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## Indian Standard

# DIMENSIONS FOR CLEARANCE HOLES FOR BOLTS AND SCREWS

(Third Revision)

(ISO Title: Fasteners - Clearance Holes for Bolts and Screws)

#### **National Foreword**

This Indian Standard (Third Revision) which is identical with ISO 273-1979 'Fasteners—Clearance holes for bolts and screws' issued by the International Organization for Standardization (ISO), was adopted by the Indian Standards Institution on the recommendation of the Bolts, Nuts and Fasteners Accessories Sectional Committee and approval of the Mechanical Engineering Division Council.

The original version of this standard was published in 1961 and revised in 1967 and 1982. The present revision of the standard has been made by adoption of ISO 273-1979 to bring it in line with ISO standard.

In the adopted standard certain terminology and conventions are not identical with those used in Indian Standards; attention is specially drawn to the following:

Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use point (') as the decimal marker.

Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

Adopted 7 January 1987

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Gr 2

IS:	182	1 - 1	987
ISC	27	3 - 1	979

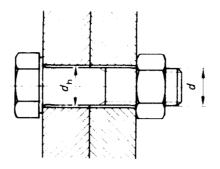
#### 1 SCOPE AND FIELD OF APPLICATION

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.

IS: 1821 - 1987 ISO 273 - 1979

### 2 DIMENSIONS



Dimensions in millimetres

7	Clearance hole $d_{h}$				
Thread diameter	Series :				
d	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		
25	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		

	·	Dirichard	ns in millimetres		
Thread	Clearance hole $d_{h}$				
diameter	Series :				
d	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 recommanded.