
INTERNATIONAL STANDARD



4762

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

Hexagon socket head cap screws — Product grade A

Vis à tête cylindrique à six pans creux — Classe de produit A

First edition — 1977-06-15

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UDC 621.882.215.3

Ref. No. ISO 4762-1977 (E)

Descriptors : fasteners, screws, socket head screws, cheese head screws, specifications, dimensions, dimensional tolerances, designation.

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.

International Standard ISO 4762 was developed by Technical Committee ISO/TC 2, *Fasteners*, and was circulated to the member bodies in April 1976.

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

Austria	Hungary	Poland
Belgium	India	Romania
Brazil	Ireland	South Africa, Rep. of
Bulgaria	Italy	Sweden
Czechoslovakia	Japan	Switzerland
Denmark	Korea, Rep. of	Turkey
Finland	Mexico	United Kingdom
France	Netherlands	U.S.S.R.
Germany	Norway	

The member bodies of the following countries expressed disapproval of the document on technical grounds:

Australia
U.S.A.

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INTERNATIONAL STANDARD ISO 4762-1977 (E)/ERRATUM

Published 1978-05-15

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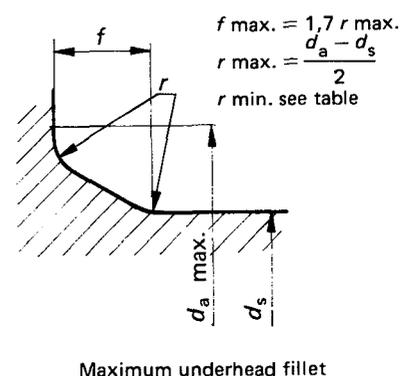
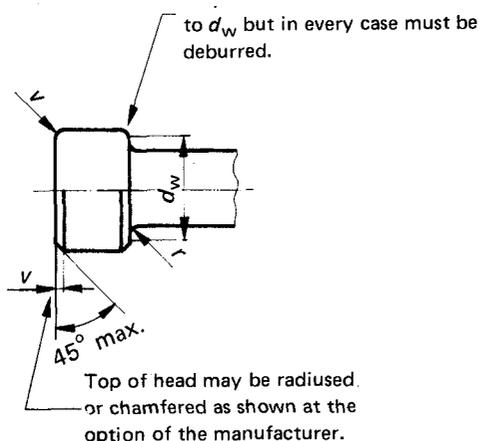
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ERRATUM

Foreword :

The following sentence is to be added at the end of the Foreword :

This International Standard cancels and replaces ISO Recommendation R 861-1968.



Thread size <i>d</i>	M 1,6	M 2	M 2,5	M 3	M 4	M 5	M 6	M 8											
<i>P</i> 1)	0,35	0,4	0,45	0,5	0,7	0,8	1	1,25											
<i>b</i> ref.	15	16	17	18	20	22	24	28											
<i>d_k</i>	max. 2)	3	3,8	4,5	5,5	7	8,5	10	13										
	max. 3)	3,14	3,98	4,68	5,68	7,22	8,72	10,22	13,27										
	min.	2,86	3,62	4,32	5,32	6,78	8,28	9,78	12,73										
<i>d_a</i> max.	2	2,6	3,1	3,6	4,7	5,7	6,8	9,2											
<i>d_s</i>	max.	1,6	2	2,5	3	4	5	6	8										
	min.	1,46	1,86	2,36	2,86	3,82	4,82	5,82	7,78										
<i>e</i> min. 4)	1,73	1,73	2,30	2,87	3,44	4,58	5,72	6,86											
<i>f</i> max.	0,34	0,51	0,51	0,51	0,60	0,60	0,68	1,02											
<i>k</i>	max.	1,6	2	2,5	3	4	5	6	8										
	min.	1,46	1,86	2,36	2,86	3,82	4,82	5,70	7,64										
<i>r</i> min.	0,1	0,1	0,1	0,1	0,2	0,2	0,25	0,4											
<i>s</i>	nominal	1,5	1,5	2	2,5	3	4	5	6										
	min.	1,52	1,52	2,02	2,52	3,02	4,02	5,02	6,02										
	max. ✕	1,56	1,56	2,06	2,58	3,071	4,084	5,084	6,14										
<i>t</i> min.	0,7	1	1,1	1,3	2	2,5	3	4											
<i>v</i> max.	0,16	0,2	0,25	0,3	0,4	0,5	0,6	0,8											
<i>d_w</i> min.	2,72	3,40	4,18	5,07	6,53	8,03	9,38	12,33											
<i>w</i> min.	0,55	0,55	0,85	1,15	1,4	1,9	2,3	3,3											
<i>l</i>		shank length <i>l_s</i> and grip length <i>l_g</i>																	
nominal	min.	max.	<i>l_s</i> min.	<i>l_g</i> max.	<i>l_s</i> min.	<i>l_g</i> max.	<i>l_s</i> min.	<i>l_g</i> max.	<i>l_s</i> min.	<i>l_g</i> max.	<i>l_s</i> min.	<i>l_g</i> max.	<i>l_s</i> min.	<i>l_g</i> max.	<i>l_s</i> min.	<i>l_g</i> max.	<i>l_s</i> min.	<i>l_g</i> max.	
2,5	2,30	2,70																	
3	2,80	3,20																	
4	3,76	4,24																	
5	4,76	5,24																	
6	5,76	6,24																	
8	7,71	8,29																	
10	9,71	10,29																	
12	11,65	12,35																	
16	15,65	16,35																	
20	19,58	20,42			2	4													
25	24,58	25,42					5,75	8	4,5	7									
30	29,58	30,42							9,5	12	6,5	10	4	8					
35	34,5	35,5									11,5	15	9	13	6	11			
40	39,5	40,5									16,5	20	14	18	11	16	5,75	12	
45	44,5	45,5											19	23	16	21	10,75	17	
50	49,5	50,5											24	28	21	26	15,75	22	
55	54,4	55,6													26	31	20,75	27	
60	59,4	60,6													31	36	25,75	32	
65	64,4	65,6															30,75	37	
70	69,4	70,6															35,75	42	
80	79,4	80,6															45,75	52	

The popular lengths are between the stepped lines. Lengths above the dotted line are threaded to the head within 3*P*. Lengths below the dotted line have values of *l_g* and *l_s* according to the following formulae :

$$l_g \text{ max.} = l \text{ nom.} - b \text{ ref.}$$

$$l_s \text{ min.} = l_g \text{ max.} - 5P$$

1) *P* = pitch of the thread

2) For plain heads

3) For knurled heads

4) *e* min. = 1,14 *s* min.