

ICS 65.160
CCS X 94

YC

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

YC/T 10.8-1993

Replacing YC/T 10.8-2006

**Tobacco machinery. General requirements - Part 8: Aluminium
alloy castings**
(English Translation)

Issued on: April 3, 2018

Implemented on: April 15, 2018

Issued by: State Tobacco Monopoly Administration

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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 eighth 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 10.8-2006 "General Technical Conditions for Tobacco Machinery Part 8. Aluminum Alloy Castings", and YC/T 10.8-Compared with 2006, the main technical

changes except editorial changes are as follows.

- Revised the requirements of "preferred casting grades and 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 requirement for dimensional tolerances on the casting drawings (see 3.4, 3.4 of 2006 edition);
- Increased the requirements on the casting as a processing reference (see 3.11);
- Modified the defect requirements allowed on cast castings such as sand and metal (see 3.13, 3.12 of 2006 edition)
- Revised the requirement of "the number of individual holes allowed on the working surface, margins" (see Table 4, Table 4 of the 2006 edition);
- Increased the allowable defect requirements on investment and gypsum castings (see 3.14);
- Modified the pinhole acceptance requirements for machining parts such as hydraulic parts and pneumatic parts (see 3.15, 3.13 of 2006 edition).

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).

This section drafted by. China Tobacco Machinery Technology Center Co., Ltd., Kunming Marine Equipment Group Co., Ltd., Shanghai Tobacco Machinery Limited liability company, Changde Tobacco Machinery Co., Ltd., Xuchang Tobacco Machinery Co., Ltd., Qinhuangdao Tobacco Machinery Co., Ltd.

1 Scope

This part of YC/T 10 stipulates the technical requirements, test methods and inspections of aluminum alloy castings (hereinafter referred to as castings) of tobacco machinery.

rule.

This section applies to aluminum alloy castings for sand casting and special casting (without pressure casting) for 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 1173-2013 cast aluminum 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 9438-2013 aluminum alloy castings JB/T 5105 casting moulding draft

3 General requirements

3.1

Casting classification According to the provisions of Chapter 3 of GB/T 9438-2013, it is divided into three categories. I, II and III. The casting category should be in the pattern set. For castings of unspecified type, they are considered as Class II castings. The pattern markings include. the alloy grade or code used, the casting method, and the casting Supply status, type of casting, and standard number executed.

Example.

Casting alloy code is ZL101, casting method is sand casting, modification (SB), alloy state is quenching and complete aging (T6), casting III, execution standard Quasi-GB/T 9438-2013, the drawings are marked as.

ZL101-SB-T6

III-GB/T 9438-2013

3.2

The casting grade and chemical composition shall be in accordance with the provisions in Table 1 of GB/T 1173-2013. The preferred grades and chemical compositions are as follows.

Table 1.

Table 1 Preferred casting grades and chemical compositions

alloy

Brand

alloy

Code

Main element /%

Si	Cu	Mg	Zn	Mn	Ti	Al	ZAlSi7Mg	ZL101	6.5~7.5	-	0.25~0.45	-	-	-	Others	ZAlSi7MgA	ZL101A
6.5~7.5	-	0.25~0.45	-	-	0.08~0.20	ZAlSi12	ZL102	10.0~13.0	-	-	-	-	-	-	Rest	ZAlSi9Mg	ZL104
8.0~10.5	-	0.17~0.35	-	0.2~0.5	-	the rest											