INTERNATIONAL STANDARD

ISO 21537-2

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Clamping flanges for superabrasive cutting-off wheels —

Part 2: **Building and construction**

Flasques pour meules de tronçonnage superabrasives —

iTeh STPartie 2: Bâtiment et genie civil IEW (standards.iteh.ai)

ISO 21537-2:2004 https://standards.iteh.ai/catalog/standards/sist/d6fe2c5b-d526-4d01-aabf-761ea26b27ca/iso-21537-2-2004



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Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
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Foreword

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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 21537-2 was prepared by Technical Committee ISO/TC 29, Small tools, Subcommittee SC 5, Grinding wheels and abrasives.

ISO 21537 consists of the following parts, under the general title Clamping flanges for superabrasive cutting-off wheels:

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- Part 1: Natural stone
- ISO 21537-2:2004
- Part 2: Building and construction 761ea26b27ca/iso-21537-2-2004

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Clamping flanges for superabrasive cutting-off wheels —

Part 2:

Building and construction

1 Scope

This part of ISO 21537 specifies dimensions for clamping flanges for the mounting of superabrasive cutting-off wheels (diamond saws) for use on stationary cutting-off machines, mobile cutting-off machines and hand-held cutting-off machines for the cutting of mineral materials.

2 Normative references

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

ISO 2768-1, General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications

ISO 21537-2:2004 https://standards.iteh.ai/catalog/standards/sist/d6fe2c5b-d526-4d01-aabf-761ea26b27ca/iso-21537-2-2004

3 Dimensions

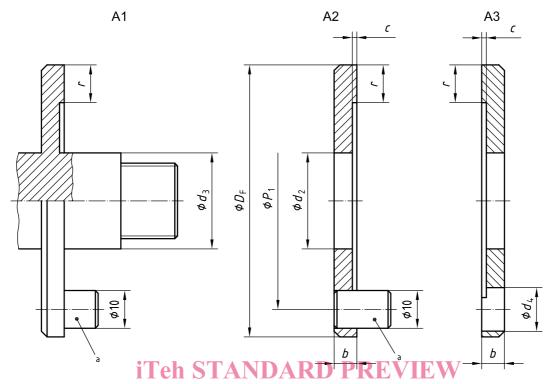
3.1 General

The dimensions of flanges used on hand-held cutting-off machines (type A), on masonry cutting-off machines (type B), on joint cutting machines (type C), on joint cutting machines (flush cuts) (type D) and on wall cutting-off machines (type E) for clamping suerabrasive cutting-off wheels are shown in Figures 1 to 5 and given in Tables 1 to 5 respectively.

Details which are not specified shall be chosen according to need.

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3.2 Type A



Optional drive pin for cutting-off wheels D > 230 mm. (Standards.iteh.ai)

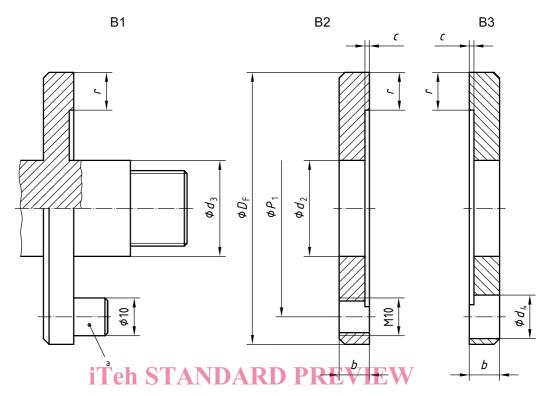
Figure 1 — Type A <u>ISO 21537-2:2004</u>

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Table 1 — Dimensions of clamping flanges for type A

| Cutting-off wheel | | Flange | | | | | | | | | |
|-------------------------------------|-------|---------|---|------|-------|-------|-------|---------|----|--|--|
| D | Н | D_{F} | b | С | d_2 | d_3 | d_4 | P_{1} | r | | |
| | | | | min. | H7 | g6 | | ± 0,1 | | | |
| <i>D</i> ≤ 100 | 16 | 41 | | | 16 | | - | _ | 5 | | |
| 115 \leqslant D \leqslant 230 | 22,23 | 71 | | | 22,23 | | | | | | |
| | 20 | 72 | 6 | 1 | 20 | | 11,5 | 57,4 | 10 | | |
| 230 < <i>D</i> ≤ 400 | 22,23 | | | | 22,23 | | | | | | |
| | 25,4 | | | | 25 | 5,4 | | | | | |

3.3 Type B



Optional drive pin.

(standards.iteh.ai)

Figure 2 — Type B

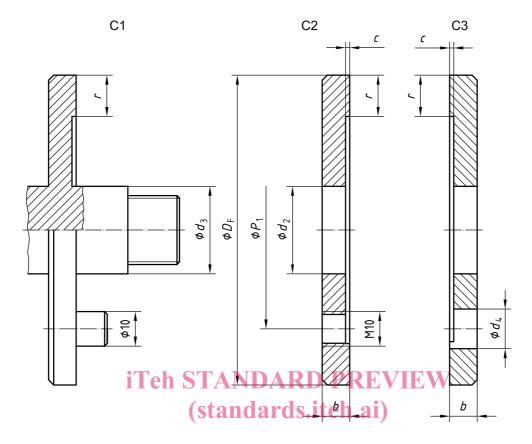
ISO 21537-2:2004

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Table 2 — Dimensions of clamping flanges for type B

| Cutting-off wheel | | | Flange | | | | | | | | | |
|--------------------------------------|------|------|-----------------|-----|------|-------|-------|-------|---------|----|----------------------|--|
| D | Н | Size | D_{F} | b | с | d_2 | d_3 | d_4 | P_{1} | r | Number of pins | |
| | | | | | min. | H7 | g6 | | ± 0,1 | | | |
| <i>D</i> ≤ 250 | 20 | 1 | 41 | - 8 | 1 | 20 | 20 | _ | _ | 5 | | |
| <i>D</i> ≷ 230 | 25,4 | 2 | | | | 25,4 | 25,4 | | | | | |
| 250 < <i>D</i> ≤ 400 | 25,4 | 3 | - 72 - 90 | | | 25,4 | 25,4 | 11,5 | 57,4 | 10 | | |
| 250 < D 🤘 400 | 30 | 4 | | | | 30 | 30 | | | 10 | 1 | |
| 400 < <i>D</i> ≤ 700 | 25,4 | 5 | | 12 | | 25,4 | 25,4 | | | 12 | ' | |
| 400 < D < 100 | 60 | 6 | | | | 60 | 60 | | | | | |
| 700 < <i>D</i> ≤ 900 | 25,4 | 7 | - - 140 - | | | 25,4 | 25,4 | | 100 | | $3\times120^{\circ}$ | |
| | 25,4 | 8 | | | | 25,4 | | | 120 | | 1 | |
| 700 < D ≤ 900 | 60 | 9 | | | | 60 | 60 | | 120 | | 1 | |
| | 0 | 10 | | | | | | | 100 | | $3\times120^{\circ}$ | |
| | 25,4 | 11 | | | | 25,4 | 25,4 | | 120 | | 1 | |
| 900 < <i>D</i> ≤ 1 000 | 25,4 | 12 | 162 | | | 25,4 | 25,4 | | 100 | | $3\times120^{\circ}$ | |
| | 60 | 13 | 102 | | | 60 | 60 | | 120 | | 1 | |
| | 00 | 14 | | | | | | | 100 | | $3\times120^\circ$ | |

3.4 Type C

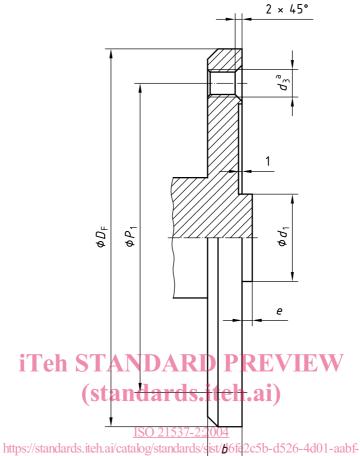


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Table 3 — Dimensions of clamping flanges for type C

| Cutting-off wheel | | Flange | | | | | | | | |
|--------------------------------------|------|---------|----|------|-------|-------|-------|---------|----|----------------|
| D | Н | D_{F} | b | c | d_2 | d_3 | d_4 | P_{1} | r | Number of pins |
| | | | | min. | H7 | e8 | | ± 0,1 | | - |
| <i>D</i> ≤ 350 | 25,4 | 80 | | 1 | 25,4 | | _ | _ | 10 | |
| 350 < <i>D</i> ≤ 500 | 25,4 | 90 | 8 | | 25,4 | | | 57,4 | 12 | |
| | 35 | | | | 35 | | | | | |
| 500 < <i>D</i> ≤ 900 | 25,4 | 140 | 12 | | 25,4 | | | | | 1 |
| | 35 | 140 | 12 | | 35 | | 11,5 | | | ' |
| 900 < <i>D</i> ≤ 1 500 | 25,4 | | 16 | 1,5 | 25,4 | | | | 20 | |
| | 35 | 198 | | | 35 | | | | | |
| | 50 | | | | 5 | 0 | | _ | | |

3.5 Type D



https://standards.iteh.ai/catalog/standards/sist/b6fe2c5b-d526-4d01-aabf-761ea26b27ca/iso-21537-2-2004

 $a 6 \times 60^{\circ}$

Figure 4

Table 4 — Dimensions of hub flanges for type D

| Cutting-off who | Flange | | | | | | | | | |
|--|--------|---------|----|------------|-------|------------------------------------|---------|--|--|--|
| D | Н | D_{F} | b | e | d_1 | d_3 | P_{1} | | | |
| | | | | 0 - 0,1 | e8 | and number of threaded holes | ± 0,1 | | | |
| <i>D</i> ≤ 700 | 25,4 | | 10 | 3 | 25,4 | | 90 | | | |
| | 35 | 110 | | | 35 | | | | | |
| | 50 | | | | 50 | M8 | | | | |
| 700 < <i>D</i> ≤ 1 200 | 25,4 | 140 | 12 | 3,5 | 25,4 | 6 × 60° | | | | |
| | 35 | | | | 35 | | | | | |
| | 50 | | | | 50 | | 110 | | | |
| 1 200 < <i>D</i> ≤ 1 500 | 25,4 | | 16 | 3,5 | 25,4 | | | | | |
| | 35 | 198 | | | 35 | M8 or M12 6 × 60° | 120 | | | |
| | 50 | | | | 50 | | | | | |