

General Welder Intermediate Trade Test Study Material for Written Test

(Version : IGW-SM-EN-01)



此文件關於普通焊接工中級工藝測試技術知識測試（筆試）內容參考資料。
如需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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Study material to prepare for written test

This study material is a reference for candidate to prepare for attending written test in Intermediate Trade Test:

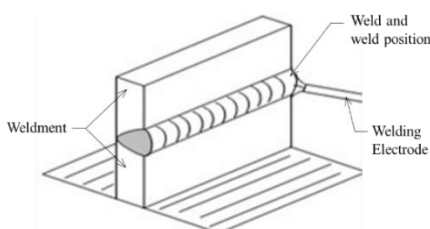
1. Shielded metal arc welding electrode has different sizes in diameter and it is represented through numerical values under Standard Wire Gauge (SWG). For SWG 12, 10, 8 and 6 electrode, the largest diameter of electrode is SWG 6.
2. According to American Welding Society, classification of electrode follows standard pattern, for example: E6013. The first two digits, i.e. 60, designates minimum tensile strength of electrode at least 60ksi (or 413MPa).
3. For electrode E6013, the third digit, i.e. 1, designates position. It means the electrode is usable in all positions (i.e. flat, horizontal, vertical and overhead).
4. The tools shown in the photos are called welding rod oven.



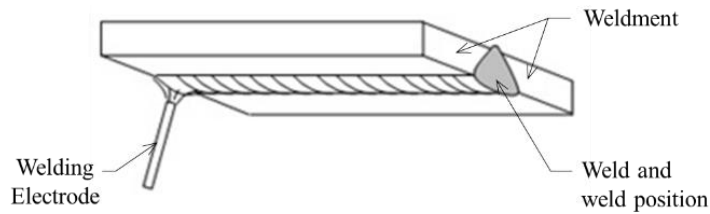
5. The tool shown in the photo is called cutting torch.



6. The welding position shown in the diagram is horizontal.



7. The welding position shown in the diagram is overhead.



8. Comparing low carbon steel with medium carbon steel, high carbon steel and cast iron, low carbon steel has higher weldability than others.
9. In general, low carbon steel does not require preheating before welding.
10. Electrode rods should be kept dry in order to prevent porosity during welding.
11. The most serious weld defect is crack.
12. When considering shielded metal arc welding for vertical weld, welders should use short welding arc length, small size of electrode and low welding current.
13. The shielding gas used to protect the melt pool in gas tungsten arc welding (GTAW), or called tungsten inert gas welding, is argon.
14. The flame for oxy-acetylene cutting is neutral flame.
15. When there is a problem with an electrical tool, worker should stop using it and report to the person in charge to arrange repairing.
16. The highest fatal accident rate in construction industry is work at height.
17. Every board or plank forming part of a working platform should be not less than 25mm in thickness.
18. The top guard-rails of working platform should be ranged from 900 to 1,150mm in height.
19. In case of any corruption/ act of bribery happen in construction industry, it will cause decline in work quality.
20. Having a good work ethic can improve work efficiency, getting tasks right, being trusted by others and ultimately achieve both physical and mental happiness.

Precautions

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