
**Bonded abrasive products —
Dimensions —**

**Part 18:
Grinding wheels for flat glass edge
grinding machines**

Produits abrasifs agglomérés — Dimensions —

Partie 18: Meules pour machines à meuler les bords de verre plat



Reference number
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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 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 603-18 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 5, *Grinding wheels and abrasives*.

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*
- *Part 17: Mounted wheels*
- *Part 18: Grinding wheels for flat glass edge grinding machines*

Bonded abrasive products — Dimensions —

Part 18: Grinding wheels for flat glass edge grinding machines

1 Scope

This part of ISO 603 specifies the shapes, dimensions and limit deviations, in millimetres, of grinding wheels for flat glass edge grinding machines.

This type of bonded abrasive wheel is intended to be used on stationary machines where the position of the grinding wheel is fixed and the workpiece is guided by hand or guided mechanically, or on a stationary machine where the grinding wheel is guided mechanically and the workpiece is fixed. The common maximum operating speed, v_s , for this type of bonded abrasive product is $v_s \leq 50$ m/s

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 525, *Bonded abrasive products — General requirements*

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

ISO 13942, *Bonded abrasive products — Limit deviations and run-out tolerances*

3 Requirements

3.1 Shapes and dimensions

3.1.1 Straight wheel, type 1

See [Figure 1](#) and [Table 1](#).

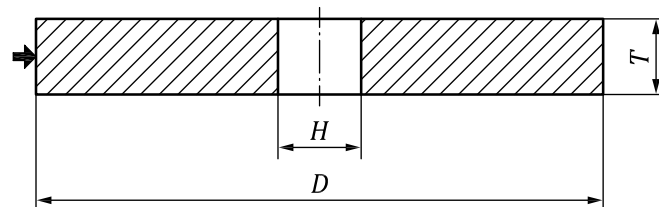


Figure 1 — Straight wheel, type 1

Table 1 — Straight wheels, type 1

Dimensions in millimetres

<i>D</i>	<i>T</i>	<i>H</i>
100	10	22,00
100	15	22,00
100	20	22,00
100	25	22,00
100	30	22,00
120	10	22,00
120	15	22,00
120	20	22,00
120	25	22,00
120	30	22,00
150	15	22,00
150	20	22,00
150	25	22,00
150	30	22,00
200	20	60,00
200	25	60,00
200	30	60,00
200	15	90,00
200	20	90,00
200	25	90,00
200	30	90,00
200	40	90,00
250	20	50,00
250	25	50,00
250	30	50,00

3.1.2 Straight cup wheel, type 6

See [Figure 2](#) and [Table 2](#).

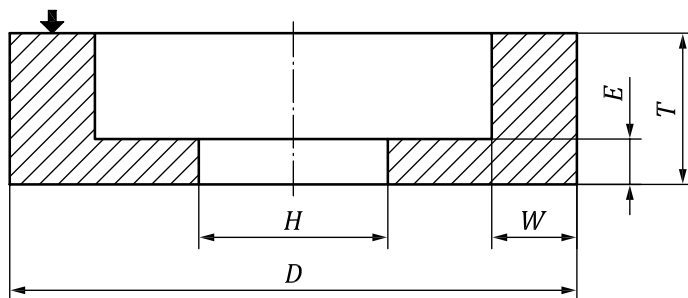


Figure 2 — Straight cup wheel, type 6

Table 2 — Straight cup wheels, type 6

Dimensions in millimetres

<i>D</i>	<i>T</i>	<i>H</i>	<i>W</i>	<i>E</i>
100	30	50,00	20	7
100	35	50,00	20	7
100	40	11,00	20	8
100	40	50,00	20	7
100	45	11,00	20	8
100	45	50,00	20	8
125	35	22,00	20	10
130	35	22,00	22,5	10
130	35	50,00	22,5	10
130	35	70,00	22,5	10
130	39	11,00	22,5	10
130	40	50,00	22,5	10
150	30	50,00	22,5	12
150	30	70,00	22,5	12
150	35	25,00	22,5	12
150	35	50,00	22,5	12
150	35	70,00	22,5	12
150	40	22,00	22,5	12
150	40	25,00	22,5	12
150	40	50,00	22,5	12
150	40	68,00	22,5	12
150	40	70,00	22,5	12
170	40	68,00	22,5	12

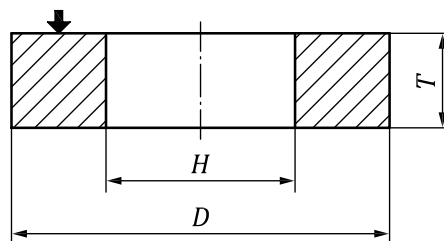
3.1.3 Disc wheel, cemented, type 35See [Figure 3](#) and [Table 3](#).**Figure 3 — Disc wheel, cemented, type 35**

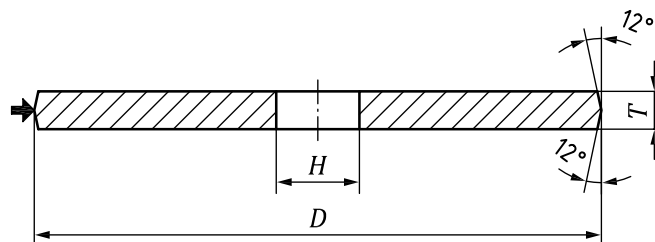
Table 3 — Disc wheels, cemented, type 35

Dimensions in millimetres

<i>D</i>	<i>T</i>	<i>H</i>
100	25	50,00
200	40	120,00

3.1.4 Straight wheel, type 1 with profile

See [Figure 4](#) and [Table 4](#).



NOTE This is a special profile, not defined in ISO 525.

Figure 4 — Straight wheel, type 1 with profile

Table 4 — Straight wheels, type 1 with profile

Dimensions in millimetres

<i>D</i>	<i>T</i>	<i>H</i>	Profile angle
140	4	22,00	12°
140	5	22,00	12°
140	6	22,00	12°
140	8	22,00	12°
140	10	22,00	12°
150	4	22,00	12°
150	5	22,00	12°
150	6	22,00	12°
150	8	22,00	12°
150	10	22,00	12°
150	4	60,00	12°
150	5	60,00	12°
150	6	60,00	12°
150	8	60,00	12°
150	10	60,00	12°
160	4	90,00	12°
160	5	90,00	12°
160	6	90,00	12°
160	8	90,00	12°
160	10	90,00	12°
200	6	60,00	12°
200	8	60,00	12°
200	10	60,00	12°
200	6	90,00	12°
200	8	90,00	12°
200	10	90,00	12°
220	6	60,00	12°
220	8	60,00	12°
220	10	60,00	12°

NOTE [Table 4](#) describes a special profile, which is not defined in ISO 525.

3.2 Designation

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

- a) designation of the bonded abrasive, grinding wheel for flat glass edge grinding machine;
- b) reference of this part of ISO 603, i.e. ISO 603-18;
- c) shape;
- d) type;
- e) dimensions D, T, H, W, E ;
- f) specification mark;
maximum operating speed. } in accordance with ISO 525 and this part of ISO 603

EXAMPLE A grinding wheel for flat glass edge grinding machine, Type 1, diameter $D = 200$ mm, thickness $T = 20$ mm, bore $H = 90,00$ mm, nature of abrasive AA, grit size 120, grade of hardness B, structure 5, bond type R and a maximum operating speed of 32 m/s is designated as follows:

Grinding wheel for flat glass edge grinding machines ISO 603-18, 1 - 200 × 20 × 90 - AA120 B5R - 32 m/s

3.3 Specifications

3.3.1 Tolerances

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

3.3.2 Unbalance

Unbalance shall be in accordance with ISO 6103.

3.3.3 Marking

Marking of grinding wheels for flat glass edge grinding machines shall be in accordance with ISO 525.

ICS 25.100.70

Price based on 6 pages