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JB/T 8539-2013

Replacing JB/T 8539-1997

Plastic extrusion blow molding machines

塑料挤出吹塑中空成型机

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Foreword

This Standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard replaces JB/T 8539-1997, *Plastics extrusion hollow blow molding machine*. Compared with JB/T 8539-1997, the major technical changes are as follows:

-- it adds and change the normative references (see Clause 2);

-- it adds and changes the product volume series parameters (see 4.2);

-- it adds and changes the basic parameters (see 4.3);

-- it changes the requirements for the electrical system (see 5.1.5);

-- it changes the quality uniformity requirements for the injection parison (see 5.2.2);

-- it changes the safety protective device (see 5.3.2);

-- it changes the emergency opening device (see 5.3.4);

-- it changes the plasticizing capacity test (see 6.2.1).

This Standard was proposed by China Machinery Industry Federation.

This Standard shall be under the jurisdiction of Subcommittee on Plastic Machinery of National Technical Committee on Rubber and Plastic Machinery of Standardization Administration of China (SAC/TC71/SC2).

The responsible drafting organization of this Standard: Qinchuan Machine Tool & Tool (Group) Corp.

The participating drafting organizations of this Standard: Suzhou Tongda Machinery Co., Ltd., Leshan Industrial Co., Ltd., Dalian Plastic Machinery Research Institute.

The main drafters of this Standard: Tan Guanglin, Li Bo, Xu Wenliang, Wang Shuhui, Ma Jianjun, Gao Shifan, Zhang Mu, Li Xianglan.

The previous editions of the standard replaced by this Standard are as follows:

-- ZB G95015-1989;

-- JB/T 8539-1997.

Plastic extrusion blow molding machines

1 Scope

This Standard specifies the types and basic parameters, requirements, test methods, inspection rules, marking, packaging, transportation and storage for plastic extrusion blow molding machines.

This Standard applies to the molding machines which produces plastic hollow products using the extrusion-blow method (hereinafter referred to as the molding machines); this Standard can be referred to for the molding machines for other special purposes.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition dated applies to this document. For undated references, the latest edition of the referenced documents (including all amendments) applies to this document.

GB/T 191, *Packaging – Pictorial marking for handling of goods*

GB/T 3766, *Hydraulic fluid power – General rules and safety requirements for systems and their components*

GB/T 3785 (all parts), *Electroacoustics – Sound level meters*

GB 5226.1-2008, *Electrical safety of machinery – Electrical equipment of machines – Part 1: General requirements*

GB 17888.3, *Safety of machinery – Permanent means of access to machinery – Part 3: Stairs, stepladders and guard-rails*

GB/T 6388, *Transport package shipping mark*

GB/T 7932, *Pneumatic fluid power – General rules relating to systems*

GB/T 9969, *General principles for preparation of instructions for use of industrial products*

GB/T 12783, *Editorial nominating method for the model designation of rubber and plastics machinery*

5.1.7 The hydraulic, pneumatic and cooling systems and other components shall not have leakage of oil, gas or water; the cooling liquid shall not be mixed into the hydraulic system.

5.1.8 The molding machines shall operate stably and reliably during normal operation; the control system shall be highly responsive, with clear and accurate indication.

5.1.9 For the molding machines equipped with the multi-point parison wall thickness control device, the repeated positioning accuracy of die opening amount shall be less than 0.1 mm.

5.2 Parison requirements

5.2.1 The parison shall be smooth, well plasticized.

5.2.2 For the molding machines equipped with a storage head (hereinafter referred to as the storage type molding machines), at any set value, the quality uniformity of injection parison shall not be greater than 3%.

5.2.3 For continuous extrusion molding machines (hereinafter referred to as continuous molding machines), within the same time interval, the quality uniformity of extrusion parison shall not be greater than 5%.

5.3 Safety protection

5.3.1 If the operating conditions of the components, instruments and accessories of the molding machines, 2 m above the ground, need to be observed, it needs to provide skidproof foot rests, platforms or ladders as well as reliable fence and handrail, as specified in GB 17888.3.

5.3.2 Safety protective devices shall be provided around the molding machines on which molds are installed. If safety doors are installed as protective devices, they shall be fixed reliably without opening itself. If photoelectric protective devices are used, it shall be ensured that they operate reliably and are provided with visible warning signs. The mold clamping part shall be provided with a reliable safety interlocking system. In normal operating conditions, the safety doors shall not be closed or block the photoelectric device; the mold clamping part shall not be closed.

5.3.3 The storage type molding machines shall give alarms when the storage amount achieves the limit value and the extruding machines shall stop operating.

5.3.4 The molding machines shall have emergency stop buttons and rapid mold opening buttons. Press the emergency stop button and then the extruding machines and oil pumps stop operating; and then the other actions stop. Press the rapid mold opening button, and then the template immediately opens.

5.3.5 The molding machines shall be free from any abnormal scream or impact sound. The

accompanied by a quality certificate. Before the delivery of each molding machine, the continuous idle operation test for not less than 4 h shall be carried out (with the extruding device and head in idle); check the specifications in 5.1.5, 5.1.6, 5.3.1 and 5.4 before the test; and during the test, check the specifications of 5.1.2 ~ 5.1.4, 5.1.7, 5.1.8, 5.1.9 and 5.3.2 ~ 5.3.4.

7.2 Type test

During the type test, carry out sampling inspection. Take 1 sample each time. If one of the test items is a fail, then take another sample; if there is still any non-conformance item, then the type test is a fail. The continuous load test for not less than 8 h shall be carried out in the type test; during the test, check the specifications of 5.2.1 ~ 5.2.3 and 5.3.5.

In one of the following circumstances, the type test shall generally be carried out:

-- during the trial-production pattern evaluation of a new product or an old product whose production is transferred to another location;

-- in case of any significant change in structure, process or material after mass production, which may influence the product properties;

-- at least 1 sample taken each year during normal production;

-- when the production is resumed after a long term of production halt;

-- when there is any significant difference between the results of an exit-factory inspection and those of the last type test;

-- when a national quality supervision institution requires so;

8 Marking, packaging, transportation and storage

8.1 Marking

A product plate shall be fixed for each product at an appropriate, visible location. The types, dimensions and technical requirements of the plate shall be as specified in GB/T 13306. The product plate shall include the following content:

a) product name and type;

b) major technical parameters of product;

c) manufacturer name and trademark;

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