



Window Frame Installer Trade Test Mock Practical Test Paper

此文件關於窗框工工藝測試考題。如有需要索取此文件的中文版本，請致電 2100 9000 與香港建造業工藝測試中心聯絡。

Disclaimer

No part of this material may be reproduced or transmitted in any form or any means without the written permission of the CIC. Whilst reasonable efforts have been made to ensure the accuracy of the information contained in this material, the CIC nevertheless would encourage readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this material as a substitute for such professional advice for taking any relevant actions.

Enquiries

Enquiries on this Material may be made to the Hong Kong Construction Industry Trade Testing Centre at:

95, Yue Kwong Road
Aberdeen
Hong Kong

Tel: (852) 2100 9000
Fax: (852) 2100 9090
Email: enquiry@cic.hk
Website: www.cic.hk

© 2020 Construction Industry Council.

Trade Test Paper

Trade : Window Frame Worker

Grade : Skilled Worker

Test Content : Complete the following items in accordance with the drawing(s) at the designated location:

1. Installing a set of corner aluminium windows (W1) in accordance with the requirements set out in Working Drawing 1, with following tasks:
(50 marks)
 - i) Calibrating and installing window frames according to the leveller and levelling requirements, and applying waterproof mortar on the four sides of window frames to ensure absence of water seepage;
 - ii) Replacing the dual locks as window accessories;
 - iii) Using hand tools to cut out a glass pane of designated dimensions;
 - iv) Installing 5 mm-thick glass panes supplied at the test venue.

2. Installing a set of aluminium sliding window (W2) in accordance with Working Drawing 2, the leveller and levelling requirements. (10 marks)

3. Installing an aluminium door frame in accordance with the requirements of Working Drawings 3 and 4, with following tasks including: (30 marks)
 - i) Selecting appropriate materials and tools to assemble and install aluminium door frame;

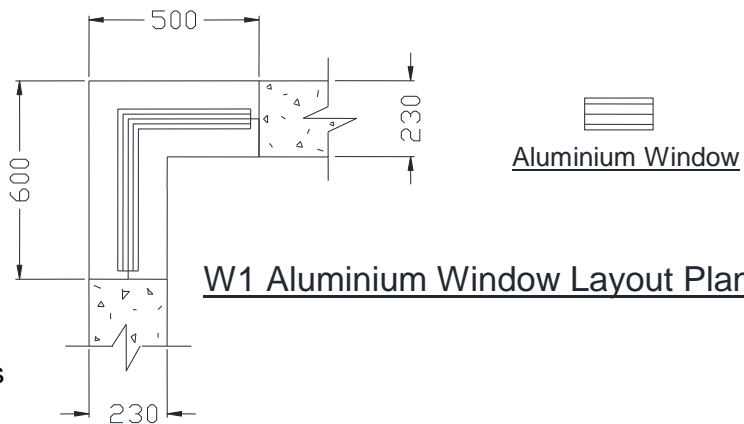
- ii) Installing the aluminium door frame, floor hinge and relevant accessories at the designated location, and then installing the aluminium door.
4. According to the “Aluminium Window Inspection Checklist”, performing inspection and acceptance on a set of pre-installed aluminium windows. (10 marks)

Test Time: Six hours (Excluding lunch time)

- Notes:
- (1) Candidate should read the attached “Notes to candidate” before commencement of work.
 - (2) Candidate will be assessed as fail if he / she conducts the test without necessary safety precautions and / or conduct works in any dangerous situations.
 - (3) There are 8 pages. Total score is 100. Passing mark is 60.

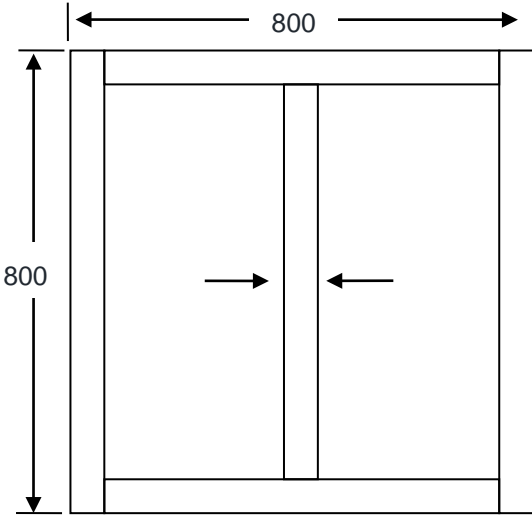
Working Drawing 1 for Trade Test (Window Frame Workers)

No.	W1	<u>Installation of corner aluminium windows (W1)</u>
Content		<u>Works requirements as follows:</u>
Profile		<ol style="list-style-type: none"> 1. The box section for corner post is to be connected to the window frame using screws, and silicone sealant should be applied outside for sealing purposes; 2. The permitted discrepancy (verticality or levelling) for the window is 2 mm; 3. Drilling holes into the wall, inserting plastic plugs, and using steel screws to secure the holdfasts; 4. The spacing between the holdfasts must comply with the general requirements; 5. Upon installation of the window sill glass, silicone sealant should be applied outside; 6. Waterproof mortar is to be applied on the four sides of window frames to ensure absence of water seepage; 7. *Replacing the dual locks as window accessories.
Type	Corner aluminium windows	
Glass	Installing glass at the designated aperture	
Remarks	<ol style="list-style-type: none"> 1. Installing window frame and window pane. 2. Applying waterproof mortar onto window frames. 3. Please refer to actual objects and leveller indications as yardsticks 	



1. This diagram is not to scale.
2. All dimensions are in millimetres (mm).

Working Drawing 2 for Trade Test (Window Frame Workers)

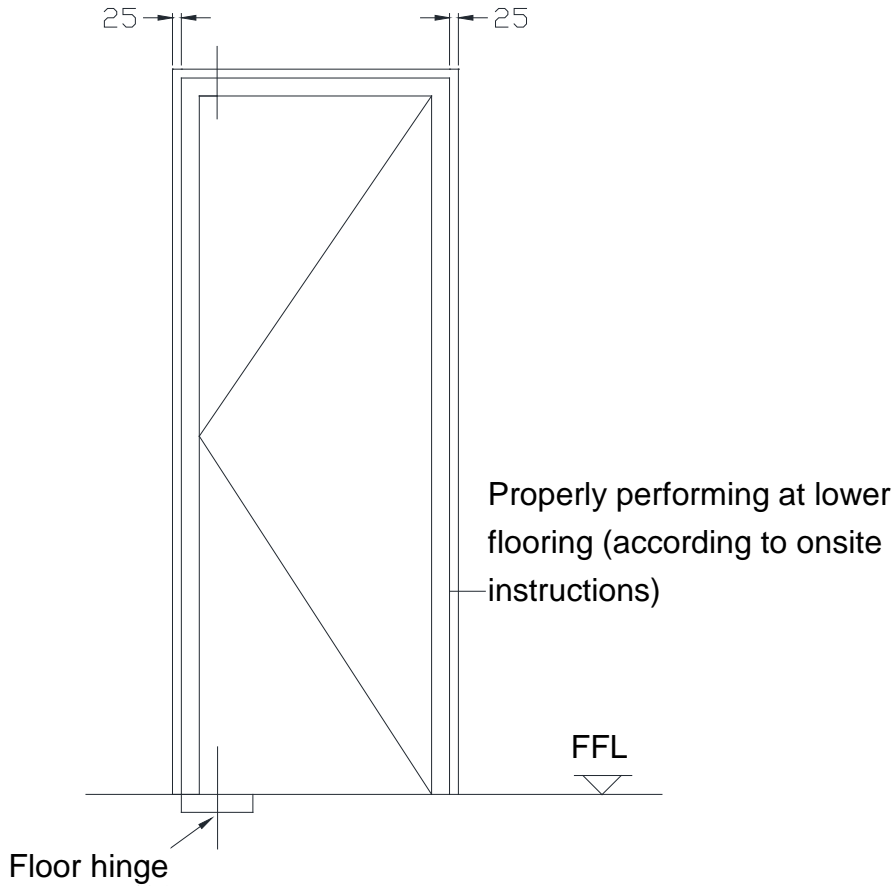
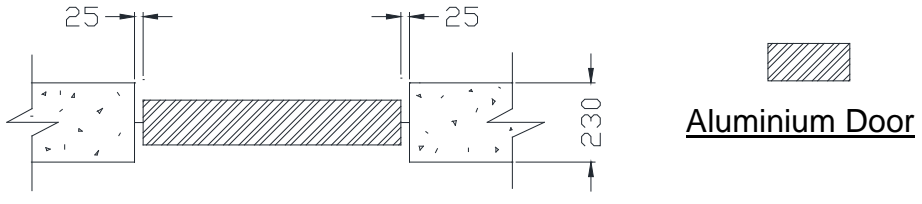
No. Content	<p style="font-size: 1.2em; margin: 0;">W2</p> 	<p><u>Installation of aluminium sliding window (W2)</u></p> <p><u>Works requirements as follows:</u></p> <ol style="list-style-type: none"> 1. To assemble horizontal sliding window including sashes and frame; 2. The permitted discrepancy (vertical or levelling) for the window is 2 mm; 3. Drilling holes into the wall, inserting plastic plugs, and using steel screws to secure the holdfasts; 4. The spacing between the holdfasts must comply with the general requirements.
Profile		
Type	Sliding window	
Glass	Installation is not required	
Remarks	<ol style="list-style-type: none"> 1. To assemble and Install aluminium sliding window. 2. Please refer to actual objects and leveller indications as yardsticks. 	



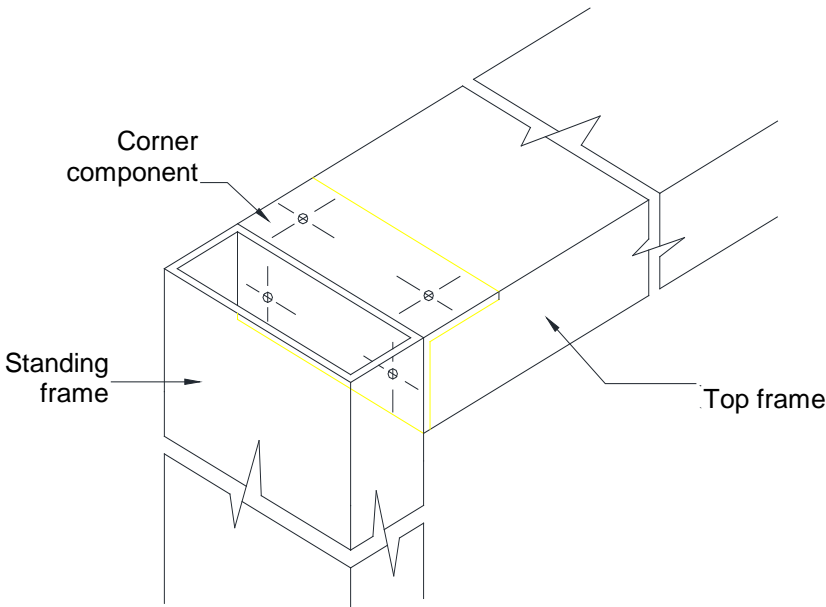
W2 Sliding Window Layout Plan

1. This diagram is not to scale.
2. All dimensions are in millimetres (mm).

Working Drawing 3 for Trade Test (Window Frame Workers)

No. Content	D1
Profile	
Type	Aluminium door frame (76x45 aluminium flat tube)
Glass	Installation is not required
Remarks	1. Installing door frame and floor hinge at the designated locations. 2. Installing the door. 3. Please refer to actual objects and leveller indications as yardsticks.
	
<p><u>D1 Aluminium Door Layout Plan</u></p> <p>1. This diagram is not to scale. 2. All dimensions are in millimetres (mm).</p>	

Working Drawing 4 for Trade Test (Window Frame Workers)

No. Content	D1
Profile	<div style="text-align: center;">  <p>The diagram shows a 3D perspective view of a door frame top assembly. It consists of a rectangular frame with a 'Standing frame' on the left and a 'Top frame' on the right. A 'Corner component' is shown at the top-left corner, connecting the two frames. The corner component is highlighted in yellow. There are four screws shown at the corners of the frame, indicated by circles with a cross inside. The diagram is a technical drawing with clean lines and no shading.</p> </div> <p style="text-align: center;"><u>Reference Diagram for Door Frame Top Assembly</u></p>
Works requirements	<ol style="list-style-type: none"> 1. Cutting out the frame material in accordance with the door dimensions mentioned in Working Drawing 3, and performing assembly; 2. Connecting and assembling the door frame aluminium corner component with machine wires; 3. Pivot accessories must be correctly installed at the top frame; 4. Installing the door frame at the designated location, drilling holes into the wall, inserting plastic plugs and securing holdfasts with steel screws; 5. The spacing between holdfasts is required to comply with general requirements; 6. Floor hinge is required to be aligned and installed sturdily by the candidate; 7. Upon installation of the door, it should be able to be opened and closed smoothly and to stop at the correct location; 8. The gap between the door frame and the door must not exceed 4 mm; 9. The permitted vertical and levelling discrepancy for the door frame is 2 mm.

Aluminium Window Inspection Checklist

There are altogether 15 questions. Marks are calculated based on the following formula:

Marking formula : $10 \text{ marks} \times \frac{\text{No. of correct questions}}{15}$

Remarks: Rounding to the nearest integer applies in the case of a decimal number

Aluminium Window Inspection Item		Pass	Failure
1	Status of window operator/window hinge		
2	Status of pop-rivets/screws on window frames		
3	Status of pop-rivets/screws on window pane		
4	Sturdy handles		
5	Status of waterproof gaskets		
6	Sturdiness of window aluminium tubes or status of waterproof plastic		
7	Glass status		
8	silicone sealant status		
9	Shape/position of holdfasts and sufficiency of the spacing requirements for the screws fixing the window frame		
10	Closure status of the sliding window/casement window		
11	Status of linkage between the external frame edges and the aperture, presence of any cracks or any ineffectiveness of waterproof plastic on the frame edges		
12	Status of window catches, dual locks and cam locks		
13	Status of window frames		
14	Presence of any earth wire connecting to the window frames		
15	Compliance of the cement mortar applied on the sides of window frames		

Notes to Candidate

1. Candidates should read the test papers carefully and ask the invigilator for any queries.
2. Candidates should study the drawings and specifications attached to the test paper, if any, before the test begins.
3. Candidates should carry out the test according to test papers, working drawings and specifications provided.
4. Candidates shall bring their own safety shoes, other safety equipment will be provided by trade testing centre. Candidates must take all necessary safety precautions to ensure work safety.
5. All tools and materials required by the test will be provided by trade testing centre, candidates should check and ensure their adequacy and quality. Candidates shall use the tools and materials properly based on trade practice. All the tools must be returned to trade testing centre after the test. The candidates may ask the invigilator for any problems.
6. Candidates are required to handle and move the tools and materials for use in the test, and to carry out associated works.
7. Invigilator will take record photos periodically during the test.
8. Candidates are not allowed to take any photo or video with cameras or mobile phones.
9. Candidates are not allowed to use their mobile phones during the trade tests, except for emergency situation.
10. The marking scheme is based on the following criteria :
 - a. Understanding of drawing and specification
 - b. Preparation works before commencement of test
 - c. Working procedures
 - d. Accuracy and quality of works
 - e. Progress of works
 - f. Proper handling and use of materials
 - g. Proper use of tools and equipment
 - h. Safety precautions
 - i. Considerate of other trades
 - j. House keeping after completion of test
11. All candidates must stop when time is up.
12. Candidates are required to return the test paper to invigilator after the test.
13. Offering bribe to invigilator is an offence in law and trade testing centre will report to the ICAC for any such case.

In the event that the candidate fails to take any necessary safety precautions and / or works in any dangerous situations, he / she will be assessed failed