INTERNATIONAL STANDARD

ISO 21538

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Blanks for superabrasive cutting-off wheels — Mounting and fixing bores — Building construction and civil engineering

Âmes pour meules de tronçonnage superabrasives — Alésage de montage et de fixation — Bâtiment et génie civil

Reference number
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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 21538 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 5, *Grinding wheels and abrasives*.

Blanks for superabrasive cutting-off wheels — Mounting and fixing bores — Building construction and civil engineering

1 Scope

This International Standard specifies dimensions for mounting and fixing bores in blanks. These mounting and fixing bores comply with the relevant dimensions of the clamping flanges specified in ISO 21537-2.

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, *Clamping flanges for superabrasive cutting-off wheels — Part 2: Building and construction*

3 Dimensions

The dimensions of a centre bore without hole circle (type A), of a centre bore with one hole circle for a driving pin (type B), of a centre bore with up to two hole circles for driving pins (type C), of a centre bore with up to two hole circles for mounting (type D) and of a centre bore with one hole circle for driving pins and one for mounting (type E) are shown on Figures 1 to 5 respectively and are given in Table 1.

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

Type A

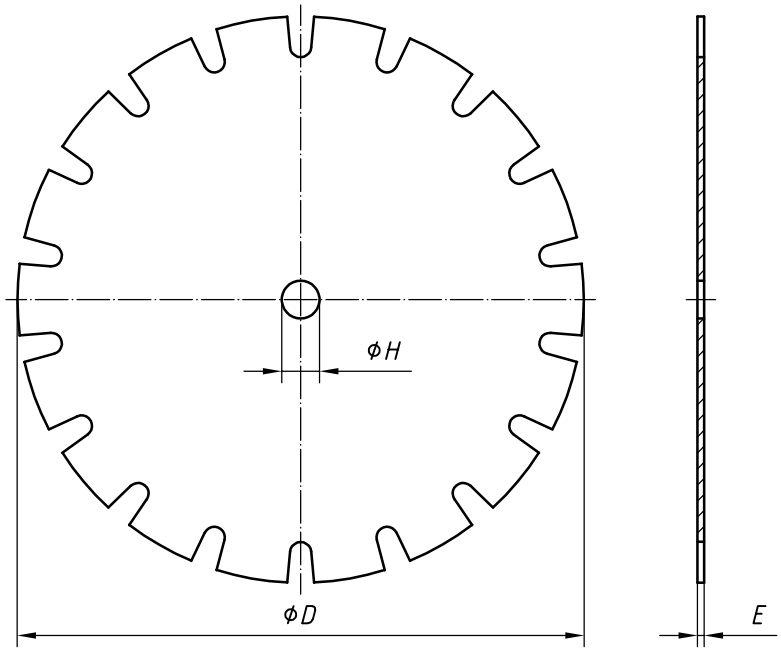

Figure 1 — Type A

Type B

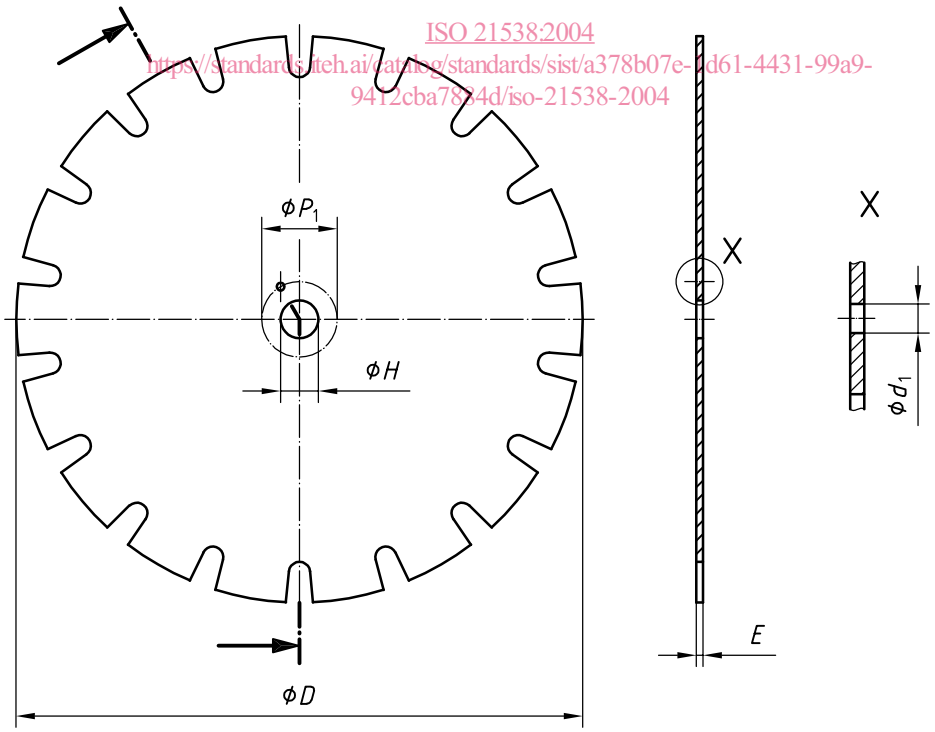

Figure 2 — Type B

Type C

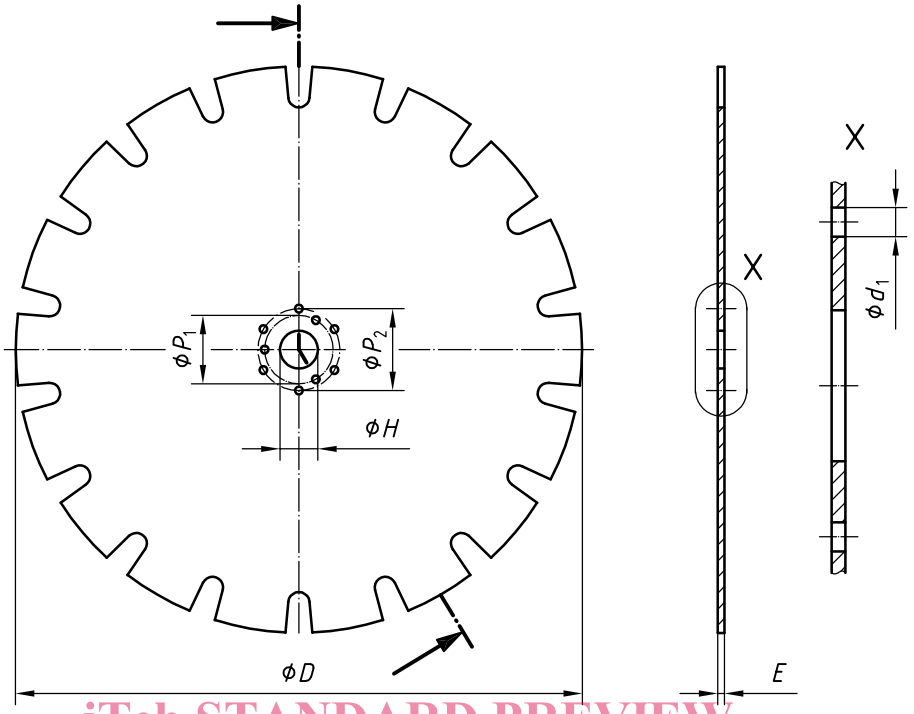

Figure 3 — Type C

Type D

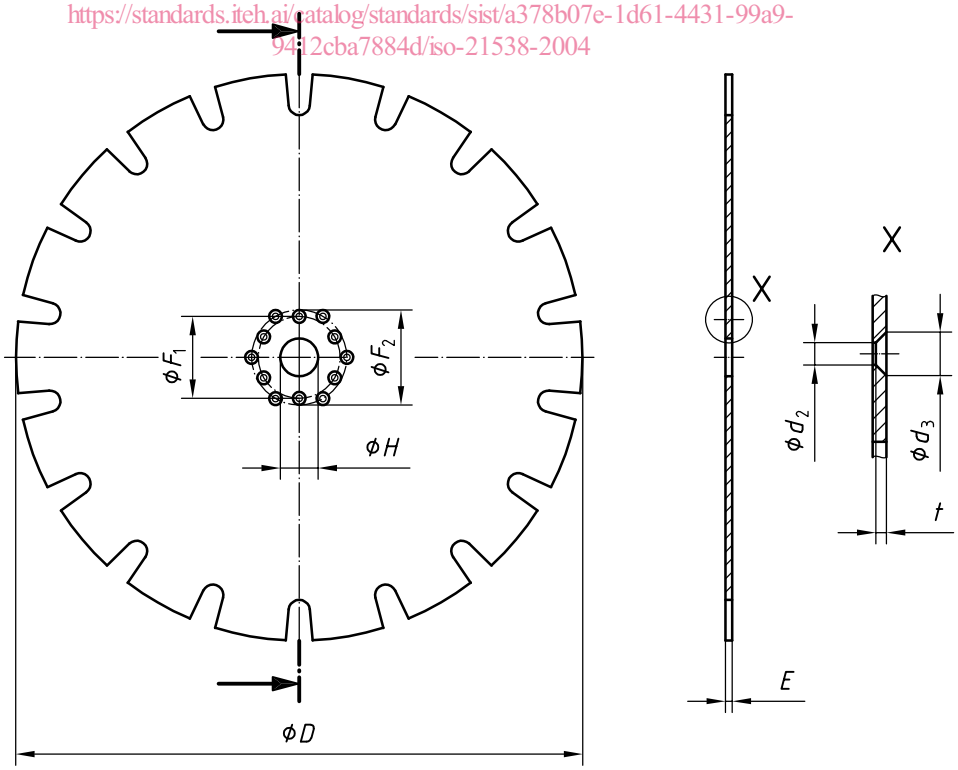

Figure 4 — Type D

Type E

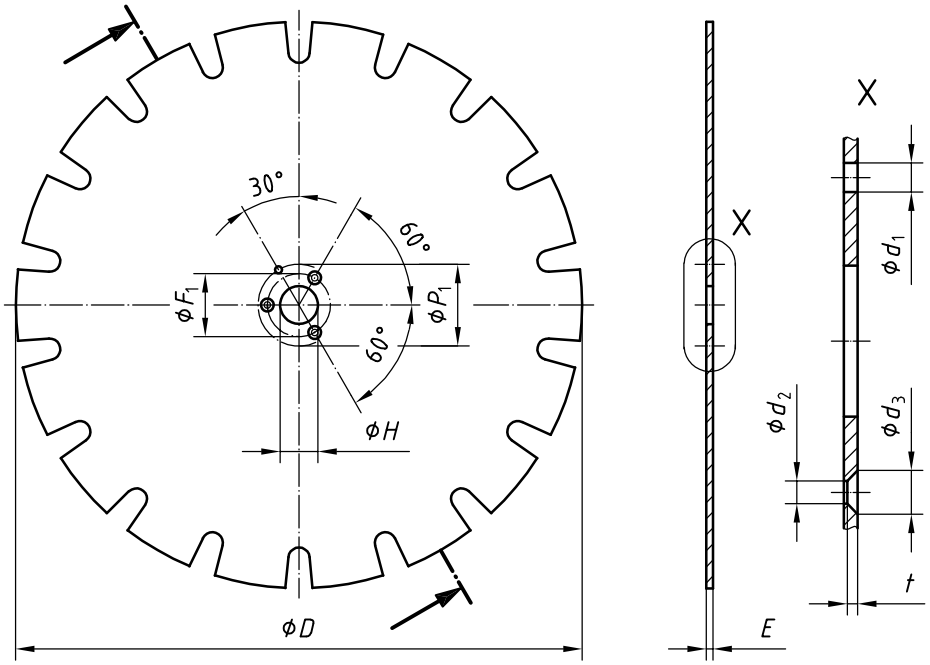

Figure 5 — Type E

Table 1 — Dimensions of mounting and fixing bores

Dimensions in millimetres
General tolerances ISO 2768 — m

D	E	H	d_1	d_2[a]	d_3	P_1 and P_2 ± 0,1				Number of driving holes	F_1 and F_2 ± 0,1						Maximum number of fixing bores
	min.	H7		H13		57,4	80	100	120		45	60	90	110	125	130	
$D \leqslant$ **300**	1,6	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		25,4	11,5			X				1							
		30															
300 $< D \leqslant$ **350**	2,2	25,4	11,5	—	—	X	—	—	—	1	—	—	—	—	—	—	—
		30															
350 $< D \leqslant$ **400**	2,2	25,4	11,5	5,5	10,4	X	—	—	—	0 or 1	X	—	—	—	—	—	4 × 90°
		35		—	—	—					—						—
		50		6,6	12,6	X						X					6 × 60°
		60	—	—	—	—						—					—
400 $< D \leqslant$ **500**	2,5	25,4	11,5	9	17,3	X	—	—	—	0 or 1	—	—	X	—	—	—	6 × 60° on F_1
		35															
		50				—											
		60															
500 $< D \leqslant$ **600**	2,8	25,4	11,5	9	17,3	X	—	—	—	0 or 1	—	—	X	—	—	—	
		35															
		50				—											
		60															
600 $< D \leqslant$ **700**	3,0	25,4	11,5	9	17,3	X	—	—	—	0 or 1	—	—	X	X	X	X	6 × 60° on F_1 or 2 × 6 × 60° on F_1 and F_2
		35															
		50				—											
		60					6 × 60°										
700 $< D \leqslant$ **900**	3,0	25,4	11,5	9	17,3	X	—	X 3 × 120°	X	0, 1 or 4	—	—	X	X	X	X	
		35															
		50				—											
		60					6 × 60°										
900 $< D \leqslant$ **1 000**	3,5	25,4	11,5	9	17,3	X	—	X 3 × 120°	X	0, 1 or 4	—	—	X	X	X	X	
		35															
		50				—											
		60					6 × 60°										
1 000 $< D \leqslant$ **2 000**	3,5	25,4	11,5	9	17,3	X	—	X 3 × 120°	X	0, 1 or 4	—	—	X	X	X	X	
		35															
		50				—											
		60					6 × 60°										

[a] If the thickness of the blank is less than the depth t then d_2 results if dimension d_3 is respected.

4 Designation

EXAMPLE A blank for a superabrasive cutting-off wheel mounting and fixing bores type C with $D = 900$ mm, $H = 60$ mm, $P_1 = 100$ mm and $P_2 = 120$ mm is designated as follows:

Mounting bore ISO 21538 - C 900 × 60 × 100/120