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**PROFESSIONAL STANDARD OF THE PEOPLE'S
REPUBLIC OF CHINA**

中华人民共和国机械行业标准

JB/T 5000.2-2007

Replace JB/T 5000.2-1998

**Heavy mechanical general techniques and
standards—Part 2: Oxygen cutting workpiece**

**重型机械通用技术条件
第 2 部分：火焰切割件**

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Forward

JB/T 5000 《Heavy mechanical general techniques and standards》 divided into 15 parts:

- ___ Part one : Product Inspection
- ___ Part two: Oxygen cutting workpiece
- ___ Part three: Weldment
- ___ Part four: Iron casting
- ___ Part five: Cast nonferrous metal
- ___ Part six: Cast steel
- ___ Part seven: Cast Steel repair welding
- ___ Part eight: Forging
- ___ Part nine: Cutting workpiece
- ___ Part ten: Assembly
- ___ Part eleven: Tubing
- ___ Part twelve: Painting
- ___ Part thirteen: Packing
- ___ Part fourteen: Cast steel nondestructive examination
- ___ Part fifteen: Forging steel nondestructive examination

This part is JB/T 5000's part two.

This part is instead of JB/T 5000.2-1998 《Heavy mechanical general techniques and standards Oxygen cutting workpiece》

This part compare to the JB/T 5000.2-1998, the main changes are as follow:

- ___ Added the cutting thickness subsection and length dimensions range. Revise some length dimensions' limit deviation.
- ___ Added the “surface deficiency”, “shoulder meltability” and “adhering slag” this three performance Indicators
- ___ Delete the groove angle's obtuse angle θ_1 and its deviation requirement.
- ___ Delete the contents of the titanium and titanium alloy plate which in the “Applications range”. Add the application range of the cutting thickness (6mm~300mm)
- ___ According to the national standards to modify the perpendicularity and gradient's tolerance zone symbol. And revised the expression of the technical terms and the definition.
- ___ Simplified the dimension method
- ___ Cancel the former appendix A “all kinds of Oxygen cutting machine can reach to the surface quality”.

This part's appendix A is informative annex.

This part is offered by the China Machinery Industry Association.

This part is centralized management by the engineering industry metallurgical equipment technical committee for standardization.

This part's draft out unit: China National Qizhong Group Co., Ltd

This part's draftsman: Guoshu Wang

This part's previous edition:—JB/T 5000.2—1998

Heavy mechanical general techniques and standards

Part 2:Oxygen cutting workpiece

1 Scope

This part JB/T 5000 specify the oxygen cutting workpiece surface's quality requirement, test requirement and oxygen cutting quality grade requirement. This part is applicable to the mild steel, medium carbon steel and common low alloy steel's flame cutting which thickness is 6mm~300mm.

2 Normative Reference

Through the quoted by JB/T 5000 , Following documents' items are become to the items of this parts. Any quoted documents if it is dated, the following modify notification (not including the errata contents) or modify edition are not apply to this part. But, the agreement which is according to this part can use this parts' latest edition. If it's not dated, it's latest edition can apply to this part.

GB/T 985—1988 Gas welding, the basic form and dimension of the electrode welding's groove weld

GB/T 986-1988 The basic form and dimension of the submerged-arc welding 's groove weld.

3 Terms and definitions

Following terms and definitions are apply to this part.

3.1 Flame cutting

Use the gas flame to preheat the workpiece. When it is upto the uniform temperature, it's will eject the high-speed cutting oxygen flow to burning and release the heat for cutting. The flame cutting is mean gas cutting.

3.2 Tolerance of verticality

In this part this is means perpendicular to the base plane and the given section's cutting contour line which is in the position of the cutting. The tolerance zone is the area of the two parallel line. This two lines' distance is t and perpendicular to the base plane and the position of the cutting. See figure 1.

3.3 Tolerance of gradient

In this part this is means perpendicular to the base plane and the given section's cutting contour line which is in the position of the cutting. The tolerance zone is the area of the two parallel line. This two lines' distance is t and have an angle to the base plane and perpendicular to the the position of the cutting. See figure 2.

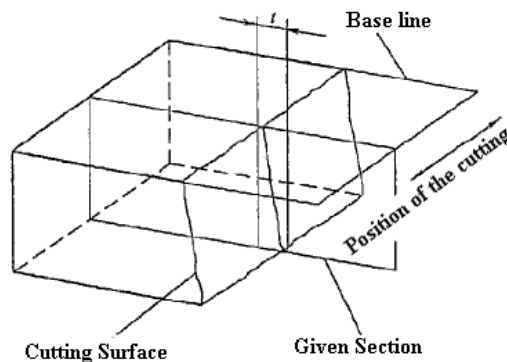


Figure 1

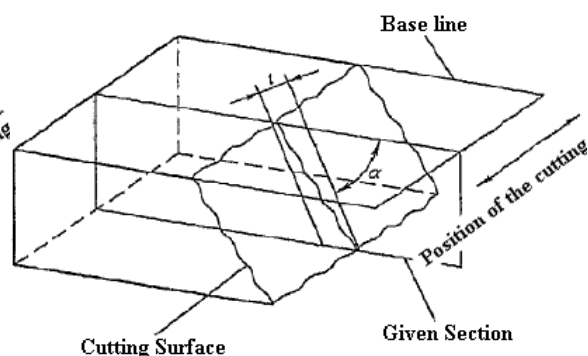


Figure 2



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