INTERNATIONAL STANDARD

ISO 6752

Second edition
2008-06-15

Tools for pressing — Round punches with 60 degrees conical head and straight shank

Outillage de presse — Poinçons à tête conique à 60 degrés et corps cylindrique

Reference number
ISO 6752:2008(E)

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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 6752 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 8, *Tools for pressing and moulding*.

This second edition cancels and replaces the first edition (ISO 6752:1984), which has been technically revised.

Tools for pressing — Round punches with 60 degrees conical head and straight shank

1 Scope

This International Standard specifies the basic dimensions, in millimetres, of round punches with 60° conical head and straight shank in the diameter range of 0,5 mm to 20 mm.

It gives example material and hardness values, and specifies the designation of the punches, whose main use is punching holes in steel sheets but that can also be used on other 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 2768-1:1989, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

3 Dimensions

The dimensions of round punches with 60° conical head and straight shank shall conform to the indications of Figure 1 and Table 1.

General tolerance: ISO 2768-m
Surface roughness values in micrometres

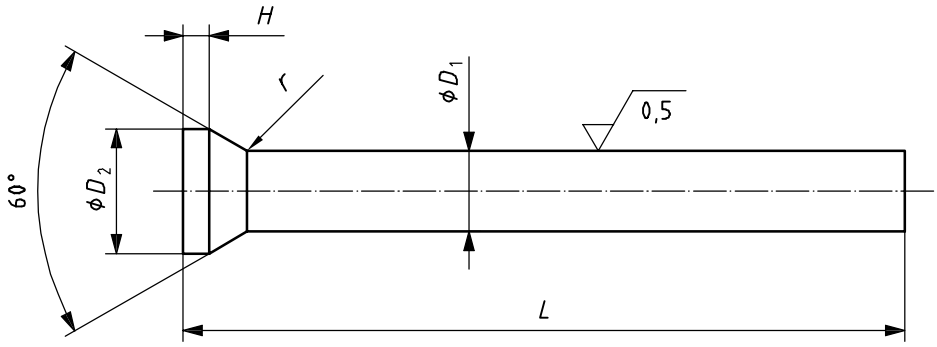

Figure 1 — Round punches with 60° conical head and straight shank

Table 1 — Dimensions of round punches with 60° conical head and straight shank

D_1 h6	D_2	H $^{+0,2}_{0}$	r	L $^{+0,5}_{0}$		
				71	80	100
0,50	0,9	0,2	$0,2\ ^{+0,2}_{0}$	×	×	×
0,55	1,0			×	×	×
0,60	1,1			×	×	×
0,65	1,2			×	×	×
0,70	1,3			×	×	×
0,75	1,3			×	×	×
0,80	1,4	0,4		×	×	×
0,85	1,4			×	×	×
0,90	1,6			×	×	×
0,95	1,6			×	×	×
1,0	1,8	0,5	$0,4\ ^{+0,3}_{0}$	×	×	×
1,1	1,8			×	×	×
1,2	2,0			×	×	×
1,3	2,0			×	×	×
1,4	2,2			×	×	×
1,5	2,2			×	×	×
1,6	2,5			×	×	×
1,7	2,5			×	×	×
1,8	2,8			×	×	×
1,9	2,8			×	×	×
2,0	3,0			×	×	×
2,1	3,2			×	×	×
2,2	3,2			×	×	×
2,3	3,5			×	×	×
2,4	3,5			×	×	×
2,5	3,5			×	×	×
2,6	4,0			×	×	×
2,7	4,0			×	×	×
2,8	4,0			×	×	×
2,9	4,0			×	×	×

Table 1 (*continued*)

D_1 h6	D_2	H $^{+0,2}_{0}$	r	L $^{+0,5}_{0}$		
				71	80	100
3,0	4,5	0,5	$0,6\ ^{+0,4}_{0}$	×	×	×
3,1	4,5			×	×	×
3,2	4,5			×	×	×
3,3	4,5			×	×	×
3,4	4,5			×	×	×
3,5	5,0			×	×	×
3,6	5,0			×	×	×
3,7	5,0			×	×	×
3,8	5,0			×	×	×
3,9	5,0			×	×	×
4,0	5,5			×	×	×
4,1	5,5			×	×	×
4,2	5,5			×	×	×
4,3	5,5			×	×	×
4,4	5,5			×	×	×
4,5	6,0			×	×	×
4,6	6,0			×	×	×
4,7	6,0			×	×	×
4,8	6,0			×	×	×
4,9	6,0			×	×	×
5,0	6,5			×	×	×
5,1	6,5			×	×	×
5,2	6,5			×	×	×
5,3	6,5			×	×	×
5,4	6,5			×	×	×
5,5	7,0			×	×	×
5,6	7,0			×	×	×
5,7	7,0			×	×	×
5,8	7,0			×	×	×
5,9	7,0			×	×	×
6,0	8,0			×	×	×

Table 1 (*continued*)

D_1 h6	D_2	H $^{+0,2}_{0}$	r	L $^{+0,5}_{0}$		
				71	80	100
6,1	8,0	0,5	$1\,^{+0,5}_{0}$	×	×	×
6,2	8,0			×	×	×
6,3	8,0			×	×	×
6,4	8,0			×	×	×
6,5	9,0	1		×	×	×
7,0	9,0			×	×	×
7,5	10,0			×	×	×
8,0	10,0			×	×	×
8,5	11,0			×	×	×
9,0	11,0			×	×	×
9,5	12,0			×	×	×
10,0	12,0			×	×	×
10,5	13,0			×	×	×
11,0	13,0			×	×	×
11,5	14,0			×	×	×
12,0	14,0			×	×	×
12,5	15,0			×	×	×
13,0	15,0			×	×	×
13,5	16,0	1,5	$1{,}5\,^{+0,5}_{0}$	×	×	×
14,0	16,0			×	×	×
14,5	17,0			×	×	×
15	17,0			×	×	×
15,5	18,0			×	×	×
16,0	18,0			×	×	×
17,0	19,0			×	×	×
18,0	20,0			×	×	×
19,0	21,0			×	×	×
20,0	22,0			×	×	×

4 Material and hardness

The material is left to the manufacturer's discretion. The following hardness values are given as examples.

a) Alloyed cold work steel with 5 % to 12 % Cr:

— point: (60 ± 2) HRC;

— head: (45 ± 5) HRC.

b) High-speed steel:

— point: (62 ± 2) HRC;

— head: (52 ± 5) HRC.

5 Designation

A round punch with 60° conical head and straight shank in accordance with this International Standard shall be designated by:

a) “Punch”;

b) reference to this International Standard, i.e. ISO 6752;

c) its points diameter, D_1, in millimetres;

d) its length, L, in millimetres.

EXAMPLE Punch ISO 6752 - 6,3 × 80

ICS 25.120.10

Price based on 5 pages