

International Standard



273

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

Fasteners — Clearance holes for bolts and screws

Éléments de fixation — Trous de passage pour boulons et vis

First edition — 1979-06-01

UDC 621.882.15

Ref. No. ISO 273-1979 (E)

Descriptors : fasteners, screws, dimensions, bolts, hole size, dimensional tolerances.

ISO 273-1979 (E)

10
Price based on 2 pages

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 273 was developed by Technical Committee ISO/TC 2, *Fasteners*, and was circulated to the member bodies in December 1977.

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

Australia	Hungary	New Zealand
Belgium	India	Norway
Bulgaria	Ireland	Romania
Canada	Italy	Spain
Czechoslovakia	Japan	Sweden
Denmark	Korea, Dem. P. Rep. of	Switzerland
Finland	Korea, Rep. of	Turkey
France	Mexico	USA
Germany, F. R.	Netherlands	Yugoslavia

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

South Africa, Rep. of
United Kingdom
USSR

This International Standard cancels and replaces ISO Recommendation R 273-1962 of which it constitutes a technical revision.

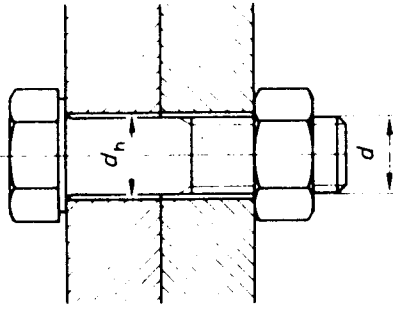
Fasteners — Clearance holes for bolts and screws

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies clearance hole diameters for general purpose applications. These values result from bearing area calculations in connection with ISO bolt and nut product standards.

NOTE — Clearance holes for special applications should be selected on the basis of design requirements.

2 DIMENSIONS



Dimensions in millimetres

Thread diameter d	Clearance hole d_h		
	Series :		
	fine	medium	coarse
1	1,1	1,2	1,3
1,2	1,3	1,4	1,5
1,4	1,5	1,6	1,8
1,6	1,7	1,8	2
1,8	2	2,1	2,2
2	2,2	2,4	2,6
2,5	2,7	2,9	3,1
3	3,2	3,4	3,6
3,5	3,7	3,9	4,2
4	4,3	4,5	4,8
4,5	4,8	5	5,3
5	5,3	5,5	5,8
6	6,4	6,6	7
7	7,4	7,6	8
8	8,4	9	10
10	10,5	11	12
12	13	13,5	14,5
14	15	15,5	16,5
16	17	17,5	18,5
18	19	20	21
20	21	22	24
22	23	24	26
24	25	26	28
27	28	30	32
30	31	33	35
33	34	36	38
36	37	39	42
39	40	42	45

Thread diameter d	Clearance hole d_h		
	Series :		
	fine	medium	coarse
42	43	45	48
45	46	48	52
48	50	52	56
52	54	56	62
56	58	62	66
60	62	66	70
64	66	70	74
68	70	74	78
72	74	78	82
76	78	82	86
80	82	86	91
85	87	91	96
90	93	96	101
95	98	101	107
100	104	107	112
105	109	112	117
110	114	117	122
115	119	122	127
120	124	127	132
125	129	132	137
130	134	137	144
140	144	147	155
150	155	158	165

The following tolerance fields are given for information only, for use where it is desirable to specify tolerances :

- fine series : H12
- medium series : H13
- coarse series : H14

In cases where it is necessary to avoid interference between the edge of the hole and the underhead fillet of the bolt, a chamfer is recommended.