

ICS 25.120.30

CCS J 46



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

GB/T 30218-2013

Fine blanking dies - Specifications

精冲模 技术条件

Issued on: December 31, 2013

Implemented on: October 1, 2014

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard by the National Standardization Technical Committee proposed die. This standard by the National Standardization Technical Committee mold (SAC/TC33) centralized. This standard was drafted. Shanghai Jiaotong University, Beijing Institute of Electrical and Suzhou Dongfeng Fine Blanking Engineering Co., Guilin Electrical Equipment Scientific Research Hospital, Guilin University of Electronic Technology. The main drafters of this standard. Zhen Zhao, Zhao Yanqi, plain tube, double Feng Liao Wang Yi, Zhuang Village, Peng group, Valley of Light, Wang Chong, WENG Shi Zhen, Wang Xuelin, Xianghua, Dugui Jiang, Gao students. Precision die technical conditions

1 Scope

China's national specification for fine blanking dies. It sets out the requirements the die must meet, the testing and inspection to which it is subject, and the marking, packaging and transport of the finished tool, and it applies to fine blanking dies generally. Fine blanking is a variant of press blanking that produces a part with a fully sheared, burnish-finished edge across the whole thickness, flat and dimensionally accurate enough to be used as machined without secondary operations. It achieves that by doing three things at once that ordinary blanking does not: a V-shaped stinger ring clamps the sheet around the cut line so the material cannot draw in, a counter-punch applies back pressure so the slug is supported throughout, and the punch-to-die clearance is reduced to a small fraction of the conventional value so the material is extruded rather than fractured. The consequence is that the die does far more work and is loaded far more severely than a conventional blanking die, and every one of those three elements is a requirement on the tool: the stinger geometry, the clearance, the guiding system, the lubrication of the working surfaces, and the match between the die's forming force, blank-holder force and counter pressure and the capabilities of the press it will run in. Get any of them wrong and the part comes out with a torn edge or the die does not survive. The standard fixes the basic design and structural requirements, the recommended single-sided clearance, the hardness and tolerance requirements on the working parts, and the acceptance procedure. Issued on 31 December 2013 and in force since 1 October 2014.

This standard specifies the requirements for precision die, testing, inspection, marking, packaging and transportation. This standard applies to precision die.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 230.1-2009 metallic materials - Rockwell hardness test - Part 1. Test methods (A, B, C, D, E, F, G, H, K, N, T scale)

GB/T 1184-1996 shape and position tolerances without individual tolerance value

GB/T 14662 die technical conditions

JB/T 6957-2007 compilation principles of precision blanking part process

JB/T 6958-2007 General technical precision blanking member

JB/T 9175.1-1999 fine blanking process of structural member

JB/T 9175.2-1999 fine blanking parts quality

3 Requirements

3.1 Basic requirements Fine blanking parts mold design is based on drawings

3.1.1 shall be JB/T 6957-2007, JB/T 6958-2007, JB/T 9175.1-1999 And JB/T 9175.2-1999 regulations drawn.

3.1.2 should adopt the mold rolling guide mold.

3.1.3 mold structure should be easy to remove the fine blanking parts and scrap.

3.1.4 mold working parts should be set lubrication structure.

3.1.5 prevent mold should fall under the dowel from the mold.

3.1.6 die size and distribution of the dowel should match the fine blanking equipment.

3.1.7 Fine Blanking required forming force, BHF and back pressure should match the fine blanking equipment. Face

3.1.8 mosaic forming die split should ensure fine blanking parts of the shear plane in line with design requirements.

3.2 punched clearance requirements Unilateral blanking clearance recommended values \u200b\u200bshown in Figure 1. Chong shape should be close to the lower limit value, within the red shape should be close to the upper limit value.