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STANDARD

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**241**

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**Shanks for turning and planing tools —  
Shapes and dimensions of the section**

*Queues d'outils de tournage et de rabotage — Formes et dimensions de  
la section*

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Reference number  
ISO 241:1994(E)

## Foreword

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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.

International Standard ISO 241 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 9, *Tools with cutting edges made of hard cutting materials*.

This second edition cancels and replaces the first edition (ISO 241:1975), which has been technically revised. In particular, the dimensions in inches have been deleted.

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# Shanks for turning and planing tools — Shapes and dimensions of the section

## 1 Scope

This International Standard specifies the types and dimensions, in millimetres, of the section of shanks for turning and planing tools of high speed steel and with brazed hardmetal tips.

Three types of sections are specified, namely:

- a) round section;
- b) square section;
- c) rectangular sections with ratios of height to width of respectively:
  - approximately 1,25,
  - approximately 1,6 and
  - approximately 2.

## 2 Shapes and dimensions of the section

### 2.1 Shape

See figure 1.

A round or square section, or a rectangular section having a ratio of approximately 1,6, should preferably be used.

### 2.2 Dimensions

See table 1.

### 2.3 Tolerances

Tool shanks without special need for precision:

- a) unmachined shanks: the normal rolling or forging tolerance (before finishing the bottom face);
- b) machined shanks: h15.

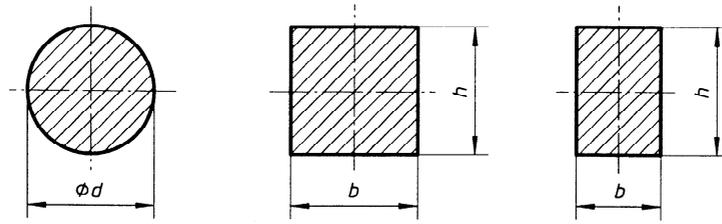


Figure 1

Table 1

Round section	Square section	Rectangular sections		
		Ratio of sides, approximately		
		1,25	1,6	2
<i>d</i>	<i>h × b</i>	<i>h × b</i>	<i>h × b</i>	<i>h × b</i>
6	6 × 6	6 × 5	6 × 4	6 × 3
8	8 × 8	8 × 6	8 × 5	8 × 4
10	10 × 10	10 × 8	10 × 6	10 × 5
12	12 × 12	12 × 10	12 × 8	12 × 6
16	16 × 16	16 × 12	16 × 10	16 × 8
20	20 × 20	20 × 16	20 × 12	20 × 10
25	25 × 25	25 × 20	25 × 16	25 × 12
32	32 × 32	32 × 25	32 × 20	32 × 16
40	40 × 40	40 × 32	40 × 25	40 × 20
50	50 × 50	50 × 40	50 × 32	50 × 25

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