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International Standard



5836/4

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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**Implants for surgery — Metal bone plates —  
Part 4: Holes and slots corresponding to screws with  
symmetrical thread and conical under-surfaces**

*Implants chirurgicaux — Plaques métalliques pour os — Partie 4: Chambrages et alésages pour vis à filet symétrique et embase conique*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5836/4 was developed by Technical Committee ISO/TC 150, *Implants for surgery*, and was circulated to the member bodies in February 1983.

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It has been approved by the member bodies of the following countries: 1984

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Australia	India	United Kingdom
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France	New Zealand	
Germany, F.R.	Poland	

The member body of the following country expressed disapproval of the document on technical grounds:

USSR

# Implants for surgery — Metal bone plates — Part 4: Holes and slots corresponding to screws with symmetrical thread and conical under-surfaces

## 1 Scope and field of application

This part of ISO 5836 specifies the dimensions and tolerances of holes and slots in bone plates used as surgical implants to facilitate correct fixing using screws conforming to ISO 5835/4.

NOTE — This part of ISO 5836 does not deal with the shape and dimensions of the plates or with the spacing of the holes and slots.

## Reference

ISO 5835/4, *Implants for surgery — Metal bone screws — Dimensions — Part 4: Screws with symmetrical thread, conical under-surfaces.*

## 3 Dimensions and tolerances

### 3.1 Holes and slots in bone plates for use with screws of 2,9 mm nominal size (code number HC 2,9 according to ISO 5835/4)

Holes and slots in plates for 2,9 mm screws shall be in accordance with figures 1 and 2 and the table.

The depth of the countersink for holes or slots in flat plates having a thickness of 2,0 mm or greater shall be such that at least half of the parallel depth of the head of the 2,9 mm screw shall be below the external surface of the plate.

The depth of the countersink for holes or slots in flat plates having a thickness of 1,6 mm or 1,40 mm shall be such as just to accommodate the countersunk surface of the screw head.

For bone plates having a curved surface, the depth of the countersink for holes or slots shall be such that the land of the 2,9 mm screw lies between the upper and lower countersunk surfaces of the plates.

### 3.2 Holes and slots in bone plates for use with screws of 3,5 mm, 3,9 mm and 4,2 mm nominal size (code numbers HC 3,5; HC 3,9; HC 4,2 according to ISO 5835/4)

Holes and slots in plates for 4,2 mm, 3,9 mm and 3,5 mm screws shall be in accordance with figures 1 and 2 and the table.

The depth of the countersink for holes or slots in flat plates having a thickness of 2,8 mm or greater shall be such that at least half of the parallel depth of the head of the 4,2 mm screw shall be below the external surface of the plate.

The depth of the countersink for holes or slots in flat plates having a thickness of 2,5 mm, 2,2 mm or 2,0 mm shall be such as just to accommodate the countersunk surface of the screw head.

For bone plates having a curved surface, the depth of the countersink for holes or slots shall be such that the land of the 4,2 mm screw lies between the upper and lower countersunk surfaces of the plate.

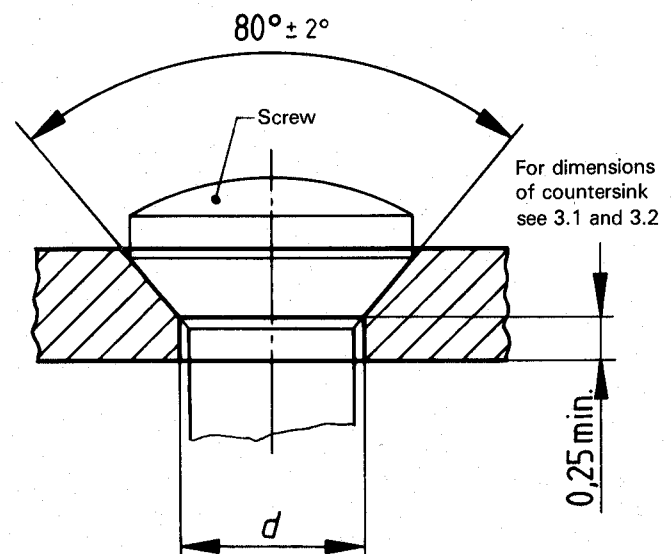


Figure 1

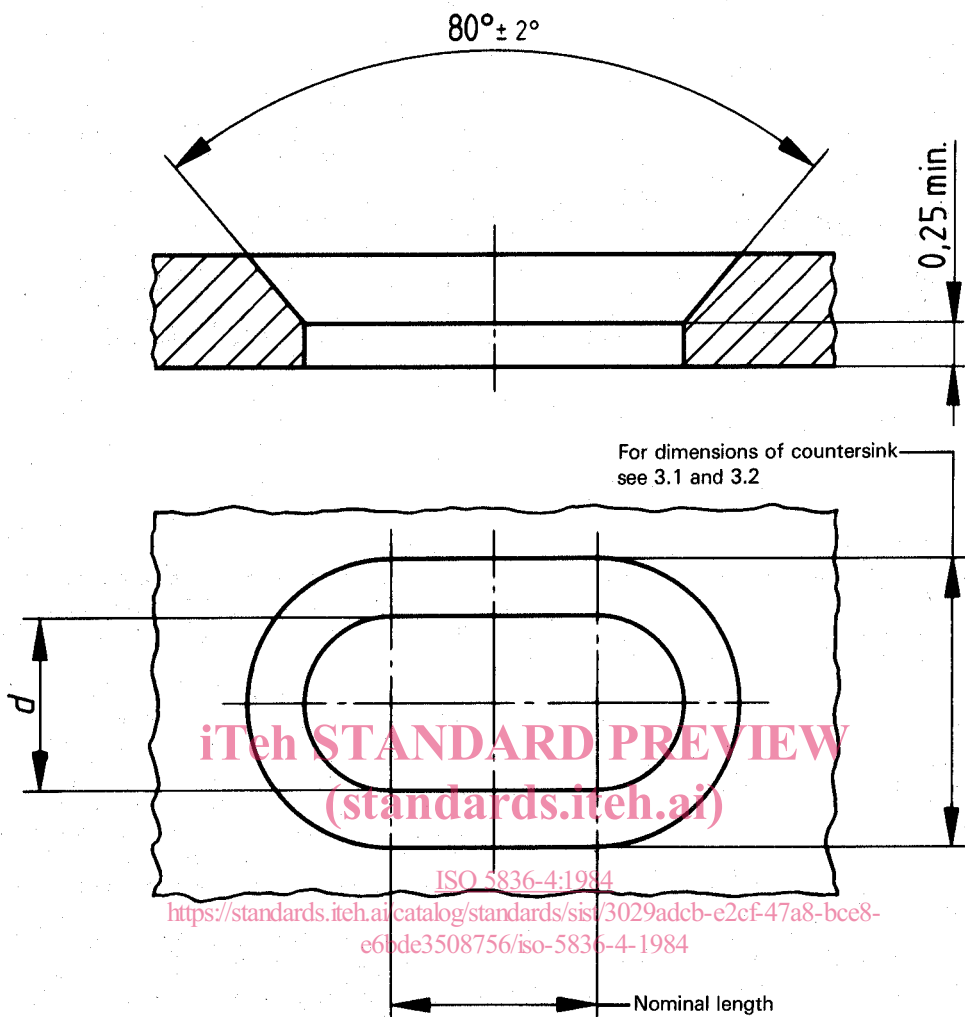


Figure 2

Table

Dimensions in millimetres

$d$ + 0,1 0	Provided for screws conforming to ISO 5835/4		
	Code number	Thread diameter	
		min.	max.
3	HC 2,9	2,79	2,9
	HC 3,5	3,43	3,53
4,3	HC 3,9	3,78	3,91
	HC 4,2	4,09	4,22