
INTERNATIONAL STANDARD



1207

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

Slotted cheese (fillister) head screws — Metric series

Vis à tête cylindrique fendue — Série métrique

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (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 set up 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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 2 has reviewed ISO Recommendation R 1207 and found it technically suitable for transformation. International Standard ISO 1207 therefore replaces ISO Recommendation R 1207-1970 to which it is technically identical.

ISO Recommendation R 1207 was approved by the Member Bodies of the following countries :

Austria	Iran	Romania
Belgium	Israel	South Africa, Rep. of
Canada	Italy	Spain
Chile	Japan	Sweden
Czechoslovakia	Korea, Rep. of	Switzerland
Denmark	Netherlands	Turkey
Egypt, Arab Rep. of	New Zealand	United Kingdom
Finland	Norway	U.S.A.
Germany	Peru	U.S.S.R.
Hungary	Poland	
India	Portugal	

The Member Body of the following country expressed disapproval of the Recommendation on technical grounds :

France

The Member Bodies of the following countries disapproved the transformation of ISO/R 1207 into an International Standard :

Australia	Czechoslovakia	Japan
Canada	France	Netherlands

Slotted cheese (fillister) head screws — Metric series

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies dimensions of slotted cheese (fillister) head screws of the metric series and provides a system of standard lengths, i.e. recommended combinations of thread size, thread length and nominal length.

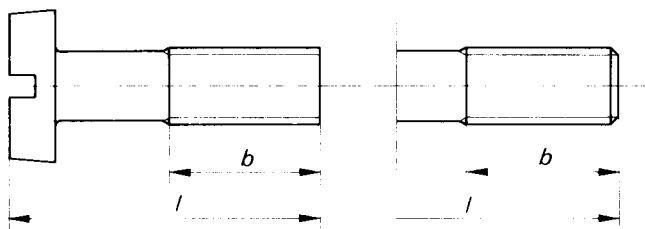
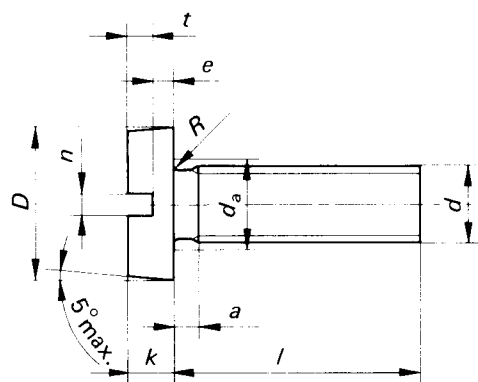
2 REFERENCE

ISO/R 286, *ISO system for limits and fits — Part 1: General, tolerances and deviations*.

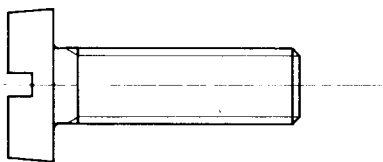
3 DIMENSIONS

Principal dimensions are given in table 1 (nominal lengths and thread lengths are given in clause 4). The thread sizes in brackets should be avoided as far as possible. A slight radius at the top corner of the head is permissible.

NOTE — According to the type of manufacturing process used, screw cutting or die-casting, the head may be cylindrical or tapered with a conicity of up to 5°.



Shank diameter $\approx$ pitch diameter



Shank diameter $\approx$ major diameter

TABLE 1 — Principal dimensions

Dimensions in millimetres

Thread size	<i>d</i>	1	1,2	(1,4)	1,6	2	(2,2)	2,5	3	(3,5)	4	(4,5)	5	6	8	10	12	(14)	16	(18)	20
<i>D</i>	h14	2	2,3	2,6	3	3,8	4	4,5	5,5	6	7	8	8,5	10	13	16	18	21	24	27	30
<i>k</i>	h13	0,7	0,8	0,9	1	1,3	1,5	1,6	2	2,4	2,6	3,1	3,3	3,9	5	6	7	8	9	10	11
<i>n</i>	Nom. value	0,25	0,3	0,3	0,4	0,5	0,6	0,6	0,8	0,8	1	1	1,2	1,6	2	2,5	3	3	4	4	5
	min.	0,31	0,36	0,36	0,46	0,56	0,66	0,66	0,86	0,86	1,06	1,06	1,26	1,66	2,06	2,56	3,06	3,06	4,07	4,07	5,07
	max.	0,45	0,50	0,50	0,60	0,70	0,80	0,80	1,00	1,00	1,20	1,20	1,51	1,91	2,31	2,81	3,31	3,31	4,37	4,37	5,37
<i>e</i>	min.	0,26	0,31	0,3	0,35	0,45	0,5	0,6	0,7	1	1	1,3	1,3	1,6	2,2	2,8	3,2	3,8	4,4	4,9	5,4
<i>t</i>	min.	0,3	0,35	0,4	0,45	0,6	0,7	0,7	0,9	1	1,2	1,4	1,5	1,8	2,3	2,7	3,2	3,6	4	4,5	5
	max.	0,44	0,49	0,6	0,65	0,85	1	1	1,3	1,4	1,6	1,8	2	2,3	2,8	3,2	3,8	4,2	4,6	5,1	5,6
<i>R</i>	min.	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,2	0,2	0,2	0,25	0,4	0,4	0,6	0,6	0,6	0,6	0,8
<i>d_a</i>	max.	1,4	1,6	1,8	2	2,6	2,8	3,1	3,6	4,1	4,7	5,2	5,7	6,8	9,2	11,2	14,2	16,2	18,2	20,2	22,4
<i>a</i>	max.	0,5	0,5	0,6	0,7	0,8	0,9	0,9	1	1,2	1,4	1,5	1,6	2	2,5	3	3,5	4	4	5	5

NOTE — Tolerance positions and grades : see ISO/R 286.

4 STANDARD LENGTHS

Standard lengths, i.e. recommended combinations of thread size, thread length and nominal length, should be selected from those given in table 2, between the heavy stepped lines.

Screws with nominal lengths above the stepped line marked thus, ---, are threaded up to the head. Nominal lengths in brackets should be avoided as far as possible.

TABLE 2 -- Standard lengths

Dimensions in millimetres

Nominal lengths <i>l</i>	Thread size <i>d</i>																			
	1	1,2	(1,4)	1,6	2	(2,2)	2,5	3	(3,5)	4	(4,5)	5	6	8	10	12	(14)	16	(18)	20
2																				
2,5																				
3																				
4																				
5																				
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(7)																				
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70																				
75																				
80																				
85																				
90																				
95																				
100																				
Thread length <i>b</i>	*	*	*	15	16	17	18	19	20	22	24	25	28	34	40	46	52	58	64	70

* Threaded up to the head

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