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YC

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

YC/T 10.4-1993

Replacing YC/T 10.4-2006

**Tobacco machinery. General requirements - Part 4: Grey iron
castings**
(English Translation)

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Table of Contents

Foreword
1 Scope
2 Normative references
3 General requirements

Foreword

YC/T 10 "General Technical Conditions for Tobacco Machinery" is divided into 16 parts.

- Part 1. Cutting parts;
- Part 2. Cold work;
- Part 3. Welded parts;
- Part 4. Gray cast iron parts;
- Part 5. Ductile iron castings;
- Part 6. Cast carbon steel parts;
- Part 7. Copper alloy castings;
- Part 8. Aluminum alloy castings;
- Part 9. Forgings;
- Part 10. Metal plating and chemical treatment;
- Part 11. Painting;
- Part 12. Assembly;
- Part 13. Packaging;
- Part 14. Electrical control systems;
- Part 15. Electrical control system assembly;
- Part 16. Polished and brushed stainless steel parts.

This part is the fourth part of YC/T 10.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces YC/T 10.4-2006 "General Technical Conditions for Tobacco Machinery Part 4. Gray Iron Parts", and YC/T 10.4-in 2006, in addition to the editorial modification, the

requirements for the dimension tolerance of the castings on the casting drawings were mainly modified (see 3.2 in 3.2 and 2006 editions).

This part is proposed by the National Tobacco Monopoly Bureau.

This part is under the jurisdiction of the National Tobacco Standardization Technical Committee Smoke Machine Subcommittee (SAC/TC144/SC3).

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1 Scope

This part of YC/T 10 specifies the technical requirements, test methods and inspection rules for grey mechanical parts of tobacco machinery.

This section applies to gray cast iron parts (hereinafter referred to as castings) cast in the sand type (or the mold of thermal conductivity and sand type) of tobacco machinery products.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 231.1 Steel material - Hardness test - Part 1. Test method GB/T 6060.1-1997 Surface roughness comparison specimen casting surface GB/T 6414-2017 Casting dimensional tolerances, geometric tolerances and machining allowances GB/T 9439-2010 gray iron castings JB/T 5105 casting moulding draft JB/T 7945 Gray cast iron mechanical properties test method

3 General requirements

3.1

The grade and mechanical properties of the castings shall comply with the provisions of Chapter 4 of GB/T 9439-2010, among which the preferred grades and single castings are used.

The minimum tensile strength of the test bars is shown in Table 1.

Table 1 Preferred casting grades and minimum tensile strength of single casting bars

Brand

Minimum tensile strength Rm MPa HT150 150 HT200.200 HT250 250 HT300 300 HT350 350

3.2

The geometry and dimensions of the castings shall conform to the drawings. The dimensional tolerances shall be selected in Table 2 of GB/T 6414-2017 and shall be in the drawings.

Marked in the middle, if DCTG11 grade is selected, the tolerance of the casting is according to GB/T 6414-DCTG11. No casting size is indicated on the drawing for tolerances, press DCTG12 in GB/T 6414-2017.

3.3

The radius of the fillet of the casting is determined according to the size of the small side of the surface, generally not more than 1/12 of the size of the small side, but not less than 2mm; the same casting Pieces should minimize the number of R values.

3.4

The fillet radius r of the casting is generally selected between 1/3 and 1/2 of the average wall thickness of the two walls.

$$r=(1/2\sim 1/3)\times[(ab)/2] \quad (1)$$