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Machining allowance for open die forgings

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS B 0418 : 1985** is replaced with **JIS B 0418 : 1999**.

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Machining allowance for open die forgings

1 Scope This Japanese Industrial Standard specifies the method for obtaining the reference machining allowance and the surface as forged dimension of hot open die forgings of carbon steels for machine structural use, alloy steels and steel forgings the mass, by hammer or press, of which is over 10 kg and not more than 10 000 kg (hereinafter referred to as “forgings”) and the tolerance on them.

2 Normative reference The following standard contains provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent edition of the standard indicated below shall be applied.

JIS B 0112 *Forging—Vocabulary*

3 Definitions For the purposes of this Standard, the definitions given in JIS B 0112 and the following definitions apply.

a) **open die forgings** A stock which is struck, pressed, deformed, and plastically formed into the prescribed shape and dimensions, such as a bar, a shaft, a disk, and a ring, using an anvil of simple shape and jigs and tools for general use. The machining methods including forging, swaging, necking, and ring forging are used.

b) **reference machining allowances** The basic dimension to be added to the dimension after the machining in order to determine the surface as forged dimension.

c) **corrective machining allowances** The dimension to be added to the reference machining allowances in order to absorb the eccentricity of a stepped shaft and a single-flanged shaft when forged.

d) **surface as forged dimensions** The dimensions in which the reference machining allowances in 5 and the corrective machining allowances are added to the dimensions after the machining, and the added value is rounded up in accordance with the requirement in 6.

e) **tolerance** The manufacturing tolerance relative to the surface as forged dimension.

f) **machining allowances** The dimension of a part to be removed through cutting or grinding in order to obtain the dimension after the machining from forgings, in which the tolerance is added to the value subtracted the dimension after machining from the surface as forged dimension.

4 Classification Forgings shall be classified according to the shape into 6 groups of round bar, square bar, stepped shaft, single-flanged shaft, disc and ring, as shown in Table 1.