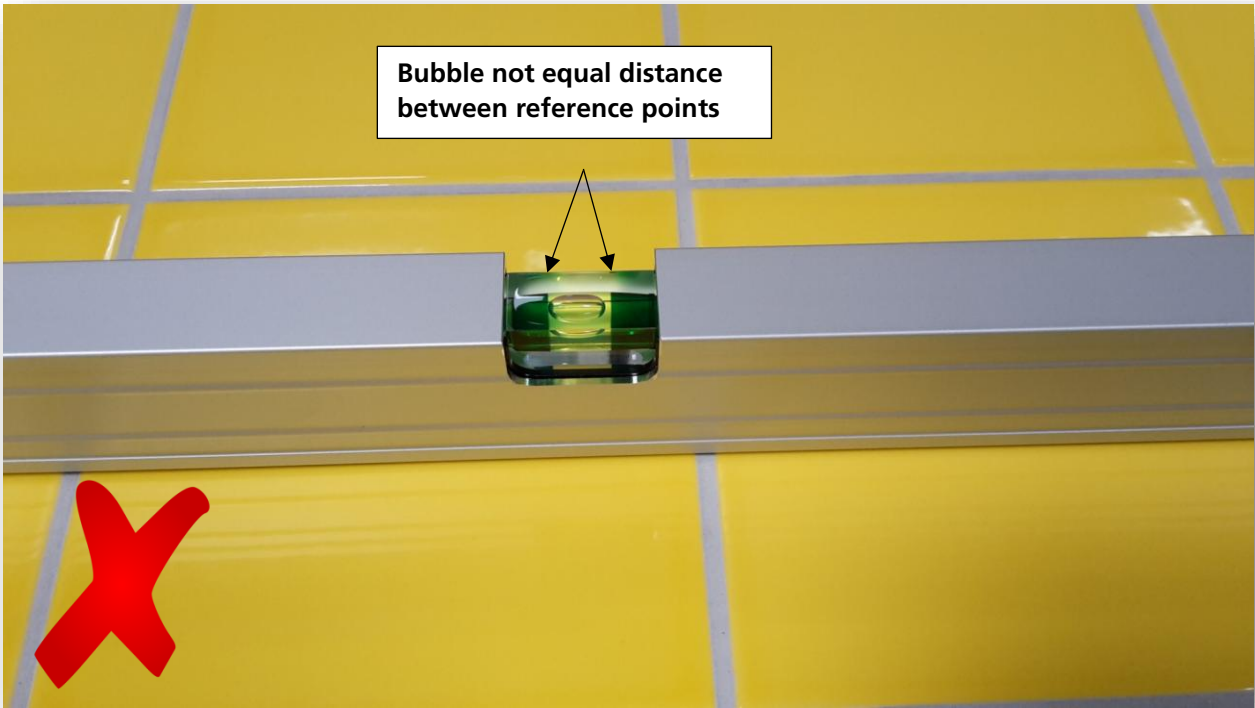


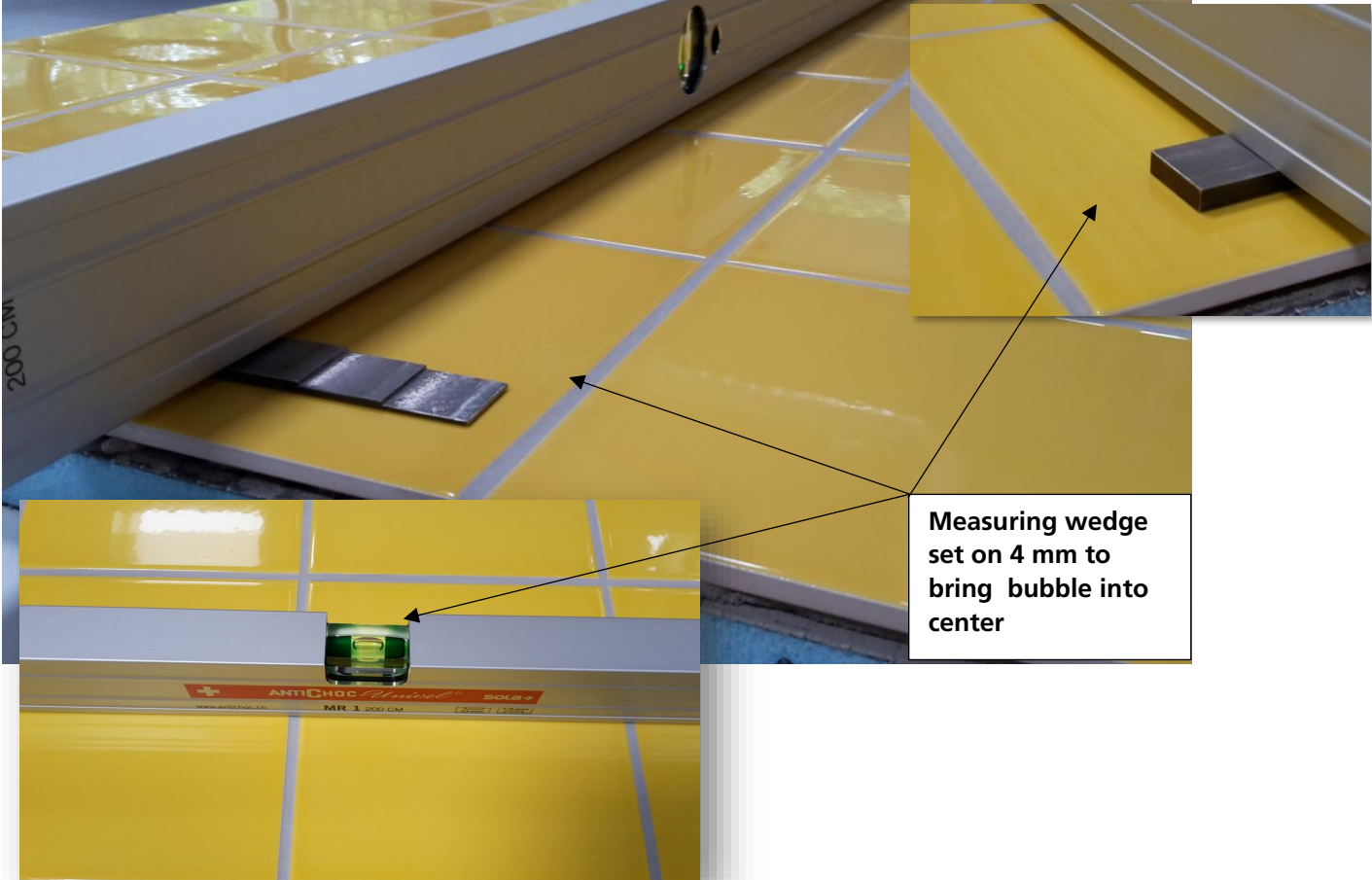
Level -Deviation example

- The level is adjusted until the bubble is centred
- This provides an exact measurement of the measurement difference
- In this example, the measurement difference is 4 mm out of level



Aspect	WSOS section as per TD	Descriptor
Level	Level – no deviation - The bubble must be centred exactly between the reference lines - A 1 mm wedge may be used to check deviation - If the bubble is closer to the centre without the 1 mm gauge applied, the deviation is recorded as 0 mm	Assessment expectations will be demonstrated using a sample model during the Mandatory Assessment Training sessions at the Competition. 

Aspect	WSOS section as per TD	Descriptor
	Level – clear deviation • The spaces on either side of the reference lines are unequal, indicating the level is higher on the left • A measuring gauge is inserted under the level until the bubble is centred • If a 1 mm gauge is required to centre the bubble, the measurement difference is recorded as 1 mm	

Aspect	WSOS section as per TD	Descriptor
	Level -Deviation example The level is adjusted until the bubble is centred • This provides an exact measurement of the measurement difference • In this example, the measurement difference is 4 mm out of level	 Measuring wedge set on 4 mm to bring bubble into center

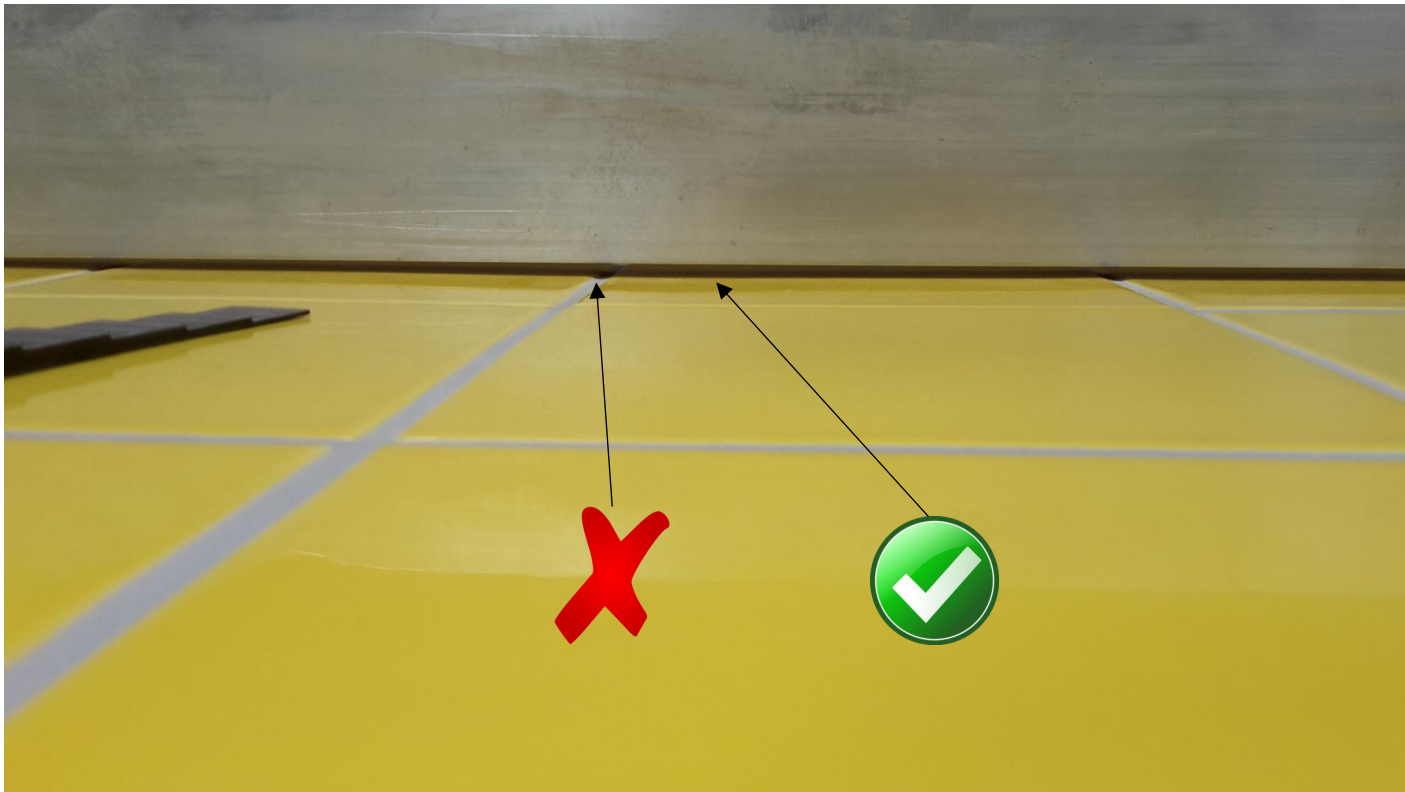
Aspect	WSOS section as per TD	Descriptor
Plumb	Plumb Check bubble only when measuring plumb, marking of surface alignment, plumb and level are measured separately	Assessment expectations will be demonstrated using a sample model during the Mandatory Assessment Training sessions at the Competition. 

Square		• The verification shall be carried out using a straightedge square of the largest size compatible with the area to be inspected, ensuring continuous contact over the entire surface under measurement, in order to obtain the most representative geometric reference possible.” • The measurement of deviation shall be performed by inserting the wedge from the shorter side of the square, in order to reduce geometric interference and ensure a more accurate assessment of the deviation.” • Place the square tool at the measurement location, check the largest difference considering only the size of the tool defined for evaluation.

- Use the 40x60cm tool whenever possible.





WSOS section as per TD	Descriptor	Resource
Surface Alignment	Surface alignment • Check the size of the gap for surface alignment; measurements must not be taken on tile joints • Measurements are taken on the tile surface only using a measurement wedge • The wedge must move freely under the surface and must not be forced to ensure an accurate measurement	

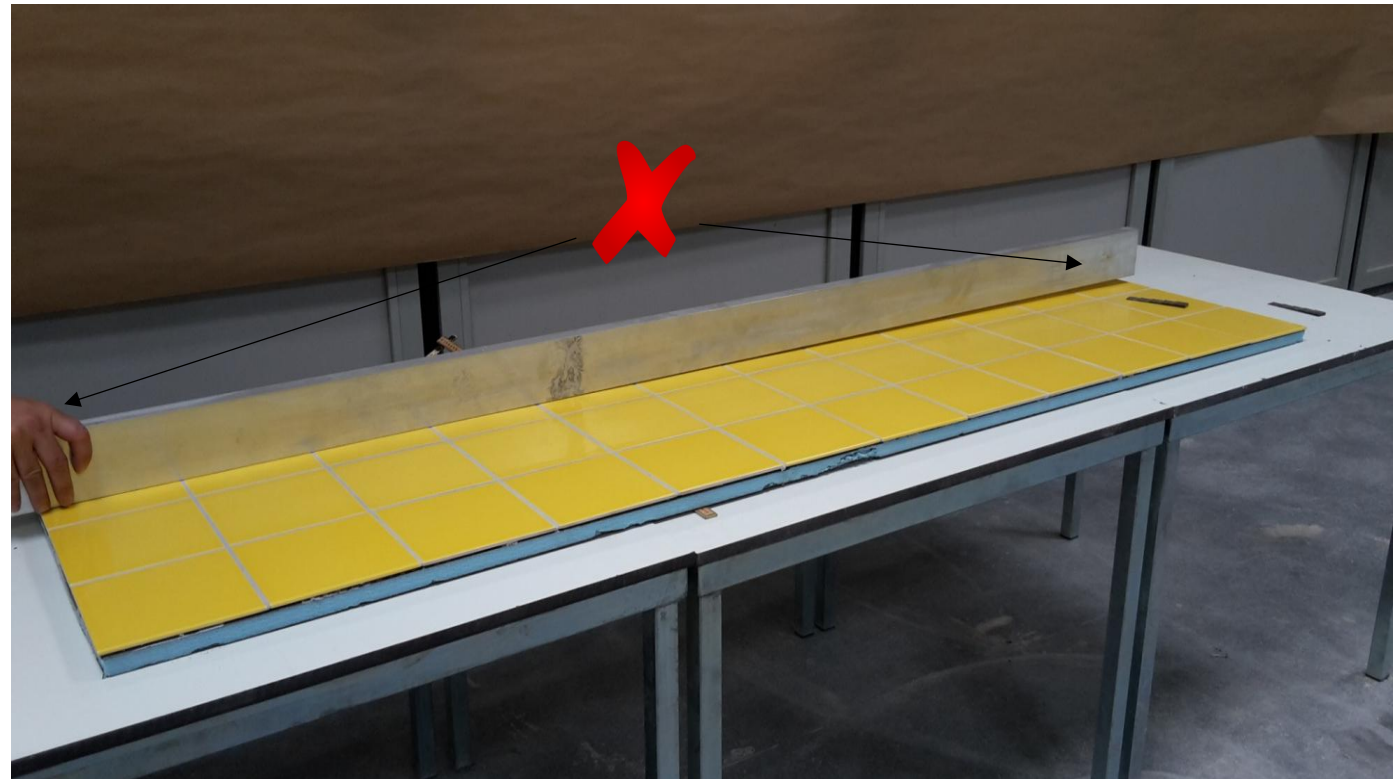
Surface alignment checking

- Measurement for surface alignment taken where largest deviation is in place.
- Example shows 4mm measurement



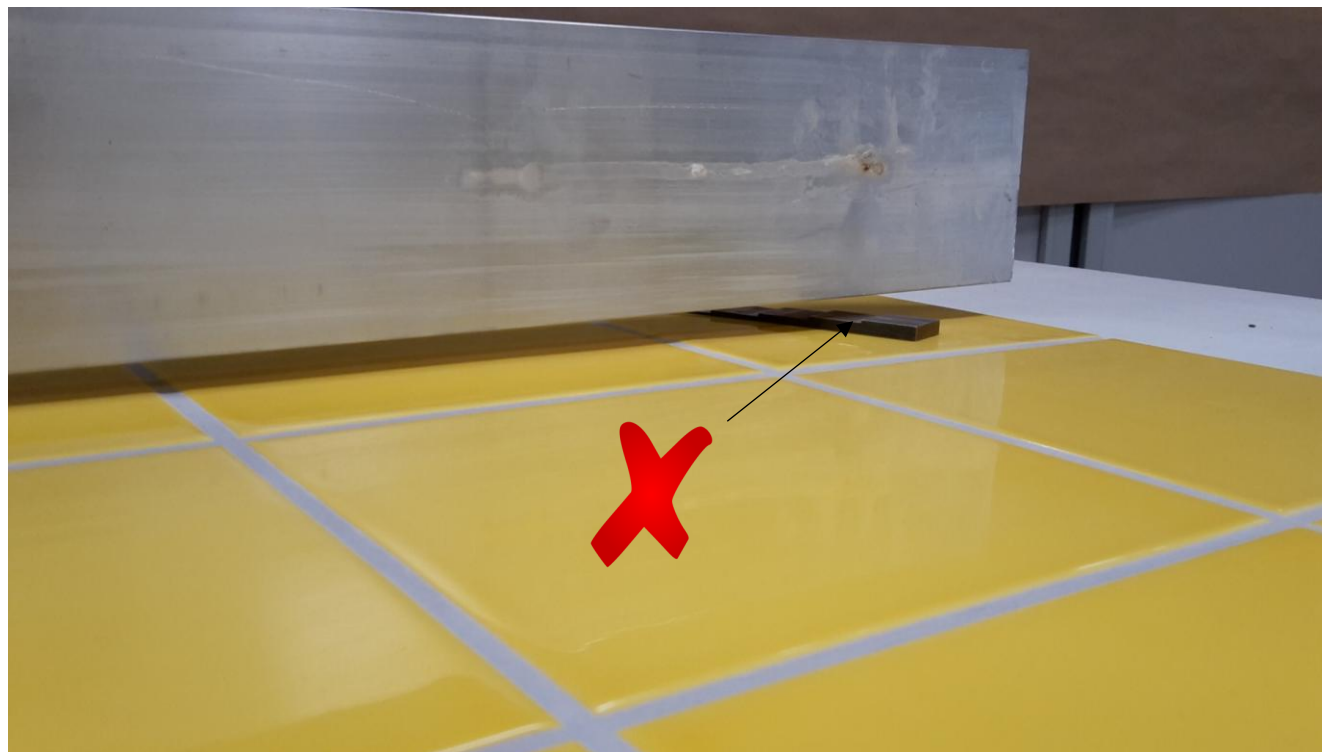
Surface Alignment

- When measuring a surface that is convex, pressure cannot be applied to one end that increases one end



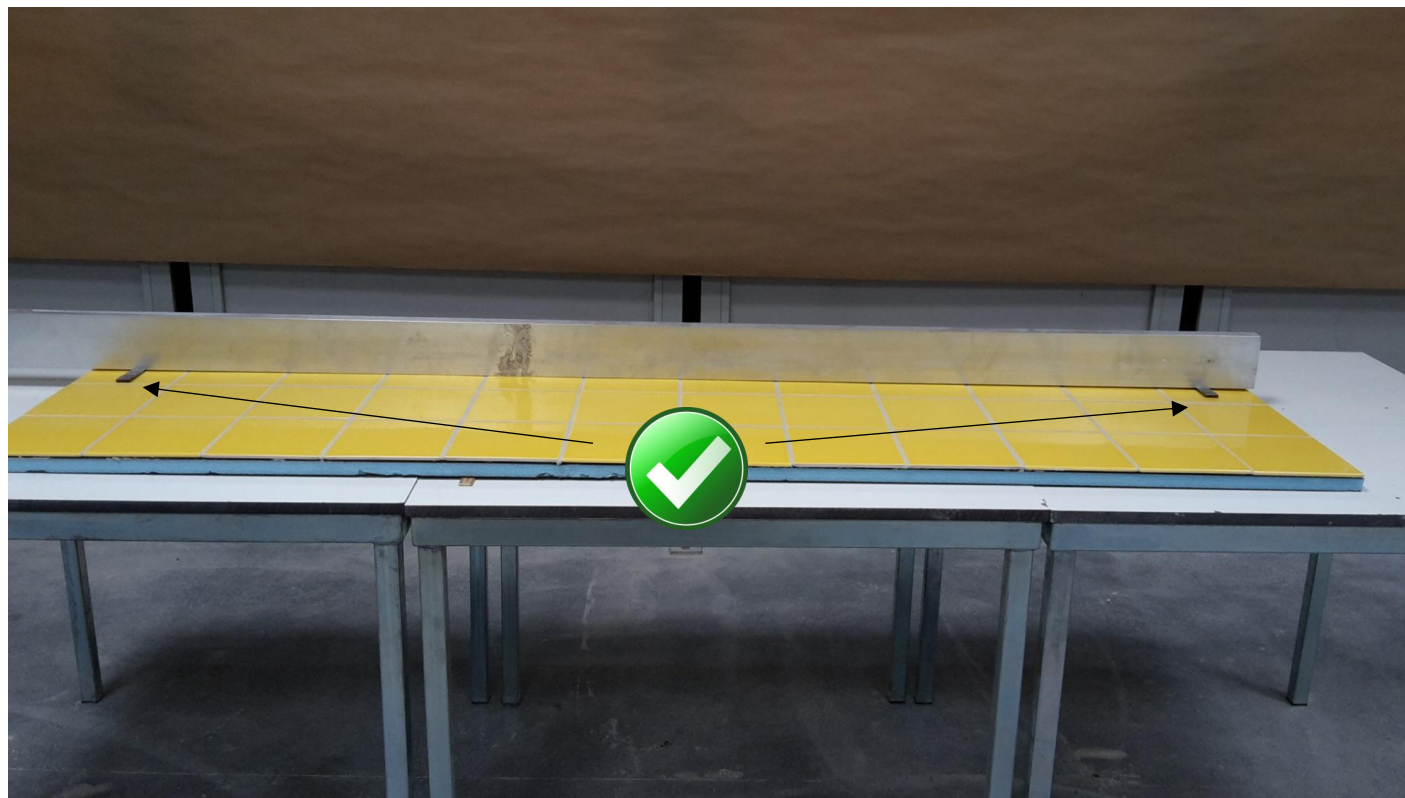
Surface Alignment

- The distance on each end must be the same for measuring, not 0mm on one end and 8mm on the other.



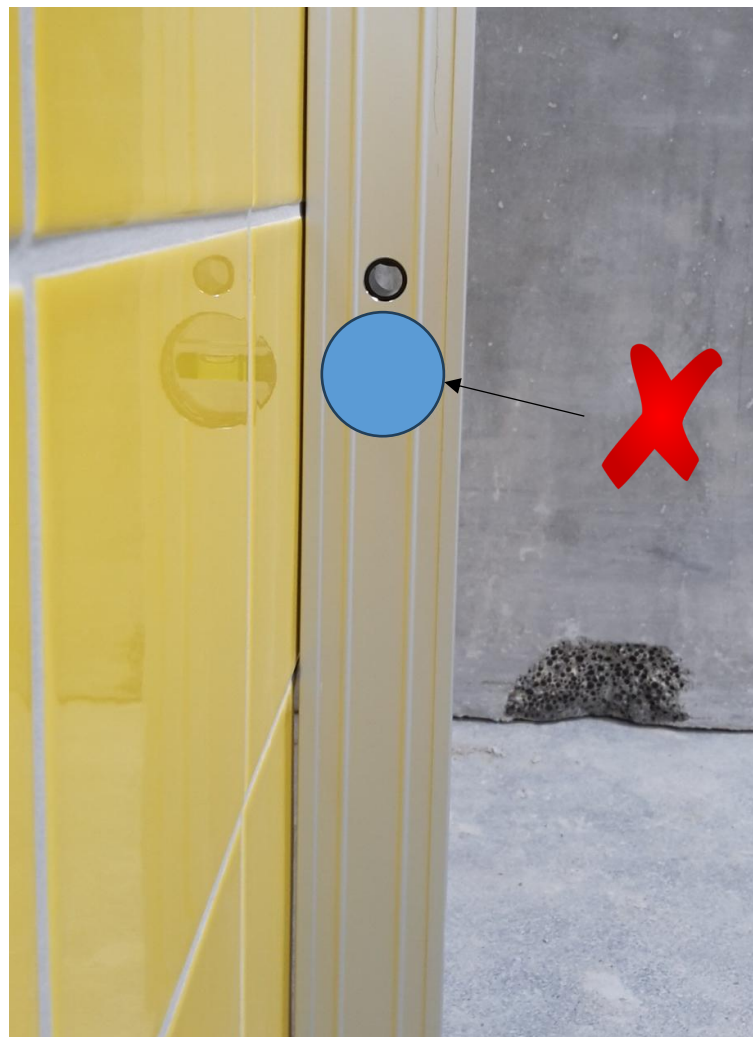
Surface Alignment

- Equal measurement on each side provides the correct reading



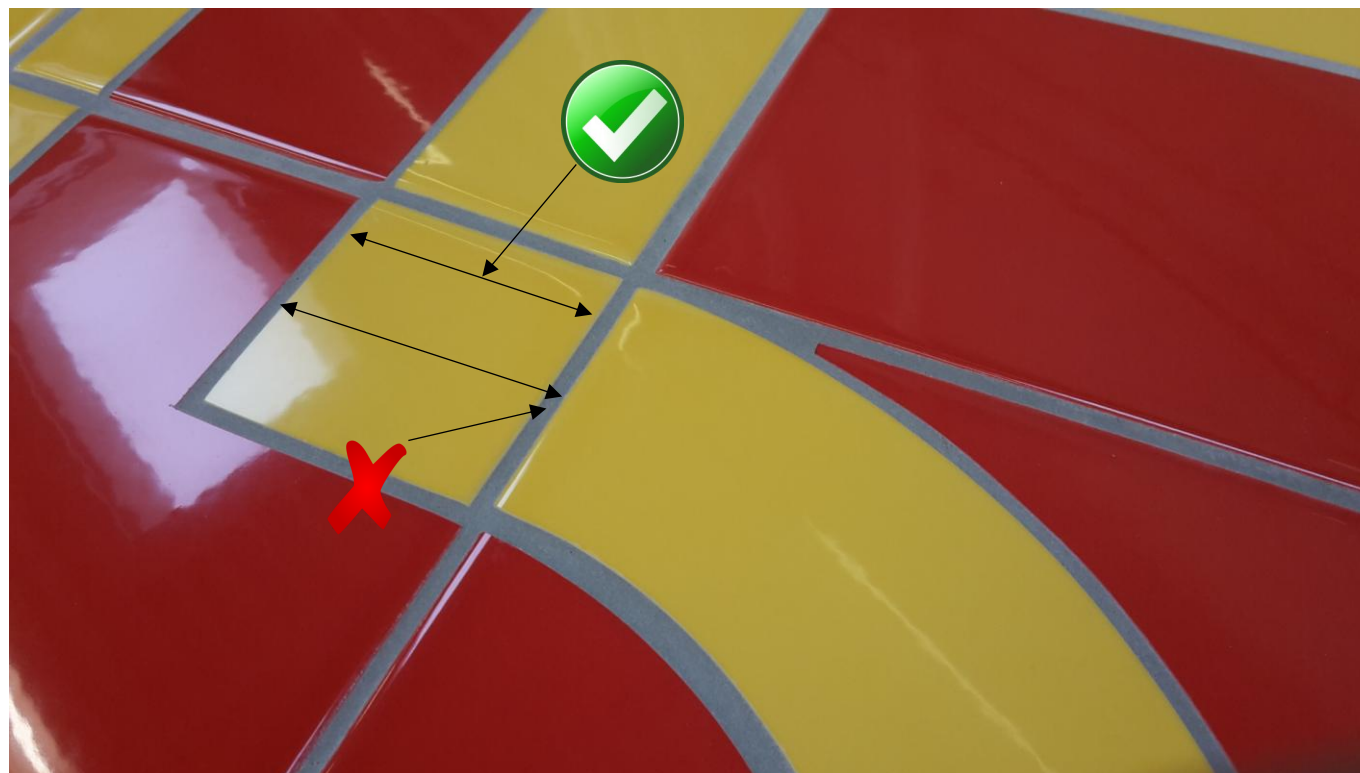
Surface Alignment

- No reading of the bubble when using a spirit level for checking surface alignment

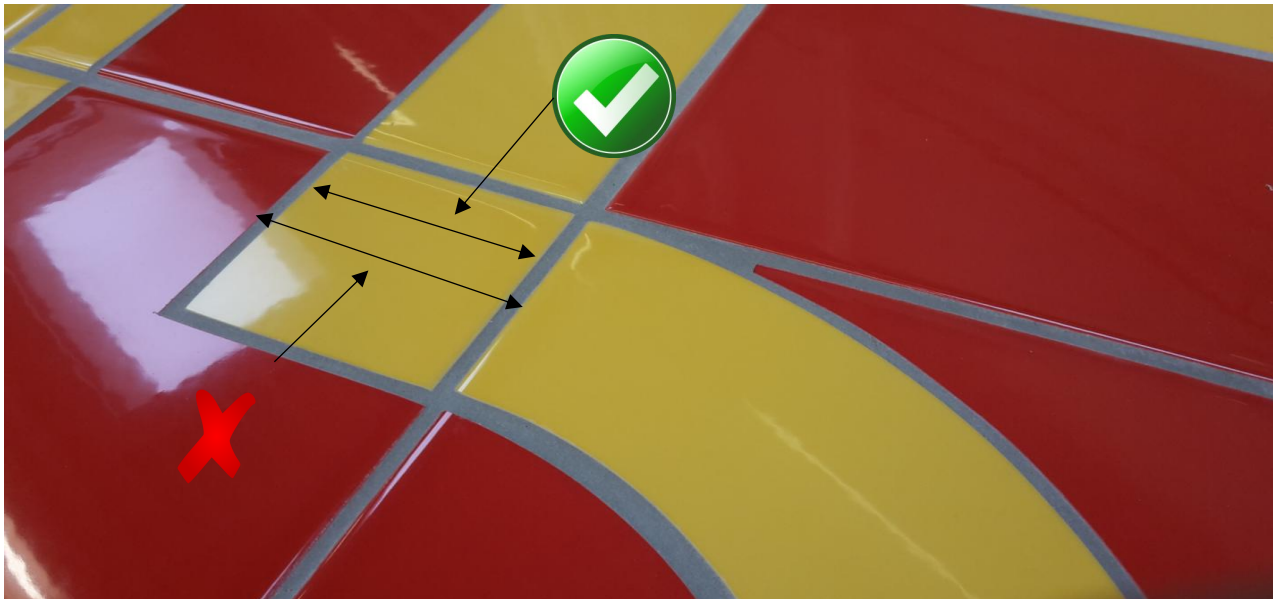


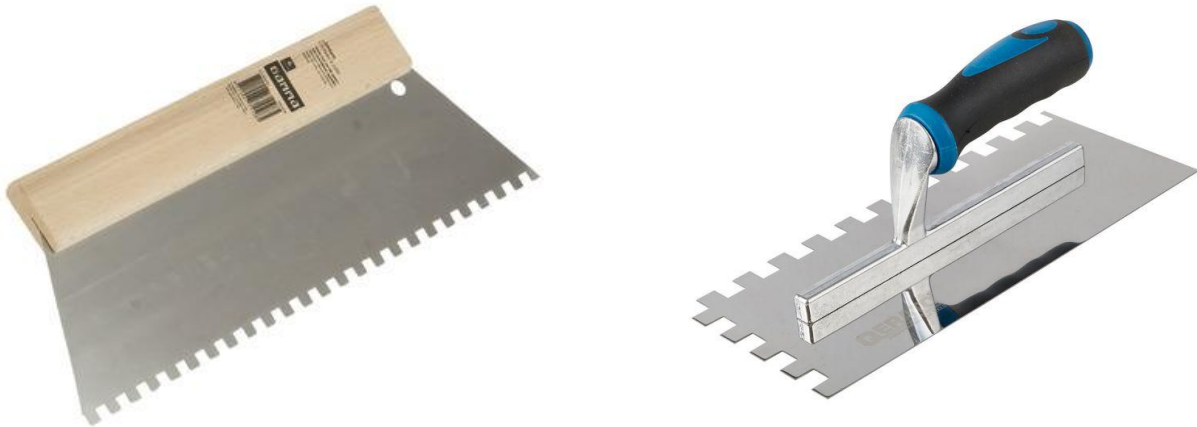
Dimension measurement

- Dimension measurements will be clearly outlined before marking teams proceed.
- All measurement taken in the same place for all Competitors.
- Accurate measurement equipment must be used and agreed prior to assessment
- Dimension measurement will always be tile edge to tile edge, not tile plus grout joint



- Assessment expectations will be demonstrated using a sample model during the Mandatory Assessment Training sessions at the Competition

WSOS section as per TD	Score	Descriptor
Dimension	Dimension measurement • Dimension measurements will be clearly outlined before marking teams proceed. • All measurement taken in the same place for all Competitors. • Dimension measurement will always be tile edge to tile edge, not tile plus grout joint	• Assessment approach and expectations will be demonstrated and discussed using a sample model during the Mandatory Assessment Training sessions at the Competition. 

WSOS section as per TD	Score	Descriptor
Fully completed as per drawing.		Aspects: All joints filled with the indicated material as instructed; Yes/No Good/ Bad practices: use of materials according to the manufacturer's specifications; Correct fixing of tiles, completely filling the back with Adhesive. This means as prescribed. Yes/ No Did the Competitor use the right tools to spread the Adhesive equally, either on the back of the Tile, or on the Wall/ Floor. They cannot use Dots of Adhesive to fix the tiles. This goes for Tiles and Tile-pieces bigger than 25cm². Below that it is okay to do so. This will be monitored by all Experts while they are on duty. Whenever a Competitor uses dots to fix tiles or tile-pieces bigger than 25cm², a photo will be taken and it will be used during this part of the Assessment. 

		Organization of the work area at the end of the day, including the cleaning and care of tools; <u>Judgement</u> This criterion will be observed to determine if the following flaws are present. • Grout dirt either lying around the workplace or on the tools given. • Mortar dirt either lying around the workplace or on the tools given. • Tile pieces lying around the workplace. • Packing material lying around the workplace. In this case, we will observe the defects, points one, two, and three, regardless of the order. • 10 or more dirt/ waste on the workstation or on the tools • 4 or more dirt/ waste on the workstation or on the tools • 2 or 3 dirt/ waste on the workstation or on the tools • 0 or 1 dirt/ waste on the workstation or on the tools
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Judgement

Judgement is used to assess the quality of performance about which there may be small differences of view when applying the external benchmarks.

The Resources column in the table below may include all kinds/formats of resources such as a link to a YouTube video, a website link, an illustration, a photo, a reference to a book, and so on. It needs to be as detailed as possible to show the differentiation between 0, 1, 2, 3.

Generic rules:

The assessment group comprises three Experts plus one Expert who acts as the supervisor. The supervising Expert will replace an Expert in the marking group to prevent compatriot marking.

Experts must have a distance to the Project of **1 meter** during this part of the Assessment

The difference of the three Experts' scores may not exceed 1. If this is the situation the Experts must re-score until there is a maximum difference of 1. As long as the three Experts judge within 1, the result can be entered into the CIS.

The total marks allocated to judgement marking may vary from competition to competition depending on the Test Project.

Aspect - Organization of the work area at the end of the day

This criterion assesses the cleanliness and organization of the Competitor's workstation and tools at the end of the day.

Experts will check for the following defects:

- Grout dirt on the workstation or tools
- Mortar dirt on the workstation or tools
- Tile pieces left lying around the workstation
- Packing material left on the workstation

Each visible item of dirt or waste counts as one defect.

- 0 = 10 or more defects are visible on the workstation or tools.
- 1 = 4 to 9 defects are visible on the workstation or tools.
- 2 = 2 to 3 defects are visible on the workstation or tools.
- 3 = 0 to 1 defect is visible on the workstation or tools.

Aspect – Cleaning of tiles and tile-edges

This criterion will be observed to determine if the following defects are present.

- Grout dirt
- Mortar dirt
- Dirt from a reference mark or object

These defects may be identified in any order

See next page for examples

WSOS section as per TD	Score	Descriptor	Resource
8	0	Tiles showing lots of grout/mortar still on the tiles. 7 or more dirty tiles.	
	1	Tiles showing traces of mortar or grout, as well as other kinds of streaks and dust visible. From 4 to 6 dirty tiles.	

WSOS section as per TD	Score	Descriptor	Resource
	2	Tiles show very small and isolated traces of streaks and dust visible. From 1 to 3 dirty tiles.	
	3	Tiles not showing traces of streaks and visible dust at all. No dirty tiles at all.	

Aspect – Regular joints for width and surface

This criterion will be observed to determine if the following defects are present.

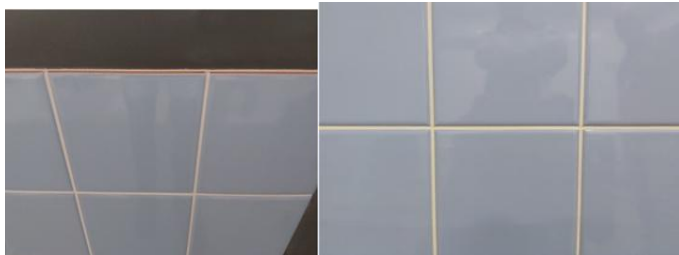
- Symmetrical joint thickness
- Aligned and continuous joints
- Grout Finishing

These defects may be identified in any order

See next page for examples

WSOS section	Score	Descriptor	Resource
7	0	Joints of different sizes, not aligned, faulty, bad or without finishing. 7 or more defects	

WSOS section	Score	Descriptor	Resource
	1	Joints of different sizes, but aligned, and without smooth finishing. From 4 to 6 defects	
	2	Joints of different sizes in some places, but aligned, without smooth finishing. From 1 to 3 defects	

WSOS section	Score	Descriptor	Resource
	3	Joints of equal sizes aligned and with excellent smooth finishing. No defects at all.	

Aspect – Cutting

This criterion will be observed to determine if the following defects are present.

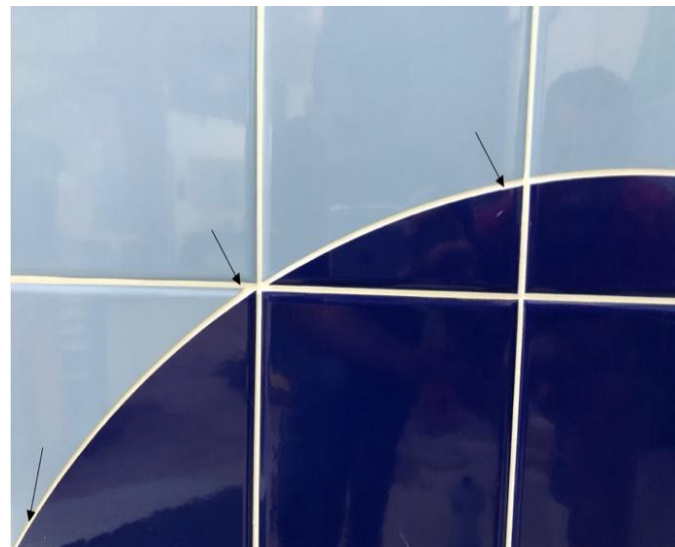
- Not Straight, in continuous cuts
- Cuts with splinters
- Irregular, un-sanded cuts

These defects may be identified in any order

See next page for examples

WSOS section as per TD	Score	Descriptor	Resource
7	0	Tiles showing lots of large chipped and broken edges. Joints of different sizes, not aligned, faulty. sharp, rough, or unfinished edges 7 or more defects.	

WSOS section as per TD	Score	Descriptor	Resource
	1	Tiles showing small, chipped edges. Joints of different sizes, aligned. Fully rough edges and without sanding. From 4 to 6 defects	

WSOS section as per TD	Score	Descriptor	Resource
	2	Tiles showing small, chipped edges in limited places that could have been avoided by sanding. Joints of different sizes in 1-2 places and aligned. Rough edges in isolated spots, and good sanding. From 1 to 3 defects	

WSOS section as per TD	Score	Descriptor	Resource
	3	Tiles do not show chipped edges at all. Joints of equal sizes totally aligned. Smooth cut edges with excellent sanding. No irregularities or defects at all.	