



# **Refrigeration/ Air- conditioning/ Ventilation Mechanic (Thermal Insulation) Trade Test Mock Practical Test Paper**

此文件關於空調製冷設備技工（保溫）技能測試考題。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。

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## **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](mailto:enquiry@cic.hk)  
Website: [www.cic.hk](http://www.cic.hk)

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## Test Paper for Trade Test

Job Title : Refrigeration/ Air-conditioning/ Ventilation Mechanic (Thermal Insulation)

Skill Level : Skilled worker

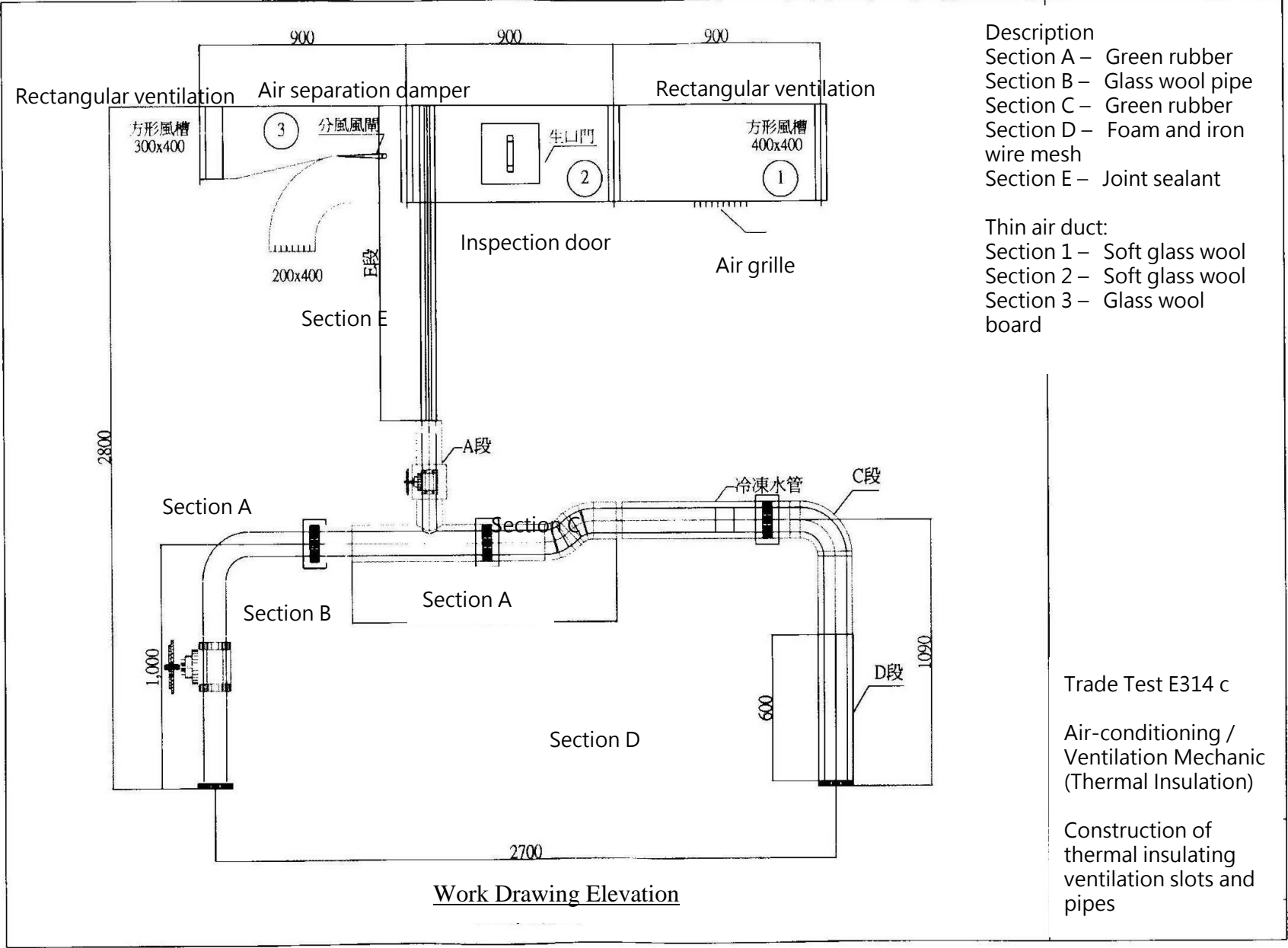
Test : Complete the following practical tasks at the specified locations : (please refer to the work drawings)

1. Use soft glass wool to complete a thermal insulation of two segments of straight rectangular ventilation slot and air grille; (Sections 1 and 2)
  2. Use glass wool board to complete the thermal insulation of T-shaped bent ventilation slot; (Section 3)
  3. Use green sealant thermal insulating pipe materials to complete a thermal insulation of straight and Z-shaped chilled water pipes; (Section A)
  4. Use glass wool pipe thermal insulating pipe materials to complete a thermal insulation of straight and elbow chilled water pipes; (Section B)
  5. Use foam pipe thermal insulating pipe materials to complete a thermal insulation of straight and elbow chilled water pipes; (Section C)
  6. Use iron wire mesh to complete a 600mm thermal insulation in section E; (Section D)
  7. Use joint sealant to complete a thermal insulation of a straight refrigerant pipe; (Section E)
- ◆ Full score of this test is 100. Candidates must score not less than 60 marks to pass this practical test.

Time Limit : Six hours

Points to note :

- (1) Before you start, read all instructions for candidates below and test paper carefully. If you have any questions, ask an invigilator immediately.
- (2) You will fail the test if you do not take proper safety measures during the test.
- (3) After the test, clean up the venue and restore its original condition as instructed by the invigilators.



### List of materials, equipment and tools

Item	Materials	Quantity
1	Soft glass wool (Height: 1", 4 呎封)	2M
2	Glass wool board (Height: 1", 4 ft × 8 ft)	1
3	Ø¾"×½" joint sealant	1.5M
4	Green rubber (1" for water pipes, height: 1")	0.6M
5	Green rubber (4" for water pipes, height: 1")	1.5M
6	Green rubber (8" for water pipes, height: 1")	0.3M
7	Foam pipe (4" for water pipes, height: 1")	5 ft
8	Foam pipe (8" for water pipes, height: 1")	0.5 ft
9	Glass wool pipe (4" for water pipes, height: 1")	2.5M
10	Glass wool pipe (8" for water pipes, height: 1")	1M
11	Air duct aluminum foil, width: 2½"	3 rolls
12	Green sealant aluminum foil, width: 2½"	2 rolls
13	Metal rivets for glass wool incl. washer	As appropriate
14	Glass wool rivet glue	1
15	Asphalt	As appropriate
16	¾" 碼王釘	As appropriate
17	Iron wire mesh	2 ft × 2 ft

Item	Tools	Quantity
1	3.5M measuring tape	1
2	Fine color pen	1
3	4 ft straight ruler	1
4	Hand saw	1
5	12" blade	1
6	Knife	1
7	Scraper 2"	1
8	Steel bucket	1
9	Net binding hook 扎網鈎	1
10	Electric stove 1500W	1

Note: After completing the test, candidates should return all borrowed tools as well as this test paper. Candidates may not leave until the invigilator's instructions.

Notes to Candidates :

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 test papers, 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) Housekeeping 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**