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Bonded abrasive products — Static testing and inspection methods for unbalances of grinding and cutting-off wheels

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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Grinding Wheel Association (JGWA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS R 6243: 2008** is replaced with this Standard.

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Bonded abrasive products — Static testing and inspection methods for unbalances of grinding and cutting-off wheels

Introduction

This Japanese Industrial Standard has been prepared based on ISO 6103 : 2014, Edition 4, with some modifications of the technical contents.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JC.

1 Scope

This Standard specifies the method for measuring the unbalance and the practical inspection method for the acceptance of grinding and cutting-off wheels specified in Table 1 of JIS R 6241, having the outside diameter of 150 mm or more and the mass of 0.2 kg or more used at the regular speed, and having the outside diameter of 100 mm or more and the mass of 0.1 kg or more used at the high speed, which are used at the maximum operating speed of over 10 m/s. Also, this Standard specifies the maximum permissible unbalance of grinding and cutting-off wheels (see Table 1).

Table 1 Applicable ranges of mass and outside diameter

Operating speed	Mass of grinding/cutting-off wheel	Outside diameter of grinding/cutting-off wheel			
		< 100 mm	100 mm ≤	< 150 mm	150 mm ≤
Regular speed	< 0.2 kg	—	—	—	—
	0.2 kg ≤	—	—	—	Applicable
High speed	< 0.1 kg	—	—	—	—
	0.1 kg ≤	—	Applicable		

This Standard is applicable to the grinding and cutting-off wheels in the as-delivered condition; however, not applicable to the following bonded abrasive products.

- Diamond/CBN tool or natural stone grinding wheels
- Control wheels for centreless external cylindrical grinding, grinding wheels for lapping, grinding wheels for steel balls or grinding wheels for glass

NOTE 1 The unbalance obtained in this test method refers to that existing in the grinding/cutting-off wheel itself, independent of any imbalance which may exist in the balancing test arbor (hereafter referred to as the balancing arbor) or in the means of fastening it to this arbor. Various elements, together with the flanges or hub-flanges, are assumed to be balanced, homogeneous and free from geometrical defects.

NOTE 2 The effects of imbalance are basically as follows.