INTERNATIONAL STANDARD

ISO 603-14

First edition
1999-07-15

Bonded abrasive products — Dimensions —

Part 14:
Grinding wheels for deburring and fettling/snagging on an angle grinder

Produits abrasifs agglomérés — Dimensions —

Partie 14: Meules pour ébarbage et ébavurage sur meuleuses portatives à renvoi d'angle

Reference number
ISO 603-14:1999(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 603-14 was prepared by Technical Committee ISO/TC 29, *Small tools*, subcommittee SC 5, *Grinding wheels and abrasives*.

This first edition, together with ISO 603-1:1999 to ISO 603-13:1999, ISO 603-15:1998 and ISO 603-16:1999, cancels and replaces ISO/R 603:1967, ISO 603-2:1981, ISO 1117:1975, ISO 2220:1972, ISO 2933:1974, ISO 3290:1976 and ISO 3921:1976 as a technical revision of these standards.

ISO 603 consists of the following parts, under the general title *Bonded abrasive products — Dimensions*:

— *Part 1: Grinding wheels for external cylindrical grinding between centres*

— *Part 2: Grinding wheels for centreless 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*

Bonded abrasive products — Dimensions —

Part 14:
Grinding wheels for deburring and fettling/snagging on an angle grinder

1 Scope

This part of ISO 603 specifies the nominal dimensions, in millimeters, of:

— Type 6: Straight cup wheel

— Type 11: Taper cup wheel

— Type 27: Depressed centre grinding wheel

— Type 28: Depressed centre grinding wheel — cone shaped

These bonded abrasive products are intended to be used for deburring and fettling/snagging of any surface of a workpiece using hand held grinding machines (angle grinder). The workpiece is fixed, the grinding machine is guided by hand.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 603. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 603 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the lates edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 525:1999, *Bonded abrasive products — General requirements*.

ISO 6103:1999, *Bonded abrasive products — Static balancing of grinding wheels — Testing*.

ISO 13942:—[1)], *Bonded abrasive products — Limit deviations and run-out tolerances*.

[1)] To be published.

3 Dimensions

3.1 Type 6: Straight cup wheel

See Figures 1 and 2 and Tables 1 and 2.

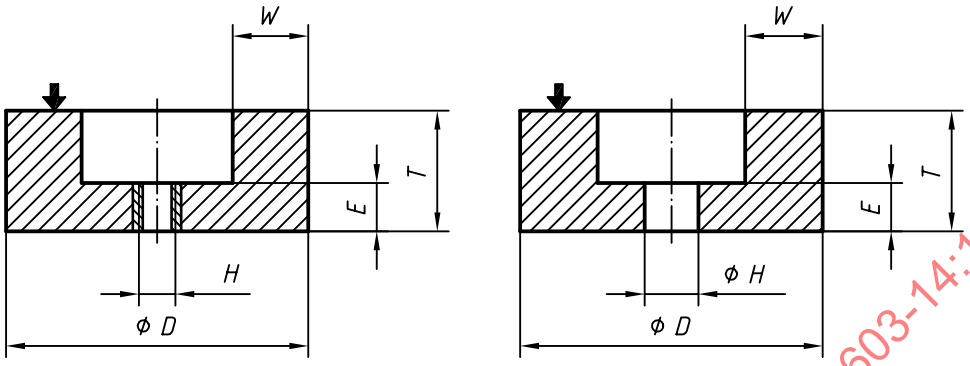

Figure 1 — Type 6[2] without prong anchor bushing or full metal back bushing

Figure 2 — Type 6[2] with prong anchor bushing or full metal back bushing

Table 1 — Dimensions of Type 6 with thread inserts

D	*T*	*H*	*W*	*E* min.
100	50	M14	20	20
125			25	
150			40	

Table 2 — Dimensions of Type 6 without thread inserts

D	*T*	*H*	*W*	*E* min.
100	50	22,23	20	20
125			25	
125			32	

[2] See clause 5.

3.2 Type 11: Taper cup wheel

See Figures 3 and 4 and Tables 3 and 4.

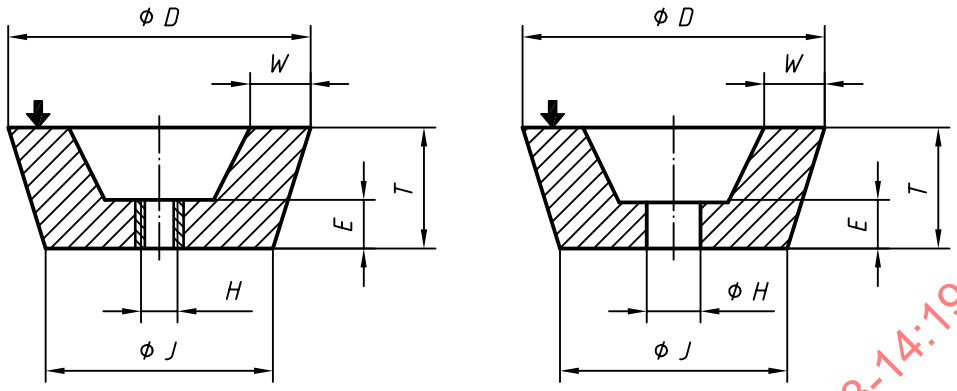

Figure 3 — Type 11[3] without prong anchor bushing of full metal back bushing

Figure 4 — Type 11[3] with prong anchor bushing of full metal back bushing

Table 3 — Dimensions of Type 11 with thread inserts

D	*T*	*H*	*J*	*W*	*E* min.
100	50	M14	76	20	20
125	50		94	25	20
150	50		120	30	20
180	63		140	40	20
	80		120	41	25

Table 4 — Dimensions of Type 11 without thread inserts

D	*T*	*H*	*J*	*W*	*E* min.
100	50	22,23	76	20	19
110	55		55	20	
125	50		94	25	
150			120	30	
180	63		140	41	20
	80				22

[3] See clause 5.

3.3 Type 27: Depressed centre grinding wheel

See Figure 5 and Table 5.

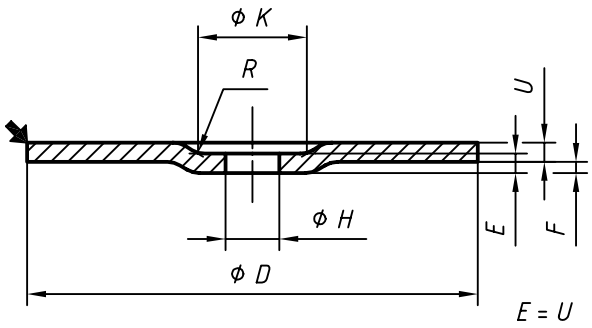

Figure 5 — Type 27

Table 5 — Dimensions of Type 27

D	*U*				*H*	*K*	*F*	*R*
	4	6	8	10			min.	≈
80	X	X	—	—	10	23	4	6
100	X	X	—	—	16	35,5		6
115	X	X	—	—	22,23	45	4,6	8
125	X	X	—	—				
150	X	X	—	—				
180	X	X	X	X				
230	X	X	X	—				

3.4 Type 28: Depressed centre grinding wheel — cone shaped

See Figure 6 and Table 6.

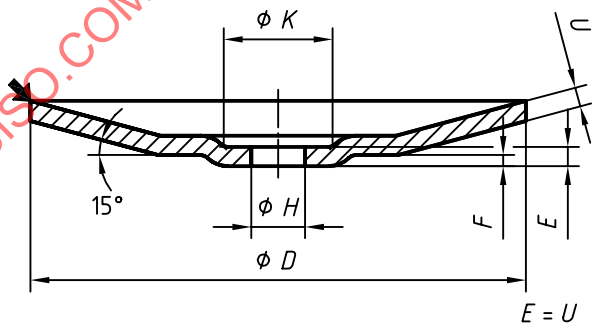

Figure 6 — Type 28

Table 6 — Dimensions of Type 28

D	*U*	*H*	*K*	*F*
				min.
180	6	22,23	45	4,6
	8			
230	6			
	8			

4 Designation

A complete designation of a bonded abrasive product in accordance with this part of ISO 603 shall be consist of the following information:

a) designation of the bonded abrasives, e.g. "Grinding wheel";

b) reference of this part of ISO 603;

c) type (shape);

d) dimensions;

e) specifications of an internal nature;

f) the maximum operating speed.

} In accordance with ISO 525 and this part of ISO 603

EXAMPLES

A depressed centre grinding wheel, Type 27, D = 230 mm, U = 6 mm, H = 22,23 mm, nature of abrasive A, grain size 24, nature of bond resinoid reinforced BF and a maximum operating speed of 80 m/s is designated as follows:

Grinding wheel ISO 603-14 - 27 - 230 × 6 × 22,23 - A 24 BF - 80 m/s

A straight cup wheel, Type 6, D = 125 mm, T = 50 mm, H = 22,23 mm, nature of abrasive A, grain size 24, grade Q, nature of bond resinoid B and a maximum operating speed of 40 m/s is designated as follows:

Straight cup wheel ISO 603-14 - 6 - 125 × 50 × 22,23 - A 24 QB - 40 m/s

5 Specifications

The specifications are left to the manufacture's discretion, see ISO 525.

The design of Type 6 or 11, with or without prong anchor bushing or full metal back bushing, is left to the manufacturer's discretion.

5.1 Tolerances

Limit deviations and run-out tolerances in accordance with ISO 13942.

5.2 Balancing

Balancing is in accordance with ISO 6103.

5.3 Marking

Marking of bonded abrasive products is in accordance with ISO 525.