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JIS R 6211-4 : 2003
(GIS/JSA)

**Bonded abrasive products —
Dimensions — Part 4: Grinding
wheels for surface grinding/
peripheral grinding**

ICS 25.100.70

Reference number : JIS R 6211-4 : 2003 (E)

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the proposal of revising a Japanese Industrial Standard from the Japan Grinding Wheel Association (GIS)/the Japanese Standards Association (JSA), with a draft of Industrial Standard based on the provision of Article 12 Clause 1 of the Industrial Standardization Law which shall be applied by Article 14 of the same Law. Consequently **JIS R 6211-4:1999** is replaced with **JIS R 6211-4:2003**.

In this revision, **ISO 603-4:1999 Bonded abrasive products — Dimensions — Part 4: Grinding wheels for surface grinding/peripheral grinding** is used as a basis to make Japanese Industrial Standard conform to the corresponding International Standard.

Attention is drawn to the possibility that some parts of this Standard, which have technical properties, may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public. The Minister of Economy, Trade and Industry and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

JIS R 6211 consists of the following 16 parts under the general title *Bonded abrasive products — Dimensions*.

- Part 1: Grinding wheels for external cylindrical grinding between centres*
- Part 2: Grinding wheels for centerless external cylindrical grinding*
- Part 3: Grinding wheels for internal cylindrical grinding*
- Part 4: Grinding wheels for surface grinding/peripheral grinding*
- Part 5: Grinding wheels for surface grinding/face grinding*
- Part 6: Grinding wheels for tool and tool room grinding*
- Part 7: Grinding wheels for manually guided grinding*
- Part 8: Grinding wheels for deburring and fettling/snagging*
- Part 9: Grinding wheels for high-pressure grinding*
- Part 10: Stones for honing and superfinishings*
- Part 11: Hand finishing sticks*
- Part 12: Grinding wheels for deburring and fettling on a straight grinder*
- Part 13: Grinding wheels for deburring and fettling on a vertical grinder*
- Part 14: Grinding wheels for deburring and fettling/snagging on an angle grinder*
- Part 15: Grinding wheels for cutting-off on stationary or mobile cutting-off machines*
- Part 16: Grinding wheels for cutting-off on hand held power tools*

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Contents

	Page
Introduction	1
1 Scope	1
2 Normative reference	2
3 Dimensions	3
3.1 Type 1: Straight grinding wheel	3
3.2 Type 5: Wheel recessed on one side	4
3.3 Type 7: Wheel recessed on both sides	7
3.4 Type 20: Wheel relieved on one side	8
3.5 Type 21: Wheel relieved on both sides	9
3.6 Type 22: Wheel relieved on one side and recessed on the other side	10
3.7 Type 23: Wheel relieved and recessed on one side	11
3.8 Type 24: Wheel relieved and recessed on one side and recessed on the other side	12
3.9 Type 25: Wheel relieved and recessed on one side and relieved on the other side	13
3.10 Type 26: Wheel relieved and recessed on both sides	14
3.11 Type 38: Hubbed wheel and Type 39: Double hubbed wheel	15
4 Designation	16
Annex (informative) Comparison table between JIS and corresponding International Standard	17

Bonded abrasive products — Dimensions — Part 4: Grinding wheels for surface grinding/peripheral grinding

Introduction This part of **JIS R 6211** has been prepared based on the first edition of **ISO 603-4 Bonded abrasive products — Dimensions — Part 4: Grinding wheels for surface grinding/peripheral grinding** published in 1999, without modifying the technical contents of the tables in A series. The tables in B series specify the dimensions mainly used in Japanese market. However, A series shall take precedence, and B series will be restudied in five years.

The portions given sidelines or underlines with dots in this part of **JIS R 6211** are the matters not included in the original International Standard.

1 Scope This part of **JIS R 6211** specifies the nominal dimensions of grinding wheels for surface grinding/peripheral grinding of:

- Type 1: Straight grinding wheel
- Type 5: Wheel recessed on one side
- Type 7: Wheel recessed on both sides
- Type 20: Wheel relieved on one side
- Type 21: Wheel relieved on both sides
- Type 22: Wheel relieved on one side and recessed on the other side
- Type 23: Wheel relieved and recessed on one side
- Type 24: Wheel relieved and recessed on one side and recessed on the other side
- Type 25: Wheel relieved and recessed on one side and relieved on the other side
- Type 26: Wheel relieved and recessed on both sides
- Type 38: Hubbed wheel
- Type 39: Double hubbed wheel

Remarks 1 These bonded abrasive products are intended to be used for the grinding of plane surfaces where the workpiece is secured to a reciprocating table. The workpiece and the grinding wheel are mechanically guided

2 The International Standard corresponding to this part of **JIS R 6211** is as follows:

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21**.

ISO 603-4:1999 *Bonded abrasive products — Dimensions — Part 4: Grinding wheels for surface grinding/peripheral grinding* (MOD).

2 Normative reference The following standard contains provisions which, through reference in this part of **JIS R 6211**, constitute provisions of this part of **JIS R 6211**. The most recent edition of the standard (including amendments) shall be applied.

JIS R 6242 *Bonded abrasive products — General — Designation, marking, range of outside diameters and tolerances*

Remarks : **ISO 525:1999** *Bonded abrasive products — General requirements* is equivalent to the said standard.

3 Dimensions Dimensions shall be as follows:

3.1 Type 1: Straight grinding wheel

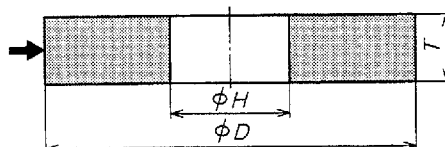


Fig. 1 Type 1: Straight grinding wheel

Table 1 Type 1: Straight grinding wheel (A series)

Unit: mm

D	T								H					
150	13	—	—	—	—	—	—	—	32	—	—	—	—	—
180	13	—	—	—	—	—	—	—	32	—	—	—	—	—
200	13	20	—	—	—	—	—	—	32	50.8	—	—	—	—
250	—	20	25	32	—	—	—	—	—	50.8	76.2	—	—	—
300	—	20	25	32	50	80	—	—	—	—	76.2	127	—	—
350/356	—	—	—	32	50	80	—	—	—	—	76.2	127	—	—
400/406	—	—	—	32	50	80	100	—	—	—	—	127	—	—
500/508	—	—	—	—	50	80	100	160	—	—	—	—	203.2	304.8
600/610	—	—	—	—	50	80	100	160	—	—	—	—	—	304.8
750/762	—	—	—	—	50	80	100	160	—	—	—	—	—	304.8

Remarks : In the case that the outside diameter (D) is not less than 350 mm and the column enumerates two dimensions, “/” in the table means “or”.

Table 2 Type 1: Straight grinding wheel (B series)

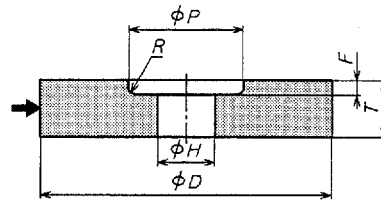
Unit: mm

D	T										H				
150	13	—	—	—	—	—	—	—	—	—	31.75	50.8	—	—	—
180	13	16	19	25	32	—	—	—	—	—	31.75	50.8	76.2	—	—
205	13	16	19	25	32	38	50	—	—	—	31.75	50.8	76.2	—	—
255	13	16	19	25	32	38	50	—	—	—	31.75	50.8	76.2	127	—
305	13	16	19	25	32	38	50	—	—	—	—	50.8	76.2	127	—
355	—	16	19	25	32	38	50	65	75	—	—	—	76.2	127	—
405	—	—	19	25	32	38	50	65	75	—	—	—	—	127	203.2
455	—	—	—	—	—	38	50	65	75	100	—	—	—	127	203.2
510	—	—	—	—	—	38	50	65	75	100	—	—	—	127	203.2
610	—	—	—	—	—	—	50	65	75	100	—	—	—	—	203.2
760	—	—	—	—	—	—	50	65	75	100	—	—	—	—	304.8
915	—	—	—	—	—	—	50	65	75	100	—	—	—	—	304.8

Remarks : In the case where form grinding, plunge cutting and the like are to be carried out, other thickness T than specified and rim type may be employed, subject to the agreement between the purchaser and the manufacturer.

3.2 Type 5: Wheel recessed on one side

Table 3 Type 5: Wheel recessed on one side (A series)



Unit: mm

D	T	H	P	F	$R_{\max}$
150	25	32	80	10	1
	32			13	
180	25	32	100	10	3.2
	32			13	
200	25	32	110	10	
	32			13	
200	25	50.8	110	10	
	32			13	
250	32	50.8	150	13	
	40				
250	32	76.2	150	13	
	40				
300	40	76.2	150	13	
	50				
300	40	127	190	13	5
	50				
350/356	40	127	215	13	
	50				
400/406	40	127	215	13	
	50				
450/457	63	127	215	13	
	80			25	
450/457	40	203.2	280	13	
	50				
	63				
	80			25	
500/508	40	203.2	400	13	8
	50				
	63				
	80			25	
500/508	40	304.8	400	13	
	50				
	63				
	80			25	
600/610	63	203.2	400	13	
	80			25	
	100			50	
600/610	63	304.8	400	13	
	80			25	
	100			50	
750/762	63	304.8	400	13	
	80			25	
	100			50	
900/914	63	304.8	450	13	
	80			25	
	100			50	

Remarks : In the case that the outside diameter (D) is not less than 350 mm and the column enumerates two dimensions, “/” in the table means “or”.