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Aluminium alloy flange forgings - General specification

铝合金法兰锻件 通用技术规范

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Technical Committee on Forging Standardization (SAC/TC74). This document was drafted by: Shandong Ruiye New Energy Equipment Co., Ltd., Shandong University, and Beijing Institute of Mechanical and Electrical Engineering, China Academy of Machinery Science and Technology. Limited Liability Company, Qianchao Senwei Co., Ltd., Guizhou Aerospace Technology Development Co., Ltd., Guizhou Anda Aviation Forging Co., Ltd., Jingdezhen Mingxing Aviation Forging Co., Ltd., Elite Energy Equipment Co., Ltd., Shandong Taikai High Voltage Switch Co., Ltd., Shanxi Jinrui Guangyuan Heavy Machinery Co., Ltd. Gong Technology Group Co., Ltd., Wuhu Hetian Automobile Industry Co., Ltd., Weiqiao Guoke (Binzhou) Science and Engineering Industry Technology Research Institute Co., Ltd. Company, Jiangsu Longcheng Precision Forging Group Co., Ltd., Baotou Beiben Heavy Truck Axle & Gearbox Co., Ltd., Hubei Sanhuan Forging Co., Ltd., Jiangsu Pacific Precision Forging Technology Co., Ltd., Zhejiang Jiangxin Electromechanical Co., Ltd., Jiangsu Weiying Machinery Co., Ltd., Jiangxi Jinghang Aviation Forging and Casting Co., Ltd., Wuhan Xi'an Jiaotong University, Ningbo Shunyi Precision Manufacturing Co., Ltd., Henan Zhongliming New Materials Co., Ltd., Shandong Ruiye New Materials Limited Liability Company, Shanxi Fuxingtong Heavy Ring Forging Co., Ltd., Jiangyin Zhongnan Heavy Industry Co., Ltd., Anhui Shengda Qianliang Aluminum Co., Ltd., Jiangsu Dayang Precision Forging Co., Ltd., and China Machinery Precision Forming Industry Technology Research Institute (Anhui) Co., Ltd. The main drafters of this document are. Wang Yudi, Li Xuejiao, Wang Guangchun, Qi Xiaogang,

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1 Scope

GB/T 46816-2025 is the Chinese national standard covering forged aluminium flanges - the alloys and tempers, the forging and heat treatment, the mechanical properties in the short transverse direction where a forging is weakest, the ultrasonic soundness and the dimensional tolerances. First edition. It was issued on 31 December 2025 and has been in force since 1 July 2026, as a first edition. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the typical structural types, forming processes, technical requirements, test methods, inspection rules, and markings for aluminum alloy flange forgings. Packaging, transportation and storage, and quality certification documents. This document applies to the manufacture of aluminum alloy flange forgings.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 228.1 Metallic materials - Tensile testing - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 8005 (all parts) and GB/T 8541, as well as the following terms and definitions, apply to this document.

3.1 Flange blanks are produced by forging wrought aluminum alloys.

3.2 The process of forming forgings by combining upsetting, punching and rolling.

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