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YC

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

YC/T 10.7-1993

Replacing YC/T 10.7-2006

**Tobacco machinery. General requirements - Part 7: Copper alloy
castings**
(English Translation)

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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 seventh 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 10.7-2006 "General Technical Conditions for Tobacco Machinery Part 7. Copper Alloy Castings", and YC/T 10.7-Compared with 2006, the main technical

changes except editorial changes are as follows.

- Revised the requirements of "preferred casting grades and their chemical composition" (see Table 1, Table 1 of the 2006 edition);
- Revised the requirements of "Mechanical properties of castings" (see Table 2, Table 2 of the 2006 edition);
- Revised the requirements for the dimension tolerances of the castings on the drawings (see 3.3, 3.3 of 2006);
- Modified the surface quality requirements of castings (see 3.9, 3.9 of 2006 edition);
- Revised the residual height requirement of the pouring and riser (see Table 3, Table 3 of the 2006 edition);
- Increased the defect requirements for non-machined surfaces of castings (see 3.14).

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 inspections of tobacco mechanical copper alloy castings (hereinafter referred to as castings).

rule.

This section applies to multi-copper alloy castings based on copper and containing other elements in 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 228.1 tensile testing of metallic materials - Part 1 GB/T 1176-2013 Cast copper and copper alloy 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 13819-2013 Copper and copper alloy castings JB/T 5105 casting moulding draft

3 General requirements

3.1

The preferred casting grade and its chemical composition shall comply with the requirements of Table 1. If the alloy grade specified in Table 1 does not meet the production when required, it is recommended to use the alloy grade specified in Table 1 of GB/T 1176-2013.

Table 1 Preferred casting grades and their chemical composition

Alloy grade

alloy

name

Main element /%

Sn Zn Pb P Al Si Cu

ZCuSn5Pb5Zn5

5-5-5

Tin bronze

4.0~6.0 4.0~6.0 4.0~6.0 - - - Others ZCuSn10P1 10-1 Tin bronze 9.0~11.5 - - 0.8~1.1 - -

Others ZCuZn40Pb2 40-2 Lead brass - The remaining 0.5~2.5 - 0.2~0.8 - 58.0~63.0

ZCuZn16Si4 16-4 Silicon brass - The rest - - - 2.5~4.5 79.0~81.0

3.2

The mechanical properties of the castings are to comply with the requirements of Table 2.