

BS EN ISO 1482:2011



BSI Standards Publication

## Slotted countersunk (flat) head tapping screws (ISO 1482:2011)

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**National foreword**

This British Standard is the UK implementation of EN ISO 1482:2011. It supersedes BS EN ISO 1482:1995 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FME/9/3, Fasteners - Product Standards.

A list of organizations represented on this committee can be obtained on request to its secretary.

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ISBN 978 0 580 68773 0

ICS 21.060.10

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2011.

**Amendments issued since publication**

Date	Text affected
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English Version

## Slotted countersunk (flat) head tapping screws (ISO 1482:2011)

Vis à tôle à tête fraisée fendue (ISO 1482:2011)

Senk-Blechschrauben mit Schlitz (ISO 1482:2011)

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**Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Foreword

This document (EN ISO 1482:2011) has been prepared by Technical Committee ISO/TC 2 "Fasteners" in collaboration with Technical Committee CEN/TC 185 "Fasteners" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2012, and conflicting national standards shall be withdrawn at the latest by February 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 1482:1994.

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The text of ISO 1482:2011 has been approved by CEN as a EN ISO 1482:2011 without any modification.

## Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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ISO 1482 was prepared by Technical Committee ISO/TC 2, *Fasteners*, Subcommittee SC 13, *Fasteners with non-metric thread*.

This second edition cancels and replaces the first edition (ISO 1482:1983), which has been technically revised.



# Slotted countersunk (flat) head tapping screws

## 1 Scope

This International Standard specifies the characteristics of slotted countersunk (flat) head tapping screws with thread sizes from ST 2,2 to ST 9,5 inclusive.

## 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 225, *Fasteners — Bolts, screws, studs and nuts — Symbols and descriptions of dimensions*

ISO 1478, *Tapping screws thread*

ISO 2702, *Heat-treated steel tapping screws — Mechanical properties*

ISO 3269, *Fasteners — Acceptance inspection*

ISO 3506-4, *Mechanical properties of corrosion-resistant stainless steel fasteners — Part 4: Tapping screws*

ISO 4042, *Fasteners — Electroplated coatings*

ISO 4759-1, *Tolerances for fasteners — Part 1: Bolts, screws, studs and nuts — Product grades A, B and C*

ISO 7721, *Countersunk head screws — Head configuration and gauging*

ISO 8992, *Fasteners — General requirements for bolts, screws, studs and nuts*

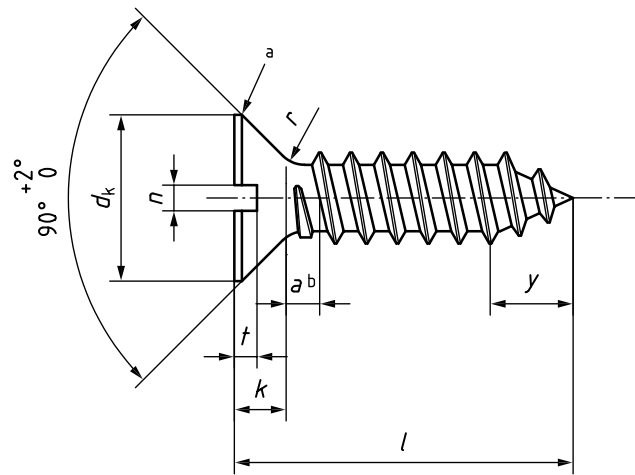
ISO 10683, *Fasteners — Non-electrolytically applied zinc flake coatings*

ISO 16048, *Passivation of corrosion-resistant stainless-steel fasteners*

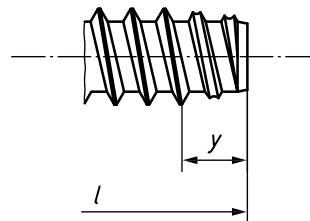
### 3 Dimensions

See Figure 1 and Table 1.

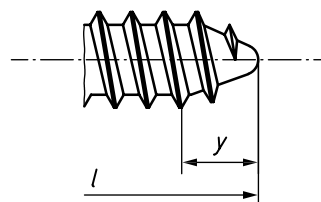
Symbols and descriptions of dimensions are specified in ISO 225.



a) Type C



b) Type F



c) Type R

- a Edge rounded or flat.
- b Dimension *a* shall be measured at the core diameter of the first full thread.

**Figure 1 — Slotted countersunk (flat) head tapping screw**



Table 1 — Dimensions

Dimensions in millimetres

Thread size		ST 2,2	ST 2,9	ST 3,5	ST 4,2	ST 4,8	ST 5,5	ST 6,3	ST 8	ST 9,5	
$p^a$		0,8	1,1	1,3	1,4	1,6	1,8	1,8	2,1	2,1	
$a$	max.	0,8	1,1	1,3	1,4	1,6	1,8	1,8	2,1	2,1	
$d_k$	Theoretical <sup>b</sup>	max.	4,4	6,3	8,2	9,4	10,4	11,5	12,6	17,3	20,0
	Actual	max.	3,8	5,5	7,3	8,4	9,3	10,3	11,3	15,8	18,3
		min.	3,5	5,2	6,9	8,0	8,9	9,9	10,9	15,4	17,8
$k$	max.	1,10	1,70	2,35	2,60	2,80	3,00	3,15	4,65	5,25	
$n$	nom.	0,5	0,8	1	1,2	1,2	1,6	1,6	2	2,5	
	max.	0,70	1,00	1,20	1,51	1,51	1,91	1,91	2,31	2,81	
	min.	0,56	0,86	1,06	1,26	1,26	1,66	1,66	2,06	2,56	
$r$	max.	0,8	1,2	1,4	1,6	2,0	2,2	2,4	3,2	4,0	
$t$	max.	0,60	0,85	1,20	1,30	1,40	1,50	1,60	2,30	2,60	
	min.	0,4	0,6	0,9	1,0	1,1	1,1	1,2	1,8	2,0	
$y$ ref.	Type C	2,0	2,6	3,2	3,7	4,3	5,0	6,0	7,5	8,0	
	Type F	1,6	2,1	2,5	2,8	3,2	3,6	3,6	4,2	4,2	
	Type R	—	—	2,7	3,2	3,6	4,3	5,0	6,3	—	
$l^c$											
	Type C and Type R	Type F									
nom.	min.	max.	min.	max.							
<b>4,5</b>	3,7	5,3	3,7	4,5	—	—	—	—	—	—	
<b>6,5</b>	5,7	7,3	5,7	6,5	—	—	—	—	—	—	
<b>9,5</b>	8,7	10,3	8,7	9,5	—	—	—	—	—	—	
<b>13</b>	12,2	13,8	12,2	13,0	<b>Range</b>				—	—	
<b>16</b>	15,2	16,8	15,2	16,0	<b>of</b>				—		
<b>19</b>	18,2	19,8	18,2	19,0	<b>preferred</b>						
<b>22</b>	21,2	22,8	20,7	22,0	<b>lengths</b>						
<b>25</b>	24,2	25,8	23,7	25,0							
<b>32</b>	30,7	33,3	30,7	32,0							
<b>38</b>	36,7	39,3	36,7	38,0							
<b>45</b>	43,7	46,3	43,5	45,0							
<b>50</b>	48,7	51,3	48,5	50,0							
<p><sup>a</sup> <math>P</math> = pitch of the thread.</p> <p><sup>b</sup> In accordance with ISO 7721.</p> <p><sup>c</sup> Sizes with lengths marked with a dash (—) cannot be manufactured.</p>											

## 4 Specifications and reference International Standards

See Table 2.

**Table 2 — Specifications and reference International Standards**

<b>Material</b>	Steel, in accordance with ISO 2702	Stainless steel	
<b>General requirements</b>	ISO 8992		
<b>Thread</b>	ISO 1478		
<b>Mechanical property</b>	Steel grade/ hardness class	—	A2-20H, A4-20H, A5-20H
	International Standard	ISO 2702	ISO 3506-4
<b>Tolerances</b>	Product grade	A	
	International Standard	ISO 4759-1	
<b>Finish — Coating</b>	As processed		
	Requirements for electroplating are specified in ISO 4042.	Requirements for passivation are specified in ISO 16048.	
	Requirements for non-electrolytically applied zinc flake coatings are specified in ISO 10683.		
	Additional requirements or other finishes or coatings shall be agreed between the supplier and the purchaser.		
<b>Acceptability</b>	Acceptance inspection is specified in ISO 3269.		

## 5 Designation

EXAMPLE 1 A slotted countersunk (flat) head tapping screw with thread size ST 3,5, nominal length  $l = 16$  mm made of steel (St) in accordance with ISO 2702 and rounded end (Type R) is designated as follows:

**Tapping screw ISO 1482 - ST 3,5 × 16 - St - R**

EXAMPLE 2 A slotted countersunk (flat) head tapping screw with thread size ST 3,5, nominal length  $l = 16$  mm made of stainless steel (A4-20H) in accordance with ISO 3506-4 and rounded end (Type R) is designated as follows:

**Tapping screw ISO 1482 - ST 3,5 × 16 - A4-20H - R**







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