
**Clamping flanges for superabrasive
cutting-off wheels —**

**Part 1:
Natural stone**

Flasques pour meules de tronçonnage superabrasives —

Partie 1: Pierre naturelle



Reference number
ISO 21537-1:2004(E)

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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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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 21537-1 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*:

- *Part 1: Natural stone*
- *Part 2: Building and construction*

Clamping flanges for superabrasive cutting-off wheels —

Part 1: Natural stone

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 for the machining of natural stone.

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*

3 Dimensions

The dimensions of flanges without hole circle (type N1) and with hole circle (type N2) for clamping superabrasive cutting-off wheels are shown in Figures 1 and 2 and given in Table 1.

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

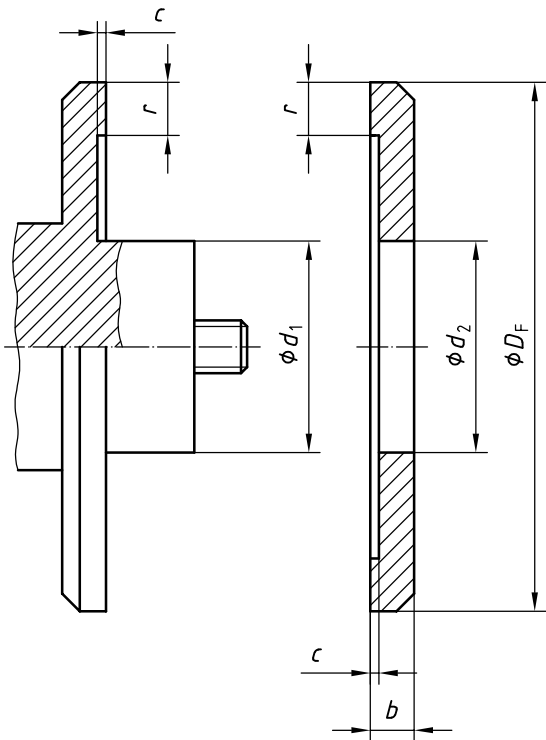


Figure 1 — Type N1 without hole circle

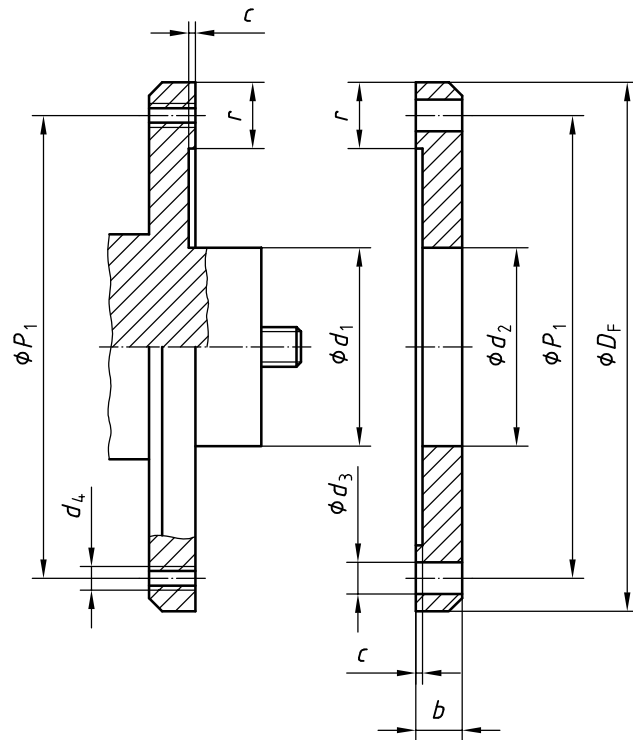


Figure 2 — Type N2 with hole circle

Table 1 — Flange dimensions

Dimensions in millimetres
General tolerances ISO 2768 - m

Cutting-off wheel		Flange								
<i>D</i>	<i>H</i>	<i>D_F</i>	<i>b</i>	<i>c</i>	<i>d₁</i> g6	<i>d₂</i> H7	<i>d₃</i>	<i>d₄</i> and number of threads	<i>P₁</i>	<i>r</i>
$300 \leq D \leq 600$	50	120	12	1	50		—	—	—	10
	60				60					
$600 < D \leq 750$	60	160	18		80					
$750 < D \leq 900$	80	200	20	80						
$900 < D \leq 1\,400$	80	250	20	1,5	100		—	—	—	25
	100				120					
$1\,400 < D \leq 1\,900$	120	300	25		150					
$1\,900 < D \leq 3\,000$	150	400	35	150		24	M18 8 × 45°	450	50	
$3\,000 < D \leq 5\,000$	150	500	40	150						24

4 Material

Steel, cast steel or spheroidal graphite iron with a minimum strength of 500 N/mm².

5 Designation

Example A clamping flange type N1 for use on superabrasive cutting-off wheels, outside diameter $D = 1\,400$ mm and hole diameter $H = 100$ mm is designated as follows:

Flange ISO 21537-1 - N1 - 1400 × 100

6 Marking

Clamping flanges in accordance with this part of ISO 21537 shall be indelibly marked with the following data:

“Maximum diameter of the superabrasive cutting-off wheel intended for the relevant cutting-off machine.”

ICS 25.100.70

Price based on 3 pages